Identifying and Remedyng Racial Gerrymandering*

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Racial vote dilution cases may arise under several different venues—directly under the U.S. Constitution, under section 5 of the Voting Rights Act of 1965,1 or under section 2 of the Voting Rights Act as amended in 19822—each produces its own evidentiary standards. In interpreting the congressional mandate for compliance with the equal

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1 42 U.S.C. §§ 1973 et seq. (1965). Section 5 of the Voting Rights Act of 1965 provides for administrative scrutiny by the U.S. Department of Justice of all changes in election practices within the jurisdictions covered by the section. As of 1965, seven Southern states were covered. As a result of subsequent amendments to the Act, the states covered in whole or in part by section 5 reached a maximum of twenty-two as of the early 1980s; by 1989, as a result of the Act’s “bailout” provisions, sixteen states remained partially or entirely covered. The key language in section 5 requires that a plan "does not have the purpose and will not have the effect of denying or abridging the right to vote" of protected minorities. In section 5 cases, unlike cases brought under the fourteenth amendment or under section 2 of the Act, the electoral jurisdiction must carry the burden of proving that its plan was neither intended to nor would have the effect of diluting the voting rights of protected minorities. Section 5 of the Voting Rights Act does not cover all jurisdictions, and even in the jurisdictions it does cover, it applies only to changes in election laws. 28 C.F.R. § 51.013 (1985). Cities or counties which “redistrict” by maintaining an at-large election system are not subject to section 5 challenge.

2 42 U.S.C. § 1973 (1982). The July, 1982, amendment extended the Act in a number of ways, but the key change was in section 2, providing that a violation of equal protection could be found by a federal court if an election practice had the effect of denying to any protected group an equal opportunity to “participate in the electoral process and to elect candidates of choice,” even if no intentional discrimination was found. The section 2 standard applies to all jurisdictions, but it requires litigation by an affected party or by the U.S. Department of Justice to call it into play. The new 1982 language of section 2 reads (in part) as follows:

(a) No voting qualification or prerequisite to voting or standard, practice, or procedure shall be imposed or applied by any state or political subdivision in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color. . . .
protection clause of the fourteenth amendment as instantiated in the Voting Rights Act of 1965 and its subsequent amendments, the Supreme Court has provided effects-based operationalizations of the equal protection standard for section 5 and section 2 of that Act. For the groups identified by Congress as having special protection under that Act (including blacks, and by 1975, American Indians, Asians, and those of Spanish heritage), these results-oriented tests replace (or supplement) the intentional vote discrimination standard under the four-

(b) A violation of subsection (a) is established if, based on the totality of circumstances, it is shown that the political processes leading to nomination or election in the state or political subdivision are not equally open to participation by members of a class of citizens protected by subsection (a) in that its members have less opportunity than other members of the electorate to participate in the political process and elect representatives of their choice. The extent to which members of a protected class have been elected to office in the state or political subdivision is one circumstance which may be considered, provided that nothing in this section establishes a right to have members of a protected class elected in numbers equal to their proportion in the population.


4 In Zimmer v. McKeithen, 485 F.2d 1297 (5th Cir. 1973) (en banc) aff’d on other grounds sub nom. East Carroll Parish School Bd. v. Marshall, 424 U.S. 636 (1976), a federal court of appeals attempted to codify the standards laid down by the Supreme Court in White v. Regester, 412 U.S. 755 (1973), for when racial vote dilution in the context of an at-large or multimember district election rose to the level of a constitutional violation. The Zimmer standards were based on a lengthy set of factors to be evaluated in light of the “totality of the circumstances” to assess whether unconstitutional vote dilution had occurred. The Zimmer factors, as they came to be called, were “relied upon in the vast majority of nearly two dozen reported [vote] dilution cases [decided between 1976 and 1980].” S. Rep. No. 417, 97th Cong., 2d Sess. 23 (1982).

In Mobile v. Bolden, 446 U.S. 55 (1980), the Supreme Court majority proposed to replace the Zimmer factors with an “intent test” that appeared to require direct evidence of discriminatory purpose before unconstitutional violation of the fourteenth amendment’s equal protection clause could be found. However, in Rogers v. Lodge, 458 U.S. 613, 618 (1982), the Supreme Court effectively permitted intent to be inferred from a “preponderance of the aggregate of the evidence,” i.e., from the Zimmer criteria and related aspects of the “totality of the circumstances.” In amending section 2 of the Voting Rights Act, Congress was reacting to the decision in City of Mobile. Congress acted to amend the Voting Rights Act at a time when Mobile defined the constitutional standard, before the Supreme Court’s change of tack in Rogers, 458 U.S. at 618. The specific motivation behind the amended language in section 2 was to allow plaintiffs to establish a statutory violation by showing discriminatory effect without proving any kind of discriminatory purpose.
teenth amendment that the Supreme Court has held to apply to all individuals and groups.\(^5\)

Other than preclearance denials by the Justice Department under section 5 of the Act, virtually all racial discrimination challenges to elections practices are now brought under section 2, and the Justice Department now incorporates a section 2 test into its section 5 enforcement. Thus, in the 1990s, virtually all vote dilution cases will be litigated within the context of section 2. The 1986 landmark case of *Thornburg v. Gingles*\(^6\) continues to define how the 1982 amended language of section 2 of the Act is to be interpreted.\(^7\) The Supreme Court continues (as of March 1992) to refuse to hear cases brought to it on appeal involving disputes about the proper interpretation of the *Thornburg* three-pronged test, or has summarily affirmed lower court findings in such cases.\(^8\) The *Thornburg* test (also frequently referred to as the *Gingles* test, as Gingles was the prevailing party) has affected the outcomes of scores of voting rights cases, including many which have never gone to trial. The focus of this paper is on how to adopt the *Thornburg* standard for detecting and measuring vote dilution—a stan-

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\(^5\) The Report of the Senate Judiciary Committee, on S. Rep. No. 417, 97th Cong., 2d Sess. 28-30 (1982), identifies seven “typical” factors which may be used to establish a violation of section 2 as part of the totality of circumstances. These factors are taken from post-*White* case law. Supporters of the new section 2 language saw it as permitting a return to the standard for vote dilution as articulated in *White v. Regester*, 412 U.S. 755 (1980), as the test “was applied prior to the *City of Mobile* litigation.” There is, however, considerable dispute about the extent to which the *White* standard required proof of discriminatory purpose, as the Supreme Court majority claimed it did in *City of Mobile*. See Report of Senate Comm. on the Judiciary on S. Rep. No. 417, 97th Cong., 2d Sess. (1982). The seven factors of the totality of circumstances test, based largely on the *Zimmer* criteria, served as the standard for operationalizing a section 2 violation from the passage of the new language of section 2 in 1982 until the Supreme Court provided a new and definitive three-pronged test to determine when multimember districts have the effect of diluting minority voting strength with its decision in *Thornburg v. Gingles*, 478 U.S. 30 (1986).

\(^6\) 478 U.S. 30 (1986).

\(^7\) The *Thornburg* test requires that plaintiffs show (1) that a single-member district remedy is feasible, (2) that the minority community is politically cohesive, and (3) that minority candidates usually can be expected to lose as a result of their submergence in a racially polarized electorate. *Thornburg*, 478 U.S. at 30.

\(^8\) In January 1991, for example, two important voting rights cases, *Garza v. Los Angeles County Bd. of Supervisors*, 918 F.2d 763 (9th Cir. 1990), and *Solomon v. Liberty County*, 899 F.2d 1012 (11th Cir. 1990), were denied certiorari, and another perhaps even more important case, *Jeffers v. Clinton*, 730 F. Supp. 196 (E.D. Ark. 1989), was summarily affirmed. The denial of certiorari in *Garza* let stand a finding for Hispanic plaintiffs of intentional discrimination; the denial of certiorari in *Solomon* let stand the remand of the case to a district court with no guidance other than a divided appellate en banc panel opinion and *Thornburg* itself. The *Jeffers* decision that was summarily affirmed had dramatically reshaped the map of the Arkansas legislature so as to create what may have been the maximum number of black majority districts possible—albeit still falling considerably short of proportional representation.
standard that was initially developed to apply to minority submergence in multimember districts\(^9\)—so as to apply to racial gerrymanders occurring within the context of a single-member district plan.

Legal standards to determine when a single-member district plan constitutes a racial gerrymander in violation of the Voting Rights Act (or the U.S. Constitution) are not as well developed as the standards for dilution involving multimember districts and at-large elections. This is in large part because there have been far fewer cases involving challenges to single-member district plans than cases involving challenges to at-large or multimember district plans. Moreover, except for the legislative districts in New York, whose redrawing was the subject of a challenge to the discretionary authority of the Department of Justice under section 5 of the Voting Rights Act of 1965,\(^{10}\) and the congressional seats in the Dallas area, which were redrawn by a federal district court in remedying a fourteenth amendment violation,\(^{11}\) no single-member district plan challenged as a racial gerrymander has ever been the subject of other than a per curiam opinion of the Supreme Court, and neither of these exceptions postdates Thornburg. Indeed, since Thornburg was decided in 1986, as of March 1992 only a handful of section 2 cases involving challenges to single-member districts have been decided,\(^{12}\) and only four of these have been reviewed at the appellate level.\(^{13}\)

\(^9\) The lower court decision in Gingles v. Edmisten, 590 F. Supp. 345 (E.D.N.C. 1984), redrawing a single-member North Carolina Senate district to increase its black population proportion, was not appealed, and thus was not discussed in Thornburg.


\(^{12}\) For each of the hundreds of at-large or multimember district elections that have been successfully challenged over the last decade or so, there are, of course, remedial plans that have been approved by courts, that involve single-member districts (sometimes used in conjunction with continuing at-large election of some officials—so-called "mixed plans"). Reviewing this considerable body of data and court precedent is beyond the scope of our present work.

\(^{13}\) Of these four cases, only two address substance, the aforementioned Garza, and Washington v. Tensas Parish, 819 F.2d 609 (5th Cir. 1987), and the latter decision dealt only with the remedy phase. The Tensas School Board district was nearly evenly balanced in terms of its racial composition, with a minuscule black voting-age majority and a white registration majority. The Circuit Court approved a plan with three clearly black majority districts, three clearly white majority districts, and a seventh "swing" district with a 52% black voting-age population. The two appellate decisions that do not reach substantive issues are Armour v. Ohio, 895 F.2d 1078 (6th Cir. 1990) and White v. Daniel, 909 F.2d 99 (4th Cir. 1990). Armour is now on remand to a three judge district court for a trial de novo as a result of a procedural ruling by the Sixth Circuit Court of Appeals in January of 1991. In White v. Daniel, the Fourth Circuit reversed a lower court finding of a section 2 violation on the basis of laches.
While there are important similarities between cases challenging submergence in at-large or multimember district systems and cases challenging single-member district plans as dilutive (e.g., in both, plaintiffs customarily propose a single-member district remedy to serve as a baseline against which dilution can be judged), the overriding issue in the former type of case is the effects of the electoral system itself. Single-member district issues will rise to the forefront in the 1990s for several reasons. First, the redrawing of lines in light of 1990's population data in jurisdictions that have previously shifted to a single-member district plan (or a mixed plan) will undoubtedly generate a considerable body of new litigation, especially since minority population (primarily Hispanic and Asian) has been growing. Second, the number of challenges to at-large or multimember district systems is likely to fall (except in a few states such as Texas and California where suits will be brought primarily by Hispanics); a large number of the jurisdictions with substantial black populations which made use of at-large or multimember district schemes have already been successfully challenged under the Thornburg test or earlier.\textsuperscript{14} Third, as the Thornburg standard usually permits jurisdictions to predict outcomes of challenges to at-large or multimember district cases with very high certainty, many of the remaining jurisdictions that use at-large or multimember district elections for which minority population is significant but minority electoral success is limited, are likely to shift to single-member districts (or the type of alternative remedies that we discuss below) rather than incur the substantial costs of defending against a voting rights lawsuit in which they are unlikely to prevail.

Our aim is threefold. First, we will show how courts have attempted to specify legal standards for racial gerrymandering in the light of Thornburg, and discuss some of the unresolved issues. Second, we will illustrate appropriate uses of social science methodology in evaluating the racial consequences of single-member district plans. Third, we will outline our own proposed legal approach to racial gerrymandering in the single-member district context. We believe that cases involving racial gerrymandering in single-member districts will be the most common type of voting rights litigation in the 1990s, just as challenges to at-large or multimember districts were the most common type of voting rights case in the 1980s.

We begin with a discussion of how to determine when a protected group has a racial gerrymandering liability claim under the effects test of section 2 of the Voting Rights Act.

I. THE LIABILITY THRESHOLD FOR A CLAIM OF RACIAL GERRYMANDERING

A. Necessity and Sufficiency of the Thornburg Three-Pronged Test

Some appellate courts have treated the Thornburg three-pronged test as sufficient but not necessary, e.g., by permitting plaintiffs to make an “influence” claim (as in the now-vacated initial appellate decision in the Sixth Circuit of Armour v. Ohio),\(^5\) or by permitting a lowered “injury” threshold if there has been intentional discrimination (as in the Ninth Circuit decision in Garza v. Los Angeles County Board of Supervisors).\(^6\) The Ninth Circuit, however, has also held that, where there is no issue of intentional discrimination raised, essentially the three Thornburg factors are both necessary and sufficient in the context of at-large elections.\(^7\) But, even in the at-large context, other circuits have argued for the proposition that the three prongs of the Thornburg test are necessary but not sufficient. Nonetheless, although several courts leave open the possibility that other factors of the “totality of circumstances” test might lead to a finding for defendants even with clear proof that the three prongs of the Thornburg test had been satisfied,\(^8\) at least in the at-large

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\(^5\) 895 F.2d 1078 (6th Cir. 1990).

\(^6\) 918 F.2d 763 (9th Cir. 1990). We are in agreement with the views of the Garza court, but skeptical about both the legal foundations and the practical implications of the views taken by the initial Armour court in the subsequently vacated opinion, as we discuss below.

\(^7\) See Gomez v. City of Watsonville, 863 F.2d 1407 (9th Cir.)(en banc), cert. denied, 109 S. Ct. 1534 (1989).

\(^8\) In the only case within the Fourth Circuit to directly address the role of the Gingles factors relative to the totality of the circumstances, Collins v. City of Norfolk, 816 F.2d 932 (4th Cir. 1987), the court stated that Thornburg essentially offered a “gloss” on the Senate Report factors and the “implication of this gloss on section 2 is that, of the seven primary factors on the Senate Report list, two are typically the most important: the existence of racially polarized voting ... and the actual results of minority-preferred candidates in winning elections.” Id. at 935. Later in the opinion, the court noted that, although the presence of these two “cardinal factors” would weigh heavily in the final decision, the “ultimate determination still must be made on the basis of the ‘totality of the circumstances.’” Id. at 938. However, when asked to consider the case once again, the court (Collins v. City of Norfolk, 885 F.2d 1232 (4th Cir. 1989), cert. denied, 111 S. Ct. 340 (1990)), considered only those district court findings relevant to the Gingles factors, although it also noted that the district court had made findings of fact pertinent to the Senate Report factors.

The Fifth Circuit has generally discussed both the Thornburg factors and the Senate Report factors in its opinions. See, e.g., Overton v. City of Austin, 871 F.2d 529 (5th Cir. 1989); LULAC v. Midland Indep. School Dist., 829 F.2d 546 (5th Cir. 1989)(en banc); Campos v.
context, virtually all courts begin with, and most rely primarily upon, the three *Thornburg* elements.\textsuperscript{19} Moreover, where the three prongs of the *Thornburg* test have been met, courts have almost always found a violation. A recent important exception, however, is found in the dissenting views of a divided en banc opinion in *Solomon v. Liberty County.*\textsuperscript{20} In that case, Judge Tjoflat (joined by four other judges) asserted that a violation under section 2 requires proof of racial animus on the part of voters in *addition to* proof of the three *Thornburg* elements.\textsuperscript{21}

City of Baytown, 840 F.2d 1240 (5th Cir. 1988), reh’g denied, 849 F.2d 943 (5th Cir. 1988), cert. denied 109 S.Ct. 3213 (1989); Westwego Citizens for Better Gov’t v. City of Westwego, 872 F.2d 1201 (5th Cir. 1989). However, usually the court discusses the *Thornburg* factors first. In Brewer v. Ham, 876 F.2d 448 (5th Cir. 1989), Judge Edith Jones asserted the “necessity” of meeting the “Gingles threshold” before any other factors were to be considered. Id. at 451. In Citizens for a Better Gretna v. City of Gretna, 834 F.2d 496, 498 (5th Cir. 1989), cert. denied 109 S.Ct. 3213 (1989), the Court expressed its disagreement with defendants’ contention in the case that “the Supreme Court in *Gingles* made the *Zimmer* analysis obsolete”; while in the 1989 opinion in Monroe v. City of Woodville, 819 F.2d 507 (5th Cir. 1987), cert. denied, 484 U.S. 1042 (1988), on remand, 881 F.2d 1327 (5th Cir. 1989), revised 897 F.2d 763 (5th Cir. 1990), Judge Jones wrote that “satisfying the *Gingles* threshold test... does not prove a plaintiff’s section 2 claim; the district court must then proceed to the totality of the circumstances inquiry.” 881 F.2d at 1330.

The Eighth Circuit has essentially treated the Gingles factors as three additional elements to be considered along with the other Senate Report factors. In Buckanaga v. Sisseton Indep. School Dist., 804 F.2d 469 (8th Cir. 1986), the remand instructions issued by the court required detailed findings of fact with respect to each of the *Thornburg* factors as well as consideration of other Senate Report factors, but without any weighting of the various factors specified. This suit, brought by Native Americans, was subsequently settled out of court with the adaptation of a cumulative voting plan.

