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# CRITERIA FOR DISTRICTING A SOCIAL SCIENCE PERSPECTIVE

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## INTRODUCTION

In this Article I examine the many criteria that have been

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proposed to guide districting in the United States.<sup>1</sup> I divide these criteria into five categories:<sup>2</sup> (1) formal, (2) racial intent, (3) political intent, (4) racial outcome/anticipated outcome, and (5) political outcome/anticipated outcome. (See Table 1.)<sup>3</sup> Although a great deal has been written about the statutory and constitutional issues raised by racial gerrymandering,<sup>4</sup> legal issues relating to political gerrymandering have been largely unexplored. Until *Bandemer v. Davis*,<sup>5</sup> no court had ever held political gerrymandering to be justiciable. Accordingly, I shall devote somewhat more space to the political intent and political outcome/anticipated outcome criteria than to the racial intent and racial outcome/anticipated outcome criteria.

Table 1 makes it clear that there are multiple and conflicting "reasonable" goals which can be advocated for reapportionment<sup>6</sup> decision making. In this Article, I briefly review the current legal status of federal and state law in each of the five categories and discuss how much importance should be attached to the various criteria. In addition, I discuss how certain criteria can be measured and the extent to which different criteria are mutually compatible. Initially, I confine the analysis to single-member districting, but in the final sections I broaden the analysis to include at-large and multimember district elections, and proportional and semiproportional systems (single transferable vote, cumulative voting, and limited voting), which have been proposed as alternatives to plurality-based districting.<sup>7</sup>

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1. While I do not claim that my inventory of criteria, see Table 1, is exhaustive, it includes all of the most important statutory and constitutional factors as well as those criteria on which courts and social scientists have placed great emphasis.

2. For an alternative typology of redistricting criteria, see R. MORRILL, *POLITICAL REDISTRICTING AND GEOGRAPHIC THEORY* 17-28 (1980).

3. See *infra* p. 174.

4. See, e.g., *MINORITY VOTE DILUTION* (C. Davidson ed. 1984); *THE RIGHT TO VOTE* (Rockefeller Foundation ed. 1981); Berry & Dye, *The Discriminatory Effects of At-Large Elections*, 7 *FLA. ST. U.L. REV.* 85 (1979); Engstrom, *Racial Vote Dilution: Supreme Court Interpretations of Section 5 of the Voting Rights Act*, 4 *S.U.L. REV.* 139 (1978).

5. 603 F. Supp. 1479 (S.D. Ind. 1984), *prob. juris. noted*, 105 S. Ct. 1840 (1985).

6. Technically, *reapportionment* is the redistribution of seats among political subunits and *districting* is the drawing of new constituency boundaries, but I use the terms interchangeably.

7. Criteria for single-member districting and multimember districting are by

## I. FORMAL CRITERIA

A. *Equal Population*

United States courts first became involved in the reapportionment arena because of what Leroy Hardy has called the silent gerrymander: the failure of a reapportioning body to redistrict a state in light of new census data.<sup>8</sup> In *Baker v. Carr*,<sup>9</sup> the Supreme Court declared that the failure to periodically reapportion could give rise to a constitutional violation. Prior to *Baker*, some states had not been reapportioned since the turn of the century,<sup>10</sup> and many had not been reapportioned for several decades.<sup>11</sup> At the same time, some states

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and large identical, but multimember districts pose special problems (especially for minority representation) which I briefly address in this Article. See Grofman, *Alternatives to Single Member Plurality Districts: Legal and Empirical Issues*, 9 POL'Y STUD. J. 875 (1981); Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, 9 POL. METHODOLOGY 295 (1983); B. Grofman, Report on the Constitutionality of Hawaii Reapportionment Commission's Proposed State Legislative Redistricting, (prepared testimony in *Travis v. King*, 552 F Supp. 554 (D. Hawaii 1982)); B. Grofman, *Ward v. At-Large Elections: Theoretical Issues* (1983) (unpublished manuscript); B. Grofman, *The Disadvantageous Effects of At-Large Elections on the Success of Minority Candidates for the Charlotte and Raleigh City Councils* (prepared testimony in *Gingles v. Edmisten*, 590 F Supp. 345 (E.D.N.C. 1984), *prob. juris. noted sub nom.*, *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985)); see also Grofman & Scarrow, *The Riddle of Apportionment: Equality of What?*, 70 NAT'L CIVIC REV. 242 (1981); Niemi, Hill & Grofman, *The Impact of Multimember District Elections on Party Representation in State Legislatures*, 11 LEGIS. STUD. Q. (forthcoming 1986).

As of 1983, twenty-one states made use of multimember districts in one or both houses of their state legislature. See Table 3. The number of multimember districts has been falling over the past two decades. In a number of states covered by the Voting Rights Act, Justice Department objections based on racial vote dilution grounds have eliminated multimember districts. Engstrom, *supra* note 4, at 139; Niemi, Hill & Grofman, *supra*. The American Bar Association has recently announced its official position that the multimember districts should be abolished by state legislatures.

8. Hardy, *Considering the Gerrymander*, 4 PEPPERDINE L. REV. 243 (1977).

9. 369 U.S. 186 (1962).

10. See Hardy, *supra* note 8, at 250-51.

11. *Id.* Legislative resistance to population-based reapportionment was "an attempt to ignore the great transition in American life from a rural to an urban society. 'Status quo' elements naturally fought vigorously the realignment of districts which would deplete their political power." *Id.* at 250. An examination of the state statutory provisions on congressional and state legislative districting reveals that most states require decennial reapportionment. L. EIG & M. SEITZINGER, *STATE CONSTITUTIONAL AND STATUTORY PROVISIONS CONCERNING CONGRESSIONAL AND STATE LEGISLATIVE REDISTRICTING* (Congressional Research Service 1981). Most states also have provisions for the reapportionment to take place at the first session following the census. With a handful of exceptions, it appears that states are free to reapportion more than once a decade although few legislatures choose to do so, except under pressure from litigation or a court order. The New Jersey constitu-

had constitutional provisions which based apportionment of the upper house on counties, not population,<sup>12</sup> while many other states had constitutional provisions in which reapportionment for one or both houses combined geographic and population criteria.<sup>13</sup> Because of population shifts, tremendous discrepancies arose between the size of urban and rural districts. For example, in 1960 the largest district in Tennessee had more than 44 times the population of the smallest district, and in California the ratio of the largest to smallest district was 449 to 1.<sup>14</sup> Less than two years after *Baker*, the Supreme Court ruled that districts with unequal populations must meet a "one-man-one-vote" requirement that districts be substantially equal in population.<sup>15</sup>

Current federal case law on reapportionment treats equal district population as the *sine qua non* of districting, although much stricter standards are used for congressional districting than for districting at the state or local level.<sup>16</sup>

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tion provides that districts which are adopted by commission "shall remain unaltered until the following census." N.J. CONST. art. IV The South Dakota constitution provides that "such apportionment shall be made by the regular session of the legislature in 1951 and every ten years thereafter and at no other time." S.D. CONST. art. III, § 5. The West Virginia constitution provides the decennial reapportionment "shall continue in force unchanged, until such districts shall be altered under the succeeding census." W. VA. CONST. art. VI, § 10.

12. See *Gray v. Sanders*, 372 U.S. 368 (1963).

13. See, e.g., *Sweeney v. Notte*, 95 R.I. 68, 183 A.2d 296 (1962).

14. Hardy, *supra* note 8, at 251.

15. *Reynolds v. Sims*, 377 U.S. 533 (1964); *Wesberry v. Sanders*, 376 U.S. 1 (1964). The origins of the term "one-man-one-vote" (changed in the 1970's to "one-person-one-vote") are described in Silva, *One Man, One Vote and the Population Base*, in REPRESENTATION AND MISREPRESENTATION 54 n.7 (R. Goldwin ed. 1968).

16. Generally, courts also apply stricter population equality standards to court-imposed plans than to those prepared by legislatures or reapportionment commissions. Absent special considerations, single-member districts are required in court-ordered plans. See *Chapman v. Meier*, 420 U.S. 1, 23-26 (1975).

Total population as specified in the decennial federal census is required as the basis for congressional districting: "[R]epresentatives shall be apportioned among the several states according to their respective numbers, counting the whole number of persons in each state, excluding Indians not taxed." U.S. CONST. art. I, §2, amended by *id.* amend. XIV 13 U.S.C. §§ 141(a) and (b) give the Secretary of Commerce the responsibility to make this enumeration. Requirements for state legislative reapportionment vary widely. 13 U.S.C. §§ 141(a)-(b) (1982). For example, Indiana's constitution provides for state legislative apportionment according to adult males. IND. CONST. art. XIV, § 4. Nebraska's constitution excludes aliens from its legislative apportionment basis. NEB. CONST. art. III, § 5. Washington's constitution excludes Indians not taxed and United States armed forces personnel. WASH. CONST. art. II, § 3. New York's constitution excludes untaxed aliens and Indians. N.Y. CONST. art. III, § 5. Vermont has a statutory provision for

The Supreme Court found its authority for regulating congressional districting in article I, section 2 of the United States Constitution,<sup>17</sup> and found authority for imposing an equal population standard on the states and subordinate jurisdictions in the equal protection clause of the fourteenth amendment.<sup>18</sup> The most common measures of population

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legislative apportionment on the basis of voters in the previous election. VT. STAT. ANN. tit. 17, § 1891 (1982); see also L. EIC & M. SEITZINGER, *supra* note 11; COUNCIL OF STATE GOVERNMENTS, REAPPORTIONMENT INFORMATION SERVICE, STATE PROFILES (1981). Other states, have used an apportionment basis other than census population in the absence of specific constitutional provisions. In *Burns v. Richardson*, 384 U.S. 73 (1966), a case arising out of Hawaii's redistricting, the Supreme Court asserted that the states are not "required to include aliens, transients, short-term or temporary residents, or persons denied the vote for conviction of crime, in the apportionment base by which their legislators are distributed." *Id.* at 92; see Lee & Herman, *Ensuring the Right to Equal Representation: How to Prepare or Challenge Legislative Reapportionment Plans*, 5 U. HAWAII L. REV. 1, 18-19 (1983).

In *Gaffney v. Cummings*, 412 U.S. 735 (1973), the Supreme Court noted:

[I]f it is the weight of a person's vote that matters, total population—even if stable and accurately taken—may not actually reflect that body of voters whose votes must be counted and weighed for the purposes of reapportionment, because "census persons" are not voters. The proportion of the census population too young to vote or disqualified by alienage or nonresidence varies substantially among the States and among localities within the State.

*Id.* at 746-47 However, subsequent federal court cases have held that apportionment on the basis of voters or registered voters is a violation of equal protection, unless such apportionment happens to yield results which coincide with districting based on a permissible apportionment basis. See *Travis v. King*, 552 F. Supp. 554 (D. Hawaii 1982). Also, local government plans that assigned apportionment based on nonpopulation standards allegedly related to service provisions (for example, road mileage), have been found unconstitutional and in some cases, racially discriminatory. *Robinson v. Commissioners Court*, 505 F.2d 674, 680 (5th Cir. 1974). Representation in special purpose districts may be apportioned according to service consumption. For example, in *Ball v. James*, 451 U.S. 355 (1981), the Supreme Court refused to order an irrigation district to grant identical voting rights to multiacreage and single-acreage residents. See *Riker, Democracy and Representation: A Reconciliation of Ball v. James and Reynolds v. Sims*, 1 SUP CT. ECON. REV. 39 (1982).

Population, age-eligible voters, registered voters, and actual voters may not coincide. For example, if we compare predominantly Hispanic areas in the Bronx with predominantly non-Hispanic white areas in the same borough, the non-Hispanics may have a ratio of eligible voters to population one-and-a-half times as great as the Hispanics. Because of low registration and turnout among New York City Hispanics, the contrasts become even more dramatic if we look at actual voters rather than eligible voters. B. Grofman, Report to the Special Master on Methodology Used to Insure Compliance with Standards of the Voting Rights Act of 1965, Flateau v. Anderson, 537 F. Supp. 257 (S.D.N.Y.), *appeal dismissed*, 458 U.S. 1123 (1982).

17 See *Wesberry v. Sanders*, 376 U.S. 1 (1964).

18. See *Reynolds v. Sims*, 377 U.S. 533 (1964).

equality are the total deviation (also known as the overall population range) and the average deviation (also known as mean deviation).<sup>19</sup>

In *Wesberry v. Sanders*<sup>20</sup> the Supreme Court asserted that “[w]hile it may not be possible to draw congressional districts with mathematical precision, that is no excuse for ignoring our Constitution’s plain objective of making equal representation for equal numbers of people the fundamental goal for the House of Representatives.”<sup>21</sup> The leading cases for congressional districting are *Kirkpatrick v. Preisler*<sup>22</sup> and *Karcher v. Daggett*.<sup>23</sup> Both cases specifically reject the view that there is a point at which population differences among districts become de minimis. In *Kirkpatrick*, the Supreme Court also rejected a number of justifications offered by the State of Missouri for the total deviation of 5.97% in the plan. These justifications included the claim that the plan was drawn to avoid fragmenting political subdivisions and areas with local economic and social interests, and to provide reasonably geographically compact districts. In *Karcher*, however, decided in 1983, the Supreme Court majority suggested that these criteria *were* relevant in justifying population deviations *if* they were consistently applied. By a vote of 5 to 4, the Court rejected as unconstitutional a plan drawn by the New Jersey legislature with a total deviation of only 0.698% and a mean deviation of only 0.138%. This decision drew considerable fire from the dissenting Justices, who argued that the decision carried desire for strict mathematical equality to an unnecessary extreme.<sup>24</sup>

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19. Total deviation is the sum in absolute value of the deviations from ideal (average) district size of the largest district and of the smallest district. Average deviation is simply the average of the absolute value of the deviations in each district. See REAPPORTIONMENT: LAW AND TECHNOLOGY 9 (A. Wollock ed. 1980) [hereinafter cited as A. WOLLOCK].

20. 376 U.S. 1 (1964).

21. *Id.* at 18.

22. 394 U.S. 526 (1969).

23. 462 U.S. 725 (1983).

24. *Id.* at 765–83 (White, J., dissenting); *id.* at 784–90 (Powell, J., dissenting). In *Carsten v. Lamm*, 543 F. Supp. 68 (D. Colo. 1982), the court refused to distinguish among congressional plans according to population deviation when total deviation differed only by a handful of persons per district. The court focused on other criteria, such as preserving natural geographic areas of the state. In *O’Sullivan v. Brier*, 540 F. Supp. 1200 (D. Kan. 1982), the court rejected a proposed congressional plan with a deviation of 0.09%, and instead adopted a plan with 0.338% deviation. Similarly, in *Doulin v. White*, 535 F. Supp. 450 (E.D. Ark.

In contrast to the Supreme Court's rigid insistence on absolute population equality in congressional districting, the Court has permitted state legislatures some reasonable discretion in legislative districting plans. In *Connor v. Finch*,<sup>25</sup> the Court clarified its earlier decisions in *White v. Regester*<sup>26</sup> and *Gaffney v. Cummings*,<sup>27</sup> by saying that total deviations under 10% are of "prima facie constitutional validity" for "legislatively enacted apportionments."<sup>28</sup> On the other hand, total deviations above 10% normally must effectuate a legitimate state purpose in order to be justified. The Supreme Court also looks at average deviation in judging whether a plan is valid.<sup>29</sup> Until 1983, the largest total deviation which the United States Supreme Court had held to be justified was 16.4%,<sup>30</sup> while a total deviation of 19.3% had been invalidated in *Connor v. Finch*.<sup>31</sup> In 1983, in *Brown v. Thomson*,<sup>32</sup> the Supreme Court upheld a total deviation of 89% when a sparsely populated Wyoming county was given its own representative. Language in that opinion, however, suggests that the case should be very narrowly construed, leaving *Connor* intact.<sup>33</sup>

Wollock, a staff member of the National Conference of State Legislators, compiled a succinct inventory of the major cases and relevant case law on population equality standards prior to 1980's redistricting.<sup>34</sup> The total deviation for the 1980's plans of all but a handful of states is shown in Table

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1982), the court rejected proposed congressional plans with deviations below 0.20% in favor of a court-ordered plan with a 0.78% deviation. In *South Carolina Conference of NAACP v. Riley*, 533 F Supp. 1178 (D.S.C.), *aff'd*, 459 U.S. 1025 (1982), the court adopted a congressional plan with a 0.28% deviation, rejecting an alternative plan with a deviation of only 0.0656%. Even the Supreme Court, in choosing among plans, has not always chosen the one with the lowest population deviation. See *infra* text accompanying notes 145-51 (discussion of *White v. Weiser*).

25. 431 U.S. 407 (1977).

26. 412 U.S. 755 (1973).

27. 412 U.S. 735 (1973).

28. 431 U.S. at 430-33.

29. See *White v. Register*, 412 U.S. at 763-64; *cf. Holmes v. Farmer*, 475 A.2d 976 (R.I. 1984) (plan as a whole adequately protected people of the state in their constitutional right to one-person-one-vote, but the deviation of 11.5% between districts 24 and 25 was too large).

30. *Mahan v. Howell*, 410 U.S. 315 (1973).

