Racial Fairness in Legislative Redistricting

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1. The Search for a Standard of Racial Fairness

In this chapter, we study standards of racial fairness in legislative redistricting—a field that has been the subject of considerable legislation, jurisprudence, and advocacy, but very little serious academic scholarship. We attempt to elucidate how basic concepts about "color-blind" societies, and similar normative preferences, can generate specific practical standards for racial fairness in representation and redistricting. We also provide the normative and theoretical foundations on which concepts such as *proportional representation* rest, in order to give existing preferences of many in the literature a firmer analytical foundation.

Our work also addresses a troubling discrepancy between partisan and racial standards of fairness in the redistricting of American legislatures. Scholars have reached near consensus on partisan symmetry as a standard of partisan fairness and have made great progress on developing measures that can be used to see whether electoral systems and redistricting plans meet this standard. Perhaps appropriately, the law has lagged well behind, with the Supreme Court recognizing only in 1986 that political gerrymandering was justiciable (Davis v. Bandemer) but not yet adopting either a standard or measure of partisan unfairness. Unfortunately, almost the reverse applies to standards of racial fairness: scholars have hardly begun to discuss appropriate absolute standards of fairness in racial redistricting, but we now have a long list of legislation (largely the Voting Rights Act and its amendments), constitutional and statutory interpretation (through a long series of Supreme Court cases), and Justice Department activism.² With all this activity, it is remarkable that there presently exists no agreed upon absolute standard of racial fairness in redistricting, and there is even relatively little discussion about such a standard in public law or the academic literature. We begin to address this problem here.3

Considerable scholarship in recent years has been devoted to issues of representation of ethnic minority groups in various American electoral systems. Scholars contributing to this literature consistently have identified the basic "problem" as *under*-representation of these groups in Congress,

state and county legislatures, city councils, and other legislative bodies. In this paper, we study the *question* of what constitutes fairness in minority legislative representation rather than assume the *answer*—that minorities have too few or too many representatives than they deserve based on their numbers in the population. We therefore ask: What is the appropriate level of representation of a given racial minority group in an American legislature? Our search is for an absolute standard of racial fairness, not merely for a relative answer such as "minorities have too much or too little." The possible answers to our question may be normative, but at least our question does not presuppose a particular normative answer.⁴

We begin our analysis in section 2 by asking a somewhat stylized version of a question about standards: How many legislative seats should be allocated to minority groups? We discuss previous answers to this question in section 2.1 and then offer three new approaches in sections 2.2 and 2.3. Section 3 then addresses the issue of comparative standards—comparing a minority group's representation with that of other groups in the population. We conclude in section 4.

2. Theoretical Standards: What Is a Fair Seat Proportion for the Representation of Protected Minorities?

We focus our question about racial fairness in four ways. First, one can concentrate generally on a minority group's "candidate of choice" or specifically on the election of a member of that group. The former is supported by many scholars who prefer to focus on the wishes rather than characteristics of the minority population. The latter can be justified by appealing to concepts of descriptive representation and the desirability of role models. Since the two frequently coincide in practice, we use the criteria interchangeably in this section, usually focusing on election of members of the minority group. Although the distinctions between these standards are important, our analysis is relevant to both.

Second, for further simplicity, we will usually focus on African Americans. They constitute the group to which the literature has been primarily addressed, and their more uniform voting behavior makes theoretical and empirical analyses easier.

Third, our question can be focused even further by asking directly about the number of legislative seats that African Americans should be allocated. This is possible since it is often easy in practice to draw legislative districts that have extremely high probabilities of electing minority legislators. These majority-minority districts may be oddly shaped and of dubious contiguity, they may violate many other desirable criteria in redistricting, but

they have been and can be drawn by legislative mapmakers. Alternative choices—ignoring minorities when redistricting, using "neutral" redistricting criteria, or using something other than minority-based rules—also have immediate and predictable consequences for racial representation. In the practice of drawing districts, one can ignore the issue, but one cannot avoid it. Our decision to recognize this fact of American redistricting should not be taken as an endorsement or criticism; other approaches could be taken.

Fourth, we clarify the relation between racial fairness and affirmative action. Proponents of affirmative action in redistricting suggest that redistricting be used to "affirmatively gerrymander" in the interests of racial minorities. Some of these affirmative steps would only correct the situation to one of "fairness" (as yet undefined by any existing consensus), while others would explicitly go beyond some definition of fairness in order to redress and compensate for years of district lines drawn to prevent blacks from being elected to legislative posts. We view the question of whether to go beyond some absolute standard of fairness to compensate for past discrimination as very important but outside the scope of this paper. Our only present concern is defining this standard of fairness in the first place. Regardless of whether one is interested in reaching a level of absolute fairness or something beyond, one first needs a clear, absolute definition of fairness, a definition that has not been provided by the literature.

To pose our question about standards of racial fairness directly: What proportion of legislative seats should be held by blacks? Some may be uncomfortable with this formulation (as are we) since it seems to ignore the role of the electoral process entirely. This certainly is true, and a complete policy choice must address the electoral *process* as well. However, the question of results is straightforward and, even in the extreme form posed here, is relevant to the policy of drawing majority-minority districts, in which it is possible, in practice, for redistricters to decide on the number of seats that will be won by blacks. Possible answers to the question include "zero," "as many as possible," "use other criteria and ignore the number of black districts," "the number proportional to their percentage in the general population (proportional representation)," or others. We explore several of these possible answers to this question and offer some new approaches.

At least until recently, the explicit or implicit normative judgment that racial minority groups were *under*-represented was not the subject of much controversy, since in many areas there were significant proportions of the population composed of these minorities but zero legislators from this group. Few would argue that this situation occurred by chance alone rather than by an intentional strategy of racial gerrymandering. In South Carolina,

30 percent of the population is black, blacks vote with a very high degree of unity for Democratic candidates and almost unanimously for black candidates, but from Reconstruction until 1992, South Carolina's congressional delegation included no black members. The 1992 election not only saw the first African Americans since Reconstruction elected to the U.S. House from South Carolina, but also from Alabama, Florida, and Virginia, and the first black elected from North Carolina since 1898—all states with significant black populations. Regardless of one's ideological position or preference for a normative standard, it is not difficult to see at least the possibility of inequity here. Of course, this "inequity," even if agreed upon, is a *relative* standard, and therefore does not answer our call for an absolute standard of racial fairness.