\textsuperscript{19} As of January 1991, the Seventh Circuit has had the opportunity to consider only the question of whether the *Thornburg* test is necessary, as plaintiffs failed to meet the first prong of *Thornburg* in the only section 2 case to reach the Fourth Circuit. In McNeil v. Springfield Park Dist., 851 F.2d 937 (7th Cir. 1988), cert. denied, 109 S. Ct. 1769 (1989), the Seventh Circuit upheld the at-large method of electing park board and school board members in the city of Springfield, Illinois because plaintiffs could not prove that they were able to constitute a majority in a single-member district. Nonetheless, the Seventh Circuit language in this case suggests that the totality of the circumstances are still relevant to a section 2 challenge, but only after the “three necessary preconditions” established by *Thornburg* had been met: “Only upon satisfaction of these threshold criteria should a court consider its totality of the circumstances analysis and consider other relevant factors set forth in *White*.” Id. at 942.

The Tenth Circuit has reached essentially the same conclusion as the Seventh Circuit: that is, that it is necessary to prove the three "preconditions" laid down in *Thornburg* if plaintiffs are to prevail in a section 2 at-large challenge. That circuit has not yet commented on the role of the totality of the circumstances in a vote dilution suit. In the only section 2 case to come before the court, Sanchez v. Bond, 875 F.2d 1488 (10th Cir. 1989), cert. denied, 111 S.Ct. 340 (1990), plaintiffs were held to have failed to meet the three-pronged *Thornburg* hurdle.

\textsuperscript{20} Judge Tjoflat would not require, however, that any racial animus on the part of those who drew the plan be demonstrated. Earlier Eleventh Circuit panels in such cases as Carrollton Branch of the NAACP v. Stallings, 829 F.2d 1547 (11th Cir. 1987), cert. denied sub nom. Duncan v. Carrollton, 485 U.S. 936 (1988), and Dillard v. Crenshaw County, 831 F.2d 246 (11th Cir. 1987), devote some attention to both the Senate factors and the *Gingles*
Our own view is that a fair reading of Thornburg finds clear and compelling support for the sufficiency of its three prongs, at least in the context of at-large or multimember district challenges. We also believe that the notion that voters' racial animus must be shown has been specifically rejected by the teachings of Thornburg. On these points we share the views of Judge Kravitch in Solomon.

Judge Kravitch (joined by four other judges), speaking for a divided Eleventh Circuit en banc panel,22 pointed out that "[a]lthough a district court may consider the totality of the circumstances, those circumstances must be examined for the light they shed on the existence of the three core Gingles factors."23 Judge Kravitch then quoted from Thornburg: "[O]ther factors such as the lingering effects of past discrimination, the use of appeals to racial bias in election campaigns, and the use of electoral devices which enhance the dilutive effects of multimember districts when substantial white bloc voting exists—for example antibullet voting laws and majority vote requirements, are supportive of, but not essential to, a minority voter's claim."24

Responding to the claim made by Judge Tjoftl in his concurrence that, if the defendant jurisdiction can "affirmatively show" that the "community is not motivated by racial animus in its voting, a case of vote dilution has not been made out,"25 Judge Kravitch pointed out that:

[p]ermitting a defendant the affirmative defense of showing the absence of community racial bias would involve litigating the issue of whether or not the community as a whole was motivated by racism, a divisive inquiry that Congress sought to avoid by instituting the results test. The Senate Committee quoted the testimony it found persuasive that such an inquiry 'can only be divisive, threatening to destroy any existing racial progress in a community.'26

 factors. But the appellate court held in Stallings that Thornburg established a "new three-part test" that, while not designed to completely replace the Senate Report factors, clearly designated some of these as more relevant to a finding of vote dilution than others. Stallings, 899 F.2d at 1550.
22 Solomon, 899 F.2d 1012, 1014 (11th Cir. 1990).
23 Id. at 1017.
24 Thornburg, 478 U.S. at 48 n.15, emphasis in original.
25 Solomon, 899 F.2d. at 1022.
26 Id. at 1017 n.3. Judge Tjoftl sees this quote and the general discussion of intent in the Senate Report as applying only to the motivation or purpose of "those responsible for enacting or maintaining the challenged scheme." Id. at 1030. We do not share that reading of the legislative history of the Act, a reading that is specifically rejected by Justice Brennan in Thornburg, 478 U.S. at 63-74. Indeed, Justice Brennan explicitly states: "Focusing on the discriminatory intent of the voters, rather than the behavior of the voters, . . . asks the wrong question. All that matters under section 2 and under a functional theory of vote dilution is
How can we reconcile Justice Brennan's views in *Thornburg* that the various totality of circumstances factors identified in the Senate Report are "supportive of, but not essential to" a finding of vote dilution, with the extensive discussion of totality of the circumstances factors in the Senate Report on the 1982 extension of the Voting Rights Act, and the presence of specific language about the totality of the circumstances in the amended language of section 2? Did not the Supreme Court go well beyond either the previous case law or congressional intent in fashioning its three-pronged test?

Our answer is two-fold: First, to return to the *White-Zimmer* standard, as was the stated aim of the new section 2 language, does not necessarily mean simply to return to the proposed operationalization of that standard in cases such as *Zimmer*. Rather, it is reasonable to carefully *rethink* the *White-Zimmer* approach by looking at how the concept of vote dilution defined in *White*, and even before that in *Fortson v. Dorsey*, (i.e., whether a challenged practice "minimizes or cancels out" a minority group's voting strength), can best be operationalized. This is what the Supreme Court did in *Thornburg*—successfully, in our view. The old "totality of the circumstances" test offered a potpourri of factors but not a coherent theory of vote dilution. Second, we believe that Judge Kravitch's assertion (set out above) that other factors related to the totality of the circumstances must be examined "for the light they shed on the existence of the three core Gingles factors," offers a reading of the section 2 language that is fully consistent with congressional intent.

We believe that Justice Brennan's approach in *Thornburg* to the problem of identifying vote dilution in at-large scheme voting clears up the confusion found in most of the previous case law, including *Zimmer v.*

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voter behavior, not its explanations." Id. at 73. Moreover, as Judge Kravitch points out in *Solomon*: "Chief Judge Tjoflat's analysis takes a tack similar to that of Justice O'Connor's concurring opinion in Gingles. It bears noting that her opinion clearly posed the alternative now urged by Chief Judge Tjoflat, yet failed to obtain the support of a majority of the Court." *Solomon*, 899 F.2d at 1017 n.3.

Our view is first, that to seek to require proof of racial animus would be contrary to congressional intent, and second, that any attempt to require such proof would be doomed to failure for methodological reasons. See Grofman, Multivariate Methods and the Analysis of Racially Polarized Voting: Pitfalls in the Use of Social Science by the Courts, Soc. Sci. Q. (1992 forthcoming); and McCrery, Discriminatory Intent: The Continuing Relevance of 'Purpose Evidence' in Vote-Dilution Lawsuits, 28 How. L.J. 463 (1985), an article approvingly cited by Justice Brennan in *Thornburg*, 478 U.S. at 73.


28 See supra note 2.

McKeithen,30 by offering a functional test for when, in the language of amended section 2, a protected minority group is being denied "an equal opportunity to participate in the political process and to elect candidates of choice," and thus is having its voting strength "minimized or canceled out."31 The first prong of the Thornburg test establishes whether a group is large enough and geographically concentrated enough to support a finding that its rights have been violated relative to what was possible under a nondiscriminatory single-member district scheme. The second prong of the test establishes that the group is politically cohesive. Without such a finding, it makes no sense to talk of the group having "candidates of choice." The third prong of the test, the usual loss experienced by minority candidates, is a requirement that the nature of the dilution is real, not hypothetical.32

The 1982 Report of the Senate Committee on the Judiciary on S. 1992 demonstrates that Congress intended to eliminate any type of requirement that racial purpose be shown before a Voting Rights Act violation could be found. In the context of that congressional aim, the three prongs of the Thornburg test provide a sensible operationalization of the White standard as an effects standard. Despite its apparent aims of, on the one hand, simplifying and, on the other hand, making more precise and more relevant to the underlying concept of vote dilution, the criteria used to establish a voting rights violation, the Thornburg Court also recognized that an inquiry into vote dilution is very much a "fact-intense" and a "case-specific" one. The Supreme Court decision encourages lower courts to be flexible in appraising particular case facts in the light of common sense and local knowledge.

The "totality of the circumstances" language alerts courts to avoid mechanistic jurisprudence. Moreover, a fact-specific and realistic appraisal of the totality of the circumstances is required in order to provide sensible judgments about the presence or absence of the three elements of the Thornburg test. For example, with respect to the first prong of the Thornburg test, we believe it appropriate to look at the totality of the circumstances in order to determine whether a minority group possesses a realistic potential to elect candidates of choice, rather than simply using some strictly numerical "bright line" test of when a minority group is large enough to have a potential claim under

30 485 F.2d 1297 (5th Cir. 1973).
32 Thornburg, 478 U.S. at 48.
Thornburg, of the sort adopted in cases such as Romero v. City of Pomona.33 Similarly, the issue of how cohesive a minority group must be in order

33 883 F.2d 1418 (9th Cir. 1989). We believe the approach taken by the trial court in Garza was the appropriate one. It eschewed a "bright line" test and looked instead to a functional test of whether, under the totality of the circumstances, it was possible to create a district in which the group had a realistic potential to elect a candidate of its choice over the course of the decade. Such a functional test is consistent with the viewpoint advocated in key language in the Senate Report accompanying the 1982 extension of the Voting Rights Act, which states that "the question whether the political processes are 'equally open' depends upon a searching practical evaluation of the 'past and present reality,' and on a 'functional' view of the political process." 478 U.S. at 45 (citations omitted).

While most courts have taken literally the language of the first prong of the Thornburg test, "sufficiently large and geographically compact to constitute a majority in a single-member district," 478 U.S. at 50-51, we believe that a broader reading, one which permits courts to determine, in a case-specific fashion, whether a minority group could be given a realistic opportunity to elect one or more candidates of choice under an alternative districting configuration, is more appropriate. Justice Brennan's language in Thornburg suggests that what was desired was a functional test of whether minorities have been denied a realistic opportunity to elect candidates of choice. In his words: "Unless minority voters possess the potential to elect representatives in the absence of the challenged structure or practice, they cannot claim to have been injured by that structure or practice." 478 U.S. at 51 n.17 (emphasis in original). Similarly, Justice Brennan, following the language of the Senate Report, advocates a "'functional' view of the political process" where courts are to "conduct a searching and practical evaluation of reality." 478 U.S. at 66. Moreover, Justice O'Connor, in a concurring opinion joined by three other justices, asserts in Thornburg that "if a minority group that is not large enough to constitute a voting majority in a single-member district can show that white support would probably be forthcoming in some such district to an extent that would enable the election of the candidates its members prefer, that minority group would appear to have demonstrated that . . . it would be able to elect some candidates of its choice." 478 U.S. at 89-90 n.1.

We believe that a functional approach is an appropriate one in that it permits courts to be sensitive to case-specific facts, and thus is to be preferred to a simple numerical bright line test. There may be special circumstances that would allow less than a fifty percent voting-age majority the potential to elect candidates of choice. For example, speaking for a divided court in Solomon, Judge Kravitch, joined by four other judges, makes clear her view that, while a fifty percent voting-age majority may be sufficient to demonstrate the potential for a minority group to elect its own representatives, it is not necessary. Even if blacks do not constitute an outright majority of the voting-age population in any district:

So long as the potential exists that a minority group could elect its own representative in spite of racially polarized voting, that group has standing to raise a vote dilution challenge under the Voting Rights Act. In some cases, blacks may constitute a majority of the overall population and may be expected to comprise a majority of the voting age population in the near future. In other cases, blacks may be so close to fifty percent that they would have a realistic chance of electing a representative.

899 F.2d. at 1018-1019 n.7 (11th Cir. 1990) (citation omitted). These examples are not hypothetical. In Garza, evidence as to likelihood of future minority success was presented that the district court found credible. In the partisan elections that are at issue in Armour v. Ohio, black population appears to be large enough that it may be possible to create at least one district in which blacks would form a majority of the primary electorate, and the usual level of cross-over voting among white Democrats may be enough to make it likely that black-preferred candidates who win the Democratic primary can be elected in the general election.
to satisfy the second prong of the *Thornburg* test requires courts to look carefully at the context of particular election outcomes, rather than simply to treat all elections as equally informative about cohesion.\(^{34}\) In like manner, whether a new plan can be expected to result in the "usual" loss of minority candidates requires a careful look at characteristics of that plan. In our view, the totality of circumstances should be seen as providing the context in which the judgments about the three elements of the *Thornburg* test are reached.

However, there are some types of challenges (e.g., as to registration practices) where the *Thornburg* factors are clearly inappropriate. The *Thornburg* Court seemingly recognized that other types of factors might be relevant for issues other than at-large elections.\(^{35}\) Thus, the importance of the various *Thornburg* elements must be interpreted in the context of the totality of the circumstances and in terms of the type or practice that is under challenge and the types of remedies that are feasible.

From both a legal and a social science perspective, one of the greatest potential difficulties with court intervention into any policy arena is the problem of developing manageable standards that are plausibly related to the relevant statutory and constitutional provisions. For standards to be manageable, they must be clear and capable of being implemented by the courts, as well as ensuring that the necessary evidence is developed within the realistic time frame of litigation.\(^{36}\) With respect both to manageable standards and to relevance, the merits of

\(^{34}\) Numerous courts have recognized that candidate viability is relevant to an understanding of election dynamics. In *Garza*, for example, the district court gave little or no weight to the lack of majority support among minority voters for certain minority candidates as evidence of lack of minority cohesion, because it accepted expert witness testimony that these simply were not viable candidates. Indeed, the trial court regarded the substantial differences between minority and non-minority support for these essentially minor Hispanic candidates as indicative of a potential for minority cohesion were there to have been viable Hispanic candidates in the contest. As Judge Kenyon, the trial court judge in *Garza*, opined from the bench: "Viability sparks cohesion."

\(^{35}\) In *Thornburg*, Justice Brennan asserted: "[W]e have no occasion to consider whether the standards we apply to respondents' claim that multimember districts operate to dilute the vote of geographically cohesive minority groups that are large enough to constitute majorities in single-member districts and that are contained within the boundaries of the challenged multimember districts are fully pertinent to other sorts of vote dilution claims, such as a claim alleging that the splitting of a large and geographically cohesive minority between two or more multimember or single-member districts resulted in the dilution of the minority vote." 478 U.S. at 47 n.12.

the *Thornburg* liability test are considerable, especially when compared to its "totality of circumstances" predecessor.

First, while each of the elements of the *Thornburg* test may be subject to dispute among competing expert witnesses, based on electoral data, each element of that test can be related to objective indicators of the potential for and previous success of members of the minority group who are minority candidates of choice.

Second, as noted previously, each of the factors in the test is directly related to the definition of racial vote dilution offered in *Fortson v. Dorsey*,\(^{37}\) and repeated in subsequent cases, where the Court alluded to practices that "minimized or canceled out" the voting strength of racial (or political) groups. As noted above, for there to be a violation under *Thornburg* there (a) must be a group which is sufficiently politically cohesive in its voting patterns (in the relevant elections) so that it is sensible to talk about that group's voting strength being minimized or canceled out; (b) given this level of minority cohesion, the general lack of minority success must be attributable to the unwillingness of the majority to support minority candidates; and (c) there must be an alternative to the challenged practice judged against whose baseline fairer representation would have been possible. In marked contrast, a number of the factors in the "totality of circumstances" test bear only an indirect relationship to the concepts of vote dilution or submergence.\(^{38}\) Thus, we do not see the fact that the *Thornburg* test downplays the importance of some of the factors identified by the Senate Report and by previous court cases as a failing. As one of us wrote in 1985: "Given the nature of the definition of vote dilution in section 2 of the Voting Rights Act, it seems reasonable to look for factors which may impact the ability of a protected class to translate its voting strength into representation of its choice."\(^{39}\)

Third, the set of critical factors to be looked at under *Thornburg* is both *quite small and close-ended*, at least for cases involving the potential submergence of a (single) protected group's voting strength in an at-

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\(^{38}\) See Grofman, Migalski & Noviello, supra note 36, at 216-17.

\(^{39}\) Id. This is the central point made by Blacksher and Menefee in their 1982 Hastings Law Review article, *From Reynolds v. Sims to City of Mobile v. Bolden: Have the White Suburbs Commandeered the 15th Amendment*, 34 Hastings L.J. 1 (1982), an article that was extensively cited by Justice Brennan in *Thornburg*. With the advantage of hindsight, we prefer the Supreme Court's three-pronged test of vote dilution in situations involving at-large or multimember district elections to the two-pronged test offered in one of the present author's testimony in *Gingles*, and argued for by him in Grofman, Migalski & Noviello, supra note 36. That two-pronged test was identical with respect to the first two prongs of *Thornburg*, but omitted the third prong of *Thornburg*, usual minority loss.
large or multimember district plan in which the proposed remedy is a single-member district plan.

Fourth, unlike the totality of the circumstances test, the three-pronged Thornburg test provides a clearly specified set of conditions that ought to be sufficient to prove a voting rights violation, rather than a grab bag of factors whose exact relevance to a vote dilution claim is very much left to the vagaries of the trial court. As one of us wrote in 1985:

In the hands of intelligent and perceptive judges, the 'totality of circumstances' test leads to intelligent and perceptive decision making. Yet the test is fundamentally flawed because it fails to express a clear vision of what constitutes vote dilution, thus making it possible for identical facts to give rise to an almost equally plausibly reasoned opposed conclusion.40

With respect to the totality of the circumstances, the Report of the Senate Committee on the Judiciary on S. 1992 (1982) makes clear that there is no intent that any particular number of factors must be proved, nor that a majority of factors must point one way or another, and it warns against using the factors in a mechanical 'point-counting' fashion. The problem, of course, is that, in the 'totality of circumstances' test, identical factual conditions could, in principle, be interpreted in quite different ways by different judges. As one noted civil rights attorney characterized the old 'totality of circumstances' test, it was: "Throw mud against the wall. If enough of it sticks, you win."41 Some judges, however, may have teflon-coated walls.