31. 431 U.S. at 413.

32. 462 U.S. 835 (1983).

33. *Id.* at 837-48; see also *id.* at 848-50 (O'Connor, J., concurring).

34. A. WOLLOCK, *supra* note 19.



2.<sup>35</sup> The range for congressional districts is less than 1% for roughly 80% of the states and under 2.5% for all states; the range for legislative districts is under 10% for 80% of the states. A few of the jurisdictions with a range above 15% have state legislative plans which (as of April 1983) were still subject to either court challenge or technical amendments to eliminate inadvertent deviations from population equality. Other plans (notably Hawaii's court-drawn senate plan, Michigan's court-drawn house and senate plans, and the Wyoming plans approved in *Brown*) have population ranges in excess of 15% (See Table 2.)

### B. *Contiguity*

A district may be defined as contiguous if every part of the district is reachable from every other part without crossing the district boundary (i.e., the district is not divided into two or more discrete pieces). Thirty-seven states have a contiguity requirement for legislative districting, while many of the states which do not have this requirement still retain provisions for districting based on county lines. (See Table 3.)<sup>36</sup> Contiguity is a relatively trivial requirement and usually a noncontroversial one. Sometimes, however, there can be dispute about whether districts whose parts are connected by water or bridges are genuinely contiguous.<sup>37</sup>

### C. *Compact Districts*

At one time, federal statute required compactness for congressional districting,<sup>38</sup> but this is no longer true.

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35. See *infra* p. 175.

36. See *infra* p. 177.

37. The Michigan constitution requires contiguity by land. MICH. CONST. art. IV, § 3. An Iowa bill specifies that "areas which meet only at the points of adjacent corners are not contiguous." 1980 Iowa Legis. Serv. H.F. 707, 397-409 (West). The Supreme Court has affirmed a case in which connection by a bridge was held to be sufficient for contiguity. *Rockefeller v. Wells*, 389 U.S. 421 (1967) (per curiam), *aff'g* 273 F. Supp. 984 (S.D.N.Y. 1967). The Court, however, did not review the specific issue of contiguity. State case law is less clear. See, e.g., *Badillo v. Katz*, 73 Misc. 2d 836, 841-42, 343 N.Y.S.2d 451, 456-57 (1973); *cf.* *Holmes v. Farmer*, 475 A.2d 976 (R.I. 1984). Also, there may be a dispute about contiguity if the only route between two places in the district is via roads which do not lie entirely within the district.

38. See Reapportionment Act of 1911, Pub. L. No. 62-5, §§ 2-4, 37 Stat. 13-14, and Reapportionment Act of 1929, 2 U.S.C. § 2a (1982), the latter replacing the former.

Although compactness has never been a federal requirement for state legislative districting, federal courts have frequently referred to the desirability of compact districts.<sup>39</sup> Twenty-five states have compactness provisions for legislative districting in their state constitutions. In a number of states the term compact is modified by the phrase "as practicable," or equivalent language. In other states the modifying phrase is "as possible," or equivalent language. (See Table 3.) Only two state constitutions actually provide definitions of the term compactness.<sup>40</sup> There are many different ways of applying a compactness requirement, but none is generally accepted as definitive.<sup>41</sup> In most 1980's districting-related litigation, compactness was not an issue. If allegations of noncompactness were raised, they were based on an intuitive visual notion of what a compact district would look like.<sup>42</sup>

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39. *Bandemer v. Davis*, 603 F Supp. 1479 (S.D. Ind. 1984), *prob. juris. noted*, 105 S. Ct. 1840 (1985).

40. Colorado defines compactness in terms of the sum of the perimeters of district boundaries. COLO. CONST. art. V, § 47. The Michigan constitution specifies that state senate districts are to be "as rectangular in shape as possible," and that state house districts are to be "as nearly square in shape as possible." MICH. CONST. art. IV, § 2. However, the constitution does not indicate how such comparisons are to be done.

41. See R. MORRILL, *supra* note 2; see also H. Young, *Measuring the Compactness of Legislative Districts* (Sept. 1984) (presented at the Annual Meeting of the American Political Science Association, Washington, D.C.). Almost all the standard definitions of compactness define it solely in territorial terms. Almost all are adaptable either to measure the compactness of individual districts (with the circle or square being the most compact individual district), or to measure the aggregate compactness of alternative plans or subsets thereof. The Colorado constitution provides for comparison of the compactness of plans in terms of total perimeter, but also requires that each district be "as compact as possible." COLO. CONST. art. V, § 47. Michigan's compactness definition is expressed in terms of individual districts. MICH. CONST. art. IV, § 2. Iowa's legislature specified two compactness measures in its 1980 bill on reapportionment, both of which are district based: The first is based on a district length and district width comparison and the second is defined as "the ratio of the dispersion of population about the geographic center of the district to the dispersion of population about the population center of the district." 1980 Iowa Legis. Serv. H.F. 707 (West).

42. Indeed, in *Carstens v. Lamm*, 543 F Supp. 68 (D. Colo. 1982), a Colorado congressional reapportionment case (in which I testified as an expert witness for the Republican state party and calculated the sum of perimeters measure for a half-dozen proposed plans), the district court relied on its own intuitive assessment of the compactness of several competing plans, arguing that all were essentially satisfactorily compact. In a 1982 Rhode Island House case, however, *Holmes v. Burns*, No. 82-1727 (R.I. Super. Ct. 1982), *aff'd sub nom. Holmes v. Farmer*, 475 A.2d 976 (R.I. 1984), I testified as an expert witness for the state of Rhode Island and measured the compactness of alternative plans in terms of the Colorado sum of perimeters measure and also in terms of another measure which I believed preferable

Courts have generally required dramatic departures from compactness in a number of districts before invalidating a plan for noncompliance with a compactness standard.<sup>43</sup>

D. *Districts Following Local Political Subunit Boundaries and Other "Natural" Demarcation Lines and/or Preserving Communities of Interest*

Provisions prohibiting legislative districts from crossing county (or in some cases city or township) boundaries exist in a very large number of state constitutions. Some states, which had made extensive use of multimember districts, have a stricter requirement that legislative districts consist of one or more whole counties. Over a dozen state constitutions retain provisions that provide for minimal representation to be allocated to political subunits on a basis other than population. (See Table 3.) Courts have repeatedly held such provisions to be null and void if they conflict with equal population districting.<sup>44</sup> In a few states where such provisions exist, plans have been struck down for "unnecessary" crossing of county and municipal borders, but courts have generally allowed legislatures wide latitude in determining

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(perimeter divided by the square root of area). The court explicitly reviewed alternative definitions of compactness in terms of their relevance to state law as part of its opinion. Furthermore, in a Maryland State Court of Appeals case, which consolidated a dozen different lawsuits attacking the constitutionality of Maryland's legislative plans, several different operationalizations of compactness were offered and disputed by expert witnesses for opposing sides. The opinion of the court also explicitly considers the problem of defining compactness. *In re Legislative Districting*, 299 Md. 658, 475 A.2d 428, *appeal dismissed sub nom. Wiser v. Hughes*, 459 U.S. 962 (1982).

43. In an advisory opinion to the governor, 101 R.I. 203, 221 A.2d 799 (1966), the Rhode Island Supreme Court indicated that it might refuse to invalidate a plan unless there was "a complete departure from the requirement for compactness." *Id.* at 210, 221 A.2d at 803. The Missouri Supreme Court in *Preisler v. Kirkpatrick*, 528 S.W.2d 422 (Mo. 1975), found all but two districts in a plan to be within acceptable limits of compactness, and held that "considering the overall, state-wide plan developed the districts established substantially comply with the compactness requirement [of the Missouri state constitution.]" *Id.* at 426-27. Although the Missouri constitution requires that districts be "as compact as may be," MO. CONST. art. III, § 2, the court asserted that "no matter how compact in shape the districts [established by the legislature] may be, none will be so perfect that there will not be room for improvement." 528 S.W.2d at 426-27. For a discussion of the leading exception to the general principle that deviations from compactness must be extreme and pervasive before being struck down, see *Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 430 N.E.2d 483 (1981).

44. *See, e.g., Sweeney v. Notte*, 95 R.I. 68, 183 A.2d 296 (1962) (invalidating R.I. CONST., art. XIII, § 1).

what is reasonable, as long as equipopulation standards are met.<sup>45</sup> Even in states which lack constitutional requirements that districts adhere to subunit or natural boundaries, state legislatures often set forth such goals for their plans. Courts have held that respecting political subdivisions is desirable in court-drawn plans.<sup>46</sup>

A number of states also have either constitutional or statutory provisions requiring districts to preserve, when practicable, "communities of interest."<sup>47</sup> (See Table 3.) Most states fail to define this phrase. It is roughly synonymous with "recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interests."<sup>48</sup> In practice, provisions which require preservation of communities of interest are hard to enforce because they are hard to interpret.<sup>49</sup> Also, preserving communities of interest may conflict with the criterion of following political or other subunit boundaries. Sometimes legislatures attempt to justify deviations from political subunit boundaries by arguing that plans have sought to preserve communities of interest. This may or may not be a pretext. At the municipal level, map makers often seek to follow neighborhood lines wherever possible, and some states *require* this of localities that redistrict.<sup>50</sup> Because the term "neighborhood" rarely has an agreed-on definition, disputes arise about the extent to which such a criterion has been followed.<sup>51</sup> For state or local districting, it appears that as long as the total deviation

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45. See, e.g., *State ex rel Lockert v. Crowell*, 631 S.W.2d 702 (Tenn. 1982). The same latitude should be allowed in interpreting provisions that require adherence to natural boundaries in drawing district lines. Only a handful of states have such provisions, however, see Table 3, and I am not familiar with cases that deal directly with this point.

46. See, e.g., *Shayer v. Kirkpatrick*, 541 F Supp. 922 (S.D. Mo.), *aff'd sub nom. Schatzle v. Kirkpatrick*, 456 U.S. 966 (1982).

47. For example, the Colorado constitution provides that "communities of interest, including ethnic, cultural, economic, trade area, geographic, and demographic factors, shall be preserved within a single district wherever possible." COLO. CONST. art. V, § 47

48. VT. STAT. ANN. tit. 17, § 1903 (1982).

49. See, e.g., *Carstens v. Lamm*, 543 F Supp. 68 (D. Colo. 1982).

50. See statutory discussion in *Latino Political Action Comm. v. City of Boston*, 609 F Supp. 739 (D. Mass. 1985).

51. For example, the number and boundaries of Boston neighborhoods was the subject of considerable dispute by both lay and expert witnesses in *Latino Political Action Comm. v. City of Boston*, 609 F Supp. 739 (D. Mass. 1985).

remains under 10%,<sup>52</sup> following subunit or natural neighborhood boundaries is generally accepted as a reason for failing to reduce population discrepancies among districts. Except under very special circumstances, such as in *Brown v. Thomson*,<sup>53</sup> if the total deviation is above 20%, such justifications are almost certain to prove insufficient to override judicial insistence on equal population.

#### E. *Coterminality of House and Senate Plans*

Ten states have constitutional provisions requiring coterminality of state assembly and state senate districts; three other states customarily draw plans to achieve coterminality, even though it is not constitutionally mandated. (See Table 3.) Absent a constitutional provision to that effect, coterminality, which is also known as nesting, is not a legal requirement.<sup>54</sup>

#### F. *Reflections on Formal Districting Criteria*

The commonly held view that reliance on formal criteria such as compactness or equal population can prevent gerrymandering is simply wrong. Moreover, the talismanic reliance on the equal population standard, especially in the extreme form applied in *Karcher v. Daggett*,<sup>55</sup> makes little sense. First, the accuracy of census data is limited, and population equality within less than one percent is illusory. This point was clearly recognized by the Supreme Court in *Gaffney v. Cummings*,<sup>56</sup> but rejected as irrelevant by the court majority in *Karcher*.

Second, rounding errors caused by the process of apportioning congressmen to each state in accord with state population figures give rise to discrepancies among different states far greater than those permitted within any given state. This double standard makes no sense. In 1982, Nevada and Maine each had the same number of congressmen (two) but

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52. See *supra* note 19 and accompanying text.

53. 462 U.S. 835 (1983).

54. Nine states *could* have coterminous districts (because the size of the senate is an even multiple of the size of the house) but fail to do so: Alaska, Florida, Indiana, Massachusetts, Nevada, Ohio, Rhode Island, Tennessee, Vermont, and Washington. The Rhode Island Supreme Court rejected the need for coterminality in *Holmes v. Burns*, 475 A.2d 976 (R.I. 1984).

55. 462 U.S. 725 (1983).

56. 412 U.S. 735, 745-46 (1972); see also *supra* note 16.

Nevada's ideal district size was 393,345 while Maine's was 562,330; moreover, South Dakota, a single-district state, has an ideal congressional district population of 690,178—nearly twice that of Nevada.

Third, in *Gaffney*<sup>57</sup> the Supreme Court recognized that equal district populations at the beginning of a decade do not guarantee equal populations at the end of that decade.<sup>58</sup> Given the magnitude of the changes that take place over ten years, the seeming precision of creating identically populated districts is, in fact, mythical—a classic instance of what social scientists refer to as “number magic.”<sup>59</sup>

Finally, the different standards for congressional and state districting imposed by the Supreme Court have no clear rationale and cannot, in my view, be justified on the basis of constitutional language or constitutional history, especially since the population in state legislative districts varies so widely across states. In some states, such as California, legislative districts have populations nearly as large as those of some congressional districts.<sup>60</sup>

With respect to compactness, the usefulness of requiring that districts be compact has been vastly overrated. With the exception of its potential usefulness as an indicia of possible gerrymandering, I do not believe there is anything desirable

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57. The Court stated:

[I]t must be recognized that total population, even if absolutely accurate as to each district when counted, is nevertheless not a talismanic measure of the weight of a person's vote under a later adopted reapportionment plan. The United States census is more of an event than a process. It measures population at only a single instant in time. District populations are constantly changing, often at different rates in either direction . . . .

*Id.* at 746.

58. For example, population shifts in New York in the 1970's, notably loss of population in New York City (especially the Bronx), left the 1980 population of some of New York's most populous congressional districts more than twice as large as the population of the congressional districts which had suffered the greatest population losses. See B. Grofman, *supra* note 16.

59. See, e.g., Singer, *The Vitality of Mythical Numbers*, PUBLIC INTEREST, Spring 1971, at 3.

60. Moreover, the only possible empirical rationale for the difference in treatment is based on the generally large size of congressional districts, as compared to legislative districts. This seems to require different permissible population discrepancy standards for jurisdictions with highly populous districts from ones with less populous districts. The Supreme Court, however, has never accepted this rationale. See *Karcher v. Daggett*, 462 U.S. 725 (1983); see also *Connor v. Finch*, 431 U.S. 407 (1977).

per se about districts that look like squares or circles. If we look at census tracts, or townships, or neighborhoods, or other obvious political building blocks, it is rare indeed to find regular geometric figures or even figures that can be aggregated into neat geometric patterns, especially while satisfying equal population constraints. I suspect that most legislators, if asked, would favor compactness for three reasons. First, they believe that, *ceteris paribus*, it is desirable to create a set of districts, each of which is traversable across its width and breadth so that its separate parts are not more physically isolated from one another than is made inevitable by the existence of mountains, lakes, expressways and other physical features. Second, they prefer districts drawn out of such bits and pieces of territory that the district is reasonably cognizable by its electorate. In other words, most of the district should be identified in terms of recognizable social or geographical building blocks: for example, the area of the city west of the crosstown freeway, plus the Flamingo Road neighborhood. Third, they favor districts that group together sets of people with shared interests. This criterion, however, is not universally accepted, and comes into direct conflict with criteria based on political competitiveness or electoral responsiveness.<sup>61</sup>

I do not believe that there is any necessary connection between compactness and any of the three criteria enumerated above. Square-shaped or rectangular-shaped districts may or may not have transportation networks that facilitate communication (just imagine a district drawn N-S whose only transportation lines are E-W). A grid of square-shaped or rectangular-shaped districts may cut to ribbons existing political subunits, and a grid of square-shaped or rectangular-shaped districts provides no certainty that neighborhoods or communities of interest (whose boundaries are very unlikely to be found in the form of neat geometric figures) will be preserved.

Just as there is no scholarly agreement on the single best measure of compactness, there is also no scholarly agreement on the relationship between compactness and political gerrymandering. One extreme view of compactness asserts that "the opposite of a compact district is a gerrymandered

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61. See *infra* notes 299-338 and accompanying text.

district.”<sup>62</sup> If this view were to be believed, then any noncompact district would be ipso facto gerrymandered, while no compact district could be the result of a gerrymander. This extreme view is clearly erroneous. One cannot recognize a gerrymander by its shape. Gerrymandering may take place even though districts are perfectly regular in appearance. A less extreme point of view has been espoused by Common Cause: “Asymmetrical districts are *often* evidence that gerrymandering has taken place.”<sup>63</sup> A still more reasonable view is held by some political geographers, most notably Richard Morrill, who has argued that “[e]xcept in isolated instances, it is quite difficult to gerrymander compactly.”<sup>64</sup> Under this view, compact districts would virtually rule out gerrymandering, and while noncompact districts would not always imply gerrymandering, they would give reason to test for its presence.