We believe the question about the right absolute standards of minority representation we have posed is relevant regardless of the existing level of minority representation. The question is also of special relevance currently, since the number of minorities elected to legislatures around the country has been increasing rapidly. Nationwide, the number of African Americans elected in U.S. state legislatures more than doubled between 1970 and 1990, increasing from 179 to 440, with additional increases in 1992. The number of Hispanics holding state legislative and executive offices increased from 110 in 1984 to 133 in 1990. In the U.S. Congress, the number of blacks increased from 10 in 1970 to 25 in 1990 and 38 in 1992, while Hispanic representation in the U.S. Congress increased from 5 to 11 between 1977 and 1992. The actual levels are still far below what some advocates consider desirable, but the trend is unambiguous.

In figure 4.1, we give a summary of the current situation for black representation in the lower houses of American state legislatures, as of 1990.9 The horizontal axis is the percentage of the voting age population that is black. The vertical axis is the percentage black in the legislature. States that fall on the diagonal line have blacks proportionally represented in the legislature. The few states that are plotted above the line have a (slightly) higher proportion of blacks in the legislature than in the voting age population. States below the line have a smaller proportion of blacks in the legislature than among those of voting age.

Several features of figure 4.1 are of importance. First, states with fewer than about 7–10 percent of the voting age population are represented approximately proportionally. However, states with larger black voting age populations are disproportionally farther from proportional legislative representation (since they are farther below the line). The latter may reflect V.O. Key's finding that political discrimination against blacks is strongest when they become threatening, that is, when they come closer to forming a majority and winning political office. ¹⁰ Additionally, states with higher

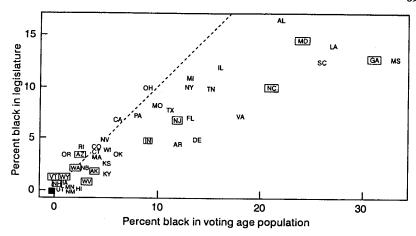


Figure 4.1. State Legislatures in 1990. States with at least one multimember district are in boxes. States falling on the diagonal line have proportional representation of blacks in their legislatures. The square at the origin corresponds to the states Maine, Montana, Idaho, North Dakota, and South Dakota. All had zero blacks in the legislature and less than 0.5 percent blacks in the voting age population. Several states (Colorado, Connecticut, Hawaii, Iowa, Minnesota, Nebraska, New Mexico, Vermont, Washington, and Wyoming) were moved by small amounts (always less than 0.5 percent on each scale) to make the figure more legible.

proportions of blacks are more likely to have had a history of slavery, discrimination, and disenfranchisement. Finally, states with at least one multimember district have boxes around their names in figure 4.1. Since the boxed states appear randomly spread out on this graph, the type of district appears unrelated to the proportion black in the population and the legislature and to the degree of disproportionality. Of course, different types of multimember districts, and differences in the extent to which they are used in a state, might have very different consequences for minority representation.

2.1 Previous Answers

Previous research on fairness to protected minorities in redistricting has been either advocacy, empirical research, or both. Very little theoretical work has been devoted to developing absolute standards of fairness. Advocates have made philosophical arguments, proposed remedies, and outlined legislative and judicial strategies to increase the representation of protected minorities.¹¹ Empirical researchers have studied general trends in minority

representation, 12 the way certain electoral arrangements lead to "low" levels of minority representation, 13 and the consequences of different levels of representation for voter efficacy.14

Although, as we have indicated, most scholars do not usually discuss theoretical absolute standards for racial fairness, at least six answers are implied in the literature. We discuss each in turn.

2.1.1 USE NEUTRAL REDISTRICTING CRITERIA

Some scholars believe that districts should not be drawn on the basis of race at all. 15 Race should be irrelevant and, the argument goes, should not be used in deciding where to draw district lines. One version of this argument would require districts only to have equal numbers of voters, with other factors entirely under the control of the redistricters. Another version would require district lines to be drawn without reference to the racial characteristics of voters, perhaps even making it illegal to include this information in the same computer used to draw districts. Similar arguments have also been made about political gerrymandering.

Although requiring ignorance is an attractive position to many justices, it is not realistic: good politicians, with or without computers and electronic data, know where their voters are. Moreover, ignorance of race is probably not desirable either, because unintended consequences of redistricting can be as large as the intended consequences. Ignoring race and focusing only on compactness will almost guarantee that no blacks will be elected in many areas. Only very rare areas will elect many African Americans.

Using neutral redistricting criteria is a process-oriented approach to what unfortunately remains a results-oriented problem. In most areas of democratic theory, it is desirable to define a process and let the results fall where they may. However, this is appropriate only when one defines the process sufficiently carefully so that any result which follows the rules is normatively acceptable. Such has not been the case in redistricting, since within the rules one can produce partisan gerrymanders or virtually guarantee that members of a racial minority will never be elected to the legislature.

Indeed, this is one of the few areas of American democracy where the rules of the game remain open to regular manipulation as a "legitimate" part of the political process. As one of the features of a representative democracy that one might think should have been resolved at the founding of the republic, redistricting produces regular abuses of the system and enormous political conflicts. Indeed, redistricting battles are one of the most intense forms of regular political conflict in the country. From George Washington's first presidential veto, to some of the worst abuses of due process even today, to many of the most colorful political stories of blatant

partisanship and even fraud among the judiciary, the rules of the game do not guarantee that the results of racially motivated redistricting will be held within acceptable ranges.16

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Not only is the definition of acceptable outcomes of a redistricting process not yet formulated, but exactly what process-oriented rules would produce which range of acceptable outcomes remains largely an open question. Indeed, this is one of the most important topics for future scholarly research. Ignoring racial representation and requiring adherence only to certain "neutral" redistricting criteria is an appropriate ultimate goal, and one that we entirely support, but scholarship is not nearly to the point of identifying these rules. "Neutral" redistricting criteria, as presently conceived, are not always neutral in their effects.

2.1.2 MAXIMIZE MINORITY REPRESENTATION

According to this approach, any change in an electoral system, such as in redistricting, should be accompanied by attempts to maximize the influence of the minority community on the elective process. In redistricting, this means drawing as many districts that are likely to elect blacks as possible. This approach might be reasonable if one takes the position that fair racial representation requires some, perhaps as yet undefined, level of minority representation higher than now exists. Those who drew the lines in the 1992 redistricting process acted as if the U.S. Justice Department took this position in their Voting Rights Act preclearance decisions, but Justice Department personnel almost unanimously deny that maximization is their standard in theory or practice.