Fifth, the three-pronged test sets standards for minority vote dilution that allow litigants to anticipate the probable outcome of any litigation. In particular, jurisdictions for which no single-member remedy42 is feasible, or those in which voting is not racially polarized, or those in which minorities regularly succeed despite the presence of patterns of racially polarized voting (at levels comparable to what might be expected from a fairly drawn single-member district plan), cannot be successfully challenged. This has meant that scores of jurisdictions now settle cases out of court once they review the relevant Thornburg factors, and that plaintiffs only select cases with a high probability of success. Indeed,

41 Frank Parker, personal communication, 1986.
42 Whether a liability threshold not based on single-member districts is appropriate remains a disputed question. See Karlan, Maps and Misreadings: The Role of Geographic Compactness in Racial Vote Dilution Litigation, 24 Harv. C.R.-C.L. L. Rev. 173, 202 (1989) and discussion below.
plaintiffs lose relatively few cases that they bring, with those few cases being on the cutting edge of voting rights case law, e.g., cases in jurisdictions with more than one covered minority such as *Romero* or *Badillo v. City of Stockton*.45

B. **Modifying the Thornburg Three-Pronged Test to Apply to Single-Member District Plans**

Because *Thornburg* dealt exclusively with submergence in an at-large or multimember district setting, it is impossible simply to take the three prongs of the *Thornburg* test as the test for a liability finding in the context of a claim of racial gerrymandering.45 There are several directions courts have pursued or might pursue in specifying a test for vote dilution in the single-member district context.

One approach would be to harken directly back to the factors identified in the Senate Report accompanying the 1982 extension of the Voting Rights Act. There are two key problems with this approach. First, the Senate Report itself is almost entirely oriented to dilution occurring in the at-large or multimember district context because that was the setting for the key vote dilution cases it relies upon, i.e., *White v. Regester* and *Zimmer v. McKeithen*. Second, and relatedly, the Senate Report factors are not always the most appropriate ones to use when one is looking at a single-member district plan, regardless of what we may think of their relevance in the at-large or multimember district context. Some of the seven factors identified in the Senate Report are of only tangential relevance in a single-member district setting (e.g., the presence of majority runoffs), and others (e.g., usual minority loss) need to be reinterpreted in terms of some appropriately defined baseline. In racial gerrymandering cases, factors not among the seven identified in the Senate Report (e.g., the presence of fragmentation or packing of minority population or voting strength, or deviation from standard districting criteria) have often been the central focus of legal inquiry.

A second approach, followed only in *Garza*, is to reduce the importance of the *Thornburg* factors in a situation where there has been a finding of intentional discrimination.46 In *Garza*, the Ninth Circuit

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43 883 F.2d 1418 (9th Cir. 1989).
45 See supra note 35.
46 The standard for proof of discriminatory intent used in *Garza* appears to take a somewhat different form than that used by the Supreme Court in *Rogers v. Lodge*, 458 U.S. 613 (1982). However, certiorari was denied. Whether the test for intentional discrimination
Court of Appeals held that, *once intentional discrimination had been found*, the *Thornburg* standards for group size and geographic concentration necessary for a liability claim did not apply, and it argued against a bright line test (such as a fifty percent minority citizen voting age population) in such a setting.47

The district court in *Garza* found that the county had adopted its current reapportionment plan at least in part with an intent to fragment the Hispanic population. The court noted that continued fragmentation of the Hispanic population had been the goal of each redistricting since 1959. Thus, the plaintiffs’ claim is not, as in *Gingles*, merely one alleging disparate impact of a seemingly neutral electoral scheme. Rather it is one in which the plaintiffs have made out a claim of intentional dilution of their voting strength.48

The county cited a number of cases in support of its argument that *Gingles* required the plaintiffs to demonstrate that they could have constituted a majority in a single-member district as of 1981. However, none dealt with evidence of intentional discrimination.49 To impose the requirement that the county urged would be to prevent any redress for districting deliberately designed to prevent minorities from electing representatives in future elections governed by that districting. This appears to us to be a result wholly contrary to both the intent of Congress in enacting section 2 of the Voting Rights Act, and to the equal protection principles in the fourteenth amendment.50

The *Garza* opinion went on to require that:

> [e]ven where there has been a showing of intentional discrimination, plaintiffs must show that they have been injured as a result. Although the showing of injury in cases involving discriminatory intent need not be as rigorous as in effects cases, some showing of

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47 918 F.2d at 769-70.
48 Id. at 769.
49 *Garza*, 918 F.2d at 771.
50 Id. The district court in *Garza* relied in part on a “functional” test of whether there existed an alternative configuration in which the minority group had a realistic potential to elect candidates of choice in the course of a decade. See *Garza v. County of Los Angeles*, 756 F. Supp. 1298, 1343-44 (C.D. Cal. 1990). It did not rely on the bright line test, requiring a district with fifty percent citizen voting-age majority that had been suggested by the Ninth Circuit Court of Appeals in *Romero*, 883 F.2d 1418 (9th Cir. 1989). Instead, in *Garza*, the Ninth Circuit majority asserted: “We hold that, to the extent that *Gingles* does require a majority showing, it does so only in a case where there has been no proof of intentional dilution of minority voting strength.” Id. at 769. Note the equivocation: “to the extent that.” Thus, the Ninth Circuit effectively managed to duck the question of whether the district court was correct in utilizing the “functional” approach.
injury must be made to assure that the district court can impose a meaningful remedy.\(^{51}\)

In a showing of liability in an intent case, absent direct evidence of intentional discrimination, factors not in the Senate list of seven, especially fragmentation (or packing) of minority population concentrations, will almost inevitably assume prominence as the means of proving intent.\(^{52}\) In Garza, the circuit court stated that "the supervisors' intentional splitting of the Hispanic core . . . violated both the Voting Rights Act and the Equal Protection Clause."\(^{53}\) This fragmentation is the heart of the finding. Indeed, the appellate decision in Garza does not even discuss any of the factors listed in the Senate Report, even racial polarization, despite the fact that defendants claimed that the district court was wrong as a matter of law in the evidence it accepted as proof of polarization.\(^{54}\)

A third approach to racial gerrymandering claims in single-member district plans, found so far only in decisions antedating Thornburg such as Ketchum v. Byrne,\(^{55}\) is to apply the non-retrogression test developed in section 5 jurisprudence to cases arising under section 2. Retrogression refers to diminution in minority opportunity from what it had been in an earlier plan.\(^{56}\) In this approach the presence of retrogression would be a sufficient but not a necessary condition for a section 2 violation. In Ketchum, for example, the court found that the minority population in certain districts had been reduced so that there were fewer districts in the 1981 redistricting with a substantial minority population than had been found in the districting of the previous decade—despite the fact that the black and Hispanic population percentages in Chicago had risen considerably.\(^{57}\)

\(^{51}\) Garza, 918 F.2d at 771.

\(^{52}\) Of course, as we later argue, these factors are also of importance in an effects-based liability showing as well as in the remedy phase of a case.

\(^{53}\) Garza, 918 F.2d at 771 (emphasis added).

\(^{54}\) We find it hard to believe that, even given intentional discrimination, a liability claim could be sustained in the absence of evidence of polarized voting. Given the need to demonstrate injury, and the existence of a provision in section 2 that there is no right to proportional representation, it would seem that something in addition to lack of proportional representation must be shown to establish injury. Racial bloc voting that results in the usual defeat of minority candidates (at least in districts that lack substantial minority populations) would seem to be a logical choice for one such factor.

\(^{55}\) 740 F.2d 1398 (7th Cir. 1984), cert. denied, 471 U.S. 1135 (1985).

\(^{56}\) However, changing demography would also be potentially relevant to a claim of retrogression, since a defense to such a charge might be that minority voting strength had significantly diminished in the interim.

\(^{57}\) Id.
Post-Thornburg, however, the legal status of this approach is in doubt. In Badillo, a federal district court rejected the claim that a retrogression test was applicable in a section 2 case. As noted previously, that case is presently (as of March 1992) on appeal.\textsuperscript{58} Of course, even if a non-retrogression test were to be adapted to section 2 litigation, it would resolve only a few of the racial gerrymandering claims that might be brought, since the continuation of an existing pattern of racial gerrymandering would be non-retrogressive even though it could still be held to violate section 2.

A fourth approach would be to look to the language of the Thornburg three-pronged test and see what modifications are needed in it to make it applicable to claims of racial gerrymandering (as opposed to claims of racial submergence). \textit{Thornburg} is the “pole star” of vote dilution case law,\textsuperscript{59} and any approach to racial gerrymandering should be one that is consistent with the approach to vote dilution taken in \textit{Thornburg}.

The \textit{Jeffers} court points the way toward this fourth approach when it asserts:

\begin{quote}
We agree that \textit{Thornburg} and \textit{Smith} cannot be automatically applied to the single-member context. Dilution may be much more obvious in a case like \textit{Smith}, where a potential majority of black voters was submerged in a two-member district. \textit{But the basic principle is the same. If lines are drawn that limit the number of majority-black single-member districts, and reasonably compact and contiguous majority-black districts could have been drawn, and if racial cohesiveness in voting is so great that, as a practical matter, black voters’ preferences for black candidates are frustrated by this system of apportionment, the outlines of a section 2 theory are made out}.\textsuperscript{60}
\end{quote}

The fourth type of approach is the one we would advocate. In the single-member district context, we would propose to modify the first

\textsuperscript{58} If a non-retrogression test were held to be applicable, plaintiffs would still have to show racially polarized voting patterns so as to demonstrate that districting choices affected their opportunity to elect candidates of choice. See Beer v. United States, 425 U.S. 130 (1976). Presumably, a finding of retrogression would satisfy the test that one could have created a district in which a minority group could have realistically been expected to elect a candidate of choice.


\textsuperscript{60} Id. at 205 (emphasis added). Judge Arnold’s majority opinion in \textit{Jeffers} asserts that the three elements of the \textit{Thornburg} test provide only the “essential predicate for a section 2 violation. But [they do] no more than that. We must now examine all of the other relevant factors and decide whether, on balance, a diminution of black political opportunity, in violation of section 2, has been shown.” Id. at 209 (emphasis added). A key difference between the approach we advocate here and the majority view in \textit{Jeffers} is that the \textit{Jeffers} court sees the three prongs of the \textit{Thornburg} test as necessary to but not sufficient for proof of a section 2 violation. In our view, these three factors, once appropriately adapted to the single-member district context, ought to be sufficient to prove a violation.
prong of the Thornburg three-pronged test as follows: as a prerequisite for liability, instead of the possibility of "at least one" district in which members of the minority group could comprise the effective majority of the electorate (or otherwise have some realistic potential to elect candidates of their choice),\(^{61}\) one would simply require the possibility of at least "one additional" district in which members of the minority group could comprise an effective majority of the electorate (or otherwise have some realistic potential to elect candidates of their choice) beyond what is provided in the challenged plan.\(^{62}\) This is exactly the tack taken by a number of district courts in section 2 challenges to single-member district plans arising in the Fourth Circuit. In particular, in White v. Daniel,\(^{63}\) the district court required plaintiffs to demonstrate that blacks could comprise effective majorities in three of the proposed districts, given that black officeholders were already representing two of the five

\(^{61}\) See our earlier argument that the first prong of the Thornburg test should be interpreted in functional terms rather than as a "bright line" test.

\(^{62}\) For example, there might be districts that were majority minority in population or even voting-age population, but only barely so. In such a case, a vote dilution claim based on fragmentation of minority population would allege that it was possible to have created a majority minority district in which the minority would have had a realistic potential to elect a candidate of its choice, rather than the existing district with only an "illusory appearance" of minority electability. This is the tack taken by the district court in Gingles with respect to the one single-member district that was challenged in that case (a district whose redrawn lines were not challenged on the appeal that led to Thornburg), and by many other courts (see, e.g., Ketchum, 740 F.2d at 1395, and discussion below of the so-called "sixty-five percent rule.") This is also a position that the U.S. Department of Justice has taken with respect to some districts in a number of its preclearance denials of state legislative or Congressional plans in the South (e.g., in its preclearance denial of the proposed plan for the South Carolina Senate in 1983—a denial that led to South Carolina v. United States, subsequently settled out of court).

Of course, minorities have no statutory or constitutional right to representation more than proportional to their numbers. For example, Judge Pells's concurring opinion in Indiana Branches of the NAACP v. Orr, 603 F. Supp. 1479 (S.D. Ind. 1984) (consolidated for trial with Bandemer v. Davis, but, unlike that case, not subsequently appealed) contains this language:

Defendants should not be faulted for designing a plan that should guarantee that two representatives will be elected from a black-majority district; if defendants had drawn even one more black-majority district, they would have enabled blacks to wield voting strength greater than their percentage within the community would suggest. Certainly, a court should not obligate legislators to overrepresent the voting strength of a particular minority within the community.

Orr, 603 F. Supp. at 1499 (emphasis added). See also Latino Political Action Comm. v. City of Boston, 784 F.2d 409 (1st Cir. 1986), in which a plan that provided essentially proportional representation was held, ipso facto, to be non-violative of the fourteenth amendment or the Voting Rights Act. On the other hand, of course, there may sometimes be situations in which the geographic dispersion of the various groups leads to something approximating a proportional share of the single-member districts as the only "equal treatment" remedy that can pass section 2 muster.

districts in the jurisdiction. The potential for an additional district demonstrates that a correctable injury occurred.

The second prong of the Thornburg test, minority political cohesion, would stay as-is. The third prong of the Thornburg test, lack of white/ Anglo support for minority candidates leading to "usual" minority loss, would remain essentially unchanged, but would need to be understood in terms of some appropriate baseline of success that could reasonably be anticipated under an alternative fairly-drawn districting configuration.

In situations where only racial effects and not racial intent are being alleged, there are a number of reasons to prefer the modified three-pronged test specified above to an approach based on some variant of the Senate Report's list of factors comprising the totality of circumstances. As we argued above, we believe that, both from the standpoint of social science and in terms of offering a coherent theory of submergence consistent with both the language of Fortson v. Dorsey and Congress's underlying aim in passing the modified language of

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65 However, we would emphasize that minority political cohesion could best be demonstrated in districts where minority voting strength was such that viable minority candidates had chosen to compete.
66 Here we act as if some reasonably drawn single-member plan is the basis for comparison. When minority population is dispersed, we would note that there may be semi-proportional schemes such as limited voting or cumulative voting that are likely to provide greater minority representation than any single-member district plan when voting is polarized along racial/ ethnic lines. Grofman, Alternatives to Single-Member Plurality Districts: Legal and Empirical Issues, in Representation and Redistricting Issues (1982); Still, Alternatives to Single-Member Districts: Minority Vote Dilution 249-67 (Grofman ed. 1984); Weaver, Semi-Proportional and Proportional Representation Systems in the United States, in Choosing an Electoral System 191-206 (Lijphart & Grofman 1984); Grofman, Criteria for Districting: A Social Science Perspective, 33 U.C.L.A. L. Rev. 77 (1985). The use of such voting methods as a baseline has so far been rejected by federal courts, see McGhee v. Granville County, 860 F.2d 110 (4th Cir. 1988), but such schemes have been adopted with some frequency in negotiated settlements to voting rights litigation. Still, Cumulative and Limited Voting in Alabama: The Aftermath of Dillard v. Crenshaw County, paper presented at the Annual Meeting of the Am. Political Science Ass'n, Washington, D.C. (1988); Engstrom & Barilleaux, Native Americans and Cumulative Voting: The Sisseton-Wahpeton Sioux, Soc. Sci. Q. (1992 forthcoming); Engstrom, Taebel & Cole, Cumulative Voting as a Remedy for Minority Vote Dilution: The Case of Alamagordo, New Mexico, 5 J. of L. & Pol. 469 (1989). See discussion below.
67 Moreover, unlike a non-retrogression test or an intent test, each of which is applicable only to a small portion of the potential racial gerrymandering challenges, the modified three-pronged effects test would be universally applicable.
section 2, the *Thornburg* three-pronged test scores far better marks than does the old "totality of circumstances" test. In like manner, an approach that begins with the three prongs of the *Thornburg* test and modifies them appropriately so as to fit the single-member district context can provide a comprehensive and integrated approach to an effects-based test of racial gerrymandering that is fully consistent with the view of vote dilution expressed by the Supreme Court in *Thornburg*, based on Justice Brennan’s functional operationalization of the concept of vote dilution laid down in *White v. Regester*.69

C. Influence Districts

*Thornburg* left open the question of whether minority groups not able to demonstrate a potential to elect candidates of their choice under an alternative configuration may nonetheless make out a showing of liability if they can demonstrate that their opportunity to influence election outcomes has been reduced.70 All but one of the courts that have looked at this question have concluded that to permit "influence" claims would be to embroil courts in an area where there are no clear standards and make it likely they would be overburdened with marginal cases.71

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70 "The claim we address in this opinion is one in which the plaintiffs alleged and attempted to prove that their ability to elect the representatives of their choice was impaired by the selection of a multimember [district] electoral structure. We have no occasion to consider whether section 2 permits, and if it does, what standards should pertain to, a claim brought by a minority group, that is not sufficiently large and compact to constitute a majority in a single-member district, alleging that the use of a multimember district impairs its ability to influence elections." *Thornburg*, 478 U.S. at 46-47 n.12 (emphasis in original).
71 For example, in McNeil v. Springfield Park Dist., 851 F.2d 937, 947 (7th Cir. 1989), the Seventh Circuit expressly rejected influence claims because the court "might be flooded by the most marginal section 2 claims if plaintiffs had to show only that an electoral practice or procedure weakened their ability to influence elections." However, in East Jefferson Coalition for Leadership and Dev. v. Parish of Jefferson, 691 F. Supp. 991 (E.D. La. 1988), 703 F. Supp. 28 (E.D. La. 1989), a court sanctioned a 45.9% black "influence" district created by a defendant jurisdiction in a situation where one of the plaintiffs' proposed alternatives was the creation of a district with a fifty-three percent black population majority (one district out of seven). The district court in *Jefferson Parish* asserted that the proposed black majority district was not compact and asserted that, in the circumstances, creating a black majority district was creating a right to proportional representation for minorities. However, the plan required preclearance and, after preclearance was denied, a majority black district was accepted as part of a remedial plan.