My own view on the link between compactness and gerrymandering differs from all those cited above, though it is closest to Morrill’s. Before I can express that view, I must first enunciate a distinction between two kinds of gerrymandering. I believe it important to distinguish between what I call “personal gerrymandering” and what I call “aggregate gerrymandering.” By personal gerrymandering I mean the drawing of particular districts to favor or disfavor a particular incumbent or potential challenger. By aggregate gerrymandering I mean the drawing of particular districts to favor or disfavor a particular racial, linguistic, or political group. If we confine ourselves to aggregate-level gerrymandering, which is the only form of gerrymandering which I believe might rise to the level of a constitutional violation, there is no necessary relationship between compactness and gerrymandering. Aggregate-level gerrymandering can be found in plans with wholly compact districts as well as in plans with many noncompact districts. This view is shared by a number of political scientists and political geographers who have attacked the “myth of compactness.”<sup>65</sup>

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62. Testimony of G. Henderson, afternoon session, Sept. 8, 1982, trial transcript, at 63, *Rhode Island Republican Party v. Friedemann*, No. 82-1727 (R.I. Super. Ct. 1982) (original name of *Holmes v. Burns*).

63. COMMON CAUSE REDISTRICTING CLEARINGHOUSE, REPORT NO. 1, at 3 (1981) (emphasis added) [hereinafter cited as COMMON CAUSE REPORT].

64. R. MORRILL, *supra* note 2, at 21.

65. See B. CAIN, *THE REAPPORTIONMENT PUZZLE* (1984); R. DIXON, *DEMOCRATIC*



Compactness is a much overrated criterion for evaluating districting plans. It is necessary to consider compactness because so many state constitutions require it, but it is a useful criterion only to the extent that it happens to coincide with other features (like "cognizable" districts or maintaining political subunits) which are of value in themselves, or because its absence may indicate that gerrymandering has taken place. As I shall argue in Part V,<sup>66</sup> noncompactness is an important indicator of possible gerrymandering. Thus, the question to ask is not whether districts are noncompact, but whether noncompactness has been used as a tool to facilitate manipulation of dispersion/concentration of the voting strength of racial or linguistic or political groups in order to diminish their voting strength.

If compactness must be a criterion for districting, I believe it should be examined in the context of entire districting plans rather than individual districts; otherwise the characteristics of a handful of districts may be given too much weight.<sup>67</sup> In plans with a very large number of districts, it is virtually impossible not to have one or two districts which appear somewhat noncompact.

One last point about formal criteria for districting: Coterminality of state legislature and state senate districts might seem to be an obviously desirable feature of legislative districting, but, in fact, it has both positive and negative features. On the positive side, coterminality makes it easier for the electorate to identify its district(s) and corresponding representative(s) because there are fewer district lines. It also provides a natural "promotion" ladder, by allowing legislature members to move up to the state senate. This posi-

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REPRESENTATION: REAPPORTIONMENT IN LAW AND POLITICS 458-62 (1968); P. TAYLOR & R. JOHNSTON, GEOGRAPHY OF ELECTIONS (1979); Nagel, *Simplified Bipartisan Computer Redistricting*, 17 STAN. L. REV. 863 (1965); O'Loughlin, *Racial Gerrymandering: Its Potential Impact on Black Politics in the 1980s* in THE NEW BLACK POLITICS: THE SEARCH FOR POLITICAL POWER 241 (M. Preston, L. Henderson, Jr., & P. Puryear eds. 1982). *But see* R. MORRILL, *supra* note 2, at 21.

66. *See infra* notes 299-338 and accompanying text.

67. In Lowenstein & Steinberg, *The Quest for Legislative Districting in the Public Interest: Elusive or Illusory?*, 33 UCLA L. REV. 1 (1985), the authors argue that a compactness requirement is "not neutral"; it offers "a systematic advantage for one of the major parties, the Republicans." *Id.* at 26. This may or may not be true, but the argument offered by Lowenstein and Steinberg in support of this is sketchy to the point of nonexistence, and they review no empirical data whatsoever for the United States.

tive feature can also be regarded as the principal negative feature of coterminality because coterminality tends to foster competitiveness between state legislature and state senate members from the same district. For legislature members, this may mean that their tenure is one continuous election campaign—a pattern of behavior that may not be best for public policy. Also, for coterminality to be possible, legislature district size must be an even multiple of state senate district size, and in most states this would require substantial political change. Finally, in some states where there is coterminality (e.g., New Jersey), its use is coupled with multi-member districts for the lower house (see Table 3), a method that may have drawbacks of its own.<sup>68</sup>

## II. THE RACIAL INTENT CRITERION

Although case law is not clear on the question, it appears that courts can sometimes be barred from direct investigation of a reapportioner's motives. The court must therefore rely on documents, the published record, various forms of indirect evidence, and freely given testimony to establish discriminatory intent.<sup>69</sup>

There are three distinct sets of legal standards that apply to challenges to districting schemes based on an allegation of purposeful racial gerrymandering: (1) section 5 of the Voting Rights Act; (2) the fourteenth amendment to the United States Constitution; or (3) section 2 of the Voting Rights Act, amended in 1982, which now contains language intended to reverse the effect of the Supreme Court's ruling in *City of Mobile v. Bolden*.<sup>70</sup> *Bolden* seemed to require that an intent to dis-

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68. See *infra* notes 339–89 and accompanying text.

69. The Supreme Court affirmed the decision of a three-judge federal district court in *Hispanic Coalition on Reapportionment v. Legislative Reapportionment Comm'n*, 536 F. Supp. 578 (E.D. Pa.), *aff'd*, 459 U.S. 801 (1982), in which the chair of the Reapportionment Commission and a legislator were protected by court order from testifying about the deliberations of the Commission. (The privilege of not testifying did not, however, extend to the legislator's activities as a representative of a political party.) In 1984, the Rhode Island Supreme Court upheld a similar legislative privilege for reapportionment commission members (legislators) and staff not to be questioned about motivations for their official acts in a case involving a challenge to the Rhode Island house plan. *Holmes v. Farmer*, 475 A.2d 976 (R.I. 1984).

For freely given testimony used to establish racial intent, see *Busbee v. Smith*, 549 F. Supp. 494, 500 (D.D.C. 1982), *aff'd*, 459 U.S. 1166 (1983).

70. 446 U.S. 55 (1980).

criminate be directly shown in some sort of "smoking gun" fashion before a plan could be struck down as violative of minority rights under the Constitution.

A. *Section 5 of the Voting Rights Act*

As of May 1985, sixteen states are subject in whole or in part to the preclearance provision of section 5 of the Voting Rights Act of 1965.<sup>71</sup> Covered jurisdictions must submit all districting plans (and any other changes in election law) for approval by either the United States Attorney General or the Federal District Court for the District of Columbia. Most of the covered states submit their plans to the Justice Department, choosing the district court option only when they anticipate (or have received) a Department of Justice rejection.<sup>72</sup> The Justice Department has sixty days to either reject or accept a plan, although the time period begins again if the Justice Department requires the jurisdiction to provide further information about the plan.<sup>73</sup>

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71. These states are: Alabama, Alaska, Arizona, California, Florida, Georgia, Louisiana, Michigan, Mississippi, New Hampshire, New York, North Carolina, South Carolina, South Dakota, Texas, and Virginia. 50 Fed. Reg. 19122 (1985) (to be codified at 28 C.F.R. § 51.8-.13). The number of states covered under the Voting Rights Act has ranged from a high of 22 in 1981 to a low of 7 in 1965. Jurisdictions have come under the coverage of the Act or have been released ("bailed out") from that coverage under the various trigger and bail-out provisions in the original act, as amended in 1970, 1975, and 1982. See P. Hancock & L. Tredway, *The Bailout Standard of the Voting Rights Act: An Incentive to End Discrimination* (internal memorandum, United States Department of Justice 1985); *Procedures for the Administration of Section 5 of the Voting Rights Act of 1965: Proposed Rules*, 50 Fed. Reg. 19122 (1985) (to be codified at 28 C.F.R. § 51.54).

72. A District of Columbia District Court decision in a § 5 case may be directly appealed to the Supreme Court. No other federal courts have jurisdiction over the § 5 component of redistricting cases. See 50 Fed. Reg. 19122 (1985) (to be codified at 28 C.F.R. § 51.54); Pub. L. No. 97-205, 96 Stat. 134 (1982). A local court may bypass the District of Columbia District Court and the Department of Justice by imposing a plan that is a court-drawn, and therefore not subject to § 5 review. This happened in a South Carolina case involving preclearance of that state's 1982 state senate plan, *Graham v. South Carolina*, No. 84-1430-15 (D.S.C. July 31, 1984), thus mooted *South Carolina v. United States*, 589 F. Supp. 757 (D.D.C.) (§ 5 case brought by the State of South Carolina to forestall an anticipated Department of Justice preclearance denial), *appeal dismissed*, 105 S. Ct. 285 (1984). Because the plan adopted by the federal court was one offered to it by a state legislator, there was a dispute as to whether it indeed counted as a court-drawn plan. South Carolina enacted a subsequent plan which did receive Justice Department preclearance. The state plan, not the court plan, is now in effect.

73. One way for the jurisdiction to, in effect, stop the clock is to bring suit in the District of Columbia District Court to compel the Department of Justice to grant preclearance. Litigation may be underway in this court while negotiations

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 blacks and other protected minorities (such as Hispanics and American Indians).<sup>74</sup> In section 5 cases, unlike cases brought under the fourteenth amendment or section 2 of the Voting Rights Act, the state must carry the burden of proving that its plan was neither intended to have nor would have the effect of diluting the voting rights of protected minorities. The statutory language of the Voting Rights Act makes either discriminatory purpose or discriminatory effect unlawful. In practice, however, absent direct evidence on racial intent from the legislative record, a plan's expected impact on minority representation will often be used as indirect evidence of the likely intent of those who proposed it. This is especially true if (1) the plan was drawn with no significant input from the affected minority group, and/or (2) alternative plans were available which also satisfied one-person-one-vote guidelines, but which would have had more favorable consequences for minority representation. The same features of districting which are important in judging the racial effects of a plan, such as fragmentation or packing of minority voting strength, are often used almost interchangeably as evidence for intent.

#### B. *Fourteenth Amendment Cases*

Section 5 of the Voting Rights Act does not cover all jurisdictions, and even in the jurisdictions that it does cover it applies only to changes in election laws.<sup>75</sup> Cities or counties which "redistrict" by maintaining an at-large election system are not subject to section 5 challenge.<sup>76</sup> Until the amendment of section 2 of the Voting Rights Act in 1982, suits alleging that an at-large or mixed election system was racially discriminatory were almost invariably brought as constitutional challenges under the equal protection clause of the fourteenth amendment.<sup>77</sup> Vote-discrimination-based chal-

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are still going on between the jurisdiction and the Department of Justice for possible "compromise plans" that the Department would be willing to preclear. This sequence of events occurred, for example, in South Carolina in the 1980's. See *supra* note 72.

74. 42 U.S.C. § 1971 (1982).

75. 50 Fed. Reg. 19125 (1985) (to be codified at 28 C.F.R. §§ 51.8-13).

76. See *Beer v. United States*, 425 U.S. 130, 138 (1976).

77. See, e.g., *Whitcomb v. Chavis*, 403 U.S. 124 (1971). The fifteenth amend-

lenges to single-member district plans in jurisdictions not covered by the Voting Rights Act were also usually brought under the fourteenth amendment.

Since the first part of this Article focuses on single-member districting, I defer until later the question of the standards by which at-large or multimember district election schemes are to be judged for racial intent and effect.<sup>78</sup> Two at-large cases, *City of Mobile v. Bolden*<sup>79</sup> and *Rogers v. Lodge*<sup>80</sup> have wider significance as benchmarks in setting "equal protection" standards.<sup>81</sup> In *Bolden*, a 1980 case, a plurality of the Supreme Court held that a showing of racial motivation is necessary to establish a violation of the fourteenth or fifteenth amendment.<sup>82</sup> This ruling dismayed civil rights advo-

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ment is also relevant in providing the constitutional legitimacy for the Voting Rights Act itself. See *South Carolina v. Katzenbach*, 383 U.S. 301 (1966); Blacksher & Menefee, *From Reynolds v. Sims to City of Mobile v. Bolden: Have the White Suburbs Commandeered the Fifteenth Amendment?*, 34 HASTINGS L.J. 1 (1982). I do not attempt to deal with the distinction between vote dilution standards under the fourteenth amendment versus under the fifteenth amendment, a subtle and disputed legal question. See Blacksher & Menefee, *supra*; Gomillion v. Lightfoot, 364 U.S. 339, 346 (1966).

78. See, e.g., Engstrom, *supra* note 4; Grofman, Migalski & Noviello, *The "Totality of Circumstances" Test in Section 2 of the Voting Rights Act: A Social Science Perspective*, 7 LAW & POL'Y Q. 199 (1985).

79. 446 U.S. 55 (1980).

80. 458 U.S. 613 (1982).

81. These cases are commonly abbreviated as *Bolden* and *Lodge* rather than as *Mobile* and *Rogers*, because the former are the original plaintiffs. The name reversal occurred in the Supreme Court because the losing defendants brought the case to the Supreme Court on appeal.

82. 446 U.S. at 62, 65-80. *Bolden* had no majority opinion, and its plethora of separate views makes it difficult to extract a clear line of reasoning on which subsequent cases would be decided. See Grofman, *Alternatives to Single-Member Plurality Districts: Legal and Empirical Issues*, 9 POL'Y STUD. J. 875 (1981). *Bolden* is a very confusing opinion. To illustrate:

The nine justices in *Bolden* were unable to agree on an opinion setting forth what the proper legal standard for proving discriminatory intent in vote dilution cases should be, and the various opinions in the case provided little guidance on how intent may be inferred in vote dilution cases. As Justice White put it in his dissent, the decision "leaves the courts below adrift on uncharted seas with respect to how to proceed." 446 U.S. at 103. In prior cases the court had indicated that circumstantial evidence could be probative of racial motivation. Thus, in *Arlington Heights*, 429 U.S. at 266, the Court held: "Determining whether invidious discriminatory purpose was a motivating factor demands a sensitive inquiry into such circumstantial and direct evidence of intent as may be available." But the *Bolden* plurality all but eliminated the possibility of proving racial purpose by circumstantial evidence in vote dilution cases by specifically rejecting ele-

cates, since a direct showing of discriminatory intent is rarely possible. The *Bolden* opinion cast doubt on earlier uses of circumstantial evidence to establish discriminatory intent. In particular, *Bolden* explicitly rejected as insufficient the criteria enunciated by the Fifth Circuit in *Zimmer v. McKeithen*,<sup>83</sup> under which a number of plans had been struck down as unconstitutional. In *Zimmer*, the court held that *direct* proof of intent to discriminate was not required for a showing of unconstitutionality if an aggregate of specified factors demonstrated a history of discrimination and that the plan would have (or would continue to have) a discriminatory effect.<sup>84</sup>

In *Rogers v. Lodge*,<sup>85</sup> the Supreme Court, while continuing to assert that evidence of purposeful discrimination is required to sustain an equal protection challenge, took a far more favorable view of the *Zimmer* factors and identified historical evidence and evidence of effective vote dilution as relevant to a finding of discriminatory intent. In my view, *Lodge* comes close to reestablishing the *Zimmer* standard in all but name, albeit cloaked in the language of intent. Indeed, *Lodge*,

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ments of proof which the court in prior opinions had identified as relevant. In these cases the court had held that a racial intent may be inferred from the continuing discriminatory effects of a challenged law.

LAWYERS COMMITTEE FOR CIVIL RIGHTS UNDER LAW, SECTION 2 LITIGATION MANUAL 53 (1982). While *Bolden* never explicitly rejected the assertion contained in such cases as *Fortson v. Dorsey*, 379 U.S. 433 (1965), and *White v. Regester*, 412 U.S. 755 (1973), that a plan can be shown to be unconstitutional if it "would operate to minimize or cancel out the voting strength of racial or political groups," 379 U.S. at 439, the majority of the Justices construed these cases as requiring proof of discriminatory intent. This reading is in my view, and in the view of the dissenting Justices in *Bolden*, at variance with the historical record. See LAWYER'S COMMITTEE FOR CIVIL RIGHTS UNDER LAW, *supra*; S. REP. NO. 417, 97th Cong., 2nd Sess., reprinted in 1982 U.S. CODE CONG. & AD. NEWS 205 [hereinafter cited as SENATE REPORT]; Avila, *Mobile Evidentiary Requirements*, in THE RIGHT TO VOTE, *supra* note 4, at 125. The initial impact of *Bolden* was "to halt in its tracks much of the Constitutional litigation against dilution of minority voting." Suits, *Blacks in the Political Arithmetic After Mobile: A Case Study of North Carolina*, in THE RIGHT TO VOTE, *supra* note 4, at 47, 50; see also Parker, *The Impact of City of Mobile v. Bolden and Strategies and Legal Arguments for Voting Rights Cases in Its Wake*, in THE RIGHT TO VOTE, *supra* note 4, at 98; J. Blacksher, *Drawing Single-Member Districts to Comply with the Voting Rights Amendment of 1982* (Mar. 29, 1985) (prepared for delivery at the Tulane University Center for Legal Studies on Governmental Relations—Voting Rights Conference, New Orleans).