Maximization is a position for an advocate to adopt, but without justification or the explicit constraints we describe in section 2.1.4, it is insufficient for present purposes. At best it provides a direction to move, a relative standard, but beyond that it does not help characterize an absolute standard of fairness.

2.1.3 NO RETROGRESSION

"No retrogression" is the language used by the Supreme Court in Beer v. United States (1976), a case on preclearance under section 5 of the Voting Rights Act. In this case, the justices ruled that a change in an electoral system need not produce an increase in minority representation, but it must not represent a decline from the status quo. The rule allows the possibility of a considerably slower path to maximization, since redistricting will not always be accompanied by a change in the electoral system. However, the degree of minority representation must be either the same or higher. And once this higher level of minority representation is in place, it automatically becomes the new minimum. Thus, in the long run, the ultimate fairness standard underlying a no-retrogression rule is essentially the same as maximization. It thus also suffers from the same weaknesses for present purposes: no-retrogression might be a useful policy and relative standard, but it does not help us define an absolute standard of fairness in racial representation.

2.1.4 MAXIMIZE SUBJECT TO CERTAIN CONSTRAINTS

A slight modification of the maximize and no-retrogression rules is to require that redistricting plans be subject to the constraints of compactness, maintaining communities of interest (other than minorities), breaking a minimum number of county lines or other local political subdivisions, and others. This rule helps narrow in on a standard of fairness that is absolute, rather than relative, but it does not provide a definition except by saying what fairness is not. Just as with ignoring race and drawing districts according to neutral redistricting criteria, scholarship has not yet progressed to the point where we know the precise effects of each of the alternative constraints on redistricting plans. In a state with considerable discrimination, this criterion, although not absolute and therefore not useful for our theoretical purposes, define a reasonable operating rule from a practical perspective.

2.1.5 PROPORTIONAL REPRESENTATION

To some, proportional representation is not only a logical possibility; it *defines* fair representation. The idea is that the legislature should reflect the public: the proportion of blacks in the legislature should be the same as the proportion of blacks in the general public (or perhaps the proportion of blacks in the voting age population, or some other number). Proportionality is a standard for fairness that is defined independently of the current level of representation and has great intuitive appeal.

However, we have some skepticism about the universal appropriateness of proportional representation, based on its known limitations as a criterion for partisan fairness. What is wrong with proportional representation as a standard of fairness for Democrats and Republicans? For one thing, no solely district-based electoral system in the world has ever consistently produced proportional representation of parties. Meeting a proportionality standard would be easy if we were willing to give up district-based electoral systems and move to some form of national- (or state-) level party list or single transferable vote system. This would be possible, but it does not take into account the advantages of having districts in the first place—notably, geographic representation of local communities. Indeed, all elec-

toral systems represent compromises between some type of national representation (proportional or other) and the representation of local areas and groups. American-style district-based electoral systems place large weight on local representation. An appropriate standard of fairness should take into account the inherent advantages and characteristics of the system of representation now in place.

Another way to see why proportionality is widely regarded as unacceptable as a standard of representation in district-based electoral systems is by comparing it to the standard of partisan fairness that is widely accepted in the academic community—partisan symmetry. 17 This and most other standards of fairness apply after votes are cast to the translation of votes statewide into an allocation of seats in the legislature. The standard of partisan symmetry requires that all political parties receive the same proportion of seats for a given vote proportion. For example, if the Democrats receive 55 percent of the votes statewide and are able to translate this into 75 percent of the seats in the state legislature, this is fair only if the Republicans, in some other election under the same districting scheme, receive 55 percent of the statewide votes and are also able to translate them into 75 percent of the seats. Proportional representation is a special case of partisan symmetry, but not the only case. Thus, partisan symmetry is a way of treating the parties equally on a statewide basis and still recognizing the unique advantages of American-style district-based elections.

Although proportionality seemed reasonable at first, more careful reflection has convinced most of the scholarly community that it is not a reasonable standard of *partisan* fairness to be used in redistricting, at least in district-based electoral systems. It seems to us the scholarly community is in a very similar situation with respect to racial redistricting: Can proportionality be justified for reasons other than the direct feature of "reflection"? Do deeper principles of fairness lead to proportional representation or to some other standard for racial group representation? We suggest one possibility in section 2.2, which indicates that proportionality may have more of a role to play in racial fairness than in partisan fairness, and demonstrate in section 2.3 conditions under which it would be especially appropriate for racial redistricting. In either case, it should be clear that proportionality will never be sufficient as a first principle in deriving a standard of racial fairness.¹⁸

2.1.6 RACIAL SYMMETRY

A final standard occasionally suggested is modifying the partisan symmetry standard as directly as possible: a racially fair electoral system would be one that treats the racial groups equally. That is, if blacks comprise 20 percent of the population but only 15 percent of the legislature, this system

is fair only if whites, if they were to comprise 20 percent of the population, would also receive 15 percent of the legislative seats. 19

This standard is internally consistent and reasonably compatible with the idea of partisan symmetry. However, its disadvantages are as obvious. At least during any single ten-year redistricting period, the black population will almost never grow from 20 percent to 80 percent of the population. This might be a reasonable counterfactual assumption over extremely long periods of time, but the question is what is fair in the present redistricting period; a standard that is fair only on average over many centuries will not be fair during the lifetimes of people now in the electorate and is probably not generally appropriate. Another problem with a racial, as opposed to a partisan, symmetry standard is that the necessary condition for black election is black nomination, and blacks do not get nominated in most districts. This is not usually a problem in evaluating partisan symmetry, since both parties are usually on the ballot. 21

2.2 Color-blind Voters and Candidates, Nondistinctive Ideology

In this section, we develop one perspective on a standard of fairness in redistricting based on deeper concepts of political fairness. Under this standard, blacks would be allocated the proportion of seats in the legislature they would get if voters and candidates were color-blind, and if ideology and party were independent of race. The color blindness assumptions are obviously unrealistic, but that is intentional: the idea is to draw districts that would have been drawn naturally if the world were different in these ways. We develop a mathematical model that formalizes our theoretical notions of fairness so that it can be compared with—not automatically match—current empirical circumstances. The assumption that ideology and partisanship are uncorrelated with race will be generalized in section 2.3. The normative idea underlying this model is to impose (presumably through drawing majority-minority districts, but possibly through other procedures) a level of representation that would exist if the conditions that cause us to make blacks a protected minority did not exist.

2.2.1 A MATHEMATICAL MODEL FOR COMPLETE COLOR-BLINDNESS

Our first theoretical model makes three specific assumptions:

- 1. Color-blind Voters. Label as "black" a group of randomly selected voters composed of α < 0.5 proportion of all voters.
- 2. Color-blind Nominations. Nominees for each party are chosen without regard to race. That is, for each party and each seat in the legislature the probability of nominating a black candidate is α .