We might also note that the facts in *Jefferson Parish* are misstated in the initial and subsequently vacated Sixth Circuit opinion in *Armour*, 1990 U.S. App. Lexis 1468 at 20, where the court describes the plan that was adopted as having two districts with an over forty percent black population. There was only one district in the plan that could be so characterized.
In *Armour v. Ohio*\(^{72}\) the Sixth Circuit accepted an influence claim, but that decision was subsequently vacated, to be reheard en banc.\(^{73}\) The Sixth Circuit then remanded (on procedural grounds) to a three-judge district court for a de novo retrial.\(^{74}\) Two of the three judges hearing the case on remand accepted an influence claim.\(^{75}\) Because *Armour* is potentially a very important case, we have chosen to devote considerable attention to it. As the now-vacated Sixth Circuit opinion raises a number of interesting legal issues, we have chosen to begin our discussion of *Armour* with a discussion of that opinion even though it has been vacated and superseded by the ruling of the three-judge district court.

The vacated Sixth Circuit majority opinion in *Armour* favorably cites the argument of Karlan\(^{76}\) that "to the extent that courts have read *Gingles* to elevate the ability to create a district with a majority black electorate into a threshold requirement for establishing liability in all vote dilution litigation, they have improperly applied one particular theory of liability to other distinct types of vote dilution."\(^{77}\) However, Judge Hull's vacated majority opinion in *Armour* reaches a far more radical conclusion than does Karlan. Hull asserts that "minority plaintiffs are not entitled to have a plan which assures that they have a majority in any one district . . . ."\(^{78}\) This is throwing out the baby with the bathwater. It effectively denies minorities a right to meaningful redress of vote dilution. In a situation where a minority group could be given a district in which it had a realistic opportunity to elect candidates of choice, it will be required to settle for some type of influence, a concept hard to pin down.

The vacated *Armour* majority opinion also totally misunderstands Karlan's views. Karlan would certainly reject the claim that the creation of a majority black district is never an appropriate remedy for vote dilution. Indeed, in her view such a remedy would usually be desirable *where it is feasible*. Instead, Karlan wishes to take seriously Justice Brennan's refusal to rule out influence claims (see quote above). She also wishes to take seriously Justice Brennan's suggestion in *Thornburg* that,
where voting is polarized along racial lines, and the claim is a denial of an equal opportunity to elect candidates of choice, the test for injury is a functional test of whether an alternative plan exists in which minorities would have a realistic potential to elect candidates of choice. Where Karlan departs from many other commentators is in her view that, in such a functional test, the alternative plan under which the minority group would have a realistic opportunity to elect candidates of choice need not be a single-member district plan but can involve other election methods such as limited voting and cumulative voting.\(^{79}\)

Judge Hull's now-vacated opinion in *Armour* also goes wrong in its understanding of the probable consequences of districting schemes on minority representation. It argues that minority plaintiffs are not entitled to have a plan in which they have a majority in any one district, "because the Voting Rights Act specifically excludes the inclusion of an unqualified right to elect a number of representatives equal to its proportions of the population."\(^{80}\) There are three problems with this language.

First, the *Thornburg* three-pronged test does not provide an "unqualified" right to anything. Only for those minority groups that Congress has specifically designated for protection under the Voting Rights Act because of a history of past discrimination, only in jurisdictions characterized by minority political cohesion, only in jurisdictions where there has been "usual" minority loss that can be attributed to lack of support of minority candidates by non-minority voters, and only in situations where minority population is of a sufficient size and geographic concentration, can a section 2 voting rights effects claim successfully be put

\(^{79}\) In *Thornburg*, Justice Brennan asserts: "The single-member district is generally the appropriate standard against which to measure minority group potential to elect because it is the smallest political unit from which representatives are elected. Thus, if . . . the minority group is so small in relation to the surrounding white population that it could not constitute a majority in a single-member district, these minority voters cannot maintain that they would have been able to elect representatives of their choice. . . ." *Thornburg*, 478 U.S. at 50 n.17 (emphasis added). However, this reasoning does not work if we consider minority potential to elect under systems like limited voting or cumulative voting. Under such voting systems minorities may have a realistic potential to elect even though they are not geographically concentrated enough to form the majority in a single-member district. See Karlan, Maps and Mistradings: The Role of Geographic Compactness in Racial Vote Dilution Litigation, 24 Harv. C.R.-C.L. L. Rev. 175, 202 (1989); cf. Grofman, A Review of Macro-Election Systems, 4 German Pol. Y.B. 305-352 (1975); Grofman, Fair Apportionment and the Banzhaf Index, 88 Am. Math. Monthly 1-5 (1981); Grofman, Criteria For Districting: A Social Science Perspective, 33 U.C.L.A. L. Rev. 77 (1985); Weaver, Semi-Proportional and Proportional Representation Systems in the United States, 191-206 (1984) and see discussion below.

\(^{80}\) *Armour*, 1990 U.S. App. LEXIS 1468, at *23 (internal citation omitted).
forth. The proper way to read this language in section 2 about proportional representation is as a denial of the claim that mere lack of proportional representation, standing alone, establishes a section 2 violation.

Second, as Justice Brennan makes clear in his opinion in Thornburg, in a single-member district system, the success of minority candidates in situations characterized by racial bloc voting is contingent on the geographic dispersion of the minority community. Justice Brennan approvingly quotes Blacksher and Menefee as follows: "If minority voters' residences are substantially integrated throughout the jurisdiction, the at-large district cannot be blamed for the defeat of minority supported candidates. . . . [The standard] thus would only protect racial minority votes from diminution caused by the districting plan; it would not assure racial minorities proportional representation." This argument applies equally well when we consider alternative single-member district plans. In general, single-member districts simply do not provide proportional representation.

Third, and most importantly, the statement is wrong as a matter of law. As the Ninth Circuit stated in Garza: "The deliberate construction of minority controlled districts is exactly what the Voting Rights Act authorizes. Such districting, whether worked by a court or by a political entity in the first instance, does not violate the Constitution."

We believe that if the views of the now-vacated Sixth Circuit majority opinion in Armour were to be accepted by the United States Supreme Court, minorities might be harmed more than helped because language in the earlier opinion invites claims that minorities would be "better off" with their population dispersed. Until Thornburg clarified the standards for section 2, it was not uncommon for defendant jurisdictions to

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81 At least as long as a single-member district plan is regarded as the only remedy that can be court-ordered.
82 Thornburg, 478 U.S. at 50-51.
84 Thornburg, 478 U.S. at 51 n.17 (emphasis in original).
86 Garza, 918 F.2d at 776. The Ninth Circuit majority in Garza responded to the defendant jurisdiction's claim that, by deliberately creating a district with a Hispanic majority, the district court engaged in unconstitutional discrimination in favor of a minority, by noting that there was no evidence in the record to support the claim that the redistricting plan adopted "dilutes the voting strength of the [majority] community." Id.
argue that an existing at-large plan provided minorities with influence that would be lost were they to be concentrated in majority minority districts. Our view is that such protestations ring hollow. If minorities have no opportunity to elect one of their own because of white voting patterns, and they would be apt to do so if given the choice, then it is paternalistic to say that minorities should be content with their supposed opportunity to influence elections of white representatives rather than be given the opportunity to elect candidates of their own choice.\textsuperscript{87}

We are also concerned that the concept of influence is so murky. We are sympathetic to the claim advanced by the dissenting judge in the vacated Sixth Circuit decision in \textit{Armour} that "[u]nder the type of influence claim asserted here, the court is sailing a chartless sea."\textsuperscript{88} Attempts by social scientists to define "pivotal" voting power in a realistic fashion are problematic\textsuperscript{89} and mathematically derived "power" indices have been rejected by federal courts.\textsuperscript{90} Moreover, as the dissenting judge in the vacated \textit{Armour} decision pointed out, if one claims that an increase in the number of black voters in a district will \textit{ipso facto} increase their influence, then one must confront the fact that, by logical extension, it would appear that the influence of black voters in the districts from which these black voters were removed "must" have been reduced.\textsuperscript{91} Where there are "electability" claims at issue we have a natural threshold for which to look. Absent such a threshold, how do we decide, say, whether shifting blacks from one district to another increases or decreases black influence?\textsuperscript{92}

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87 The three judge panel in \textit{Gingles} took the position that Congress had rejected the argument that the potential for influence over white representatives could outweigh the reality of a district in which the minority group could elect a candidate of choice.


92 Absent a clear identification of a wrong to be remedied, such as the failure to create a district in which the minority group is a majority (or has a realistic potential to elect candidates of choice), it is hard to be clear as to how to provide equal influence. If the minority group is not large enough to form a majority minority district, we could nonetheless simply try to create a district with as high a minority population as possible. This would be appropriate if such a district were one in which the minority would have a realistic potential to elect a candidate of choice over the course of a decade. But what if even this is unattainable? What if the best we can do is to create a thirty percent minority district in which minority candidates have no realistic chance to be elected? The problem is that it is very hard to know whether dividing minority population, say thirty-ten, is better or worse from the standpoint of
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On the other hand, we agree with the Ninth Circuit opinion in Garza that, whatever might be the proper interpretation of the first prong of the Thornburg test in a situation where there has been no purposeful discrimination, if intentional vote discrimination has been demonstrated, minorities need no longer demonstrate that a fifty percent voting age (or citizen voting age) minority district can be created in order for there to be a liability finding. Thus, even if majority minority seats cannot be created, if intentional gerrymandering has been demonstrated, it would seem sensible not so much to look at influence per se, but rather, following Garza, to define cognizable injury in terms of a fragmentation of minority population concentrations that could be remedied.

An interesting feature of the majority opinion of Armour on remand is that it not only addressed the question of an influence claim (by asserting that, when racial gerrymandering was the issue, a government may not “with impunity divide a politically cohesive, geographically compact minority population between two single-member districts in which the minority vote will be consistently minimized by white bloc voting merely because the minority population does not exceed a single district’s population divided by two”93), but it also decided the case on constitutional grounds as one involving an intentional gerrymander whose effects could be remedied by undoing the fragmentation that had been caused by unnecessarily dividing the (overwhelmingly white) population of Boardman Township between two districts and fragmenting the black population concentration in the City of Youngstown. The Court stated: “[F]rom this evidence, we find that the line dividing Youngstown between district 52 and 53, when it was originally drawn in 1971 and when it was left in place in 1981, was intended to split the

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influence than dividing it twenty-twenty. What if the best we can do is to create a twenty percent minority district? Is twenty ten better than fifteen fifteen?

We do not wish to suggest that, in the light of a case-specific and fact-intense appraisal in a particular jurisdiction, such questions can never be answered; we do wish to suggest that these are hard questions for either courts or social scientists to come to grips with. If, however, we shift from concern about “influence” to a concern about “expected” minority electoral success in contexts where there is only a low probability that a minority member will be elected from the districts at issue, it is in principle possible to estimate the expected number of minority candidates that will be elected, although the techniques to do so are not yet well developed. See Grofman, Griffin, & Glazer, The Effects of Black Population on Electing Liberals and Democrats to the House of Representatives (1992 forthcoming); cf. Cain, Assessing the Partisan Effects of Redistricting, 79 Am. Pol. Sci. Rev. 265 (1985), which deals with partisan minorities.

93 Armour, 775 F. Supp. at 1052.
black community in order to dilute the potential effectiveness of the black vote to the obvious benefit of the incumbents.\footnote{Id. at 1061. Judge Batchelder, in her dissenting opinion in the case, finds the evidence of intent unpersuasive. Id. at 1070-90. However, we believe that she misinterprets the case facts in Garza (see her discussion at 1070-71). In Garza, as in this case, a boundary line was left in place in such a fashion that a contiguous, politically cohesive minority population was fragmented in 1981 even though that population was not as large or as clearly contiguous in earlier decades. The role of incumbents in influencing the 1981 districting process in Ohio was quite clear. As we read the evidence in Armour, as noted above, we do not find the claim that an existing line was left untouched to be a compelling defense against an intent argument, since leaving the line in place had clearly foreseeable consequences: it benefitted the white incumbent in the district with greatest black population concentration by reducing the potential for a viable minority challenger, through the fragmentation of a contiguous black population in Youngstown, and the unnecessary (and illegal) division of a white population concentration in a neighboring township between the two districts. If a woodsman’s axe injures a person, it is not a defense to say that he is chopping in the same place he always has, and ten years ago the person was not standing there.}

Despite our general skepticism about influence claims, we find the majority opinion in the remand of Armour persuasive because there simply is no justification for dividing the black and white populations between the two legislative districts in the way that it was done except to protect white incumbents. Indeed, as the majority opinion points out, “the districts drawn in 1981 violate the express command in the Ohio Constitution that only one governmental unit be divided between two districts.”\footnote{Id. at 1052.} In addition, the evidence shows racially polarized voting patterns and previous evidence of \textit{de facto} discrimination, lingering effects of past discrimination, and even evidence that white officeholders elected from Districts 52 and 53 were unresponsive to black concerns.\footnote{See id. at 1048-63.}

We must however, sound one note of caution. The majority opinion is confusing because at one point it asserts that all that needs to be shown for a violation of the Voting Rights Act is the splitting “of a politically cohesive, geographically compact minority population between two single-member districts in which the minority vote will be consistently minimized by white bloc voting,”\footnote{Id. at 1059. The majority opinion then goes on to say: “We believe that they can. In a reconfigured district, plaintiffs will constitute nearly one-third of the voting age population and about half of the usual Democratic vote. Therefore the Democratic candidates will be forced to be sensitive to the minority population by virtue of that population’s size. Moreover, in a district composed only of Youngstown and Campbell, candidates and} while at another point in the opinion it suggests that what must be shown is "not whether the plaintiffs can elect a black candidate but whether they can elect a candidate of their choice,”\footnote{Id. at 1059.} which would bring us to a peculiar form of
electability test\textsuperscript{99} rather than an influence test or an unnecessary fragmentation test.

Because the new majority opinion in \textit{Armour} rests on two different grounds, effect and intent, and because the intent argument is compelling, we see no reason for the Supreme Court to even address the influence claim, per se. Rather, the case can be sustained under the Ninth Circuit’s \textit{Garza} test for intentional discrimination, discussed above. If the Supreme Court were to address the influence claim, we believe that the most sensible way for it to do so would be in terms of the proposed test for fragmentation “of a politically cohesive, geographically compact minority population between two single member districts in which the minority vote will be consistently minimized by white bloc voting,”\textsuperscript{100} rather than in terms of an attempt to define precisely the notion of influence. This fragmentation approach not only avoids the murkiness of the influence concept and the question of the legal relevance of whether blacks could have elected \textit{white} (but not black) candidates of their choice in a reconfigured district, it also avoids any notion that, \textit{absent an electability claim}, the Voting Rights Act requires that \textit{small} and \textit{discontiguous} minority population pockets \textit{must} be combined regardless of what the district configuration will look like or how many cities or counties will be split.

\textbf{D. A Realistic Potential to Elect a Candidate of Choice}

In the context of a single-member district plan, it is important to recognize the difference between a “safe seat,” (i.e., a district in which a united minority community possesses sufficient voting strength to be able to elect its preferred candidate with certainty or near certainty), a district in which a minority candidate has a realistic chance to contest

\textsuperscript{99} As we discuss elsewhere in this paper, the fact that blacks can elect the candidate of their choice as long as that candidate is white, does not mean that they have an equal opportunity to elect candidates of choice. This point is not properly understood in Judge Batchelder’s dissenting opinion in \textit{Armour}. Id. at 1070-90.

\textsuperscript{100} \textit{Armour}, 775 F. Supp. at 1052.
successfully the next election, and a district in which a minority candidate has a realistic chance to be elected at some time over the course of a decade.\textsuperscript{101} If the claim is an electability claim rather than an influence claim, and if intentional discrimination has not been shown, we believe that the appropriate interpretation of the first prong of \textit{Thornburg} is the last, i.e., a realistic potential of minority election success \textit{over the course of a decade}. This was essentially the position taken by the trial court in \textit{Garza}.\textsuperscript{102}

Thus, we do not believe that a simple bright line test such as fifty percent minority voting age population or fifty percent minority citizen voting age population is appropriate, because it prevents courts from looking at the case-specific circumstances in which a minority group's preferred candidate might be able to gain election even though the minority group does not make up a majority of the voters (or even a majority of the potential voters) in the district. For example, present data from congressional elections shows that, at least if there are Hispanic voters present in significant numbers, it may be possible for black candidates to win a congressional seat in jurisdictions in which blacks make up the majority of the electorate in a Democratic primary but not a majority of the electorate in the general elections.\textsuperscript{103} We recognize,

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\textsuperscript{101} A relatively low probability of success in any single election may still translate into a realistic probability of being elected over the course of a decade. For example, if elections took place every four years, and we assume two elections, in each of which the minority candidate had only a 0.4 probability of success (0.6 probability of failure) then (if we assume independence) the probability that a minority candidate will prevail sometime over the course of a decade is 0.64 ($= 1 - (0.6)^2$). Of course, the independence assumption may be inappropriate in that it fails to take into account the advantages of incumbency.

\textsuperscript{102} Of course, we are not arguing that any hypothetically remote potential of minority success would be adequate to satisfy the first prong of the \textit{Thornburg} test. In \textit{Garza}, the proof of electability accepted by the district court included a wide range of evidence, e.g., evidence that a district with over sixty-five percent Hispanic population could have been drawn (even though that district did not, as of 1981, contain a Hispanic citizen voting-age majority), evidence that this district would have had a Hispanic registration percentage in excess of forty percent even as early as 1981 and, at the time of trial, would have contained a Hispanic registration majority, and evidence that districts in partisan contests within the County of Los Angeles elected Hispanic candidates with near certainty once they were above forty percent Hispanic in registration. Also, and perhaps most importantly, it was generally conceded that Los Angeles County officials anticipated significant Hispanic population growth over the course of the decade of the 1980s. Moreover, in the \textit{Garza} case, the County of Los Angeles had prepared intra-censal population estimates and projections which supported the existence of continuing Hispanic growth, especially in the Hispanic core area in which the proposed Hispanic majority district was to have been located.