83. 485 F.2d 1297 (5th Cir. 1973), *aff'd sub nom.* East Carroll Parish School Bd. v. Marshall, 424 U.S. 636 (1976).

84. *Id.* at 1305.

85. 458 U.S. 613 (1982).

not *Bolden*, is now the leading case on interpreting equal protection in the vote dilution context.<sup>86</sup>

### C. Section 2 of the Voting Rights Act

In 1982, civil rights groups mounted a major and successful effort to extend the Voting Rights Act for another decade. They also succeeded in strengthening the language in section 2 of the Act, which applies to *all* jurisdictions in the United States. As a result, the *Bolden* decision, which required proof of intent in equal protection vote dilution cases brought under the Constitution, was rendered largely irrelevant.

Under the language passed in 1982, a violation of section 2 is established if:

based on the totality of circumstances, it is shown that the political processes leading to nomination or election . . . are not equally open to participation by members of a class of citizens protected [by the Act] in that its members have less opportunity than other members of the electorate to participate in the political process and to elect representatives of their choice.<sup>87</sup>

The effect of this language is to reaffirm "the result standard," articulated in *White v. Regester*,<sup>88</sup> as it was applied prior to the *Bolden* litigation.<sup>89</sup>

I discuss section 2's totality of circumstances test in

86. For example, in *McMillan v. Escambia County*, 688 F.2d 960 (5th Cir. 1982), *vacated*, 104 S. Ct. 1577 (1984), a case reheard just after *Lodge*, the Supreme Court upheld a district court's ruling which had relied primarily on the *Zimmer* criteria in finding a reapportionment plan unconstitutional. This opinion had been previously overruled in *McMillan v. Escambia County*, 638 F.2d 1239 (5th Cir. 1981), because it supposedly failed to satisfy the *Bolden* proof of intent test. 688 F.2d at 965-69; *cf.* *Nevett v. Sides*, 571 F.2d 209 (5th Cir. 1978), *cert. denied*, 446 U.S. 951 (1980). *Nevett* also sought to reconcile the *Simmer* criteria with an intent test.

87. 42 U.S.C. § 1971 (1982).

88. 412 U.S. 755 (1973).

89. The Senate Committee on the Judiciary concludes that:

*White*, and the decisions following it, made no finding and required no proof as to the motivation or purpose behind the practice or structure in question. Regardless of differing interpretations of *White* and *Whitcomb [v. Chavis]*, however, and despite the plurality opinion in *Mobile [v. Bolden]* that the *White* [sic] involves an 'ultimate' requirement of proving discriminatory purpose, *the specific intent of this amendment is that the plaintiffs may choose to establish discriminatory results without proving any kind of discriminatory purpose.*

SENATE REPORT, *supra* note 82, at 205-06 (emphasis added); *see also* Blacksher, *supra* note 82.

more detail in Part IV when I consider racial impact criteria.<sup>90</sup>

#### D. *Reflections on Standards for Ascertaining Racial Intent*

In *Rogers*, the Supreme Court recognized the need to be able to make use of indirect evidence (especially evidence related to probable effects), to prove intent. The contrary view, espoused in *Bolden*, seems in retrospect an aberration, violating, if nothing else, the commonsensical notion that effects which can be reasonably foreseen can be said to have been intended. I have not devoted much space to the issue of ascertaining racial intent, because the new effects-test language of section 2 of the Voting Rights Act makes this issue largely moot. The section 2 "totality of circumstances" test is weaker than the *Rogers* "preponderance of factors" test. Thus, plaintiffs usually prefer to proceed mainly on section 2 rather than constitutional grounds. Sometimes, however, plaintiffs try to introduce evidence of intent without making proof of intent a central part of their case, on the notion that it is always better to have two strings to your bow, and that if a court is convinced that there has been intentional discrimination, it will go further in providing a remedy favorable to plaintiff's interests.<sup>91</sup>

### III. POLITICAL INTENT CRITERIA

#### A. *Intentional Partisan Bias*

"Politics ain't beanbag," in Mr. Dooley's felicitous phrasing. Certainly, in the forty states in which the state legislature formulates the state legislative districting plans<sup>92</sup> and

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90. See *infra* notes 212-98 and accompanying text.

91. One question which remains unresolved is what the appropriate remedy would be if a court found proof of intention to submerge or dilute minority voting strength, but inadequate evidence that dilution had in fact taken place. This is certainly possible in principle, since not all intended gerrymandering is successful gerrymandering; but "failed intent" is far more likely to happen with partisan gerrymandering than with racial gerrymandering because, when voting is polarized along racial lines, the probable racial consequences of any districting plan can readily be anticipated. See Scarrow, *Partisan Gerrymandering—Invidious or Benevolent?* Gaffney v. Cummings and Its Aftermath, J. POL. 810 (1982); Scarrow, *The Impact of Reapportionment on Party Representation in the State of New York*, 9 POL'Y STUD. J. 937 (1981), reprinted in REPRESENTATION AND REDISTRICTING ISSUES 223 (B. Grofman, A. Lijphart, R. McKay & H. Scarrow eds. 1982).

92. All states except Alaska, Arkansas, Colorado, Hawaii, Michigan, Missouri,



in the forty-eight states in which the state legislature formulates the congressional districting plans,<sup>93</sup> it would be remarkable indeed if partisan considerations were not in the back of (or even the front of) legislators' minds. Courts have by and large avoided the thorniest part of the once greatly feared reapportionment political thicket by taking a hands-off attitude toward the issue of partisan gerrymandering. A partisan gerrymander is one which is designed to make sure (via concentration and dispersal gerrymandering techniques and/or via discriminatory treatment of seats held by incumbents of the opposing party) that the disadvantaged party must poll more votes than the party in control of the districting process in order to win a given percentage of the legislative seats.<sup>94</sup>

Although the previously quoted vote-dilution language in *Fortson* discusses both racial and political groups,<sup>95</sup> in the 1960's and 1970's, federal courts (including the Supreme Court) repeatedly and in no uncertain terms refused to review claims of alleged improper partisan gerrymandering.<sup>96</sup>

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Montana, New Jersey, Ohio, and Pennsylvania. In Maryland, the governor proposes a plan for consideration by the legislature.

93. All states except Hawaii and Montana. In Iowa the state legislative bureau proposes plans to the legislature. In Maryland the governor has that role. Of course, in 1980 six states (Alaska, Delaware, North Dakota, South Dakota, Vermont, and Wyoming) had only one congressional seat, and thus had no need to district.

94. See Grofman & Scarrow, *Current Issues in Reapportionment*, 4 LAW & POL'Y Q. 435 (1982); cf. Baker, *Excerpts from Declaration of Gordon E. Baker in Badham v. Eu*, 18 PS 551 (1985) [hereinafter cited as Baker, *Excerpts*]; Baker, *Whatever Happened to the U.S. Reapportionment Revolution?*, in ELECTORAL LAWS AND THEIR POLITICAL CONSEQUENCES (B. Grofman & A. Lijphart eds. forthcoming 1985); Cain, *Assessing the Partisan Effects of Redistricting*, 79 AM. POL. SCI. REV. 320 (1985).

Justice Powell, in his dissenting opinion in *Karcher v. Daggett*, 462 U.S. 725, 784 (1983) (Powell, J., dissenting), defines political gerrymandering as "the deliberate and arbitrary distortion of district boundaries and populations for partisan or personal political purposes . . ." *Id.* at 786. A variety of other definitions have been offered by various authorities, but they all boil down to the idea that gerrymandering is the intentional manipulation of districting lines for political advantage. See, e.g., REAPPORTIONMENT IN THE 1970's (N. Polsby ed. 1982); *Political Gerrymandering: Badham v. Eu*, *Political Science Goes to Court*, 18 PS 538 (1985) [hereinafter cited as *Minisymposium*].

95. See *supra* note 82.

96. See, e.g., *WMCA, Inc. v. Lomenzo*, 238 F. Supp. 916, 925 (S.D.N.Y.), *aff'd per curiam*, 382 U.S. 4 (1965), *vacated*, 384 U.S. 887 (1966); *Skolnick v. Mayor & City Council of Chicago*, 319 F. Supp. 1219, 1228-29 (N.D. Ill. 1970); *Jimenez v. Hidalgo Water Improvement Dist. No. 2*, 68 F.R.D. 668 (S.D. Tex. 1975), *aff'd mem.*, 424 U.S. 950 (1976).

In *Gaffney v. Cummings*, 412 U.S. 735 (1973), which endorsed the right of a

One case,<sup>97</sup> however, left open the possibility of judicial review when gerrymandering is so excessive that a court finds "that the Legislature was not acting in good faith."<sup>98</sup> There are almost no state court cases dealing with partisan gerrymandering,<sup>99</sup> although two states, Delaware and Hawaii, have state constitutional prohibitions against plans unduly favoring any person or political party.<sup>100</sup> (See Table 3.)

In the late 1980's, the law of political gerrymandering may change dramatically. Two of the opinions in *Karcher*

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legislature to draw a plan intended to achieve bipartisan fairness, the Supreme Court asserted:

It would be idle . . . to contend that any political consideration taken into account in fashioning a reapportionment plan is sufficient to invalidate it. Our cases indicate quite the contrary. The very essence of districting is to produce a different—a more "politically fair"—result than would be reached with elections at-large, in which the winning party would take 100% of the legislative seats. Politics and political considerations are inseparable from districting and apportionment . . . . It is not only obvious, but absolutely unavoidable that the location and shape of districts may well determine the political complexion of the area. District lines are very rarely neutral phenomena. They can well determine what district will be predominantly Democratic or predominantly Republican, or make a close race likely. Redistricting may pit incumbents against one another or make very difficult the election of the most experienced legislator. The reality is that districting inevitably has and is intended to have substantial political consequences.

*Id.* at 752-53 (citations omitted).

97. *Klahr v. Williams*, 339 F. Supp. 922 (D. Ariz. 1972).

98. *Id.* at 926. Such an extreme claim was not, however, supported for the 1970's Arizona legislative reapportionment in *Klahr v. Williams*, 388 F. Supp. 1007 (D. Ariz. 1975).

99. One of the exceptions, *Bizzell v. White*, 274 Ark. 511, 625 S.W.2d 528 (1981), in which plaintiff's claims of gerrymandering were dismissed, actually turned on the narrow ground of whether only part of a state plan could be challenged if no challenge was made to the plan as a whole. Justice Purtle dissented and argued that "[i]f a dog bites my ankle, he has surely attacked my body as a whole." *Id.* at 517, 274 A.2d at 531 (Purtle, J., dissenting).

The sole exception to the rule that state courts have never repudiated a plan because of political gerrymandering seems to have occurred in *Licht v. Quattrochi*, 449 A.2d 887 (R.I. 1982), discussed *infra* note 120 and accompanying text. But that plan was also held to be a racial gerrymander.

100. See DEL. CONST. art. 1953, § 606; HAWAII CONST. art. IV, § 6; see also DEL. CODE ANN. tit. 29, § 806 (1979). In Delaware, it appears that no plan has been challenged in the courts on partisan gerrymandering grounds. In Hawaii, a claim of discrimination against Republican voters was raised in a 1982 case brought before a federal district court, *Travis v. King*, 552 F. Supp. 554 (D. Hawaii 1983), but that case was decided on other grounds, and the partisan gerrymandering issue was not even discussed in the opinion. See also *infra* note 125 and accompanying text (discussion of *Burns v. Richardson*).

(most notably Stevens' concurring opinion) suggest that a potential majority of Supreme Court Justices may be prepared to find political gerrymandering justiciable, especially if invidious partisan gerrymandering is viewed as an absence of good faith legislative action.<sup>101</sup> In March 1985, the Supreme Court agreed to hear *Bandemer v. Davis*,<sup>102</sup> a case on political gerrymandering. In *Bandemer*, the Indiana Republicans were found to have intentionally discriminated against Democratic voters in the drawing of 1980's legislative districts. The federal district court held that this discrimination violated the equal protection clause of the fourteenth amendment. Another potentially important case on political gerrymandering, *Badham v. Eu*,<sup>103</sup> was tied up in state court for nearly two years on a host of rather narrow questions concerning whether the 1982 congressional districting by the California legislature complied with various procedures internal to the legislature. In March 1985, the Supreme Court, at the same time it agreed to hear *Bandemer*, upheld the Ninth Circuit's refusal to require the federal district court to hear *Badham's* political gerrymandering question until all state issues were resolved in the state courts. By consent of the parties, the state issues in *Badham* were subsequently dismissed, and the case is now back before the three-judge district court panel, but trial has been deferred until after *Bandemer* has been decided by the Supreme Court.<sup>104</sup>

The three-judge district court panel<sup>105</sup> in *Bandemer* was

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101. See *Karcher v. Daggett*, 462 U.S. 725, 751-54 (1983) (Stevens, J., concurring); *id.* at 775-79 (White, J., dissenting, joined by Burger, C.J., Powell, J., and Rehnquist, J.). On the other hand, Justice Brennan (joined by Justices White and Marshall), dissenting in an application for a stay of further orders by the three-judge court (after the first Supreme Court ruling in *Karcher* held the state's plan unconstitutional), asserted that the Supreme Court "never concluded . . . that the existence of noncompact or gerrymandered districts is by itself a constitutional violation." *Karcher v. Daggett*, 104 S. Ct. 1691, 1696-97 (1984) (Brennan, J., dissenting). Justice White was counted among the five Justices thought likely to be prepared to rule political gerrymandering justiciable. This very recent language in which he concurred casts doubt on the accuracy of the forecast that the Supreme Court is likely to rule political gerrymandering justiciable.

102. 603 F. Supp. 1479 (S.D. Ind. 1984), *prob. juris. noted*, 105 S. Ct. 1840 (1985).

103. 568 F. Supp. 156 (N.D. Cal.), *aff'd*, 721 F.2d 1170 (9th Cir. 1983) *cert. denied*, 105 S. Ct. 1165 (1985).

104. Interview with Michael Hess, Deputy Counsel, Republican National Committee (Aug. 25, 1985).

105. Three-judge panels are required for state legislative and congressional re-

“persuaded by the analysis of political gerrymandering in Justice Stevens’ concurrence in *Karcher v. Daggett*.”<sup>106</sup> In *Karcher*, Justice Stevens enunciated three elements that a claim of unconstitutional gerrymandering must contain in order to be considered justiciable. Plaintiffs must demonstrate that (1) they “belong to a politically salient class, . . . whose geographical distribution is sufficiently ascertainable that it could have been taken into account in drawing district boundaries”;<sup>107</sup> (2) “in relevant district or districts or in the state as a whole, their proportionate voting influence has been adversely affected by the challenged scheme”;<sup>108</sup> and (3) they can provide “a prima facie showing that raises a rebuttable presumption of discrimination.”<sup>109</sup>

The Democratic plaintiffs in *Bandemer* had no trouble convincing two of the three judges on the panel that they had presented a justiciable claim under this test. Although the question of the cognizability of Democrats as a class was argued at trial, the issue was not really discussed in the opinion. Some language suggests that the court majority treated those who voted for Democratic legislative candidates in the 1982 election as the politically salient class whose interests were to be protected.<sup>110</sup> But this is unclear because, throughout the opinion, the court refers to “Democrats” without defining the exact meaning of the term.<sup>111</sup>

To establish a prima facie showing of discriminatory effect, the *Bandemer* majority did its own analysis of outcomes in 1982 legislative races, disregarding almost all of the statistical testimony presented at trial. It noted that in the state house races in 1982, Democratic candidates received 51.9% of the statewide vote, but only 43% of the (one hundred) seats in the legislature; in the State Senate races Democratic candidates in 1982 received 53.1% of the votes, but only 52.0% of the twenty-five seats up for election (these twenty-five seats constituted half of the seats in the Senate). The court majority concluded that

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districting cases. See Williams, *New Three-Judge Courts of Reapportionment and Continuing Problems of Three-Judge Court Procedure*, 65 GEO. L.J. 971, 975-76 (1977).

106. 603 F. Supp. at 1490.

107. 462 U.S. at 754.

108. *Id.*

109. *Id.* at 755.

110. 603 F. Supp. at 1490.

111. *Id.* at 1485-86.

the majority party has been able to draw maps which will permit it to win close races in certain districts by "stacking" Democrats into a minority of districts where their strength is overpowering. There is little doubt that a well-programmed computer, full of the most recent election results in Indiana's 4,000 plus precincts, can aid in the drawing of lines advantageous to the party in power. As a result, the figures before the Court, even when looked upon with restraint, would seem to support an argument that there is a built-in bias favoring the majority party, the Republicans, which instituted the reapportionment plan.<sup>112</sup>

The court disclaimed the notion that the 1982 partisan seats/votes comparison it looked at had any predictive power for future elections, but asserted that "even the suspicion of this kind of built-in bias against the Democrats, represented by these plaintiffs, arouses the court's concern and urges a closer look at the circumstances surrounding the passage of this reapportionment plan."<sup>113</sup> The *Bandemer* court's majority review of the circumstances surrounding the passage of the Indiana plan characterized the plan's origins as "fiercely competitive and unashamedly partisan."<sup>114</sup>

The majority asserted that the plan itself had no "evident pattern" other than a one-person-one-vote requirement, and possibly nonretrogression of black districts.<sup>115</sup> The majority further asserted that "the shapes of many of the districts, with particular emphasis on the state house plan, are often contorted, with little apparent emphasis on 'community of interest,' and do not adhere to any remote definition of compactness, and likely have resulted in confusion to voters."<sup>116</sup>

In the trial record there were direct quotations from Republican party leaders that supported the claim that the majority party was motivated by a desire to "insulate itself from risk of losing its control of the General Assembly."<sup>117</sup> The court asserted:

There is no refuting that the Republican majority focused on protecting its incumbents and creating every possible

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112. *Id.* at 1486.