3. Color-blind Election. The probability that the Democrat wins is π_j and that the Republican wins is $1-\pi_j$, and these probabilities are independent of the race of the candidate. This assumption implies that ideology, party, and other electorally relevant characteristics of candidates and voters do not differ by race.

Our goal is to calculate the probability of a black candidate being elected under these ideal circumstances, since this will give the fraction of blacks that should comprise the legislature if this standard is to be followed. The unconditional probability that a black candidate is elected is the sum of the probabilities that a black Democrat is elected or a black Republican is elected:

The simplicity of the result derives from assumption 3, color-blind elections, which requires that

and similarly for Republicans.

2.2.2 INTERPRETATION

Under this model, the probability of electing a member of a minority group to the legislature is equal to α , their proportion in the population. Thus, we have derived a different and perhaps more fundamental justification for proportional representation in racial redistricting: minorities would be represented proportionally if voters, nominations, and elections were all colorblind. Certainly, no one would desire a political system in which voters could not discriminate on the basis of party or ideology, so it is also easy to see why this justification for proportional representation would not apply to partisan fairness.

The standard for racial fairness this model formalizes includes colorblind voters and nominations. Since the odds of election are independent of the racial characteristics of the candidates, we are also in the hypothetical situation where funding of minority campaigns is about the same as for other candidates (a situation that could be made realistic with a strong campaign-financing law). These are reasonable characterizations of an ideal standard for racial fairness. Allocating legislative seats on the basis of these aspects of this model seems like a reasonable standard to impose.

However, the assumption of color-blind elections, where minority groups do not have distinctive political positions, is quite extreme.²² The assumption could perhaps be justified if one were willing to assume that all social, cultural, economic, and therefore political differences between minorities and everyone else resulted only from racism.

Certainly, some of the political positions of minority groups are generated by the racist status of the society in which they live, but it would be difficult to argue that the *only* reason their political positions differ is due to racism. Indeed, nonminorities hold many different ideological positions, and so there generally is reason to think that minorities would have social, cultural, or economic reasons not based on race for divergent political opinions. Although we might want our ideal political system, and therefore our standard of racial fairness, to fix some aspects of the current problem, it need not correct for everything in the world that makes minority groups different from majorities. If it did, then we would be in the situation where fairness would lead to proportional representation, but minority representation would not be an issue because minorities would not be politically distinctive. Some will argue that a society in which racial minorities are politically indistinct from others is the appropriate ultimate goal; if so, then proportional representation is the appropriate standard.

2.3 Color-blind Voters and Candidates, Actual Ideology

In this section, we characterize a second standard for racial fairness, now allowing minorities to have distinctive voting preferences. That is, we construct a hypothetical world in which voters and nominations are color-blind as a standard, but elections depend in part on the degree to which candidates are ideologically moderate.

We begin by portraying the distinctive ideological preferences of blacks and nonblacks. Table 4.1 reports the self-identified ideology of black and nonblack citizens. The original scale is the traditional Likert scale, which ranges from 1 for very liberal to 7 for very conservative. For the nation as a whole, for data pooled for 1988 and 1990, nonblacks respond to the question with an average score of 4.3, and blacks are somewhat more liberal at 3.9. In California, the nation's largest state (a state we chose so that we would have a reasonably large N), the range is about the same. In both cases, there is considerable variability within racial groups, but there still

TABLE 4.1Conservatism of Racial Groups in the Population

	Nonblack Citizens	Black Citizens
United States	4.3	3.9
	(1.3)	(1.5)
N	2,362	301
California	4.4	3.7
	(1.3)	(1.3)
N	299	25

Note: Self reported mean conservatism is reported for blacks and nonblacks (with standard deviations, not standard errors, in parentheses). This is the average of all respondents in a group in the 1988 and 1990 pooled National Election Study public opinion polls. Responses to this survey question are from 1 (very liberal) to 7 (very conservative). Blacks view themselves as more liberal than nonblacks do.

TABLE 4.2
Conservatism of Racial Groups in Congress

•	Nonblac	ck Legislators	Black Legislators		
Interest Group	(Average)	(Stand. Dev.)	(Average)	(Stand. Dev.)	
ADA*	52.0	(32.4)	7.2	(8.2)	
ACLU*	57.0	(31.5)	7.8	(8.4)	
COPE*	44.8	(33.3)	3.6	(3.0)	
ACU	43.3	(32.3)	5.1	(3.8)	
NTLC	61.4	(29.1)	17.1	(16.0)	
NSI	57.3	(58.5)	3.4	(6.8)	

Note: Interest groups scores of legislators were coded by the authors of the Almanac of American Politics, 1991, and abbreviated as: ADA = Americans for Democratic Action; ACLU = American Civil Liberties Union; COPE = Committee on Political Education (of the AFL-CIO); ACU = American Conservative Union; NTLC = National Tax Limitation Committee; and NSI = National Security Index (of the American Security Council). In order to arrange the table so all scores are from 0 (most liberal) to 100 (most conservative), the liberal groups (those marked with an asterisk) were subtracted from 100.

remains a distinctive difference: blacks in the nation and in California are more liberal the others.

Another way to examine the relative ideological groupings of different racial groups is by studying legislators, and examining the scores assigned to them by various interest groups. We do this for the U.S. House of Representatives and for the lower house of the Massachusetts and California legislatures, the only two state legislatures for which we could obtain voting scores. Table 4.2 compares the average interest-group rating, along with the standard deviations, of black and nonblack legislators in the U.S.

TABLE 4.3
Conservatism of Racial Groups in Massachusetts

	Nonbla	Black Legislators					
Interest Group	Average (Stand. Dev.)		(Individual Scores)			es)	
CLT	58.9	(30.6)	10	15	15	21	26
CLUM*	59.2	(35.8)	0	0	0	17	17
CPPAX*	57.9	(34.2)	0	9	9	18	27
NOW*	62.4	(38.9)	0	0	0	0	40

Note: Interest groups scores of legislators were coded in the Massachusetts Political Almanac and abbreviated as: CLT = Citizens for Limited Taxation; CLUM = Civil Liberties Union of Massachusetts; CPPAX = Citizens for Participation in Political America; NOW = National Organization for Women. In order to arrange the table so all scores are from 0 (most liberal) to 100 (most conservative), the liberal groups (those marked with an asterisk) were subtracted from 100. The small number of black legislators enabled us to present the more detailed information here and in table 4.4, as compared to just means and standard deviations in table 4.2 for Congress.