\textsuperscript{103} Grofman & Handley, Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s, 17 Am. Pol. Q. 436 (1989). The presence of Hispanics, who are usually strong Democrats (except in Florida), contributes to crossover voting for the black Democratic candidate by non-black Democrats in the general election,
however, that interpreting the first prong of the Thornburg test is an issue about which courts subsequent to Thornburg have been divided.

E. Liability Phase Versus Remedy Phase

The discussion above deals with standards to determine legal liability. But what is an appropriate remedy if a voting rights violation is found? The liability and the remedy phase of a trial involve distinct legal standards. In particular, a district with minority population sufficient to meet the Thornburg liability threshold may not constitute an appropriate remedy because its minority population is lower than would be appropriate given the totality of the circumstances.\(^\text{104}\) Moreover, even if the district is adequately populated, it may be otherwise flawed.\(^\text{105}\)

There are two generally accepted principles that apply to the remedy phase. First, the remedial plan must fully remedy whatever has been found to be the nature of the violation.\(^\text{106}\) Second, while considerable

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\(^\text{104}\) "Section 2 is not restricted to numerical minorities but is violated whenever the voting strength of a traditionally disadvantaged racial group is diluted. ‘[H]istorically disadvantaged minorities require more than a simple majority in a voting district in order to have . . . a practical opportunity to elect candidates of their choice.’" Whitfield v. Democratic Party of Arkansas, 890 F.2d 1423, 1428 (8th Cir. 1989), citing Smith v. Clinton, 687 F. Supp 1361, 1362 (E.D. Ark.), aff’d mem., 488 U.S. 988 (1988). Of course, as we suggested above, while it is generally true that minorities require more than a simple population majority in order to have a realistic potential to elect candidates of choice, there may be very special situations in which this is not true.

\(^\text{105}\) For example, in the remedy phase of Garza, Judge Kenyon, in rejecting a remedy plan with a seventy-four percent Hispanic population and a near majority Hispanic registration, accepted expert witness testimony that indicated that the district had been grossly gerrymandered to include the home of a non-minority incumbent who had already raised a nearly one million dollar war chest, even though there was an open seat in which a greater number of Hispanic voters resided that, given the geography, would have been the obvious district to convert into a Hispanic majority district. Moreover, the district court found that the bizarre lines of the county’s proposed remedy district were drawn so as to fragment the Hispanic core population as well as Hispanic-majority cities located in the core, despite the fact that the core population alone was more than large enough to create a district that was overwhelmingly Hispanic in population and majority Hispanic in registration. In particular, the court found that the district unnecessarily extruded into the San Fernando Valley, a long distance from the east Los Angeles and San Gabriel Valley Hispanic core. These arguments were also accepted by the Eleventh Circuit majority in its affirman of Judge Kenyon’s opinion.

\(^\text{106}\) See, e.g., Whitfield, 890 F.2d at 1432. Courts have generally defined dilution relative to a fairly drawn single-member district plan that does not fragment or pack minority population concentrations. Especially when minority population is dispersed, there may be alternative remedies (e.g., limited voting or cumulative voting, see, McGhee, 860 F.2d at 110 and discussion below) that would increase expected minority representation over what could be expected under any single-member district plan.
deference should be given to the local jurisdiction's proposed remedy plan, that deference is owed only to the extent that it is consistent with the first principle.\textsuperscript{107} It is important to recognize the qualified nature of the legal deference to be paid to the jurisdiction's remedial plan, since it is relatively rare that plaintiffs and defendants agree on a remedy.

In the remainder of this essay we focus on five questions for which social science testimony can be expected to be critical in aiding courts to reach conclusions about alleged racial gerrymandering in the single-member district context and appropriate single-member district remedies for minority vote dilution:\textsuperscript{108} (1) In looking at whether there is a voting rights violation, or in evaluating proposed remedial plans, how do we tell in how many districts minorities possess what some courts have referred to as "effective majorities," i.e., a probable majority of the actual electorate? (2) In looking at whether there is a voting rights violation, or in evaluating proposed remedial plans, how do we determine when a group has, overall, been provided an equal opportunity to participate in the political process and to elect candidates of choice? Also, more narrowly, what is the relationship between effective voting majorities and equal opportunity to elect candidates of choice? (3) On what type of data are findings about an appropriate remedy to be based? In particular, in jurisdictions with a high proportion of non-citizens, how is the equal population standard to be interpreted? And what is the role of population estimates or projections? (4) In looking at proposed remedial plans, of what importance are criteria such as equipopulous districts, compactness, or respect for city or county boundaries? (5) If there is a finding of intentional discrimination, what implications does this have for the nature of an appropriate remedy?

\textsuperscript{107} See, e.g., \textit{Garza}, 918 F.2d at 776.

\textsuperscript{108} In a number of jurisdictions (especially in Texas, see Brischetto, Richards, Grofman & Davidson, \textit{The Effects of the Voting Rights Act on Minority Representation in Texas Cities}, presented at the NSF Conference on Voting Rights Act and Minority Representation, Rice Univ. (1990)), remedy plans accepted by the courts have been "mixed" plans, i.e., plans containing both single-member districts and some number of at-large or multimember seats. Courts have held repeatedly that at-large or multimember districts are not per se unconstitutional, see, e.g., \textit{Zimmer} v. \textit{McKeithen}, 485 F.2d 1297, 1304 (5th Cir. 1973), and this is the view taken by the Senate Committee on the Judiciary in its Report on the 1982 extension of the Voting Rights Act. In several instances, mixed plans have come under attack as violative of the Voting Rights Act. See, e.g., \textit{Williams} v. \textit{City of Dallas}, 734 F. Supp. 1317 (N.D. Tex. 1990) (on appeal as to remedy as of March 1992). In our view, evaluating mixed plans is very similar to evaluating pure single-member district plans, in that it requires us to look comparatively at the potential for minority success in other feasible plans (see discussion below). We shall not attempt to deal with mixed plans separately from our analysis of single-member district plans.
II. **Applying Social Science Methodology in the Single-Member District Context**

A. **Effective Minority Voting Equality**

In the context of providing a full and effective remedy for vote dilution that has been found to be present, we begin with a district-specific analysis. In the liability phase we wish to know whether the group has a realistic potential to elect one or more (additional) candidates of choice (over the course of a decade) under an alternative plan, and we may take a fifty percent voting age share district as presumptive evidence (albeit not the only possible evidence) of such a potential. In contrast, in the remedy phase, we are concerned with whether the plan provides minorities an equal opportunity to elect candidates of choice. But before we can define "equal" opportunity in a plan, which requires us to compare both across groups and across districts, we must understand what it means to talk about a given group having a realistic opportunity to elect a candidate of its choice in a given district. Only after we have conducted a district-specific analysis are we then in a position to begin evaluating the overall fairness of a plan, i.e., whether or not it provides minorities an "equal opportunity to participate in the political process and to elect candidates of choice."\(^{109}\)

In conducting our analyses we must be attentive (a) to differential levels of minority and non-minority eligibility, registration, and turnout, and, perhaps even more importantly, (b) to a realistic appraisal of the totality of local political circumstances, such as campaign finance, incumbency advantage, level of white crossover, etc. Courts have tried to avoid both the Scylla of insufficient minority population and the Charybdis of districts in which minority voting strength has been "packed" in a dilutive fashion. The important role played by social science testimony has been helping courts to navigate these tricky waters.

1. **Citizenship, Voting-Age Population, Registration and Turnout**

Clearly, if a greater proportion of minority population is non-citizen than is true for the non-minority population, even if the minority population in a district and the non-minority population in a district are equal in size, the non-minority group will have a higher proportion of potentially eligible voters. But even if we focus on citizens, if a greater proportion of the minority voting-age population is comprised of non-

citizens than is true for the non-minority voting-age population, it will require more than a fifty percent minority citizen population to translate into a fifty percent eligibility rate. Moreover, even if we focus on voting-age citizens, there are usually lower levels of registration among the pool of minority eligibles than among non-minority eligibles; and even when we control for registration, there may well be lower levels of turnout among minority than among non-minority registrants.\textsuperscript{110} A useful number to calculate is the proportion required for what has been called "effective minority voting equality," i.e., a minority population share large enough to translate into a bare majority of voters on election day given relative rates of minority and non-minority turnout.\textsuperscript{111} This has also been called the proportion required for an "effective majority."

Expert witnesses who have testified about the minority population proportion needed for "effective minority voting equality" in a district have looked at four key ratios: (a) $R_1$, the proportion of non-citizens among the minority population versus the same proportion among the non-minority population; (b) $R_2$, the comparison of minority eligible voting-age population with non-minority eligible voting-age population; (c) $R_3$, the proportion of eligible voting-age, non-citizen minorities who register to vote, as compared to the proportion of eligible voting-age, non-citizen non-minorities who register; and (d) $R_4$, the proportion of registered minority members who actually vote, as compared to the percentage of registered non-minority members who actually vote.\textsuperscript{112}

\textsuperscript{110} In Ketchum v. Byrne, 740 F.2d 1398 (7th Cir. 1984), cert. denied, 471 U.S. 1135 (1985), the Seventh Circuit asserted that just as minority groups have a younger-than-average population, they also generally have lower voter registration and turn out characteristics. This is not something which can be fully rectified by good motivation and organization, although the existence of these certainly helps. Some of the problems, at least, spring from circumstances of low income, low economic status, high unemployment, poor education, and high mobility. Id. at 1413-14.


\textsuperscript{112} A formalization of the basic ideas underlying calculations of effective minority voting equality is laid out in Grofman, Report to the Special Master on Methodology Used to Insure Compliance With Standards of the Voting Rights Act of 1865, Flateau v. Anderson, 537 F. Supp. 257 (S.D.N.Y. 1982); further clarified in Brace, Grofman, Handley & Niemi, Minority Voting Equality: The 65 Percent Rule in Theory and Practice, 10 Law & Pol'y 43 (1988), and reviewed below.
2. Operationalizing The Four Factors of Effective Minority Voting Equality

The algebraic model described in Brace, Grofman, Handley & Niemi, *Minority Voting Equality: The 65 Percent Rule in Theory and Practice*,\(^{115}\) is based on the same underlying ideas as Dr. James Loewen's expert witness testimony in *Kirksey v. Board of Supervisors of Hind County*, on effective voting equality.\(^{114}\) That testimony was accepted by the *Kirksey* court,\(^{115}\) and became the basis for much of the subsequent discussion by courts and expert witnesses on effective voting equality. Using this algebraic model, we illustrate below how to calculate the total minority population needed for a majority of citizens to be minority members. Analogous calculations apply for each of the other steps in the process of calculating the population percentage needed to produce a district that is fifty percent minority in turnout: the ones involving voting-age population, registration, and, finally, turnout itself.

Let us consider a simple example. If ten percent of the minority population is non-citizen but only one percent of the non-minority population is non-citizen, then if the population in a district is fifty percent minority and fifty percent non-minority, the non-minority groups will constitute, in actuality, 52.38% of the potentially eligible voters; i.e.,

\[
.5(1-.01)/ (.5(1-.01) + .5(1-.10)) \times 100\% = 52.38\%.
\]

Another way to see this is to recognize that in the case described above, the total non-citizen minority population will be 45% ( = 50% − .1 × 50%), while the total non-citizen non-minority population will be 49% ( = 50% − .01 × 50%). Whites will thus have 53.28% of the eligible voting population:

\[
= 49.5 / (49.5 + 45) \times 100\%.
\]

Hence, if we wish to equalize non-minority and minority eligible voting power, we would have to create a constituency with 52.38% minorities and 47.62% non-minorities in it, since in that case non-minorities would have 47.14% (= 47.62% x .99) of the total constituency population as their potentially eligible voters, and minorities also would have

\(^{115}\) Id.


\(^{115}\) Id. at 668-69.
47.14% (= 52.38% x .90) of the total constituency population as their potentially eligible voters.\textsuperscript{116}

The four component ratios can be estimated separately,\textsuperscript{117} thus allowing us to assign separate values to the effects of voting age, citizenship, registration, and turnout.\textsuperscript{118} \textit{More commonly, we will simply wish to look at the bottom line}, i.e., the ratio of minority turnout to minority population as compared to the ratio of non-minority turnout to non-minority population, which we may denote \( R_{1234} \).\textsuperscript{119}

If we have precincts for which we have census data on minority and non-minority population, the latter ratio can be approximated by comparing turnout percentages in homogeneous minority and non-minority areas. Otherwise, it is likely that we can estimate this ratio using two-equation ecological regression of the sort that was used by one of the present authors to determine racial bloc voting patterns in \textit{Gingles}.\textsuperscript{120}

\textsuperscript{116} Yet another way of seeing this is in terms of the ratio of non-minority non-citizen population percentage to minority non-citizen population percentage. Ninety-nine percent of the non-minority are citizens, and only ninety percent of the minority are citizens; hence, one non-minority is equal in effective eligible voting strength to 1.1 minority members, i.e.,

\[
(1-.01)/(1-.10),
\]

since minority potential voters must be discounted more because the minority population contains a higher proportion of non-citizens. We may reexpress this ratio as

\[
\text{non-M/ M} = .99/.90 = 1.1.
\]

Denote by \( R \) the ratio \( \text{non-M/ M} \) (= 1.1 in our example). If we wish to find the size of the minority population which will equalize the “effective (eligible) voting strength” of the two groups, then we can show that the desired minority population needed to give rise to a fifty percent minority citizenship share is \( R/(R + 1) \)

\[
= 1.1/2.1 = 52.38,
\]

as previously given.

\textsuperscript{117} See Brace, Grofman, Handley & Niemi, Minority Voting Equality: The 65 Percent Rule in Theory and Practice, 10 Law & Pol'y 43 (1988), for examples drawn from New York data.

\textsuperscript{118} For blacks currently, \( R_z \) (i.e., differences in voting-age population) is the ratio likely to be of greatest significance in performing calculations of effective voting inequality; while for Hispanics (other than, of course, Puerto Ricans), it is \( R_t \) (i.e., differences in citizenship levels) that is almost certain to be the most important of the four ratios.

\textsuperscript{119} Note that \( R_{1234} = R_1 \times R_2 \times R_3 \times R_4 \) since when we multiply these multiplicands, the numerator and denominator of adjacent terms will cancel out. It is useful to appreciate the fact that, since \( R_{1234} \) is a product, it is possible to obtain high values of it (e.g., values near 3) if any of its multiplicands are high or if most or all of its multiplicands are somewhat high. For example, if \( R_1 = R_2 = R_3 = R_4 = 1.31 \), then \( R_{1234} = 3 \), which corresponds to a minority \textit{population} proportion of 80-plus percent needed to produce a fifty percent level of minority \textit{turnout}. Similarly, if \( R_t = 1.73 \), but \( R_1 = R_2 = R_3 = 1.2 \) once again \( R_{1234} = 3 \).

3. The So-Called Sixty-Five Percent Rule

Some of the earliest of the cases dealing with realistic potential to elect, e.g., the aforementioned Kirksey and UJO,\textsuperscript{121} proposed a sixty-five percent minority population as the basis for an “effective majority,” i.e., effective minority voting equality. The so-called “sixty-five percent rule” has been claimed both to have the support of the Justice Department and to have been given the imprimatur of the U.S. Supreme Court in UJO. Both claims are wrong. Neither Kirksey nor UJO stand for the proposition that the sixty-five percent rule is appropriate for all times and all jurisdictions.

In Kirksey, the district court opinion makes it clear that the expert witness in that case, Dr. James Loewen, was relying on the sixty-five percent figure for a very specific analysis of the data for the Mississippi county whose election practices were being challenged,\textsuperscript{122} while the sixty-five percent test used in UJO for certain legislative districts in Brooklyn could best be characterized as a “rule of thumb” that rested on shaky empirical grounds.\textsuperscript{123}

Senior officials in the Voting Rights section of the Justice Department have repeatedly made clear that the Department does not regard the sixty-five percent figure as having any special significance—rather, each case is to be investigated in terms of its own unique facts.\textsuperscript{124} Nonetheless, a mischaracterization of the Justice Department’s views appears even in some of the most recent work on redistricting.\textsuperscript{125}

Through repetition (and misreading of the early cases) errors about the legal and social science status of the sixty-five percent rule had, by the late 1970s, become enshrined in court lore and were even perpetuated by some expert witnesses. For example, in Mississippi v. United

\textsuperscript{121} Kirksey, 430 U.S. 144 (1977); UJO, 430 U.S. at 162.

\textsuperscript{122} This interpretation of the testimony in Kirksey is shared by Dr. Loewen, personal communication, 1987; see also discussion of Kirksey in Brace, Grofman, Handley & Niemi, Minority Voting Equality: The 65 Percent Rule in Theory and Practice, 10 Law & Pol’y 43 (1988).

\textsuperscript{123} UJO, 430 U.S. at 164. The Court stated that sixty-five percent is a “reasonable” conclusion, not a scientific fact. Legend has it (at least as told to one of us by an attorney who worked on UJO for minority plaintiffs) that someone in the Justice Department took fifty percent and added five percent to compensate for the higher proportion of Hispanic noncitizens, five percent for lower Hispanic registration, and five percent for lower Hispanic turnout.

\textsuperscript{124} Paul Hancock, personal communication, 1987; Gerald Hebert, personal communication, 1989.

States, it was stated that "[i]t has been generally conceded that, barring exceptional circumstances such as two white candidates splitting the vote, a district should contain a black population of at least sixty-five percent or a black VAP [voting-age population] of at least sixty percent to provide black voters with an opportunity to elect a candidate of their choice." Similarly, in Ketchum, the Seventh Circuit stated: "A guideline of sixty-five percent of total population has been adopted and maintained for years by the Department of Justice and by reapportionment experts and has been specifically approved by the Supreme Court in circumstances comparable to those before us as representing the proportion of minority population reasonably required to ensure minorities a fair opportunity to elect a candidate of their choice." Also, the district court in Gingles, even though it specifically refused to attempt to "define the exact population level at which blacks would constitute an effective (non-diluted) voting majority, either generally or in this area," nonetheless went on to say: "Defendant's expert witness testified that a general 'rule of thumb' for insuring an effective voting majority is 65%. This is the percentage used as a 'benchmark' by the Justice Department in administering section 5."