113. *Id.*

114. *Id.* at 1484.

115. *Id.* at 1485, 1488.

116. *Id.* at 1488.

117. *Id.*

“safe” Republican district possible, and that this was achieved by either “stacking” Democrats in districts where their majority would be overwhelming or by “splitting” any Democratic party power with district lines, thus giving Republican candidates a built-in edge, even in competitive districts.<sup>118</sup>

In addition, the court found the state house plan’s use of multimember districts unconstitutional, relying primarily on a partisan seats/votes discrepancy in Allen and Marion counties and on the existence of districts which cut across county lines:

[A]fter the 1982 election, 18 Republicans filled the 21 House seats representing those two counties (and those portions of other counties into which the relevant district lines meander). All were part of multimember districts. Thus, the Republicans enjoy approximately 86 percent of the House seats apportioned to the populations of Marion and Allen counties, of which 46.6 percent are identifiable as Democratic voters. *The Court feels that such a disparity speaks for itself.*<sup>119</sup>

#### B. *Intentional Candidate Bias*

In *Licht v. Quattrocchi*,<sup>120</sup> a 1982 case concerning Rhode Island Senate reapportionment, a state superior court asserted that “reapportionment is a political process” but “when a plan oversteps the boundary of propriety . . . a court can review it.”<sup>121</sup> The Rhode Island plan was held to overstep the boundary of political propriety. Among the features the court found unacceptable was the fact that the plan forced two particular incumbents to run for office in one district. The plan was found to have “favored eight incumbent Democratic Senators, loyal to the leadership,” because none of their seats were combined. The plan was characterized as having been “designed to oust . . . an independent Democrat and . . . the only Republican Senator [in the] Providence area.”<sup>122</sup>

With the exception of *Licht*, whose precedential value is

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118. *Id.*

119. *Id.* at 1489 (emphasis added).

120. No. 82-1494 (R.I. Super. Ct.), *aff'd*, 449 A.2d 887 (1982).

121. *Id.*

122. *Id.* In *Licht*, the court also found evidence of racial vote dilution, substantial violations of compactness, and lack of a good faith effort to minimize population deviations.

limited,<sup>123</sup> all case law at both the federal and the state level with which I am familiar recognizes no *right* on the part of incumbents to special treatment in districting. It is *permissible*, however, for legislatures to seek to minimize contests between incumbents, and it is also permissible for districting plans to follow existing district lines to the extent practicable.<sup>124</sup> In *Burns v. Richardson*,<sup>125</sup> the United States Supreme Court indicated that drawing lines to minimize the number of contests between incumbents may be a legitimate state concern.<sup>126</sup> This position was reiterated in *White v. Weiser*.<sup>127</sup> Using similar language, the New Jersey Supreme Court in *Davenport v. Apportionment Commission*<sup>128</sup> asserted that protection of incumbents serves a "valid apportionment purpose" and is a relevant concern which can be taken into account in creating a legislative districting plan.<sup>129</sup> On the other hand, a federal district court in *Bussie v. Governor of Louisiana*<sup>130</sup> asserted:

[T]hose elected to office for specific terms do not thereby acquire a vested interest in the office. Furthermore, we must not lose sight of the fact that members of the Legislature represent *people* and not parishes, wards or precincts. It is the *people* who have the constitutional right at all times to be equally and fairly represented.<sup>131</sup>

### C. No Use of Political Data

The Common Cause *Model Reapportionment Act*,<sup>132</sup> which

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123. *Licht* is of little precedential value because of *Holmes v. Farmer*, 475 A.2d 976 (R.I. 1984), which involved a challenge to Rhode Island's lower chamber reapportionment (argued in the Rhode Island Superior Court shortly after the *Licht* decision about the Rhode Island upper chamber). The judge's findings in *Holmes* on applicable reapportionment law were dramatically different from the findings in *Licht*, and were subsequently upheld by the Rhode Island State Supreme Court. *Id.* (In *Burns*, I testified for the successful defendants; I did not participate in the *Licht* proceedings.)

124. For a discussion of least-changed plans, see *infra* notes 299-338 and accompanying text.

125. 384 U.S. 73 (1966).

126. *Id.* at 89 n.16.

127. 412 U.S. 783, 797 (1973).

128. 65 N.J. 125, 319 A.2d 718 (1974).

129. *Id.* at 133-35, 319 A.2d at 722-23.

130. 333 F. Supp. 452 (E.D. La.), *modified*, 457 F.2d 796 (5th Cir. 1971).

131. *Id.* at 456 (emphasis in original).

132. COMMON CAUSE, TOWARD A SYSTEM OF FAIR AND EFFECTIVE REPRESENTATION (1977).

would put reapportionment into the hands of a reapportionment commission rather than the state legislature, provides:

In preparing a plan, the commission shall not take into account the addresses of incumbent legislators. The commission shall not use the political affiliation of registered voters, previous election results, or demographic information other than population head counts for the purpose of favoring a political party, incumbent legislators, or other person or group.<sup>133</sup>

Sometimes courts draw districting plans that are drawn without any attempt to anticipate their political consequences.<sup>134</sup> But it is my impression that, more often than not, courts take into account at least the previous shape of districts—which brings in data on the incumbent's present location by the back door.<sup>135</sup> Unfortunately, no real comparative analysis of the standards used in court-drawn districting plans has ever been done.<sup>136</sup>

#### D. *Good Faith*

As noted earlier, for congressional districts, courts have required a very strict standard of population equality. Even population deviations which might appear to be within the margin of census errors have been struck down when alternative plans with lower deviations were available. *Karcher's* clear repudiation of a *de minimis* defense implies that any legislature that knowingly rejects a plan with a population deviation lower than the deviation in the plan it does choose is exposing itself to a charge of violation of "good faith," and had better be able to offer very good reasons for preferring the plan chosen.<sup>137</sup> Such a defense is not, however, impossi-

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133. *Id.* at 77.

134. This occurred, for example, in the plans drawn by the Special Master in *Fleateau v. Anderson*, 537 F. Supp. 257 (S.D.N.Y. 1982).

135. See *infra* note 150 and accompanying text for a discussion of least-changed plans.

136. *But see* Barber, *Partisan Values in Lower Courts: Reapportionment in Ohio and Michigan*, 20 CASE W. RES. 401 (1969); *see also* R. CARP & C. ROWLAND, *POLICY MAKING AND POLITICS IN THE FEDERAL DISTRICT COURTS* (1983). Richard Morrill, a political geographer at the University of Washington is presently conducting research that will compare partisan impact and other features of court-drawn, commission-drawn, and legislatively drawn plans in 1980's state legislative and congressional redistricting. Morrill's work on these issues is likely to be definitive.

137. Although I am not in agreement with its basic conclusions, a useful discussion of the "good faith" issue in congressional districting cases is contained in Amicus Brief of the Republican National Committee, *Karcher v. Daggett*, 462 U.S.



ble. Pennsylvania's congressional plan was approved by the federal district court on the basis of legislative good faith,<sup>138</sup> and *Karcher* holds that "[a]ny number of consistently applied legislative policies might justify some variance, including, for instance, making districts compact, respecting municipal boundaries, preserving the cores of prior districts, and avoiding contests between incumbent Representatives."<sup>139</sup>

"Good faith" issues may also arise in state legislative cases if legislatures are accused of failing to maximize district compactness, failing to preserve political subunit boundaries, or failing to make good faith efforts to satisfy some other mandated criterion. In these areas, as previously indicated, courts have been very reluctant to interfere with legislative districting plans unless they represented a "total departure" from one or more of these criterion. Yet plans that can be characterized as arbitrary and capricious, drawn outside the rubric of legitimate criteria that have been consistently applied, are apparently subject to challenge.<sup>140</sup>

#### E. *Intended Political Fairness*

In *Gaffney v. Cummings*,<sup>141</sup> the United States Supreme Court was confronted with legislative reapportionment plans, invalidated by a lower court, which were avowedly intended to guarantee the Democratic and Republican parties a percentage of state house and state senate seats in the Connecticut legislature roughly proportional to their respective shares of the statewide vote. Recognizing that the party which receives a vote majority will usually be able to translate that majority into more than a proportional share of *seats*, an analysis on behalf of the defendants was submitted (by the noted political scientist/lawyer Robert Dixon) to the effect that the proposed plan was fairer in its expected translation

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725 (1983). See also *LaComb v. Growe*, 541 F. Supp. 145 (D. Minn.), *aff'd mem. sub. nom.* *Orwell v. LaComb*, 456 U.S. 966 (1982).

138. *In re Pennsylvania Reapportionment Cases*, Civ. No. 82-0197 (N.D. Pa. Sept. 15, 1982).

139. 462 U.S. at 740 (emphasis added).

140. This argument is the gravamen of the plaintiff's brief in *Bandemer*, and might provide an alternative route to invalidating the plans at issue in that case without the need for an explicit finding of political gerrymandering that had risen to the level of a constitutional violation.

141. 412 U.S. 735 (1973).

of votes into seats than the plan it would replace and fairer than other alternative plans which had been offered. The Supreme Court in *Gaffney* shied away from any analysis of the accuracy of these projections as to impact, although by implication the Court accepted the defendants' views of the proposed plan's basic fairness, at least in comparison to the status quo.<sup>142</sup> The Court stuck to the high ground of principle (legislative deference) and concluded that

neither we nor the district courts have a constitutional warrant to invalidate a state plan, otherwise within tolerable population limits, because it undertakes, not to minimize or eliminate the political strength of any group or party, but to recognize it and, through districting, provide a rough sort of proportional representation in the legislative halls of the State.<sup>143</sup>

*Gaffney* is important because, until *Bandemer*, it was one of the few federal cases to recognize the key role of political parties in legislative representation and, until *Bandemer*, it was the only case to set forth a standard of *collective* representation defined in partisan terms. The language in *Gaffney* may provide the bridge to the far stronger claim (foreshadowed in Justice Stevens' concurring opinion in *Karcher*) that failure to provide partisan fairness is unconstitutional.

#### F. Court Deference to Legislative Intent

Despite its active involvement in reapportionment, the Supreme Court has repeatedly insisted that districting is primarily a political and legislative process in which courts should intervene only when the legislature has completely

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142. H. Scarrow, Partisan Gerrymandering—Insidious or Benevolent? *Gaffney v. Cummings* and Its Aftermath (Apr. 1981) (presented at the Annual Meeting of the Midwest Political Science Association, Cincinnati), ingeniously reanalyzed Connecticut's proposed legislative plans and concluded that although they did have a pro-Republican bias in 1972, this bias was less pronounced than the bias that had resulted from previous districting. Scarrow then analyzes the Assembly plan's fairness for the 1974–1980 period. He concludes: "By Dixon's own tools of analysis and standards of fairness . . . the . . . plan was indefensible after 1972." *Id.* at 15. According to Scarrow, a fair plan will stay fair only if "the electoral pendulum moves back and forth over the decade so that there will be some minimum degree of uniformity of swing." *Id.* at 17. In Connecticut, Scarrow shows that the assumption of uniformity of swing became increasingly invalid during the 1970's, as the 1972 Connecticut Assembly plan eventually became biased in favor of the Democratic party.

143. 412 U.S. 735, 754 (1973).

disregarded basic constitutional rights.<sup>144</sup> In *White v. Weiser*,<sup>145</sup> the Supreme Court upheld a congressional districting plan similar to the one passed by the Texas legislature, but invalidated by the lower court for excessive population deviations and racial vote dilution, over a more compact plan with a lower population deviation, which was also among those submitted by the plaintiffs as an option for the Court's consideration.<sup>146</sup> The Court held that "[i]n fashioning a reapportionment plan or in choosing among plans, a district court should not pre-empt the legislative task 'nor intrude upon state policies any more than is necessary.'"<sup>147</sup> A similar issue of deference to legislative intent arose in another recent Texas case, *Seamon v. Upham*.<sup>148</sup> In this case, the Supreme Court reprimanded the district court for venturing too far in its court-drawn plan from the original legislative plan in areas of the state where the plan struck down had not been found to be constitutionally defective.<sup>149</sup>

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144. See, e.g., *Wells v. Rockefeller*, 281 F. Supp. 821 (S.D.N.Y. 1968), *rev'd and remanded*, 394 U.S. 542 (1969), in which the court stated: "[T]he task of fixing congressional districts must be borne by the Legislature. The task of the court is to determine whether the plan offends constitutional standards." *Id.* at 825; see also *Gaffney v. Cummings*, 412 U.S. 735, 751 (1973); *Burns v. Richardson*, 384 U.S. 73, 92 (1966); *Reynolds v. Sims*, 377 U.S. 533, 586 (1964). Similar assertions may be found in both state courts and lower federal courts. For example, in *Preisler v. Kirkpatrick*, 528 S.W.2d 422 (Mo. 1975), the court noted:

[T]he courts may not interfere with the wide discretion which the legislature has in making apportionments . . . . It is only when constitutional limitations placed upon the discretion of the legislature have been totally ignored and completely disregarded in creating districts that courts will declare them to be void.

*Id.* at 425.

145. 412 U.S. 783 (1973).

146. The plan chosen "represented an attempt to adhere to the districting preferences of the state legislature while eliminating population variances." *Id.* at 796. The rejected plan "ignored legislative districting policies and constructed districts solely on the basis of population considerations." *Id.*

147. *Id.* at 795 (quoting *Whitcomb v. Chavis*, 403 U.S. 124, 160 (1971)).

148. 536 F. Supp. 931, 1030 (E.D. Tex.), *vacated*, 456 U.S. 37 (1982) (per curiam).

149. *Upham v. Seamon*, 456 U.S. 37, 43 (1982) (per curiam). Deference to legislative intent generally has been taken to mean deference only to plans passed by the legislature and approved by the governor. Vetoed plans or committee bills are usually held to have no claim to special consideration. See, e.g., *Carstens v. Lamm*, 543 F. Supp. 68 (D. Colo. 1982); *O'Sullivan v. Brier*, 540 F. Supp. 1200 (D. Kan. 1982). In preparing court-drawn plans deferential to legislative intent, some courts have given substantial weight to legislative enactments vetoed by the governor, see, e.g., *Agerstrand v. Austin*, No. 81-40256 (E.D. Mich. 1982), or even to plans objected to under the Voting Rights Act, see, e.g., *Jordan v. Winter*, 541 F.

### G. "Least-Changed" Plans

Some courts have favored the use of plans based on existing districts, to the extent feasible, as a means of maintaining the connection between legislators and their constituents.<sup>150</sup> A normal consequence of "least-changed" plans is incumbent protection.<sup>151</sup>

### H. Reflections on Political Intent Criteria

Public discussion of reapportionment standards has been marked by two extremes: a reformist point of view which has sought to take the "politics" out of the districting process by imposing formal criteria such as compactness and strict equipopulation standards, and by moving control of the districting process out of the hands of the legislature,<sup>152</sup> and a cynical "politicians will be politicians" view which treats the use of districting for partisan (or bipartisan) political purposes as, if not desirable, at least virtually inevitable.<sup>153</sup> Very recent work done by both political geographers and political scientists serves to rebut any simplistic analysis of districting options as a straightforward choice between partisan greed or incumbency preservation, and "neutral" good-government districting criteria such as equipopulation and compactness.<sup>154</sup>

I believe intentional political gerrymandering ought to be justiciable. Like Justice Stevens, my research on reappor-

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Supp 1135 (N.D. Miss. 1982), *aff'd sub nom.* Mississippi Republican Elective Comm. v. Brooks, 105 S. Ct. 416 (1984).

150. See, e.g., LaComb v. Grove, 541 F. Supp. 145 (D. Minn.), *aff'd mem. sub. nom.* Orwell v. Lacombe, 456 U.S. 966 (1982).

151. See *supra* notes 92-210 and accompanying text.

152. The group which epitomizes this reformist view is Common Cause. The reformists' distaste for the political aspects of the redistricting process is apparent from the opening sentences of a Common Cause report on 1980's congressional and state districting: "It's that time again. Closed door conferences and confrontations and late night telephone calls from Congressional incumbents to state legislators signal that reapportionment has started." COMMON CAUSE, *supra* note 63, at 1.