TABLE 4.4Conservatism of Racial Groups in California

	Nonbla	Black Legislators				
Interest Group	Average	(Stand. Dev.)	(Individual Scores			cores)
NRA	46.3	(43.8)	0	0	0	97
AFL*	41.2	(41.0)	0	5	6	7
PIRG*	33.9	(33.0)	0	9	9	14
NOW*	32.9	(31.4)	0	0	0	0

Note: Interest groups scores of legislators were coded in the California Political Almanac and abbreviated as: NRA = National Rifle Association; AFL = California AFL-CIO; PIRG = California Public Interest Research Group; NOW = National Organization for Women. In order to arrange the table so all scores are from 0 (most liberal) to 100 (most conservative), the liberal groups (those marked with an asterisk) were subtracted from 100.

House. For each interest group, this rating is an agreement score constructed so that the most liberal score is 0 and the most conservative is 100. As can be seen, the difference between black and nonblack legislators is quite substantial: for every interest group, blacks are very much closer to the liberal end of the ideological continuum.

Finally, the results from the lower house of the Massachusetts and California legislatures appear in tables 4.3 and 4.4. Because of the smaller numbers of blacks, along with the averages and standard deviations for non-blacks we list the score for each black legislator. Again, the scores range from 0 (most liberal) to 100 (most conservative), and again the black legislators are near the liberal end of the continuum.

It should not be surprising that blacks look more extreme in these three legislatures than in the general public, since the measures used depend on the judgment of these interest groups. Interest groups are often focused on a single issue or just a few issues, and it is well known that they tend to view the world in more either/or terms. Thus, it would be difficult to use these data to see whether black legislators are more or less liberal than black citizens. However, the results unambiguously demonstrate that black citizens and legislators are more liberal than are their nonblack counterparts.

2.3.1 A MATHEMATICAL MODEL FOR COLOR-BLIND ELECTIONS WITH IDEOLOGICALLY DISTINCT RACIAL GROUPS

We now generalize the model in section 2.2 to develop a standard in which a minority group may be ideologically distinct from the majority. In our simplified model, each district is represented by a legislator whose ideology is that of the median voter in the district. To begin, let y_i be a continuous variable representing the ideology of voter i, where $y_i = 0$ is moderate, $y_i < 0$ is liberal, and $y_i > 0$ is conservative. We define ideology so that the distribution of the ideologies of all the voters within any district is a normal distribution. This is a useful simplification, but our results are not heavily dependent on this particular distributional choice. The distribution of the ideology of a voter chosen at random from district J is normal with mean θ_j and common variance $(1 - \gamma^2)$, with $0 < \gamma^2 < 1$; that is,

$$f(y_i, i \in J) = N(y_i \mid \theta_j, 1 - \gamma^2).$$
(3)

The subscript J appears in the notation for the mean but not the variance, indicating that average ideology may differ across districts, but the variance of voter ideology is the same in every district. The parameter γ indexes the degree of ideological homogeneity of voters within each district; larger values of γ model electoral systems with more ideologically homogeneous districts. We further assume that the legislator elected in district J has an ideology equal to θ , the mean ideology among voters in that district. We discuss complications of this basic model later in this section.

In addition, we assume the mean ideologies θ , of the districts follow a normal distribution with mean 0 and variance γ^2

$$f(\theta_j) = N(\theta_j \mid 0, \gamma^2) \tag{4}$$

As a result of our median voter assumption, the distribution of *the ideology* of legislators across districts is normal with mean 0 and variance γ^2 as well. From equations 3 and 4, we can derive the ideology of a voter chosen

at random from the entire state. This distribution will have a mean of 0 and variance of 1 (the scale being arbitrary) and be a mixture of distributions. In states with a large number of districts, the distribution is approximately standard normal.

We can now model representation by comparing the distribution of legislator ideology in equation 4 to the distribution of voter ideology. When districts are perfectly homogeneous and $\gamma=1$, nothing is changed in the aggregation process: the distribution of legislator ideology is identical to the statewide distribution of voter ideology; this is equivalent to proportional representation of ideological groupings. Smaller values of γ refer to progressively more ideologically heterogeneous districts; with each district becoming more of a microcosm of the entire state, centrist candidates are favored, and centrist ideological groups of voters are disproportionately represented in the legislature. Since γ cannot exceed 1.0, this model requires that centrist ideological groupings receive relatively more representatives than more extreme groups, as seems to be the case in the U.S. Congress and many other legislatures.

Another way to compare the ideological distributions of voters and legislators is to take the ratio of the latter to the former, which we call the representation function, $R(\cdot)$:

$$R(y) = \frac{P \text{ (representative has ideology } y)}{P \text{ (voter has ideology } y)}$$

$$= \frac{N(y \mid 0, \gamma^2)}{N(y \mid 0, 1)}$$

$$= \frac{1}{\gamma} \exp\left(-\frac{1}{2} \left[\frac{1}{\gamma^2} - 1\right] y^2\right)$$
(5)

For any given voter, R(y) tells us how well the voter's ideology, y, is represented in the legislature, with R(y) = 1 being proportional representation. If R(y) > 1, then the ideology y has a larger proportion of legislators than its proportion in the population. For example, a value of R(y) = 2.0 for a group indicates that this group receives twice as large a proportion of legislators than their proportion in the population. Similarly, values of R(y) less than 1.0 indicate a level of representation below proportionality; if R(y) = 0.5 for a group, then this group has half the proportion in the legislature as it has in the population.

One can calculate the average value of R(y) for a group of voters by using the usual rules for calculating expected values. Thus, the average value of the representation function for all voters is 1.0:

$$E[R(y)] = \int_{-\infty}^{\infty} R(y) f(y) dy = 1.0.$$
 (6)

Other groups are defined relative to this group of everyone. For a group of voters, such as members of minority group B, characterized by a probability distribution over ideology of $f_B(y)$, we can also compute an average. We calculate the average value of the representation function among voters in group B as follows:

$$E\left[R\left(y_{i}\right)\mid\text{ for all }i\in B\right]=\int_{-\infty}^{\infty}R\left(y\right)f_{B}\left(y\right)dy=1.0.\tag{7}$$

Understanding this average representation for various groups B provides insight into our model and therefore into this standard of racial fairness.