Quite simply, however, there is nothing special about the sixty-five percent figure: it is sometimes too high and sometimes too low as an estimate of what is needed for effective minority voting equality. A number of recent courts have recognized that fact. For example, in Martin v. Mabus, the court found a sixty percent figure appropriate for Mississippi judicial elections.

4. A Searching Appraisal of Local Political Reality

Even if we create a district in which it is estimated that half of the actual voters will be minority members, it is not clear that we have

127 Id. at 575.
128 Ketchum, 740 F.2d at 1415.
130 Id.
131 This point is demonstrated by the data compiled in Brace, Grofman, Handley & Niemi, Minority Voting Equality: The 65 Percent Rule in Theory and Practice, 10 Law & Pol'y 43 (1988), drawn from four cities over a fifteen year period.
133 Martin, 700 F. Supp. at 333. In Garza, the district court recognized that, because of lower proportions of voting-age citizens among Hispanics than among non-Hispanics, even a sixty-five percent Hispanic population might not be sufficient to provide an "effective Hispanic majority" district, although it might give rise to a district where Hispanics had a realistic potential to elect a candidate of choice.
effectively equalized the opportunity of the minority community to elect candidates of choice within that district.

On the one hand, even an "effective majority" may not be adequate to provide a realistic opportunity to elect candidates of choice, since such a purely numerical threshold does not take into account financial and other disadvantages faced by minority (or minority-backed) candidates, and does not take into account the advantages of incumbency. The presence of a non-minority incumbent may have a chilling effect on the likelihood of minority success, even in a district that otherwise would be virtually certain to elect a minority candidate of choice. More generally, by focusing entirely on one type of number, we may have failed to take into account other subtler but important features of the situation.

On the other hand, there may actually be situations where a district that does not provide the minority group with an "effective majority" still gives it a realistic opportunity to elect candidates of choice. As we have already noted, the most common type of situation in which this might occur is in the context of partisan elections where the minority group has an effective majority in the primary but not in the general election. Its candidates may still win the general election as a result of cross-over voting.\footnote{Judge Guy's dissenting opinion in the now-vacated initial appellate decision in \textit{Armour} (unpublished slip op. at 16) suggests that it is possible that such a situation is present in the Ohio State House elections at issue in that case. He proposed that the case be remanded for the court to make specific factual findings about questions such as relative black and white turnout in the Democratic primary and levels of white crossover voting. Another situation in which less than a majority of the electorate in a general election may suffice is one where the non-minority group is likely to split its votes among several candidates, and where only a plurality vote is necessary for victory. Judge Guy's proposed remand (unpublished slip op. at 16) also requested that the lower court review whether the facts might support an electability claim based on potential plurality victories.}

When intensely case-specific appraisals are required, social science testimony (as in \textit{Garza}) has proved of considerable importance in allowing courts to take a closer look at the political realities of the situation.

5. \textit{Thresholds of Representation and Exclusion}

One way to begin to understand the preconditions for minority success is to look at the voting-age/voting-age citizen population levels and/or at the levels of minority registration in the districts where minority candidates have been elected versus those districts where they have not. In such an analysis, political scientists have made use of two
analytic concepts: the threshold of representation and the threshold of exclusion. In a specific empirical setting, the threshold of representation is the smallest minority proportion in districts that have elected a minority candidate, while the threshold of exclusion is the greatest minority proportion in districts that have failed to elect a minority candidate.\textsuperscript{135}

As of 1990, for blacks, the threshold of exclusion in the U.S. House of Representatives was 45.2\% (in the Mississippi Fourth). Every district above 45.2\% black had elected a black representative, including sixteen districts with a black population majority and three districts with black population in the very high forties. However, a few blacks were also being elected to Congress from districts with less than a 45.2\% black population. Indeed, the congressional threshold of representation for black Democrats in 1990 was a mere 22.9\%, while a black Republican was elected to Congress in 1990 from a district with a minuscule (four percent) black population. However, Grofman and Handley show that most districts without a black population majority that elect a black House member are ones in which there is at least a substantial black plurality (over forty percent) and a combined black plus Hispanic population of over fifty-five percent.\textsuperscript{136} In these instances it is likely that blacks make up a majority of the Democratic primary electorate.\textsuperscript{137}

When we look at thresholds of representation and exclusion for blacks in southern state legislatures, we find a great deal of variation across states and over time. Mississippi has the highest threshold of

\textsuperscript{135} Following the usage in Grofman, For Single-Member Districts Random is Not Equal, in Representation and Redistricting Issues (1982), we adapt these terms from the theoretical literature on comparative election systems (D. Rae, The Political Consequences of Electoral Laws (1971); Grofman, A Review of Macro-Election Systems, 4 German Pol. Y.B. 303 (1975); Lijphart & Gibberd, Thresholds and Payoffs in List Systems of Proportional Representation, 5 Eur. J. Pol. Res. 219 (1977)) where they have a different but related meaning. The reader should be careful as to which meaning is intended in any particular setting.

\textsuperscript{136} Grofman & Handley, Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s, 17 Am. Pol. Q. 436 (1989). In 1990 there are only three exceptions to this generalization, one of whom is a black Republican elected from the Connecticut Fifth. The other two are Democrats from California’s Eighth District and Missouri’s Fifth District.

\textsuperscript{137} For Hispanics, as of 1990, the congressional threshold of representation was 39.0\% (in the New Mexico Third) with the threshold of exclusion being 60.2\% (in the Texas Sixteenth district). However, the percentages reported are 1980 population figures that may not reflect current population realities given the tremendous growth in Hispanic population over the previous decade. Hispanic non-citizen proportions also vary widely by state. For these reasons we do not wish to use these numbers to reach any general conclusions. Cf. Grofman & Handley, Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s, 17 Am. Pol. Q. 265 (1989). We might also note that in 1988, Congressman Lujan, a Hispanic, did not seek reelection from his 37.4\% Hispanic New Mexico district. His successor is not Hispanic.
representation (over seventy percent) while in states such as Alabama, Florida and North Carolina, all districts that have a black majority elect black representatives. There is even greater variation across jurisdictions at the levels of city, county, or school board elections.

B. An Equal Opportunity to Elect Candidates of Choice

Whatever the minority population sufficient to meet a liability threshold may be, the standard for a remedy plan is whether it provides minorities with "an opportunity equal to that of other members of the electorate to participate in the political process and to elect candidates of choice." But how should such a standard be operationalized?

The first step is to recognize that, in challenges to at-large or multi-member district plans, courts have determined the appropriate baseline to be what could be expected under a single-member district plan. As we have emphasized, a single-member district plan cannot in general be expected to give proportional outcomes, because probable outcomes (1) are highly sensitive to the size and dispersal of the minority population, and (2) are highly sensitive to differences in levels of eligibility to vote and levels of political participation among minority versus non-minority members. The second step requires us to conduct a politically and demographically sophisticated appraisal of the conditions necessary to provide minorities a realistic opportunity to elect candidates of choice in any given district (see section immediately above). The third step is to review each of the proposed plans to determine whether it is feasible given legal and statutory constraints such as the "one person, one vote" standard. The fourth step is to determine how many districts in each proposed feasible plan provide each group within the jurisdiction with the realistic potential to elect candidates of choice, and to compare proposed plans to identify those

139 Court reliance on a single-member district baseline may change if courts find persuasive the arguments for use of a baseline derived from alternative election methods such as limited voting and cumulative voting made by leading voting rights attorneys such as Karlan and Still. Karlan, Maps and Misreadings: The Role of Geographic Compactness in Racial Vote Dilution, 24 Harv. C.R.-C.L. L. R. 173 (1989); Still, Alternatives to Single-Member Districts, in Minority Vote Dilution 249 (1984); Still, Cumulative and Limited Voting in Alabama: The Aftermath of Dillard v. Crenshaw County, paper presented at the Annual Meeting of the American Political Science Ass’n, Wash. D.C. (1988). We should note that at least one of the present authors agrees strongly with the Still-Karlan view of an appropriate liability threshold. Handley, The Quest for Minority Voting Rights, unpublished doctoral dissertation, Dept. of Gov’t, George Washington University (1991).
140 For purposes of this discussion we neglect the question of "influence" districts. See our earlier discussion of that point.
in which all groups have been treated fairly in terms of opportunity to elect candidates of choice.

We would emphasize that a fairly drawn remedy plan must necessarily be "race conscious." Drawing a fair plan requires us to know where minority populations are located so as to avoid fragmenting or packing minority vote concentrations. Simply to allow a computer to draw a single-member district plan composed of equipopulous compact districts, while paying no attention to neighborhoods or the location of minority populations (an option which, in the 1990s, is technologically feasible), is almost guaranteed to dilute minority voting strength. This is true, at least, for any minority of sufficient size to pass the Thornburg threshold test, because the computer is apt to lop off inadvertently parts of minority neighborhoods and, thus, fragment minority voting strength.\footnote{In general, a smaller group will be more disadvantaged, because it will not have enough members in one district to elect candidates of choice in a situation where voting is racially polarized, unless its population concentrations are preserved. Social scientists have developed computer methods to create hypothetical single-member district plans satisfying specified constraints. By generating a large number of such plans, one can determine the expected racial representation under the model single-member districting scheme and compare a minority group's actual or anticipated ability to elect representation of its choice under the actual plan with the outcomes expected under "neutrally" drawn single-member district plans. See, e.g., O'Loughlin, The Identification and Evaluation of Racial Gerrymandering, 72 Annals, Ass'n of Am. Geographers (1982); O'Loughlin, Racial Gerrymandering: Its Potential Impact on Black Politics in the 1980s, in The New Black Politics 241 (1982); Engstrom & Wildgen, Pruning Thorns from the Thicket: An Empirical Test of the Existence of Racial Gerrymandering, 2 Legis. Stud. Q. 465 (1977); Gudgin & Taylor, Seats, Votes and the Spatial Organization of Elections (1979). However, we must be quite careful in interpreting the results of such simulations. As we indicated above, a computer that has not been instructed to be cognizant of the distribution of minority population and voting strength and the location of minority neighborhoods can, while appearing to be neutral, produce a plan that has the same dilutive effects on minority representation as that of a gross gerrymander. Moreover, depending upon their assumptions, computer simulation studies may not reach identical conclusions, as can be seen by comparing the analysis of the effects on racial representation of the New Orleans City Council plan approved in \textit{Beer} compared to other "neutrally" drawn single-member district plans provided in Engstrom & Wildgen, supra, with that in O'Loughlin, supra.}

have been identified as ones in which minorities will be given an “equal opportunity to participate in the political process and to elect candidates of choice.” Often, there will be several different plans which satisfy this condition. In order to choose among them one must consider factors other than minority vote dilution. It is at this stage, and only at this stage, that deference to legislative prerogative or consideration of differences among plans based on criteria that are of only secondary or tertiary importance comes into play.

C. Other Districting Criteria

1. Interpreting the Equal Population Standard

For congressional elections, the Supreme Court has interpreted the language of article I of the U.S. Constitution to require congressional apportionment on the basis of total persons (citizens and non-citizens alike). For other types of elections, the Supreme Court has held that various types of apportionment bases are permissible as long as they yield results substantially identical to what would be obtained under a permissible apportionment base such as population or citizen popula-

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142 If there is only one such plan that has been proposed, then, of course, we are finished.

143 For example, in Jeffers, the Court had to choose between continuing a three-member district that was majority black or splitting that multimember district into three single-member districts. 730 F. Supp. at 216-17.
tion. However, virtually all jurisdictions at all levels of government use total population as the basis of reapportionment.

Judicial precedents have established that the goal of avoiding minority vote dilution is to be achieved within the context of plans that satisfy

144. Precedent in the Supreme Court is quite clear that, for state and local redistricting, the decision to apportion on the basis of population or citizen population is a discretionary one. The decision to include or exclude [aliens or other nonvoters from the apportionment base] involves choices about the nature of representation with which we have been shown no constitutionally founded reason to interfere.” Burns v. Richardson, 348 U.S. 78, 91 (1966). Nonetheless, were a jurisdiction to shift to apportioning on the basis of citizen population or citizen voting-age population rather than total population, it would seem to us to invite an equal protection lawsuit. This would especially be true if there were the possibility that a claim could be made that the shift had taken place in order to reduce expected minority representation. Moreover, recent lower court decisions (e.g., Sanchez v. King, 550 F. Supp. 15 (D.N.M.), aff’d, 459 U.S. 801 (1982) and Travis v. King, 552 F. Supp. 554 (D. Haw. 1982)) have narrowed the scope of what in practice constitutes a permissible redistricting base. See discussion in Schmerhorn & Soto, Measuring a Redistricting Plan’s Deviation from Population Equality and Its Effect on Minorities: New Mexico’s Experiment with a “Votes Cast” Formula, 12 U. Cal. Davis L. Rev. 591 (1984).

145. In Garza, the County of Los Angeles claimed that, as a matter of law, the “one person, one vote” standard must be interpreted as requiring that districts be equal in citizen voting-age population. That claim was specifically rejected in the L.A. County case at both the trial and on appeal. It did meet acceptance by Judge Kozinski in his dissenting opinion in Garza. However, Judge Kozinski’s views rest on an attempt to read too much into the Supreme Court’s imprecise choice of language in many of the “one person, one vote cases,” where the justices refer to voters or citizens rather than persons. For example, in Wesberry v. Sanders, 376 U.S. 1, 8 (1964) the Court refers to a “vote” as being “worth more in one district than another” (emphasis added); while in Reynolds v. Sims, 377 U.S. at 563, the Court states that “[w]eighting the votes of citizens differently, by any method or means, merely because of where they happen to reside, hardly seems justifiable.” (Emphasis added). If we look, however, to what the Court is actually doing in these cases, it becomes clear that what is being equalized is total population.

Moreover, jurisdictions that have used a redistricting basis other than total population have had a constitutional or statutory mandate to do so. But as the Ninth Circuit majority opinion points out in Garza, 918 F.2d at 774, such a mandate is missing in the L.A. County case, since the California Elections Code governing supervisorial redistricting refers to “population.” Cal. Elec. Code § 85000 (West 1974). Furthermore, the county had never previously apportioned districts on any basis other than total population, at least since the decision in Reynolds. The majority opinion in Garza stated, with respect to the apportionment issue, that basing districts on voting population rather than total population would “abridge the rights of aliens and minors to petition that representative. For over a century, the Supreme Court has recognized that aliens are ‘persons’ within the meaning of the fourteenth amendment to the Constitution, entitled to equal protection. This equal protection right serves to allow political participation short of voting or holding a sensitive public office.” Garza, 918 F.2d at 775.

The issues of total population versus voting-age population and apportioning on the basis of persons rather than citizens can have important consequences for minority representation since, in general, minority groups such as blacks, Asians, and Hispanics have a lower proportion of persons of voting age than does the white/Anglo population, and the latter two groups have a much lower proportion of citizens as well. Moreover, in some jurisdictions the proportions of voting-age Hispanics or Asians who are citizens is lower than the proportion of all Hispanics or Asians who are citizens, since children born in the United States are automatically American citizens.
the usual “one person, one vote” standards.\textsuperscript{146} In practice this means that congressional districts should be drawn as close to zero total population deviation\textsuperscript{147} as is practicable, while for state legislatures a total deviation of less than ten percent is prima facie constitutional.\textsuperscript{148} Total deviation above that will require justification by compelling legitimate state interests.\textsuperscript{149} The appropriate methodology to calculate total deviation in the case of local elections under mixed conditions (part at-large, part single-member district system) is discussed in Board of Estimate \textit{v.} Morris.\textsuperscript{150}

2. Compactness

We distinguish the use of the phrase “compact” in the liability phase of trial from its meaning in the context of an inquiry into the appropriate remedy phase. In the liability phase we believe that the appropriate test for geographic compactness is a functional one; i.e., geographic compactness should be interpreted as nothing more than a minority population sufficiently large and concentrated geographically to make it feasible to draw one or more districts in which the minority group has a realistic potential to elect candidates of choice.\textsuperscript{151} This is the interpretation of many courts. For example, in Dillard \textit{v.} Baldwin County Board of Education,\textsuperscript{152} the court rejected plaintiffs’ claim that the proposed district failed to satisfy the first prong of Thornburg “because it is too elongated and curvaceous.”\textsuperscript{153} The court stated: “By compactness,

\textsuperscript{146} Reynolds, 377 U.S. at 558-61.
\textsuperscript{147} By total deviation we mean the absolute value of the sum of the percentage above the ideal district population of the most overpopulated district and the percentage below the ideal district population of the most underpopulated district.
\textsuperscript{149} See, e.g., Abate \textit{v.} Mundt, 403 U.S. 182 (1971). If we neglect Brown \textit{v.} Thomson, 462 U.S. 835 (1983), a Wyoming case in which a maximum of eighty-nine percent total deviation was permitted, but where the circumstances were highly unusual, the highest legislative deviation that has been permitted by the U.S. Supreme Court is 16.4\%. Mahan \textit{v.} Howell, 410 U.S. 315 (1973). For local districting, somewhat greater flexibility might be permitted in pursuit of legitimate state purposes. It is important to note that court drawn plans are held to somewhat higher standards with respect to equal population than is true for legislatively drawn plans. Chapman \textit{v.} Meier, 420 U.S. 1 (1975). Also, in the case of mixed plans (i.e., plans that combine single-member and multimember districts), there is some dispute about how population deviation is to be measured. See Board of Estimate \textit{v.} Morris, 489 U.S. 688 (1989).
\textsuperscript{150} 489 U.S. 688 (1989).
\textsuperscript{151} Niemi, Grofman, Carlucci & Hofeller, Measuring Compactness and the Role of a Compactness Standard in a Test for Partisan or Racial Gerrymandering, 52 J. Pol. 1155 (1990).
\textsuperscript{152} 686 F. Supp 1459, 1465 (N.D. Ala. 1988).
\textsuperscript{153} Id.
Thornburg does not mean that a proposed district must meet or attempt to achieve, some aesthetic absolute such as symmetry or attractiveness.”