153. See, e.g., *Electoral Districts: Toward PR*, ECONOMIST, Feb. 23, 1985, at 26.

154. See, e.g., B. CAIN, *THE REAPPORTIONMENT PUZZLE* (1984); G. GUDGIN & P. TAYLOR, *SEATS, VOTES, AND THE SPATIAL ORGANIZATION OF ELECTIONS* (1979); P. TAYLOR & R. JOHNSTON, *GEOGRAPHY OF ELECTIONS* (1979); Backstrom, Robins & Eller, *Issues in Gerrymandering: An Exploratory Measure of Partisan Gerrymandering Applied to Minnesota*, 62 MINN. L. REV. 1121, 1127 (1978); Wildgen & Engstrom, *Spatial Distribution of Partisan Support and the Seats/Votes Relationship*, 5 LEGIS. STUD. Q. 425 (1980).

tionment has left me convinced "that judicial preoccupation with the goal of perfect population equality is an inadequate method of judging the constitutionality of a reapportionment plan,"<sup>155</sup> and that an "obvious gerrymander" should not be "wholly" immune from attack simply because it comes closer to perfect population equality than every competing plan.<sup>156</sup>

I have a number of reasons for holding this view. First, political parties and the candidate choices they offer voters provide the single most important mechanism for incorporating citizen preferences into public policy decisions. To invidiously discriminate against the candidates of a political party is to effectively disenfranchise the voters who support the positions espoused by that party's candidates, to dilute the importance of their views in the halls of the legislature. Second, it is a fundamental tenet of American democracy that a representative government be responsive to the changing will of the electorate.<sup>157</sup> To create a districting plan which would be largely insensitive to electoral changes that may occur over the course of a decade, because a particular partisan imbalance is "locked in" through the use of dispersal and concentration techniques of gerrymandering, violates this fundamental tenet. Third, the central purpose advanced by the Supreme Court in justifying its interventions into the reapportionment process in the 1960's—the need to insure "fair and effective representation"<sup>158</sup>—has not been achieved, and cannot be achieved, by reliance on the one-person-one-vote standard.<sup>159</sup> Even if all districts are exactly equal in population, when a districting plan intentionally creates legislative districts in which a class of citizens has had its voting strength distributed in ways that frustrate or significantly reduce its opportunity for effective political participation (for example, by packing or cracking their voting strength), then it cannot be said that "one man's vote . . . is to be worth as much as another's."<sup>160</sup> Fourth, access to so-

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155. *Karcher v. Daggett*, 462 U.S. 725, 750 (1983) (Stevens, J., concurring).

156. *Id.*

157. See Niemi & Deegan, *A Theory of Political Districting* 72 AM. POL. SCI. REV. 1304 (1978); Niemi, *The Effects of Districting on Trade-Offs Among Party Competition, Electoral Responsiveness and Seats-Votes Relationships*, in REPRESENTATION AND REDISTRICTING ISSUES, *supra* note 91, at 35.

158. *Reynolds v. Sims*, 377 U.S. 533, 565 (1964).

159. See *supra* note 12 and accompanying text.

160. 377 U.S. at 559; see also Auerbach, *The Reapportionment Cases: One Person, One*

phisticated computerized districting data bases which can include not just population data but also information about party registration figures, previous election outcomes, and voting and demographic trends, makes it possible for mapmakers to carry out the most sophisticated forms of gerrymandering while at the same time *perfectly* satisfying any equal population constraints that might be imposed.<sup>161</sup>

While I believe political gerrymandering ought to be justiciable, I also believe courts should be cautious in ruling on the constitutionality of particular plans in terms of a demonstrated intent to create a partisan gerrymander, absent a showing that the plan in question actually has (or can be expected to have) an *invidious* partisan effect.<sup>162</sup> Data on the foreseeable effects of a particular plan are clearly relevant to a judgment on intent. As the Supreme Court observed in *Gaffney*, "it is most unlikely that the political impact of such a plan would remain undiscovered by the time it was proposed or adopted, *in which event the results would be both known and, if*

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*Vote—One Vote, One Value*, 1964 SUP. CT. REV. 1; Howard & Howard, *The Dilemma of the Voting Rights Act—Reorganizing the Emerging Political Equality Norm*, 83 COLUM. L. REV. 1615 (1983).

It would make no sense . . . to require the government to give a person an equally weighted vote and to prevent the government from intentionally diluting that person's vote if, at the same time, the government were allowed to enhance intentionally the political power of that person's political opponents, or to predetermine for its own purposes the results of the election.

*Id.* at 1650.

161. See Baker, *Whatever Happened to the U.S. Reapportionment Revolution?*, *supra* note 94; Baker, *Excerpts*, *supra* note 94. The five plans for Colorado's six-member congressional delegation that the district court considered seriously in *Carstens v. Lamm*, 543 F. Supp. 68 (D. Colo. 1982), each had districts which differed from one another by fewer than 100 persons. Some of these plans had districts that differed from one another by fewer than a dozen persons. Nonetheless, since the reason for court intervention was the failure of partisans in the state government to agree on a plan, not surprisingly these plans differed considerably in their partisan implications: some favored Republicans, some favored Democrats, and some favored incumbents regardless of party. The state Republican party believed this was tantamount to favoring Democrats since the 1980 congressional delegation had three Democrats and two Republicans, with a sixth seat to be added because of Colorado's gains in population over the previous decade relative to the rest of the country. To choose among these plans on the basis of the lowest population deviation would have been, to put it simply, absurd—a fact that the *Carstens* court clearly recognized, but to which the Supreme Court majority in *Karcher* appeared oblivious.

162. For a discussion of appropriate effects-based tests for the existence of invidious partisan gerrymandering, see *infra* notes 315–32 and accompanying text.

not changed, intended.”<sup>163</sup> For partisan gerrymanders, unlike racial gerrymanders, a plan’s intent and its actual effects over the course of a decade can be quite different—partisan tides ebb and flow while racial divisions tend, unfortunately, to be persistent.<sup>164</sup> Moreover, since politicians often discuss plans in explicitly political terms, it may be easy to obtain what appears to be evidence of partisan intent. But, since all districting is by nature political, it behooves courts to distinguish carefully the normal workings of political competition from the invidious and unconstitutional workings of what Mayhew has aptly referred to as “partisan lust.”<sup>165</sup> Only when legislatures or other districting bodies have gone well beyond “politics as usual” should courts enter the political thicket to adjudicate allegations that the treatment of a political party or other cognizable political group has risen to the level of a constitutional violation.<sup>166</sup>

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163. 412 U.S. at 753 (emphasis added).

164. Research by Scarrow, *see* sources cited *supra* note 91, suggests that attempts at partisan gerrymandering may fail to achieve their purpose, or achieve their purpose for only a short time. In New York, legislative districts were drawn by Republicans in 1971 in what was admittedly a one-party gerrymander. Yet anyone looking at the election results in 1976 and 1978 for the State Assembly might reasonably conclude that the districts had been designed by Democrats, not Republicans; because if we hypothesized what the results in those years *would have been* had the two-party vote changed by one percentage point, two percentage points, and so forth, we would find that at every point in the scale Republicans would have had to poll far more votes than Democrats in order to win the same proportion of seats.

Stories of failures to predict the long-run partisan implications of a redistricting plan are told in many states. For example, after a new congressional plan was adopted in Iowa in 1971, it was commonly thought that Democrats had an edge in the two more industrialized eastern districts while Republicans were favored to hold the two mostly agricultural western districts. By the end of the decade the situation was just the opposite, with Republicans strong in the east and Democrats strong in the west.

The New York example and other similar examples appear to be situations in which many districts were created in which the leading party had only a narrow edge. When the party gerrymandering in its own favor is skillful enough to give itself substantial majorities in most districts (and to give the opposing party even more substantial majorities in these districts which, in effect, have been conceded to them), and creates only a handful of truly competitive districts, then the domain of potential political competition can be drastically reduced. Thus, the degree of potential political competition allowed by a plan is critical to an understanding of its long-run gerrymandering impact—an issue not fully addressed by the *Bandemer* court.

165. Mayhew, *Congressional Reapportionment: Theory and Practice in Drawing Districts*, in REAPPORTIONMENT IN THE 1970’S, *supra* note 94, at 249.

166. For alternative treatments of this question, see essays by Baker, Polsby, and Cain in *Minisymposium*, *supra* note 94.

The problem of arriving at an appropriate standard for judging the existence of an invidious intent to gerrymander for a partisan purpose arises in both *Licht*<sup>167</sup> and *Bandemer*.<sup>168</sup> *Licht* would appear to bar the pairing of incumbents of opposing parties if alternative plans existed which could dispense with such a pairing by pairing instead two majority party incumbents.<sup>169</sup> *Licht* also suggests that a political party may not discriminate against its own mavericks by choosing them rather than "loyalist" party members to bear the vicissitudes of reapportionment. The *Licht* test is so ill-defined that it is an open invitation to litigation on the part of any incumbent unhappy with his new district.

I do not believe that incumbents, by virtue of their incumbency, have any right to special treatment; nor does it seem appropriate for courts to intervene in internal political party processes when one incumbent is better treated than another by his *own* party. The *Licht* ruling appears to be more of a reaction to a perceived political injustice to two individuals than a well-reasoned elucidation of appropriate standards for a constitutional test.<sup>170</sup> I do believe that if, as a result of the treatment of the *set* of incumbents of the *other* party, one class of incumbents is clearly and improperly favored, such treatment constitutes not only evidence of an intent to create a partisan gerrymander, but also direct evidence that such a partisan gerrymander had occurred. Since incumbents (because of name recognition, constituency service record, and similar factors) can often hold on to seats in what would otherwise, in partisan terms, be the opposing party's territory, displacing incumbents of the opposing party is, perhaps, the most important single tactic of

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167. 454 A.2d 1210 (R.I. 1982).

168. 603 F. Supp. 1479 (S.D. Ind. 1984), *prob. juris. noted*, 105 S. Ct. 1840 (1985).

169. Because of population loss in the part of the state the *Licht* litigation was addressing, *any* plan that might have been drawn would have been compelled to group some incumbents into the same district.

170. As noted previously, *Licht* also found evidence of racial gerrymandering. In *Licht*, the political issue "piggybacked" on the racial issue. In *Bandemer*, both issues were raised separately (in two cases which were consolidated). See *Indiana NAACP v. Orr*, 603 F. Supp. 1479 (S.D. Ind. 1984). Although no racial gerrymandering was found, the *Bandemer* court's sympathy for Democratic plaintiffs seems to have been sparked in part by the view that black political influence was being diluted to the extent that Democratic voting strength (both black and white) was underrepresented. See *Bandemer*, 603 F. Supp. at 1488-89.



contemporary sophisticated gerrymandering.<sup>171</sup>

The *Licht* court, by focussing on the fate of only *one* Republican incumbent, did not address the broader question of fairness for the *class* of Republican incumbents. This is an almost unavoidable problem in looking at only a piece of a districting plan, and not at the plan as a whole, since, *from the standpoint of partisan advantage, no single district can ever be fairly drawn*—a district must favor one party or another. For this reason, it is necessary to evaluate partisan and incumbent impact for plans as a whole (or at least for large subsections thereof).

In addition to discriminatory treatment of one party's incumbents, there are other indications of political intent to gerrymander.<sup>172</sup> Along with most political scientists,<sup>173</sup> I share the view that noncompact districts provide reasons for suspicion of the presence of aggregate level political gerrymandering, even though noncompactness may arise from legitimate reasons (such as natural geographic features), and even though, as noted earlier, gerrymandering can occur entirely within compact districts. As Justice Stevens said in *Karcher*, "drastic departures from compactness are a signal that something may be amiss."<sup>174</sup> Moreover, for the case of personal political gerrymandering, it is often the case that district lines are fashioned in an uncouth manner to aid (or hurt) the chances of particular incumbents. The San Francisco area district that Congressman Philip Burton constructed for his brother John in 1981 is an apt example of a personal gerrymander that was part of a larger partisan gerrymandering package. This district wandered around San Francisco Bay picking up chunks of Democratically inclined

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171. Cain, *supra* note 94, at 320-21; see also B. Grofman, First Declaration, *Badham v. Eu*, No. C-83-1126 RHS (N.D. Cal. 1984), excerpted in 18 PS 544 (1985) [hereinafter cited as B. Grofman, First Declaration]. I examine the problem of identifying unequal effects of partisan gerrymandering on incumbents of the two major parties in Part V, see *infra* notes 299-338 and accompanying text, where I provide a chart detailing incumbent displacement in 1982 congressional reapportionment in California.

172. Partisan gerrymandering may occur even without incumbent displacement if it preserves a previous partisan gerrymander. This, in my view, took place in California in 1982, when the second California congressional plan (passed after an earlier plan was overturned by popular referendum) made only minor changes in the earlier plan and sought to freeze into place its partisan effects.

173. See Baker, *Excerpts, supra* note 94.

174. 462 U.S. at 758 (Stevens, J., concurring).

territory, and was contiguous only by sailboat.<sup>175</sup>

I also agree fully with Justice Stevens' assertion in *Karcher* that "extensive deviation from established political boundaries is another possible basis for a prima facie showing of gerrymandering."<sup>176</sup> Indeed, I can identify twelve features of single-member district plans that could provide prima facie evidence of intentional political gerrymandering.<sup>177</sup> These twelve elements of districting plans all can be identified in advance of any election, if data on party registration or previous party voting strength is available.

#### TWELVE PRIMA FACIE INDICATORS OF GERRYMANDERING

The following twelve features of single-member district plans can provide prima facie evidence of intentional political gerrymandering:

- (1) Packing the voting strength of a group to insure that much of it is wasted in districts that are won by lopsided margins—in particular, packing opposition voting strength to a greater degree than the voting strength of the group controlling the districting process.
- (2) Fragmenting or submerging the voting strength of a group to create districts in which that group will constitute a permanent (or near certain) minority.
- (3) Reducing the reelection likelihood of some of a group's incumbents by altering district boundaries to put two or more incumbents from the group into the same district.
- (4) Reducing the election (or reelection) likelihood of some of a group's representatives by altering district boundaries to cut up old districts to make it impossible for these incumbents to continue to represent the bulk of their former constituents.
- (5) Reducing the election (or reelection) chances of group representatives in previously marginal/competitive districts by, whenever practicable, reducing that group's voting strength in these districts.
- (6) Enhancing the election (or reelection) chances of representatives of the group in control of the districting process by preserving old district lines for its own incumbents to the

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175. See *Legislative District Maps of California*, 14 CAL. J. 105 (1983).

176. 462 U.S. at 758. (Stevens, J., concurring).

177. I first proposed this list of indicators in a declaration to the court in *Badham*. See B. Grofman, First Declaration, *supra* note 171.

greatest extent practicable, so that they benefit from name recognition and other advantages of incumbency status (such as previous campaign organization and personal-contact networks).

(7) Enhancing the election (or reelection) chances of representatives of the group in control of the districting process by manipulating district boundaries, whenever practicable, to shore up the controlling group's voting strength in previously marginal/competitive districts.

(8) Manipulating district boundaries to create an advantage in the open districts (i.e., districts with no incumbent running) for the group controlling the districting.

(9) Unnecessarily disregarding compactness standards in drawing district lines.

(10) Unnecessarily disregarding city, town, and county boundaries in drawing district lines.

(11) Unnecessarily disregarding communities of interest in drawing district lines.

(12) Unnecessarily disregarding equal population standards in drawing district lines.

In addition to these twelve indicia of probable gerrymandering, there are other "flags" which suggest the possibility of intentional partisan gerrymandering:

(1) use of election systems (such as multimember districts) that can be used to submerge minority voting strength;

(2) a process of formulation and adoption of a districting plan that "excluded divergent viewpoints, openly reflected the use of partisan criteria, and provided no explanation for the selection of one plan over another";<sup>178</sup> and

(3) a gross discrepancy between a party's share of the total statewide vote for legislative offices and its share of legislative seats for that election that year. Such a discrepancy would be a likely indicator of probable gerrymandering if it involved a group whose candidates received a majority of the statewide vote but obtained less than a majority of seats.<sup>179</sup>

Of course, each of these three "warning flags" gives only an *indication* that gerrymandering *may* be taking place.<sup>180</sup> To

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178. See 462 U.S. at 759 (Stevens, J., concurring).

179. See Grofman, *For Single-Member Districts Random Is Not Equal*, in REPRESENTATION AND REDISTRICTING ISSUES, *supra* note 91, at 55.

180. Even in cases in which a majority of votes does not translate into a majority of seats, the party advantaged by the plan might be able to rebut a claim of political

prove gerrymandering, it is necessary, in my view, to prove that one party has been discriminated against in such a fashion that its supporters have less opportunity than other members of the electorate to "participate in the political process and to elect representatives of their choice," to borrow apposite language from the Voting Rights Act.<sup>181</sup>

The *Licht* court erred in placing too much weight on the treatment of two incumbents; the opinions in *Bandemer* (especially the dissenting opinion) offer a marked improvement in analyzing gerrymandering, but are still far from satisfactory.