2.3.2 INTERPRETATION

In order to incorporate more of what we wanted in an idealized political system, the model here is more stylized than that in section 2.2 and requires specific distributional assumptions, for example. Important and reliable policy implications do emerge from this model. And, although we are confident of the direction of the effects and general character of these solutions we are about to describe, one would not want to set policy in any precise way on the basis of the specific numerical values calculated.

We portray the results from this model with two examples. In both examples, we study the average value of the representation function for a minority group, characterized in different ways.

Representation of Ideologically Extreme Minority Groups

In the first example, we study a minority group that is composed of the ideologically most extreme members of a political system. This roughly approximates the situation with blacks, who are considerably more liberal on average than others. This example models the worst situation from the perspective of members of minority group B in terms of the level of representation.

We can portray this situation by letting the ideology of black voters follow a normal distribution truncated from above at value b < 0:

$$f_{B}(y) = \begin{cases} \frac{1}{\Phi(b)} N(y \mid 0, 1) \text{ for } y < b \\ 0 & \text{otherwise} \end{cases}$$
 (8)

where $\Phi(\cdot)$ is the cumulative normal distribution function. We can then calculate the average representation function for this ideologically extreme group of minorities with the rule in equation 7:

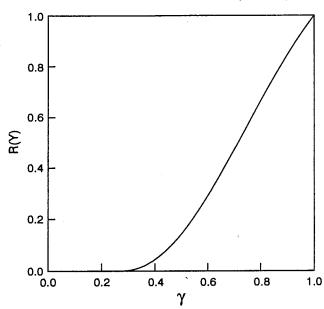


Figure 4.2. Average Representation of Ideologically Extreme Minorities

$$E[R(y_i) \mid \text{ for all } i \in B] = \int_{-\infty}^{\infty} R(y) f_B(y) dy$$

$$= \frac{\Phi(b/\gamma)}{\Phi(b)}$$
(9)

To interpret this result, consider the situation where b = -1.0, so that blacks comprise about $\Phi(-1) = 16$ percent of the electorate. (We use b = -1 for simplicity and because it corresponds roughly to the proportion of blacks nationwide and in some states. The interpretation is similar for other values of b.)

The relationship between the ideological homogeneity of districts as indexed by γ and the representation function R(y) is portrayed in figure 4.2. At the extreme, when $\gamma = 1$ and districts group voters in an ideologically homogeneous way, blacks would receive a proportional share of legislative seats. This special case of the present model leads clearly to the result of the model in section 2.2.

However, in the situation where $\gamma < 1$ and districts are less than perfectly homogeneous, blacks will receive less than a proportional share of legislators. This is the first qualification to the result in section 2.2: If an electoral system contains color-blind voters and party nominations, but race is not independent of ideology, an ideologically extreme minority group will receive fewer seats than the proportional representation standard would in-

dicate. Note again that the degree of independence between race and ideology is a feature to be chosen as our theoretical standard, not as a judgment about the empirical world.

This result is unambiguous, and it would hold even if the normal distributions and other assumptions were generalized. The model suggests that ideologically extreme minority groups, such as blacks, should receive fewer seats than proportionality would indicate, but it does not indicate precisely how much fewer.

Representation of an Ideologically Diverse Minority Group

In this final example, we parametrize both the degree of ideological extremism and the diversity of a minority group. We do this by letting the ideology of black voters follow a normal distribution with mean $\mu < 0$ and variance $\sigma^2 < 1$. The average value of the representation function for this group is calculated again according to the rule in equation 7:

$$E[R(y_{i}) \mid \text{ for all } i \in B] = \int_{-\infty}^{\infty} R(y) f_{B}(y) dy$$

$$= \int_{-\infty}^{\infty} R(y) N(y \mid \mu, \sigma^{2}) dy$$

$$= \frac{1}{(\gamma^{2} + \sigma^{2} - \gamma^{2} \sigma^{2})^{1/2}} e^{-\frac{\mu^{2}}{2} \frac{1 - \gamma^{2}}{\gamma^{2} + \sigma^{2} - \gamma^{2} \sigma^{2}}}$$
(10)

Three substantive results can be ascertained from equation 10. First, as before, if $\gamma = 1$ and all districts are homogeneous, leading to the distribution of voter and legislator ideology to be identical, then the representation function equals 1.0 and minority groups are proportionally represented. This is true regardless of the values of the other parameters.

To illustrate the remaining two substantive results, we set $\gamma = 0.7$, which moderately favors centrist candidates. Figure 4.3 plots R(y) for corresponding values of the average ideology μ and internal ideological diversity σ of blacks. The figure clearly shows that as μ increases toward zero (the median position of voters across the state), black representation under this system increases. The model here is most relevant on the left side of the graph, where the minority group is more ideologically extreme, and this shows minorities receiving less than proportional representation (R(y) < 1). If a minority group is able to remain ideologically homogeneous and, at the same time, be fairly centrist, then under this ideal political system, it would actually be represented more than proportionally. This latter result is of interest, and does reflect what happens to cohesive groups of centrist voters, but it is not relevant to minority groups of the sort that are protected under the law, since they tend to be more ideologically extreme. Indeed, if they are not politically distinctive from the majority group, then, except for purposes of descriptive representation, one could argue that they receive adequate representation.

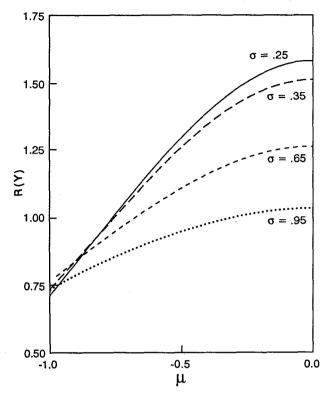


Figure 4.3. Average Representation of an Ideologically Diverse Minority

In addition, for most fixed levels of average minority ideology, black voters under this model increase their representation as they become internally less diverse ideologically. Thus, black voting power, and the resultant level of representation, increases when blacks are more centrist on average and more ideologically homogeneous as a group.

In this model, we have developed a standard under which voters and party nominations are color-blind, but we have allowed blacks to differ ideologically from other voters. The results clearly demonstrate that proportional representation would be fair only under relatively limited circumstances. Under a more general standard, with no race-based voting or nominations, ideological distinctiveness generally guarantees that racial minorities will receive less than proportional representation. Of course, even ideologically extreme minorities could receive proportional representation in the legislature if they happen to live in segregated areas and the line-drawers choose to create homogeneous districts.