The court then went on to say that “a district is sufficiently geographically compact if it allows for effective representation.”

Avoiding minority vote dilution is a criterion rooted in the Constitution’s equal protection standard. As such, it must take precedence over all factors other than the “one person, one vote” standard. In the remedy phase of a trial, if there is to be a compactness test applied, certainly there should be no requirement that the minority district(s) be any more compact than other districts in the existing plan or in remedy plans proposed by the legislature. As the majority opinion in Jeffers remarks about the plaintiffs’ proposed remedy plan:

Some of the districts look rather strange, but we do not believe that this is fatal to plaintiffs’ position. Their alternative districts are not materially stranger in shape than at least some of the districts contained in the present apportionment plan. The one person one vote rule inevitably requires that county lines and natural barriers be crossed in some instances and that cities and other political and geographic units be split in others.

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154 Id.
155 Id. at 1466.
156 While we can agree with Judge Eisele’s dissenting view in Jeffers that race cannot be the only concern in redistricting, we disagree that it ought simply to be just “one of several [concerns] that a state must balance in an effort to achieve equal representation.” 730 F. Supp. at 269. Providing equal protection is a constitutionally sanctioned concern; factors such as compactness that lack such a sanction are necessarily to be given lower weight. Moreover, as the views of the Jeffers majority quoted below make clear, it is not reasonable to require more compactness in a remedy plan than in the plan that has been found to be dilutive for which it is being proposed as a replacement. Compare the views of the Gara court, supra note 145.
158 730 F. Supp. at 207. Similar points about compactness are made in the district court opinion in Gara. The remedy plan accepted by the Gara court is one which, on its face, does not look very compact. However, closer examination shows that, except for portions of the City of Los Angeles and unincorporated areas of the County of Los Angeles, it uses whole cities as its building blocks, and some of its more elongated lines simply reflect the rather peculiar configurations of the cities that form the boundaries of certain districts. Moreover, it is no less compact than the previous plan, which contained a meandering “coastal” district. Furthermore, the Hispanic majority district in the remedy plan adopted by the court is one that is composed solely of majority Hispanic cities and a set of nearly 300 contiguous majority Hispanic census tracts. Another relevant case is Neal v. Coleburn, 689 F. Supp. 1426 (E.D. Va. 1988), where the court rejected defendants’ claims that the proposed remedy districts were “too tortuous and irregular in shape to pass muster.” Id. at 1437. Rather, the court decreed that the proposed minority districts were “not unreasonably irregular in shape, given the population dispersal within the County” and the need to create majority black districts. Id.
3. Other Criteria

It is well recognized that standard districting criteria, such as respect for city or county boundaries, must give way to the equal population standard if there is unavoidable conflict.\textsuperscript{159} In like manner, since avoiding minority vote dilution has a constitutional sanction, such criteria must give way to the need to provide protected groups with an equal opportunity to participate in the political process and to elect candidates of choice. Nonetheless we are not asserting that standard redistricting criteria other than "one person, one vote" are irrelevant in cases involving racial gerrymandering challenges, merely that their proper role is as secondary and tertiary criteria for use in choosing among plans that satisfy the Voting Rights Act.

D. Use of Demographic Estimates and Projections

The Supreme Court has placed no bar on redistricting more than once in a decade.\textsuperscript{160} The Supreme Court has also stated that "[s]ituations may arise where substantial population shifts . . . can be anticipated. Where these shifts can be predicted with a high degree of accuracy, States that are redistricting may properly consider them."\textsuperscript{161} Moreover, while the census is generally taken to be accurate unless proved otherwise and "estimates based on past trends are generally not sufficient to override 'hard' decennial census data,"\textsuperscript{162} courts have also made it clear that non-census data may be considered in reapportionments between censuses if the relevant census data are unavailable\textsuperscript{163} or the census data is sufficiently stale and better data sources are available.\textsuperscript{164}

\textsuperscript{159} See, e.g., quote from \textit{Jeffers} in the last paragraph of the previous section.

\textsuperscript{160} \textit{Garza}, 918 F.2d at 772, citing Reynolds v. Sims, 377 U.S. 533 (1964). In \textit{Garza}, as part of a defense of laches, the County of Los Angeles claimed that it could not be forced to redistrict more than once during a decade. That claim was decisively rejected by the Ninth Circuit. 918 F.2d at 771-72. However, a closely related laches defense was accepted by the Fourth Circuit in White v. Daniel, 909 F.2d 99 (4th Cir. 1990).


\textsuperscript{163} Westwego Citizens for Better Gov't v. City of Westwego, 906 F.2d 1042, 1045-47 (5th Cir. 1990).

\textsuperscript{164} See, e.g., \textit{Garza}, 918 F.2d at 773 n.3. There is a handful of states (e.g., Kansas and Massachusetts) where state censuses are used for redistricting purposes, usually for redistricting that occurs other than immediately after the decennial national census. Grofman, Continuing and Emerging Issues in Voting Rights Litigation: From One Person, One Vote to Political Gerrymandering, Stetson L. R. (forthcoming 1992).
E. Remedying Intentional Racial Gerrymandering

In a situation where intentional gerrymandering has been found, identifying an appropriate remedy should not be of great difficulty. In general, the appropriate remedy would be to undo the intentional fragmentation or packing of minority voting strength that led to the violation.\textsuperscript{165} Exactly this approach was taken by the district court in the remedy phase of \textit{Garza}. On appeal, this approach was sanctioned by the Ninth Circuit. That court also noted\textsuperscript{166} that, where intentional gerrymandering has been found, post-census data being used to fashion a judicial remedy need not meet the same high standard of "clear and convincing" reliability argued for in \textit{McNeil v. Springfield Park District.}\textsuperscript{167}

III. Runoff Elections

In jurisdictions with polarized voting patterns and substantial minority populations, when found in conjunction with multimember district or at-large elections, runoff primaries (also known as double ballot elections) are recognized as designed to reduce the likelihood of minority electoral success.\textsuperscript{168} In such settings, courts have often struck down their use.\textsuperscript{169} In most local jurisdictions, runoff primaries are found in conjunction with nonpartisan elections, but in a number of southern states, runoff primaries are required for all or most partisan contests. There are arguments in favor of runoff primaries in partisan contests that are unconnected with their consequences for racial minorities. In particular, runoff primaries are thought to strengthen the party system by encouraging majority coalitions within the parties rather than factionalism.\textsuperscript{170}

Virtually all challenges to runoffs have been as an incidental part of a challenge to a multimember or at-large scheme. Only a handful of cases have challenged the use of runoffs in single-seat elections. One important case is \textit{Butts v. City of New York},\textsuperscript{171} in which a claim that a forty

\textsuperscript{165} When there has been intentional vote dilution and where the legislature refuses to propose an appropriate remedy, it is certainly appropriate for courts to make use of their broad equity power to fashion a remedy that fully rectifies the violation of constitutionally and statutorily protected rights.

\textsuperscript{166} 918 F.2d at 773 n.3.

\textsuperscript{167} 851 F.2d at 946.

\textsuperscript{168} See, e.g., \textit{Thornburg}, 478 U.S. at 56; \textit{Westwego}, 872 F.2d at 1212.

\textsuperscript{169} Id.


\textsuperscript{171} 779 F.2d 141 (2d Cir. 1985), cert. denied, 478 U.S. 1021 (1986).
percent vote requirement in New York City's mayoral elections had been adopted for a racially discriminatory purpose was rejected. Similarly, litigation based upon an effects rather than a purpose test was unsuccessful in a case involving the use of runoff primaries in one county of Arkansas.\textsuperscript{172}

For a number of reasons, we find section 2 challenges to the use of runoff elections for single-seat offices to be much more problematic than similar challenges in the multimember district context.\textsuperscript{173} First, the mere fact that some minority members who had won a plurality victory have then lost in a subsequent runoff to a non-minority candidate ought not, in our view, be sufficient to establish a section 2 violation.\textsuperscript{174} Rather we believe that it would, at minimum, also be necessary to show that a higher proportion of minority members who had won a plurality but not a majority of the vote go on to lose the runoff than is true for non-minority members in the same situation, at least in situations where there had not been proof that the runoff had been adopted with a discriminatory purpose.\textsuperscript{175}

Second, even if it were true that minority electoral success was reduced under a runoff primary in a particular jurisdiction and that minority candidates who were plurality winners were disproportionately affected by runoffs, it could still be argued that, as long as either the overall plan was racially fair (i.e., did not either fragment or pack minority population or voter concentrations) or there was only a single

\textsuperscript{172} In Whitfield v. Democratic Party of the State of Arkansas, 890 F.2d 1423 (8th Cir. 1989), a divided en banc panel affirmed the lower court, but issued no written opinion. 902 F.2d 15 (8th Cir. 1990). The Supreme Court denied certiorari. Whitfield v. Clinton, 111 S.Ct. 1089 (1991). The Solicitor General's Brief for the Justice Department urged denial of certiorari on the grounds that the legal issues in the case were not yet ripe for review, although it expressed "significant doubts" as to whether, on the facts before it, the circuit court had properly applied the section 2 standard. Id. at 9.

\textsuperscript{173} For example, it has been argued that, in black majority areas, a runoff requirement makes it less likely that a white plurality winner will be elected in a situation where blacks are dividing their vote among several black candidates. Stanley, The Runoff: The Case for Retention, 16 Am. Pol. Sci. Rev 231 (1985). Of course there are far fewer black majority districts than white majority districts, and virtually no black multimember districts.

\textsuperscript{174} Similarly, of course, the fact that some minority members who had won a plurality victory then won in the subsequent runoff ought not, in our view, to be sufficient to preclude the finding of a section 2 violation. It is the overall pattern of election results, viewed in terms of a case-specific appraisal, that is important.

\textsuperscript{175} The data presented in the trial and appellate opinions in Whitfield do not allow us to be certain whether that case would meet this test, but it is likely that it would. We know that four black candidates who were plurality winners subsequently lost the general election and that no black had ever been elected to office in Phillips County, despite the fact that blacks made up nearly fifty percent of the county's population. 890 F.2d at 1430. Thus, every black plurality winner subsequently lost; it is almost inconceivable that the same shut-out was true for white plurality winners.
office being contested (e.g., an executive office such as mayor or governor), the outcomes of elections where minorities lost ought not be identified as minority vote dilution. In the latter instance it might be said that a group that was a voting minority was simply being outvoted.\footnote{While one court has asserted that "[t]he principle of majority rule . . . is a bed-rock ingredient of democratic political philosophy," Whitfield v. Democratic Party of Arkansas, 686 F. Supp. 1365, 1369-70 (E.D. Ark. 1988), it is perhaps better to say that, in the United States at least, that principle has been interpreted in terms of plurality-based elections. In the social choice literature on democratic theory, perhaps the most widely agreed upon normative criterion is what is known as the "Condorcet criterion" or the "majority winner" criterion. Condorcet, Essai sur l’Application de l’Analyse a la Probabilite des Decision Rendres a la Pluralite des Voix, Paris: De l’Imprimerie Royale (1785); D. Black, The Theory of Committees and Elections (1958); Grofman, Some Notes on Voting Schemes and the Will of the Majority, 7 Pub. Choice 65 (1969); Niemi & Riker, Choice of Voting Systems, 294 Sci. Am. 21 (1976); W. Riker, Liberalism vs. Populism (1982). That criterion simply states that, if there is a candidate who gets more votes than any challenger in a series of paired competitions, then that candidate should be chosen. There may not always be a Condorcet winner. The fact that a candidate is defeated in a runoff guarantees that the candidate is not a Condorcet winner; however, the victorious candidate in a runoff may not be the Condorcet winner either. Either the Condorcet winner may have been eliminated on the first ballot for want of sufficient "first-place" support, or there may be no Condorcet winner.}

Third, there is another type of argument against eliminating partisan runoff primaries, based on the claim that a more sophisticated understanding of the way they work in the context of racial and party politics in the South suggests that their elimination would not have the projected consequences for increased black representation. In particular, the existence of runoff primaries affects the incentives for candidates to run for office, with more candidates on average running for office in situations where there are runoff elections than in comparable settings without runoffs; thus, the elimination of runoffs would reduce the potential for minority candidates to win a plurality victory against a large and mostly or entirely white field of candidates from what it might have seemed to be in the situation where there had been runoffs.\footnote{Also, if there were to be black plurality victories, this might further weaken the Democratic party and thus weaken the chances of blacks associated with that party to be elected. As Stanley puts it, "[m]aking Southern whites choose between race and party when their party ties have considerably loosen might accelerate the decline of the Democrats—and promote Republican prospects to an extent that Republicans themselves have not yet managed. More generally, the nomination of splinter candidates could make the Republican alternative more attractive in the eyes of many." Stanley, Runoff Primaries and Black Political Influence, in Blacks in Southern Politics (L. Moreland ed. 1987), as quoted in Whitfield, 686 F. Supp. at 1377. Stanley goes on to quote U.S. Representative Wyche Fowler (D-Ga.): "No question, the best thing that could happen to the Republicans is the abolition of the runoff primary. It would build the Republican party overnight." Id., quoted in N.Y. Times, Apr. 16, 1984, at 18, col. 3. We take no position in this article with respect to this claim.}
IV. ALTERNATIVE REMEDIES

With the notable exception of the United States, Great Britain and various former British colonies, where plurality-based elections are customary, as well as the handful of countries where semi-proportional systems are used, proportional representation methods are the norm in elections throughout the world.\(^{178}\) The most common election systems at the national level are variants of list proportional representation (list PR), a class of systems using multimember districts in which voters cast ballots for a single political party list and each party elects a number of candidates "proportional" to its share of the vote.\(^{179}\) Because the language of section 2 states that "nothing in this section establishes a right to have members of a protected class elected in numbers equal to their proportion in the population," the two systems that have been most commonly proposed as remedies in voting rights cases are generally classed as semi-proportional, namely limited voting and cumulative voting.\(^{180}\) If voting is polarized along racial lines, these voting systems generally operate to provide some minimal level of likely minority representation, but not proportionality.\(^{181}\) Moreover, generalizations about proportional representation based on European party-list experience at the national level are of very limited applicability to understanding the likely political consequences of the use of either cumulative voting or

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\(^{178}\) However, even in the United States, alternative election mechanisms that provide potential minority representation in situations where voting is polarized along racial lines are actually neither as historically rare nor as presently nonexistent as is sometimes thought.


\(^{180}\) Our reading of post-Baker v. Carr case law is that most reasonable election mechanisms for local governments that are intended to achieve greater minority representation would be held constitutional. Grofman, Criteria for Districting: A Social Science Perspective, 33 U.C.L.A. L. Rev. 77 (1985). As one court put it, "there is room for the states in structuring their subordinate agencies, including the cities, to experiment with new methods and devices to insure that all points of view may be sure of a hearing, so long as there is no invidious discrimination against any individual or group's right to cast votes on an equal basis with all others." Montana v. Lee, 384 F.2d 172, 175 (2nd Cir. 1967). As one federal district court said in considering the constitutionality of a Connecticut statute providing for both limited voting and limited nominations (from each political party), "it is hard to fault minority representation as non-democratic or impermissible as a legislative goal . . . [It is not anti-majoritarian to limit the power of the majority to command more power than its actual strength at the polls."

\(^{181}\) In situations where minority population is geographically dispersed, not only do both limited voting and cumulative voting usually provide considerably greater minority representation than at-large plurality elections, but these systems usually yield more nearly proportional representation than single-member districting.
limited voting as voting rights remedies in local jurisdictions.\textsuperscript{182} In many instances, election methods such as limited voting or cumulative voting offer an ideal compromise between the interests of fair and effective representation and the desire of local politicians to maintain some form of at-large representation system, for which they might compete. Moreover, such voting rules permit both minority and non-minority candidates the option of voting for candidates of both their own race or ethnicity and one or more candidates of a race or ethnicity different from their own. Indeed, even more generally, these methods permit a voter to structure ballot choices based on whatever criteria (racial, partisan, ideological, or otherwise) the voter might wish.\textsuperscript{183}

A. Limited Voting

In the limited vote, voters have fewer ballots to cast than there are seats to be filled. Variants of the limited vote are used in countries such as Spain and Japan. Since 1870, over half a dozen cities including New York, Indianapolis, and Boston have made use at one time or another of the limited vote. Philadelphia has used this method since 1951 for its seven at-large council seats. Pennsylvania counties have used limited voting since 1871. Presently, all counties in Pennsylvania, except for Philadelphia and a few others under Home Rule Charters, elect county commissioners under a limited voting system in which voters can only vote for two of the three commissioners to be elected at large.

\textsuperscript{182} Very few political scientists advocate list PR for the United States because, at least in its most common form, it requires straight-ticket voting and has a very limited role for voters in the slating process. Moreover, STV, the only strictly proportional representation method that has ever been used in the United States for governmental decision making (if we exclude decision making internal to political parties) did not have the negative consequences (e.g., political instability) frequently (and by and large wrongly) associated with PR. See A. Lijphart, Democracies: Pattern of Majoritarian and Consensus Government in 21 Countries (1984); Grofman, Criteria for Districting: A Social Science Perspective, 35 U.C.L.A. L. Rev. 77 (1985); Weaver, Semi-Proportional and Proportional Representation Systems in the United States, in Choosing an Electoral System 191 (1984).