In addition to considering direct statements of political intent and evidence of haste and lack of minority party input into the districting process, the *Bandemer* court majority used three indicators of prima facie political gerrymandering: (a) assertions of deviations from compactness, (b) the existence of a mix of single-member and multimember districts (in the lower chamber) with no clear pattern of application, and (c) the seats/votes discrepancy between the share of total votes cast received by the Democratic party and the share of seats won by that party's candidates. The *Bandemer* court found no apparent problem with population deviations; it also found that "[a]lthough township lines have been observed in most instances, township lines also were bisected on occasion."<sup>182</sup>

There are two principal difficulties with the *Bandemer* majority opinion. First, in seeking to follow the guidelines laid down in Justice Stevens' obiter dicta in his opinion in *Karcher*, the court in *Bandemer* treated prima facie evidence of intentional gerrymandering as proof of gerrymandering. Second, the *Bandemer* court rejected out of hand the statistical evi-

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gerrymandering by showing that the plan's effects were entirely caused by the underlying partisan geography of the state, not by intentional gerrymandering. Alternatively, the party might show that the favorable effects to the party are transient and would be totally erased in the long run by the natural operations of competitive politics. Such rebuttals would, however, require extensive documentation, the burden of which should fall on the defendants once a rebuttable presumption had been presented.

181. 42 U.S.C. § 1973 (1982). I do not propose that the tests for the existence of invidious gerrymandering should be identical to those for racial gerrymandering. The tests for political gerrymandering, however, might include an examination of this "totality of the circumstances," by looking at indicia of the type identified in the text.

182. 603 F. Supp. at 1485.

dence offered by each of the parties at trial.<sup>183</sup> The court relied instead on its own determination of "some basic statistical foundations which appear credible and reliable in making determinations about the impact of the 81-82 redistricting plan on Democratic candidates."<sup>184</sup> These basic statistical facts, however, were interpreted by the *Bandemer* majority in too simplistic a fashion.

As Judge Pell said in his stinging dissent in *Bandemer*, "a comparison between the percentage of Democratic votes cast statewide for legislative candidates and the number of seats actually won, standing alone, fails to prove vote dilution."<sup>185</sup> Pell then observed:

According to authorities that Justice Stevens cited approvingly in *Karcher*, "This method of identifying gerrymandering . . . has major flaws . . . . [T]he approach fails to account for the fact that the difference between the percentage of votes and number of seats captured may in fact be the result of natural advantages—the inordinate concentration of partisans in one place—rather than any deliberate partisan districting scheme."<sup>186</sup>

I raised this point at trial as an expert witness for the State of Indiana. Although it was explicitly acknowledged by the *Bandemer* majority,<sup>187</sup> the court nevertheless concluded, as noted above, that the "figures before the Court, even when looked upon with restraint, would seem to support an argument that there is a built-in bias favoring the majority party, the Republicans . . . ." <sup>188</sup> The Court, however, presents no appropriate statistical benchmark to support that conclusion, which seems to rest on the totally fallacious view that a discrepancy between vote share and seat share of more than a few percentage points is proof of intentional gerrymandering.<sup>189</sup> Moreover, if the seats/votes comparison is to be performed according to the methodology enunciated by Backstrom, Robins, and Eller<sup>190</sup>—the authorities referred to in the quotation above and cited with approval in *Karcher*—

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183. The court stated: "This Court does not wish to choose which statistician is more credible." *Id.*

184. *Id.*

185. *Id.* at 1501 (Pell, J., concurring in part, dissenting in part).

186. *Id.* (quoting Backstrom, Robins & Eller, *supra* note 154, at 1127).

187. *Id.* at 1486.

188. *Id.*

189. See *infra* notes 197-99 and accompanying text.

190. See 603 F. Supp. at 1486 (citing Backstrom, Robins & Eller, *supra* note 154).

then according to Judge Pell, "plaintiffs have not demonstrated that they have suffered vote dilution under the redistricting plan."<sup>191</sup>

I share Judge Pell's view of the inadequacy of the *Bandemer* majority's statistical analysis.<sup>192</sup> I would not, however, regard as conclusive the analysis he offered in his dissenting opinion.<sup>193</sup> Even if one does not accept the accuracy of Judge Pell's analysis, however, the *Bandemer* opinion is fundamentally flawed because it failed to specify what it considered the unconstitutional features of the state senate plan. The seats/vote discrepancy for the senate relied on by the court was miniscule (a 53.1% vote share for Democratic candidates versus 52% of the twenty-five seats up for election won by Democrats). In addition, there was evidence at trial that if the Democrats had won one more seat, the senate seats/vote discrepancy (53.1% versus 56.0%) would have been even greater, in the opposite direction. Indeed, 52% of the seats with 53.1% of the vote is as close to perfect mathematical proportionality as it is possible to get in an election in which only twenty-five seats are contested.<sup>194</sup> Moreover, there are no specific features of noncompactness of the state senate plan identified in the opinion.<sup>195</sup>

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191. *Id.* at 1501. Averaging recent statewide races for relatively invisible offices, as recommended by Backstrom, Robins & Eller, *supra* note 154, Judge Pell finds 46.8% to be the measure of the Democratic voting strength statewide in Indiana. Analyzing the 1982 outcomes, Judge Pell found that

[c]ompared with a base percentage of 46.8%, the Democrats won 43% of the House seats in 1982. In the Senate elections, however, they won 52% of the seats. Thus, even if the purpose behind the plan was to favor the Republicans, the result of the plan was to advantage and disadvantage both parties equally under the plan.

*Id.* at 1502. However, Niemi, *The Relationship Between Votes and Seats: The Ultimate Question in Political Gerrymandering*, 33 UCLA L. REV. 185 (1985), disputes the appropriateness of Judge Pell's calculations.

192. For more on this point, see Niemi, *supra* note 191.

193. 603 F. Supp. at 1496 (S.D. Ind. 1984) (Pell, J., concurring in part, dissenting in part).

194. This point was made in testimony at the trial. While the *Bandemer* court might have looked at the probable consequences of the senate plan in 1984 (when another 25 seats were up for election), it explicitly disavowed any ability to predict election outcomes and rejected the statistical analysis offered by plaintiffs which purported to show a pro-Republican bias in the seats that were going to be up for election in 1984.

195. For the house, as well as for the senate, the *Bandemer* court failed to provide reasonable guidelines for what must be done to remedy the plan's constitutional defects. For example, must all multimember districts in Indiana be eliminated, or only those in Lake and Marion counties, the only two counties in

Deciding whether political gerrymandering exists in a plan requires careful analysis of a number of features of the plan including investigation of whether there has been differential treatment of the incumbents of the opposing parties, an analysis of seats/votes discrepancies and tracing of the political implications of the way in which lines have been drawn, and violations of formal districting criteria such as compactness and respect for municipal and county boundaries. In addition, as rebuttal data which might be submitted by defendants, it may be useful to have an analysis of the number of competitive districts in a plan (via comparison of party registration and/or previous voting behavior for state-wide office in each of the districts) so as not to confuse accidents of any given election year with the virtually inevitable outcomes of a carefully crafted gerrymandering. Further, an analysis of the degree to which one party's voting strength is more geographically concentrated than another's might be valuable.

The *Bandemer* majority rejected out of hand the attempts of the State of Indiana to rebut the prima facie evidence of political gerrymandering by a showing that overall the districts were in fact significantly competitive, that incumbents of the two parties were in fact similarly treated, and that the seats/vote discrepancies in the state house could largely be accounted for by the partisan geography of the state.<sup>196</sup> With respect to the senate, the *Bandemer* majority misinterpreted the small 1982 seats/votes discrepancy as showing gerrymandering when in fact, standing alone, it did not. While the *Bandemer* majority may or may not have been correct in its overall findings, it was not very thorough in its analysis of the political effects of the two plans—especially the senate plan.

Because the statistical analysis of the *Bandemer* majority is far too simplistic and fails to take into account many relevant factors, if the *Bandemer* standards were to be sustained without changes or clarification, many legislative plans would have to be declared unconstitutional, since it is an almost in-

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which the *Bandemer* court specifically found the use of multimember districts to have a dilutive effect on Democratic voting strength?

196. The *Bandemer* majority also failed to inspect alternative plans introduced into the legislature and thus failed to consider whether deviations from compactness on the order of magnitude found in the Indiana legislature's plans were made virtually inevitable by the population geography of the state.

escapable feature of single-member district plurality elections that there will be a discrepancy between a group's share of the statewide vote and its share of the seats in the legislature.<sup>197</sup> In other words, many states would be found to have a discrepancy between each political party's seat share and its share of seats in the legislature as large as those in *Bandemer*. Thus, affirmation of *Bandemer*, without clarification of appropriate standards by which to detect and measure political gerrymandering, could give rise to a flood of new litigation and could throw 1990's reapportionment into chaos.<sup>198</sup>

While I believe that political gerrymandering ought to be justiciable, unless courts can provide a more sophisticated analysis than that offered in *Bandemer*, judicial involvement in the political thicket of partisan gerrymandering will be worse than the disease it is meant to cure. The Supreme Court must define a standard that will neither find political gerrymandering when it is not really there nor fail to find gerrymandering when the gerrymandering is carried out through

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197. See sources cited *supra* note 154; Grofman, *supra* note 179, and sources cited therein. B. Cain, Declaration, *Badham v. Eu*, No. C-83-1126 RHS (N.D. Cal. 1984) reviews the seats/votes discrepancies in California congressional elections in the 1960's and 1970's and finds discrepancies larger than those found in *Bandemer* in a number of election years, including some years in which the plan in use was drawn by a federal court.

198. Of course, the Supreme Court could conduct an independent review of the trial record and the statistical evidence in *Bandemer*, and might then be able to write an opinion which would be sufficiently narrow to prevent *Bandemer* from unleashing this flood of new litigation, but I am skeptical that they will be able to do so. I regard it as highly unfortunate that *Bandemer* and not *Badham* will be the first case directly on political gerrymandering to be considered by the Supreme Court. As an expert witness in both, I found the record in *Badham* far more complete than that in *Bandemer* (even though as yet *Badham* has not gone to trial and the record in it consists merely of expert and lay witness declarations and statistical tabulations). *Badham* also will involve testimony by some of the leading political science experts in the reapportionment area and the debate among them will, I believe, clarify the factual issues and help the court resolve the key questions about an appropriate methodology to measure partisan gerrymandering. In any event, in political gerrymandering cases, just as in the one person, one vote cases, it is likely that only a series of case-by-case adjudications can lead to the development of clear-cut standards.

Neither here nor in my testimony as an expert witness in the *Bandemer* trial have I expressed an opinion on the merits of the claim that Indiana engaged in purposeful political gerrymandering in 1982. My trial testimony on political gerrymandering was confined to a review of the adequacy of the statistical materials prepared by one of plaintiffs' "expert" witnesses—a person who in fact was not qualified by the court as an expert (nor proffered as such by plaintiffs), and who offered to the court no interpretation of his data and no opinions based on it—and to a summary of the social science research on gerrymandering.



such sophisticated devices as incumbency displacement.<sup>199</sup>

The Common Cause's notion of "politically blindfolded districting"—districting to be done in ignorance of the political affiliations of voters—is naive and misguided. Indeed, for the directly analogous problem of preventing racial gerrymandering, Common Cause believes that racial data *should* be examined. As the Supreme Court majority said in *Gaffney*, "It may be suggested that those who redistrict and reapportion should work with census, not political data, and achieve population equality without regard for political impact. But *this politically mindless approach* may produce, *whether intended or not*, the most grossly gerrymandered results . . . ."<sup>200</sup>

The view held by Common Cause and other civic groups that politics can be taken out of districting by shifting districting responsibility to nonpartisan or bipartisan commissions is, in my view, misguided. First, it cannot be done; second, even if it could be done, it should not be done.

Reapportionment is inherently political in both the best and the worst sense of the term. On the one hand, it involves the clash of conflicting partisan and personal interest—what we might call politics in the "low" sense; but it also involves the need to reconcile multiple and conflicting *desirable* social goals<sup>201</sup> not all of which can simultaneously be achieved—what we could call politics in the "high" sense. Because there is no simple algorithm by which some specified amount of one public good can be equated with some specified amount of some other aspect of the public interest, the process of reconciling and trading-off competing public values is an inherently political and appropriately legislative task. Only when legislatures have acted in bad faith out of invidious partisan lust or with racially discriminatory effects or purpose is there a need to take control of the districting process away from the legislature.

Furthermore, the claim that reapportionment commissions take the politics out of the reapportionment process is wrong for two reasons. First, as Robert Dixon so eloquently pointed out, "Whether the lines are drawn by a ninth-grade civics class, a board of Ph.D.s, or a computer, every line

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199. See *infra* notes 299–338 and accompanying text.

200. 412 U.S. at 753 (emphasis added).

201. See, e.g., Table 1.

drawn aligns partisans and interest blocs in a particular way . . . .”<sup>202</sup> Election results will vary according to which lines are chosen. All districting plans have distinct political (and racial, linguistic, and geographic) consequences for representation.<sup>203</sup> Second, the record of reapportionment commissions in the United States is a mixed one.<sup>204</sup> One review of the 1970’s experience with reapportionment commissions concluded that the “commission experience does not compare favorably with legislative efforts . . . .”<sup>205</sup> and went on to say that “[t]he attempt to transfer responsibility from the legislature to some other agency has not diminished the controversy that surrounds reapportionment.”<sup>206</sup> Another study of reapportionment commissions in the 1970’s arrived at an even more negative conclusion:

[I]n the vast majority of states with commissions, . . . the very structures and modes of appointing the Commission were open invitations to partisan influence. Even the tie-breaker feature of some commissions is no guarantee that partisan influence did not prevail or will not prevail in the future . . . . In the vast majority of the states where commissions exist, the politics of the commission were almost as ‘nasty’ as legislative politics, and in too many cases resulted in an incumbent gerrymandering as invidious as if it were drawn by the Legislature itself.<sup>207</sup>

Reapportionment commissions in the 1980’s have been given a somewhat more positive review. In only two of the states where a commission of some form is used for legislative and/or congressional districting were one or more of the plans adopted by the commission struck down by the courts. In contrast, in states with legislatively drawn plans, at least twenty state or congressional plans have been struck down or

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202. Dixon, *Fair Criteria and Procedures for Establishing Legislative Districts*, in REPRESENTATION AND REDISTRICTING ISSUES, *supra* note 91, at 7, 17.

203. See Johnston, *Redistricting by Independent Commissions: A Perspective from Britain*, 72 ANNALS A. AM. GEOGRAPHERS 457 (1982). “[T]he concept of nonpartisan cartography is a myth: any redistricting procedure is virtually certain to produce electoral bias.” *Id.* at 469; see P. TAYLOR & R. JOHNSTON, *supra* note 65; Taylor & Gudgin, *The Myth of Non-Partisan Cartography: A Study of Electoral Biases in the English Boundary Commission’s Redistribution for 1955–1970*, 13 URB. STUD. 13 (1976).

204. See McGehee, *Reapportionment Commissions: The Reform We Don’t Need*, 5 STATE LEGIS. 1, 15 (1979).

205. *Id.*

206. *Id.*

207. A. BALITZER, *THE COMMISSION EXPERIENCE: STUDIES OF NON-LEGISLATIVE APPROACHES TO REDISTRICTING* iii-iv (1979).

substantially revised by the courts. Commission drawn plans in many states are often drawn to preserve incumbents.<sup>208</sup> In the one state where I have direct knowledge (Hawaii), a federal court rejected the reapportionment commission's 1982 legislative plans as unconstitutional on one-person-one-vote grounds.<sup>209</sup> The *Travis* case did not need to reach the question of whether the commission plan constituted partisan gerrymandering in violation of the Hawaii state constitution (a charge brought by the Republicans, the minority party in Hawaii). But my review of the minutes of the commission and of the plans it proposed, conducted when I was preparing testimony as a consultant to the Hawaii State Republican party, suggested that many of the commission members were acting as party loyalists, and that the legislative plans they proposed had the effect of partisan gerrymanders by locking into place the existing partisan distribution in the legislature.<sup>210</sup>

#### IV. RACIAL EFFECT CRITERIA

##### A. *No Retrogression in Representation*

As noted in Part II,<sup>211</sup> racial vote dilution cases may arise under several different venues—each of which has produced its own evidentiary standards.<sup>212</sup> In *Beer v. United States*,<sup>213</sup> the Supreme Court ruled that a New Orleans city council reapportionment plan that permitted the election of one black

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208. Thirteen commissions in 10 states drew plans in the 1980's. See W. ZELMAN, CALIFORNIA COMMON CAUSE REAPPORTIONMENT: ONE MORE TIME (1985). I have added Indiana to the 19 states referenced in the table, *id.* at 6, to obtain the number 20 used in the text. Moreover, a leading political geographer, Richard Morrill, has found evidence for good performance of commissions or advisory bodies in Maine, Connecticut, and Iowa for 1980's reapportionment. Personal communication with Richard Morrill (May 17, 1985).

209. *Travis v. King*, 552 F. Supp. 554 (D. Hawaii 1982).

210. Testimony by B. Grofman, *Travis v. King*, 552 F. Supp. 554 (D. Hawaii 1982).

211. See *supra* notes 69-91 and accompanying text.

212. An excellent and comprehensive review of racial vote dilution standards for single-member districts can be found in Blacksher, *supra* note 82, although I do not agree fully with all of his normative judgments. My treatment of this area will be rather cursory, except for my analysis of the legal standard under § 2 of the Voting Rights Act for a finding of racially polarized voting and my discussion of the appropriate base against which vote dilution might be measured. I have dealt with related issues in greater detail elsewhere. See, e.g., Grofman, Migalski & Noviello, *supra* note 78. See generally sources cited *supra* note 7.