2.3.3 RELAXING MODEL ASSUMPTIONS

We briefly discuss two portions of this model that might be profitably generalized in future research. First, we assume that the variance of voters within each district is constant across the state (γ is constant). This could be generalized by allowing γ to vary systematically or via a probability distribution. It is unlikely to have substantial effects on our conclusions.

Second, we assume that legislators are elected from the center of the ideological spectrum of their districts. That is, a district with mean ideology θ_j will elect a legislator with the same ideology. This assumption is reasonable in one-party dominated districts (conditional on the electoral system); it should be generalized to produce a two-party model. The likely consequence is that our representation function would be somewhat higher, although not universally, for extreme ideological groupings.

3. Empirical Standards: Cross-Group Comparisons

A final way to define racial fairness in redistricting is by comparison with other groups in society that are fairly treated. We do not offer this standard as a general policy recommendation since it is not always practical to find reasonable comparison groups or to measure their representation. But it will be practical in some states and for some minority groups, particularly if a detailed sample survey can be conducted.

This definition of fairness is both absolute and relative. It is an absolute standard in that all similarly sized minority groups would get the same seat proportion for a given vote proportion. One could even restrict the comparison groups to those of similar size and ideological and partisan preferences. But it is also a relative standard since it is defined only in relation to other groups. This standard might be considered better than the purely relative standards discussed in section 2.1, from some perspectives, since a priori normative decisions are somewhat less a part of the judgment. After the comparison group is chosen, normative decisions are not necessary. Of course, in practice, one must choose a group with which to compare, and this can involve extremely important normative judgments.

This standard is more flexible than proportional representation, since situations in which all minority groups receive less than (or more than) proportionality could be defined as fair. It is also similar to the widely accepted partisan symmetry standard; both standards substitute cross-sectional factual comparisons with time-series counterfactual ones. The advantage of this comparative standard for racial fairness is that it does not require assessing the counterfactual situation where a minority group will quickly attain numerical majority status.

TABLE 4.5Selected Comparison Groups in the United States, 1989

	Proportion of Population	Proportion of U.S. House Seats		
Religion				
Catholic	0.28	0.27		
Jewish	0.02	0.07		
Methodist	0.04	0.14		
Race Black	0.12	0.09		
Gender	0.12			
Female	0.51	0.06		

Source: Compiled from U.S. Statistical Abstracts.

Table 4.5 provides examples of selected comparison groups in the U.S. Congress as a whole. Here we can see that blacks (and women) are represented far less than proportionally, whereas religious groups are much closer to, or even represented more than, the proportional representation standard. We emphasize that any practical use of this standard would involve a more detailed study in the particular state in which it is applied, and particular care must go into choosing the comparison group. One would ideally find many groups of similar size to the one being evaluated. The groups in table 4.5 were chosen on the basis of available data, and, unfortunately, not much data are readily available. As a result, the comparison list is admittedly narrow. Although choosing the appropriate comparison groups is not difficult, finding data on both legislators and population groups turns out to be impossible in many cases. In practice, at least some of these comparison groups should have similar ideological and partisan preferences, or at least be similarly extreme. For example, if adequate survey data were available, one could compare blacks to the same proportion of the electorate from the most conservative end of the ideological spectrum.

To give slightly more specific flavor for the types of comparisons that could be conducted in individual states, we also provide racial and religious groupings among the population and the lower houses of the state legislatures of selected states (see table 4.6). Again, one would need detailed, careful work—such as complete analyses of state public-opinion polls—to apply this method within a particular state. But this table provides some interesting comparisons, some states giving roughly the same level of legislative-to-population representation to religious and racial groups. Others give considerably less representation to blacks, possibly indicating, according to this standard, that blacks should receive more representation.

TABLE 4.6
Selected Comparison Groups in Selected States, 1989 (Percentages)

		Religion		
	Black	Catholic	Baptist	Jewish
Massachusetts				
Population	5.0	50.0		4.6
Legislature	3.0	62.2		1.9
West Virginia				1.7
Population	25.0	6.0		
Legislature	2.0	9.9		· <u> </u>
Georgia				
Population	27.0	4.0	20.6	
Legislature	11.0	1.0	44.4	
Mississippi				
Population	36.0	25.0	24.6	
Legislature	16.0	5.7	42.3	
Tennessee			.2.5	
Population	16.0		22.1	
Legislature	10.0		36.4	
Missouri			30.1	
Population	11.0	16.0	12.2	
Legislature	7.0	22.1	18.4	
Michigan		- -	10.4	
Population	14.0	25.0		
Legislature	11.0	29.1		

Source: Analyses by the authors of the U.S. Census and individual state blue books.

4. Concluding Remarks

After substantial gains for minorities as a result of the 1991–1992 redistricting process, thirty-eight African Americans were elected to the U.S. House of Representatives. Blacks thus comprise about 8.7 percent of this legislature, as compared with roughly 12 percent of the U.S. population. Under the theoretical standard we develop in section 2.3, determining what constitutes a "fair" number of black members of Congress depends on how ideologically extreme black citizens are compared to nonblack citizens. If we make the reasonable assumption that blacks are about a standard deviation more ideologically extreme than whites, then (under our stylized assumptions) black citizens are now fairly represented in the U.S. House of Representatives, since they have only one fewer member of Congress than our standard indicates. Of course, different numbers can be obtained based on different assumptions about the parameter values. A very impor-

tant area of future research would be to estimate the distribution of the ideology of voters in the population (the results in table 4.1 being suggestive but imprecise).

Alternatively, if one is interested in judging fairness on the basis of a different hypothetical world in which blacks suffer no discrimination and have no unique cultural experiences (as in section 2.2), and as a result have no distinctive ideological preferences, a proportional representation standard is preferable. In this situation, a fair number of black members of the House of Representatives would be about fifty-two—an increase of fourteen members over the present thirty-eight.

Of course, neither these standards nor the comparative standard offered in section 3 can provide any automatic answer to the fairness of the American electoral system in the treatment of minority citizens. Our models are intended to clarify an important aspect of standards of racial redistricting, but in practice one will also need to look closely at the process. Outcomeoriented measures such as ours are essential in assessing the general situation with respect to the fulfillment of minority rights, but only a complete analysis, which includes such features as the degrees of discrimination and enfranchisement, differential campaign spending, racial cues taken and given during election campaigns, and many other factors, will produce a satisfactory conclusion in a real legislature.

Our primary purpose in writing this paper is to propose a directed research agenda for studies of racial fairness in legislative redistricting. We first discussed the goal of deriving an absolute standard of racial fairness, as opposed to the many relative standards that have been offered. We also offered the outlines of three possible absolute standards of racial fairness.