\textsuperscript{183} The desirability of this feature of limited voting and cumulative voting methods (each of which involves voting at-large), as compared to the need for specific choices about aggregation that must be made in drawing a single-member district plan, has been emphasized by Theodore Lowi in his comments at a panel on The Voting Rights Act and Minority Representation, Western Political Science Ass’n (Mar. 22, 1991). Also, recent scholarship has argued that multimember districts facilitate the candidacies of women, even though they harm the election chances of racial minorities. Rule, Anglo and Minority Women’s Underrepresentation in Congress: Is the Electoral System the Culprit?, paper presented at annual meeting, Western Political Science Ass’n (1991); Rule, Multimember Legislative Districts, Minority and Anglo Women’s and Men’s Recruitment Opportunity, in J. Zimmerman & W. Rule, The Impact of U.S. Electoral Systems on Women and Minorities (1992 forthcoming). This claim, however, remains controversial.

The Democratic Party in Conecuh County, Alabama, under pressure to achieve some representation for racial minorities, adopted limited voting in 1982 for governing bodies internal to the party.\footnote{Still, Alternatives to Single-Member Districts, in Minority Vote Dilution 249-67 (1984).} As a consequence of settlements reached in the massive \textit{Dillard v. Crenshaw}\footnote{831 F.2d 246 (11th Cir. 1987).} litigation, limited voting was adopted as a remedy in a number of Alabama local governments.\footnote{Still, Cumulative and Limited Voting in Alabama: The Aftermath of \textit{Dillard v. Crenshaw County}, paper presented at Annual Meeting, American Political Science Ass'n (1988); Cumulative and Limited Voting in Alabama, paper presented at conference on Representation, Reapportionment, and Minority Empowerment, Pomona College (1990).} There it has largely worked as anticipated to provide enhanced minority representation. Limited voting was also adopted for use in the at-large component of a mixed election scheme accepted as a settlement to a Department of Justice lawsuit against the city of Augusta, Georgia.

\quad B. Cumulative Voting

Under cumulative voting, voters may choose to express their intensity of preference by casting multiple votes (up to a fixed total). The cumulative vote was used for the period 1880-1980 in elections to the lower chamber of the Illinois legislature. There, voters had three votes, all of which they could give to a single candidate; or they could divide their votes between two candidates (two votes to one and one vote to the other, or one and half votes to each); or they could give one vote to each of three different candidates. The legislative use of cumulative voting in Illinois was ended largely as an incidental consequence of a Republican-backed referendum to reduce legislative size. Rockford, Illinois used cumulative voting for a brief period in the 1880s. Cumulative voting is used in many states for electing corporate boards of directors.\footnote{Glazer, Glazer & Grofman, Cumulative Voting in Corporate Elections: Introducing Strategy into the Equations, 35 S.C. L. Rev. 295 (1984).}

Cumulative voting was recently adopted in Alamagordo, New Mexico as part of a settlement to a voting rights lawsuit, and in an Indian voting rights case in Sisseton, South Dakota involving at-large school board
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Many minority voters in the first election held under the new system made use of their opportunity to cumulate their vote: 64.2% of the Hispanic voters in Alamogordo and 93.4% of the Native American voters in Sisseton cast all their ballots for a single candidate. Cumulative voting has also been adopted as part of a settlement in a number of the jurisdictions sued in Dillard v. Crenshaw, and as a component of a mixed plan adopted as a settlement in Peoria, Illinois.

C. The Single-Nontransferable Vote and Mixed Systems

Although some variant of list PR is the form of proportional representation that is most commonly used worldwide, two other types of proportional representation have attracted much greater support from contemporary political reformers: the single transferable vote (commonly abbreviated STV and also known as the Hare system), used in Ireland; and the mixed system, or “topping up” method, used in West Germany (which combines single-member districting with proportional representation at the jurisdiction-wide level to remedy any disproportion introduced by district level outcomes). Because the topping up method involves list PR as one of its components and is designed for situations involving multiparty competition, it is not easily adapted to the American context where racial divisions are superimposed on partisan ones. American advocates of PR have generally been in favor of STV. The principal advantages of STV are that it can operate both within a partisan and a nonpartisan context, and that it offers voters considerable ballot flexibility.

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190 Id.
191 Dillard v. Crenshaw, 831 F.2d 246 (11th Cir. 1987).
194 The principal advantage of the German system is that it combines the advantages of single-member districts with the advantage of proportional results by providing extra seats (off a party list) to parties whose seat gains were less than their share of the popular vote.
195 While the details of STV are somewhat complex, we can suggest how it operates in a reasonably intuitively simple way. Imagine that there are five seats to be filled. Clearly it is not possible for more than five candidates to get above one-sixth of the vote each. STV operates to give any candidate with the strong support of at least one-sixth of the voters a seat. Under STV, voters are asked to list the candidates in order of their preference. If any candidate gets more than one-sixth of the first place preference votes, that candidate is
Since 1915, over two dozen U.S. cities have used the single transferable vote for city council elections. Most cities, however, used STV for only a short period. One wave of adoptions occurred in the early 1920s, another wave coming in the 1940s. By 1954, there were only six U.S. cities still using STV for city council elections. By 1982, the only city council to be elected using STV was in Cambridge, Massachusetts. Cambridge also uses STV for its city-wide school board elections. New York City has used STV for its community school board elections since the early 1970s. However, a proposal to eliminate the use of STV in New York City School Board elections is presently (as of March 1992) pending in the New York state legislature, as part of a general package of reform of school administration in that city.

For those candidates who are elected, calculate how many excess votes they received (i.e., votes that they got above a bare one-sixth). Return (at random) this number of excess votes to the set of “active” ballots, but cross out the names of candidates who are already elected. Once again check to see if any candidates among the remaining candidates still eligible to be elected has a majority of “first place” preferences. Continue this process as long as you can. If there are still seats to be filled, delete the name of the candidate who has the fewest first place votes and look to see if there is now a candidate with enough “first place” votes to be elected. If not, continue to delete names until some candidate receives enough “first place” votes to win or there are exactly as many candidates remaining as there are seats to be filled. While this process for counting ballots is not the one actually used, it is very similar and provides a basic understanding of how STV works. See Hallett, Proportional Representation with the Single Transferable Vote: A Basic Requirement for Legislative Elections, in A. Lijphart & B. Grofman, Choosing an Electoral System (1984), for actual details of how STV works in New York City School Board elections.

In the United States, STV was usually adopted as part of a package of municipal reforms including the city manager system and non-partisan elections intended to break the power of machine politics. Proportional representation advocates found it tactically expedient to piggyback STV onto other reforms which had their own “good government” constituency. Until the early 1960s, the National Municipal League, into which the American Proportional Representation League had been merged in 1932, had STV as one of the components of its model city charter. In contrast to STV, the limited vote was used exclusively in local partisan elections as a way of providing guaranteed minimum representation for the minority party. Efforts for proportional representation at the national or state level proved unavailing, except in Illinois, and the Illinois adoption of cumulative voting predated by nearly two decades the foundation of the Proportional Representation League in 1893, and arose from rather idiosyncratic historical factors not replicable elsewhere.


D. Weighted Voting

The key to weighted voting is that representatives are not equal in the number of votes they cast. Frequently, the number of votes a representative is entitled to cast is a function (sometimes linear, sometimes simply monotonic) of the number of persons he or she represents. The best-known example of weighted voting is where proxy holders cast votes proportional to the number of proxies they hold. Weighted voting has occasionally been suggested as a possible voting rights remedy, in that a minority group might obtain representation, but have its representative(s) given a lessened weight reflecting the size of the minority group. A full discussion of weighted voting is beyond the scope of this paper.\textsuperscript{198} We can say, however, that despite its continued use in many county governments in New York\textsuperscript{199} and a per curiam acceptance of its use in \textit{WMCA, Inc. v. Lomenzo},\textsuperscript{200} the most recent federal court decision to address it has been quite negative.\textsuperscript{201} However, whether use of weighted voting is legally dead remains, in our view, an open question, since the factual circumstances in the \textit{Board of Estimate} case were quite unusual.\textsuperscript{202}

E. Power-Sharing Devices

One seemingly unavoidable problem with election methods that provide some minimum minority representation is that a minority remains a minority, and may now simply be outvoted in the legislative halls. Of course, there is some evidence that the presence of minority office-holders changes the dynamics of majority decision-making.\textsuperscript{203} Nonetheless, several scholars have recently been reexamining the potential for minority influence in systems that are fundamentally majoritarian in tone. Guinier has argued for formal mechanisms to give "proportionate influence" such as those found in some consociational democracies, where, for example, groups may be allocated control of shares of cer-


\textsuperscript{199} Id.

\textsuperscript{200} 377 U.S. 633 (1964).

\textsuperscript{201} \textit{Board of Estimate}, 489 U.S. 688 (1989).


\textsuperscript{203} Fraga, Policy Consequences and the Change from At-Large Elections to Single-Member Districts, paper presented at Annual Meeting, Western Political Science Ass’n (1991).
tain government budgets.\textsuperscript{204} Edward Still, as an attorney for minority plaintiffs, has advocated settlements that permit minorities greater influence in legislative decision-making, such as a rotation in who presides over council meetings, or the imposition of provisions requiring more than a simple majority vote for passage of key legislative items. As part of the \textit{Dillard v. Crenshaw} litigation, he has been successful in obtaining rotating chairs in a handful of jurisdictions.\textsuperscript{205}

V. CONCLUSION

In dissenting in \textit{Jeffer v. Clinton},\textsuperscript{206} Judge Eisele makes a strong argument that the issue of minority vote dilution needs to be reconsidered:

It is my view that many Voting Rights cases, such as this one, are changing the political landscape of America in fundamental ways without legislative mandate and without the benefit of scholarly legal and political discourse. In so doing these cases are, in an almost inadvertent manner, redefining the nature of our democratic form of government, contrary, I believe, to the Constitution.

Do we really believe in the idea of one political society or should this be a nation of separate racial, ethnic and language political enclaves? Surely such issues are worthy of serious, focused debate and discussion.

Judge Eisele then goes on to assert\textsuperscript{207} that "[w]hen the Voting Rights Act was passed in 1965, its single aim was 'black enfranchisement in the South. Obstacles to registration and voting, that is, were the sole concern of those who framed the statute.'"

We believe Judge Eisele's concerns are important ones that need to be addressed. We also believe that he is wrong about the long-run consequences for American democracy of voting rights litigation such as \textit{Jeffer} and wrong, too, in accepting Thernstrom's characterization of the legislative history of the Voting Rights Act.\textsuperscript{208}

\textsuperscript{205} Still, Cumulative and Limited Voting in Alabama, paper presented at conference on Representation, Reapportionment, and Minority Empowerment, Pomona College (1990).
\textsuperscript{208} In the quote directly above and in his discussion in the next several pages, Eisele relies heavily upon Thernstrom's prizewinning account of the evolution of the Voting Rights Act. See supra, note 207. Unfortunately that account, while praiseworthy in many ways, is fundamentally flawed in others. See Karlan & McCrary, Without Fear and Without Research:
There are several reasons to be highly skeptical of the claim that Congress intended to do no more in the Voting Rights Act than to guarantee minorities the right to vote. First and foremost, the concept of vote dilution as "minimizing or canceling out" minority voting strength antedates the Voting Rights Act, as is clear from a look at cases like *Gomillion v. Lightfoot*, or *Fortson v. Dorsey*, or, arguably, the still earlier "white primary" cases. The redrawing of Tuskegee's boundaries that was overturned in *Gomillion* did not deny blacks an opportunity to vote, it changed where they could vote and thus changed their ability to affect outcomes. As Kousser points out, legislators and courts have long been willing to go beneath the surface of equal treatment to look at the real political consequences. As Justice Frankfurter said in *Lane v. Wilson*: "The [Fifteenth] Amendment nullifies sophisticated as well as simple-minded modes of discrimination." When the Voting Rights Act was passed in 1965, members of Congress were certainly themselves sophisticated enough to recognize that vote dilution could be achieved through electoral devices such as at-large elections when these were used to fragment or pack black voting strength.

Second, there is clear evidence that devices such as at-large elections and runoffs that have been the subject of so much attack under the Voting Rights Act are exactly the kinds of mechanisms that were being knowingly adopted by southern states as devices to reduce the practical effects of black enfranchisement when barriers to black registration crumbled. There was an especially large surge of shifts to at-large elections just after the passage of the Voting Rights Act. For example, in Georgia between 1964 and 1975, twenty county governments or school boards switched to at-large elections, while shortly after the passage of the Act the State of Mississippi enacted a law requiring some counties and school boards to shift to at-large elections. Thus, it seems quite clear from the historical record that, at least in the South, jurisdictions

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212 Id.
were quite well aware that multimember districts had the potential to minimize or cancel out the black vote. For the courts to strike down such election practices is certainly consistent with the concerns that motivated the framers of the Voting Rights Act of 1965.\textsuperscript{215}

Third, had Congress wished to overturn court interpretations of the Act it could simply have done so by passing additional clarifying language. At any time Congress could have intervened to reverse the impact of court decisions such as \textit{Allen v. State Board of Education}\textsuperscript{216} and \textit{White v. Regester}.\textsuperscript{217} It did not. Indeed, it did the opposite. The only congressional intervention came in 1975 to expand the number of groups that were covered by the Act, and in 1982 to amend the Act so as to effectively reverse \textit{Mobile v. Bolden}\textsuperscript{218} and to return the relevant legal standard to what had, in practice, been an effects test.\textsuperscript{219}

We also strongly disagree with the claims that the Voting Rights Act is now pernicious in its effects, contributing to the "resegregation of American politics," and that it is rooted in a theory of group-based politics that is fundamentally at odds with the "color-blind" spirit of the U.S. Constitution and our historical struggle for political equality. In particular, we reject the claim that the Voting Rights Act (as interpreted by the \textit{Thornburg} Court) went too far in the direction of group-based rights; we would emphasize that the rights it provides are contingent ones, appropriate only where a high liability threshold has been met.

First, the applicability of section 2 of the Voting Rights Act, like section 5, is in principle "self-liquidating." For section 5, the obvious self-liquidating feature is the bailout provision. In section 2, for any dilutive practice for which single-member districts are the proposed remedy, if and when any of the conditions necessary for a violation to be found (residential segregation, racial polarization, limited minority electoral success) ceases to exist in a jurisdiction, for that jurisdiction the Act soon becomes a dead letter. The three-pronged test \textit{allows the Voting Rights Act to lapse into irrelevance when and where the status of minority groups changes}. The three specific conditions—(a) a level of residential segregation sufficient to allow the drawing of districts in which members of a minority (in both meanings of that term) comprise a majority; (b) lack of white/Anglo support for minority candidates; and (c) lack of

\textsuperscript{216} 447 F.2d 960 (4th Cir. 1971), cert. denied, 405 U.S. 920 (1972).
\textsuperscript{217} 422 U.S. 935 (1975).
\textsuperscript{218} 446 U.S. 55 (1980).
minority electoral success—are conditions that no sensible person would wish to see perpetuated.

Second, the concept of vote dilution, defined in the Voting Rights Act as “having less opportunity than other members of the electorate to participate in the political process and elect representatives of choice,” requires us to look at consequences for groups. It is true that other voting rights violations (e.g., violation of the one person, one vote standard) are customarily defined in terms of the violation of individual rights. Yet, clearly there are types of discrimination that can best be characterized as being directed against individuals as a function of their status as members of a minority community. In such situations it seems absurd to think that remedies cannot be race-conscious. In the present context, since racially polarized voting is a prerequisite for a voting rights violation, and residential segregation a prerequisite for submergence, it is not plausible to attempt a “color-blind” remedy for dilution. Indeed, the very notion that the Constitution either in its initial form, or in terms of the thirteenth through fifteenth amendments, is in any way “color-blind” is also absurd.\(^{220}\)

Third, in the voting rights area, it would sometimes appear that the messenger is being blamed for the bad news he brings. Thus, the enforcement of the Voting Rights Act is sometimes (rather confusedly) blamed for causing the conditions (such as segregated housing and racially polarized voting) that the litigation brings into the light of day.\(^{221}\)

\(^{220}\) The unfortunate truth is that, like it or not, race has been at the heart of American politics from the nation’s beginning to the present: the constitutional compromises that treated a slave as three-fifths of a person for apportionment purposes and set a cutoff date on the slave trade; the controversies over the admission of slave states in the nineteenth century that led to the Civil War; the post-Civil War Amendments; the exclusion from political participation of the ostensibly freed slaves after the end of Reconstruction; the Dixiecrat revolt; civil rights protests of the 1960s and the desegregation of schools, buses, lunch counters and bathrooms; the still racially polarized politics of the present, where the greater the black population, the more likely were whites to vote for George Wallace in 1968 and Republican presidential candidates thereafter.

\(^{221}\) A. Thernstrom, Whose Votes Count? Affirmative Action and Minority Voting Rights (1987). Thernstrom asserts that enforcement of the Voting Rights Act has led to an increase in racial polarization by making race a more salient feature of politics than it had been previously. She provides no empirical evidence to support this claim. We believe the claim to be false. The best evidence suggests relative constancy of polarization, at least for legislative elections in the deep South in non-black majority districts. Grofman & Handley, The Impact of the Voting Rights Act on Black Representation in Southern State Legislatures, 16 Legis. Stud. 43 (1991); cf. Loewen, Racial Bloc Voting and Political Mobilization in South Carolina, 19 Rev. Black Pol. Econ. 23 (1990). In black majority districts there is some evidence of diminished polarization on the part of whites as they accept the fact that the winner will be black and as they experience the reality that black elected officials may not have been as undesirable as they might have previously feared.
Fourth, we would emphasize that pluralist politics in the United States is at least as likely to work in the form of accommodation among elected political representatives of different races, ethnicities, and policy views as it is in terms of mass-based electoral coalitions among groups with diverse interests. Also, the election of minority officeholders from predominantly minority constituencies creates a cadre of potential minority candidates for higher office who can develop a record of achievement and an experience with coalition politics that enables them to appeal successfully to non-minority voters, and who have an electoral base within their own community from which to build.

We take a long-term view; one in which the Voting Rights Act can be seen as the "politics of second best." We would all rather live in a color-blind world, but in a world where racial polarization, residential segregation and the lingering effects of discrimination are all too apparent, we must devise remedies adapted to that reality.