The academic community has made impressive contributions to the debate about the role of minorities in American electoral politics. However, public law has gone well beyond our empirical analyses and philosophical deliberations—exactly the opposite situation to political gerrymandering. It is time we caught up. The study of absolute standards of racial fairness in redistricting should be a high priority in future scholarly research.

Notes

1. As of this writing, the Supreme Court has not overturned any redistricting plans on the grounds of partisan gerrymandering.

2. The Voting Rights Act of 1965 was the first effective legislation in this area, although the previously enacted civil rights bills had some limited effects. Voting discrimination on the basis of "race or color" was prohibited, and the Justice Department was given a variety of mechanisms with which to force reluctant southern states to end discriminatory practices. The five-year extension of the act in 1970 included lowering of the voting age to eighteen in all elections (part of which were

later rejected by the courts) and reduction of the residency requirement to a maximum of thirty days in every state. In 1975, the Voting Rights Act was extended for seven years, and it was expanded to cover language and racial minorities, some outside the South, and to permanently ban literacy tests. The act was extended most recently in 1982 for twenty-five years. The most significant change was to add tests based on results for the existing intent tests in Section 2 vote dilution cases. See Grofman, Handley, and Niemi 1992 for a review of the jurisprudence in this area.

- 3. As Bruce Cain (1992, 262–63) writes, "The debate over voting rights is a modern and peculiarly American variant of a long-standing issue in political science—the relative merits of more or less proportional representational systems. The matter is rarely stated that way, especially by proponents of expanded voting rights legislation, because proportionality is something of a dirty word in the Anglo-American tradition. Americans prefer to use terms such as *fairness* and *nondilution* of minority votes without explicitly defining them, which causes significant confusion because electoral fairness could in fact mean something other than proportionality."
- 4. Of course, any question itself narrows the range of possible normative answers. For example, an attractive and quite defensible standard would be entirely process oriented, although this article is largely concerned with outcome oriented measures.
 - 5. Shockley, 1991.
 - 6. Pitkin 1967.
 - 7. The courts have been divided on this issue; see Shockley 1991 and Soni 1990.
- 8. Of the sixteen new black members of the U.S. House of Representatives in 1992, thirteen came from largely black districts created during this redistricting process. The remaining three replaced black members of Congress from existing black districts.
- 9. Figure 4.1 was drawn by us using data from Black Elected Officials: A National Register 1990.
 - 10. Key 1949.
 - 11. Guinier 1991a and 1991b; Shockley 1991; Soni 1990.
- 12. Karnig and Welch 1982; Welch and Hibbing 1984; MacManus 1987; Darcy and Hadley 1988; Grofman and Handley 1989.
- 13. Latimer 1979; Davidson and Korbel 1981; Karning and Welch 1982; Grofman, Migalski, and Noviello 1986; Bullock and MacManus 1987; MacManus 1987; Teasley 1987; MacManus and Bullock 1988; Welch 1990; Zax 1990.
 - 14. Bledsoe 1986.
 - 15. Thernstrom 1987.
- 16. Exactly the opposite is true with respect to political gerrymandering; see Gelman and King 1994b.
- 17. See Grofman 1983; Niemi and Fett 1986; King and Browning 1987; King and Gelman 1991; Gelman and King 1994a. One of the few dissenting voices in the near consensus supporting partisan symmetry is Lowenstein and Steinberg 1985.
- 18. The Voting Rights Act says explicitly that "Nothing in this [Act] establishes a right to have members of a protected class elected in numbers equal to their proportion in the population." Yet, as many note, the courts have often used a departure

from proportional representation in the legislatures as evidence of minority voting dilution or disenfranchisement. See Cain 1992; Guinier 1992; Turner 1992; and Grofman and Davidson 1992. While the role of proportional representation in litigation cannot be ignored, we believe proportional representation will not be acceptable as a first principle in choosing an absolute theoretical standard of racial fairness.

- 19. See O'Loughlin 1979.
- 20. Similarly, the partisan symmetry standard may not apply to states uniformly dominated by one party. See Gelman and King 1994b.
- 21. Actually, uncontestedness is a severe problem in some southern states. For example, between just under one-half to just over two-thirds of seats in the Virginia House of Delegates have been uncontested in recent elections. It is also a growing problem across the states in the United States. See Gelman and King 1994b.
- 22. Recall that the usual "realism" criterion does not apply here, since we are intentionally trying to model an ideal standard for fairness that does not presently exist. If it did exist, we could do empirical estimations instead of theoretical analyses.
- 23. For the normal distribution, the mean voter is also the median voter. We are assuming that all party cues are subsumed within ideology.
- 24. That is, when $\mu = -1$ (standard deviations), the representation function is R(y) = 0.75 (see figure 4.3) which, when multiplied by 12 percent of the population (from table 4.5, which assumes that $\gamma = 0.7$), gives 9 percent of the legislature. This is just over 39 of the 435 members of the House of Representatives, which is one more than the current 38 black representatives.

Race, Representation, and Redistricting

DAVID IAN LUBLIN

SINCE THE REDISTRICTING round following the 1990 reapportionm policy of advancing African American and Latino representation the creation of new majority-minority districts has come under increintense attack from both the right and the left. Advocates of racia tricting claim that few African Americans or Latinos would win ele the House of Representatives without the creation of majority-n districts. They further view the election of black and Latino representations majority-minority districts as essential to the advancement of tic black and Latino viewpoints during congressional deliberations

In contrast, conservative opponents lambaste racial redistric going beyond the original intent of the Voting Rights Act and perperacial distinctions in both law and society. They further argue that and Latinos can win election to the House of Representatives and perpendicy interests without what those on the right view as a 1 political affirmative action. Indeed, conservatives contend that conew majority-minority districts ghettoizes blacks and Latinos into congressional districts. Minorities gain control over a few representative cost of losing influence over a much larger number of merr Congress.²

Liberal critics view racial redistricting as largely ineffective at a minorities real influence over the political process. While the nur black and Latino representatives has increased, the proportion of n members of Congress remains much lower than the proportion of ties in the general or voting age population. More importantly, liberatend that minority representatives are often tokens without real prinfluence. Just as winner-take-all systems of election regularly deny ities election from majority Anglo constituencies, winner-take-all dures within the House prevent minorities from gaining any real in over the public policy.³

In this paper, I examine the effect of racial redistricting on the of African American and Latino representatives and on African Ai influence over public policy. In particular, I focus on the trade-off the election of greater numbers of black representatives and the action of the second s