213. 425 U.S. 130 (1976).

to the council, which had not previously had any blacks on it, did not violate section 5 of the Voting Rights Act because it increased the electoral opportunities for blacks, even though New Orleans had a black population of about 45% (i.e., there was no "retrogression" in the ability of blacks to elect candidates of their choice).<sup>214</sup> Under the *Beer* retrogression test, as the courts have interpreted it, retrogression in the opportunity for minority representation is to be judged according to what presently exists, rather than what might exist under alternative plans.<sup>215</sup> Indeed, the Supreme Court commented in a footnote that it is possible for a plan to be a "substantial improvement" over its predecessor and thus not be subject to a section 5 challenge, but still be discriminatory.<sup>216</sup> The Court implied that in such a case the plan would have to be attacked on constitutional (i.e., fourteenth amendment) grounds.<sup>217</sup> Thus, even though a districting plan may be held acceptable under section 5 of the Voting Rights Act and the nonretrogression standard of *Beer*, plaintiffs may still wish to continue to challenge the plan on fourteenth amendment

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214. The Attorney General had objected to the plan in *Beer* because it appeared to "dilute black voting strength by combining a number of black voters with a larger number of white voters in each of the five [single-member] districts." *Id.* at 135. The Attorney General's objection letter also said that there was no "compelling governmental need" to draw the lines in the way they had been drawn. *Id.* (quoting the Attorney General).

215. If there is a court-ordered plan that will be adopted if the legislatively drawn plan is not approved under § 5 of the Voting Rights Act, then the court-drawn plan becomes the standard of comparison for retrogression purposes. See *Mississippi v. Smith*, 541 F. Supp. 1329 (D.D.C. 1982), *appeal dismissed*, 461 U.S. 912 (1983). Also relevant to a judgment of retrogression are changes in the minority population percentage before and after redistricting. *City of Richmond v. United States*, 422 U.S. 358 (1975), suggests that if shifts in population reduce the proportion of a racial minority in a political subdivision subject to the Voting Rights Act, a reapportionment plan may reflect this reduced percentage, provided that the minority group enjoys continued control of a number of districts in the new plan proportionally comparable to the number of districts under minority control in the old plan relative to the then minority population share. *Id.* at 367-72.

216. 425 U.S. at 142 n.14. (at-large component of a plan not subject to challenge if left unchanged).

217. For empirical analysis of the effects on racial representation of the New Orleans City Council plan approved in *Beer* compared to other "neutrally" drawn single-member district plans, see Engstrom & Wildgen, *Pruning Thorns from the Thicket: An Empirical Test of the Existence of Racial Gerrymandering* 2 LEGIS. STUD. Q. 465 (1977); O'Loughlin, *The Identification and Evaluation of Racial Gerrymandering* 72 ANNALS. A. AM. GEOGRAPHERS 165 (1982). Both studies make use of sophisticated computer simulation tests, although the two studies do not reach identical conclusions.

or section 2 grounds.<sup>218</sup> The *Beer* retrogression test was reiterated in a 1983 Texas case, *City of Lockhart v. United States*,<sup>219</sup> in which a pure at-large system was replaced with an at-large system with numbered posts and staggered terms. In *Lockhart*, a city with a 47% Mexican-American population, the new system was held not to violate section 5 of the Voting Rights Act, largely because minority representation increased from no council members to one council member after it was adopted.<sup>220</sup> While the *Beer* retrogression test is the evidentiary standard unique to section 5 litigation, jurisdictions seeking section 5 preclearance must also seek to convince the Justice Department that the new plan satisfies constitutional and (since 1982) section 2 guidelines.<sup>221</sup>

B. *No Dilution of the Voting Strength of a Racial or Linguistic Minority*

The Voting Rights Act forbids denial or abridgement of

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218. This has occurred in two 1980's cases, including a Louisiana congressional redistricting case, *Major v. Treen*, 574 F. Supp. 325 (E.D. La. 1983), and a North Carolina state legislative case involving multimember districting, *Gingles v. Edmisten*, 590 F. Supp. 345 (E.D.N.C. 1984), *prob. juris. noted sub nom. Thornburg v. Gingles*, 105 S. Ct. 2137 (1985). In both of these cases, a federal district court found a § 2 violation of a plan that had been precleared by the Justice Department under § 5. The lower courts in these cases rejected the claim by defendants that once § 5 preclearance was given, a new cause of action under § 2 was not legally possible.

One curious fact about *Gingles* should be noted. The § 5 preclearance of the North Carolina legislative districts in Edgecombe, Wilson, and Nash Counties, which were among those challenged in *Gingles*, can be attributed in large part to miscommunication between the Justice Department and North Carolina. These districts were omitted from the list of challenged districts in the Department's initial objection letter, but this list was not meant to be exhaustive (forty North Carolina counties were covered under § 5 preclearance in 1982). Once North Carolina had provided a revised plan which addressed the problems in each of the districts identified by the Department in the initial objection letter, senior Justice Department officials were unwilling to draw out the process any further by introducing objections to multimember districts in these three counties, even though lower echelon staff in the Justice Department found these districts unsatisfactory. (This observation is based on the author's personal communications with several past and present members of the Voting Rights Section of the Department of Justice's Civil Rights Division. Most of the districts challenged in *Gingles* were in counties not covered by § 5. See 590 F. Supp. at 357.)

219. 460 U.S. 125 (1983).

220. Interpreting the *Lockhart* decision is complicated by the fact that the case also involved a dispute about whether the "numbered posts" were a *new* aspect of the plan.

221. See Procedures for the Administration of Section 5 of the Voting Rights Act of 1965: Proposed Rules, 50 Fed. Reg. 19122 (1985) (to be codified at 28 C.F.R. § 51.54).

the voting rights of designated protected minority groups. The equal protection clause of the United States Constitution has been interpreted to provide a similar protection to all citizens. The vote dilution standard for equal protection cases is most clearly stated in *Rogers v. Lodge*.<sup>222</sup> The *Rogers* test is a preponderance of factors test, allowing indirect proof to be used in establishing discriminatory intent. The Supreme Court has not yet had a full hearing on a case decided under the language added to section 2 of the Voting Rights Act in 1982, although it has disposed of several cases in memorandum opinions.<sup>223</sup> The standard enunciated in the 1982 amendment is a "totality of circumstances" effects test of whether a group has been denied or is being substantially restricted in its voting rights or in its access to the political system.<sup>224</sup> As described in the House and Senate Hearings on section 2, the criteria that make up the "totality of circumstances" test include (but are not restricted to) those identified in *Zimmer*.<sup>225</sup> They also include factors which may establish a historical context of discrimination and disenfranchisement. Among the questions to be asked are: Have minority groups been given input into the reapportionment process? Were minorities excluded from the party system (for example, by the now banned "white primary") or excluded from appointive levels of party and government office? Is there a past history of disenfranchising devices such as a poll tax, a literacy test, or unequal access to polling

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222. 458 U.S. 613 (1982).

223. See, e.g., *Mississippi Republican Executive Comm. v. Brooks*, 105 S. Ct. 416 (1984) (mem.); *Strake v. Seamon*, 105 S. Ct. 63 (1984) (mem.); *Marengo County Comm'n v. United States*, 731 F.2d 1546 (11th Cir.), *appeal dismissed and cert. denied*, 105 S. Ct. 375 (1984). *Thornburg v. Gingles*, discussed *supra* note 218, is now before the Court.

224. A violation of § 2 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 [protected class] in that its members have less opportunity than other members of the electorate to participate in the political process and to elect representatives of their choice. 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.

42 U.S.C. § 1973(b) (1982).

225. See *supra* notes 83-84 and accompanying text.

booths? Is there harassment and intimidation to prevent minority voting? Are elections conducted along racially divisive lines? Is there a history of explicit segregation whose effects can be expected to linger? Are minorities presently under-represented in elective office? Do the proposed districts fragment minority voting strength?<sup>226</sup> The Senate Report, which has been influential with courts, identifies seven particular factors.<sup>227</sup> Most courts that have dealt with section 2 cases have reviewed each of these factors in their opinions.<sup>228</sup> The Senate Report explicitly states that no single one of the seven factors is required as a precondition for a finding that a plan involves invidious racial vote dilution.<sup>229</sup> Indeed, as with earlier cases decided directly under the fourteenth (or fifteenth) amendment, it can be said that the demonstration of voting dilution is an "intensely practical and pragmatic"<sup>230</sup> inquiry requiring an "intensely local appraisal . . . in the light of past and present reality, political and otherwise."<sup>231</sup>

### C. *Proportionality Between Group Vote Share and Group Representation*

The United States Supreme Court has repeatedly repudiated the notion that minorities are entitled to proportional

226. H.R. REP. NO. 227, 97th Cong., 1st Sess. 30 (1981).

227. SENATE REPORT, *supra* note 82. The seven factors are (1) extent of history of official discrimination; (2) extent to which voting is racially polarized; (3) extent to which unusually large election districts, majority vote requirements, or anti-single shot provisions (or similar practices) are used; (4) denial of access to a candidate slating process; (5) discrimination in such areas as education, employment, and health that hinder opportunity to participate in the political process; (6) overt or subtle racial campaign appeals; and (7) extent of minority electoral success. Whether elected representatives and public policies are responsive to minority concerns may also be a relevant inquiry, but only a peripheral one. *See also* Blacksher, *supra* note 82; Grofman, Migalski & Noviello, *supra* note 78.

228. *See, e.g.*, *Gingles v. Edmisten*, 590 F. Supp. 345 (E.D.N.C. 1984), *prob. juris. noted sub nom.* *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985).

229. The amicus brief of the United States Solicitor General for appellants in *Thornburg v. Gingles* proposes a novel, and in part factually incorrect, interpretation of the legislative history surrounding the 1982 amendments to the Voting Rights Act that downplays the significance of the reports of the House and Senate hearings on the 1982 renewal of the Act. Solicitor General's Jurisdictional Statement Brief for the United States as Amicus Curiae, *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985) [hereinafter cited as Solicitor General's Brief].

230. *Seamon v. Upham*, 536 F. Supp. 931, 982 (E.D. Tex. 1982), *aff'd*, 105 S. Ct. 63 (1984).

231. *White v. Regester*, 412 U.S. 755, 769-70 (1973).

representation.<sup>232</sup> The language of the recently enacted section 2 of the Voting Rights Act<sup>233</sup> explicitly 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."<sup>234</sup>

D. *Reflections on Racial Effects Criteria*

The Justice Department's enforcement of the Voting Rights Act is hampered by inadequate levels of staffing and the consequent inability to verify whether or not all changes in election practices in the covered jurisdictions have actually been submitted for preclearance as required by the Voting Rights Act. There is dispute among civil rights attorneys and legal scholars as to how much the *Beer* nonretrogression standard has handicapped the Department's section 5 enforcement by preventing it from objecting to plans that pass the nonretrogression test, but still dilute a minority group's voting power. Ball, Krane, and Lauth, for example, believe that it has greatly affected the Department's ability to foster minority representation.<sup>235</sup> I do not share that view.

First, it is important to realize that the Justice Department's involvement in the districting process in the covered jurisdictions is not simply one in which the state proposes and the Department of Justice says "yes" or "no." There is often a great deal of contact between state officials and those in the Civil Rights Division, Voting Rights Act Enforcement Section of the Department of Justice, so that the plan which is eventually precleared is apt to be one which reflects Justice Department input concerning changes necessary to achieve preclearance. Since it is quite costly (and time-consuming) for a state to seek reversal of a Justice Department's section 5 objection in the District of Columbia District Court (and still more expensive to carry an appeal to the Supreme Court if the Justice Department's point of view is upheld by the District Court), it is often easier for the state to reach an accommodation with the Justice Department. Of course, there are also incentives for the Justice Department to make an accom-

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232. See, e.g., *Whitcomb v. Chavis*, 403 U.S. 124, 153-54 (1971).

233. See *supra* note 224 and accompanying text.

234: 42 U.S.C. § 1971 (1982) (emphasis added).

235. H. BALL, D. KRANE & T. LAUTH, *COMPROMISED COMPLIANCE: IMPLEMENTATION OF THE 1965 VOTING RIGHTS ACT* (1982).



modation with the state or locality under section 5 review, such as the limited manpower at the Justice Department to cope with potentially lengthy litigation<sup>236</sup> and the reluctance of senior officials at the Justice Department to unnecessarily antagonize state and local politicians. By and large, however, contrary to what Ball, Krane, and Lauth argue for the historical period they consider, my view is that the outcome of this interaction was apt to result in more minority representation than might be required under a strict construction of the *Beer* nonretrogression standard, even though it may have resulted in the preclearance of plans that were not the *most* favorable possible to minority interests.<sup>237</sup>

Second, while it might seem that *only* plans whose effects are retrogressive in the sense of *Beer* are subject to Justice Department rejection, the *Beer* opinion must be read in the context of subsequent rulings that reiterate that plans motivated by an "intent to discriminate" are subject to the section 5 prohibition.<sup>238</sup>

Finally, we should note that as of late 1982, it became apparent that lower echelon officials in the Civil Rights Division of the Justice Department had begun making use of a section 2 effects test to supplement the retrogression test in reaching section 5 preclearance judgments,<sup>239</sup> and, for ear-

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236. For example, *South Carolina v. United States*, 585 F. Supp. 418 (D.D.C.), *appeal dismissed*, 105 S. Ct. 285 (1984), consumed the equivalent of well over one "person-year" of attorney time in the Voting Rights Section, and comparable amounts of computer programmer and consultant time.

237. For example, one review of § 5 preclearance asserted that "whenever there is a substantial, well-defined minority community of black or Mexican-American voters who could control a district or have strong influences in a district, breaking up that community is 'fragmentation' and is likely to be unacceptable (to the Justice Department) under Section 5." TEXAS HOUSE OF REPRESENTATIVES, HOUSE STUDY GROUP, REDISTRICTING, PART FOUR: THE VOTING RIGHTS ACT, HOUSE STUDY GROUP SPECIAL LEGISLATIVE REPORT NO. 60, at 27 (1980). Indeed, in North Carolina in 1982 the Justice Department insisted that legislative multimember districts be replaced with majority black districts in covered areas of the state where minority voting strength was held to be submerged by white voters. In the late 1970's and early 1980's the Justice Department objected routinely to any plan which would create an at-large election system (or multimember districts) where none previously existed.

238. Thus, the rejection by the Department of Justice of a plan that was not retrogressive might still be upheld if the plan could be shown to have a discriminatory intent. The intent issue was not raised in *Beer*.

239. The previous practice is now formally codified in Procedures for the Administration of Section 5 of the Voting Rights Act of 1965: Proposed Rules, 50 Fed. Reg. 19122 (1985) (to be codified at 28 C.F.R. § 51.54).

lier periods, Motomura has convincingly argued that the Justice Department customarily imposed an effects standard of the sort embodied in *White v. Regester*<sup>240</sup> to supplement the *Beer* retrogression test.<sup>241</sup>

The extent to which Justice Department preclearance decisions are made for political reasons is another disputed issue. Because there are a number of criteria on which the Department's preclearance decisions can be based, the Department has a range of discretion. As a result, political pressure may sometimes play a role. For example, in Louisiana, the legislature in 1981 considered a plan that would have created a black majority congressional district which would have included most of New Orleans. The Republican governor threatened a veto, in part because the black district would have jeopardized the reelection of an incumbent Republican. The legislature reacted and redrew the plan in such a way that the black vote was split between two districts. Writing prior to the Department of Justice preclearance decision, a lawyer for the black plaintiffs who challenged the plan asserted: "This case presents the acid test of whether a Republican governor's influence at the Republican Justice Department is stronger than the law."<sup>242</sup> The Department of Justice did in fact preclear the plan after heavy lobbying from Governor Treen. The decision to preclear was reached at the highest levels of the Civil Rights Division and was not popular with lower echelon personnel in the Voting Rights Section.<sup>243</sup> The precleared plan, however, was overturned in *Major v. Treen*<sup>244</sup> as a violation of section 2 of the Voting Rights Act in a challenge brought subsequently by the black plaintiffs.

Despite this Louisiana example, my view is that, with rare but important exceptions, political considerations have not been important in section 5 Justice Department preclearance, though politics may be playing a greater role

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240. 412 U.S. 755 (1973).

241. Motomura, *Preclearance Under Section Five of the Voting Rights Act*, 61 N.C.L. REV. 189 (1983). This view of past Justice Department practices was confirmed in my conversations with staff of the Voting Rights Section.

242. 4 SOUTHERN CHANGES, REAPPORTIONMENT ROUNDUP, Nov.-Dec. 1982, at 20, 23.

243. In particular, the recommendation of the staff attorneys to reject the plan was reversed.

244. 574 F. Supp. 325 (E.D. La. 1983).

under the Reagan Administration than under previous administrations. A rather different point of view is given by Ball, Krane and Lauth,<sup>245</sup> and Bullock.<sup>246</sup> While partisan politics may not be that important in determining criteria for voting rights decision making in the Justice Department, ideology certainly is.

The central difficulty with "discretionary justice" and "negotiated compliance" by administrative agencies, of which section 5 preclearance is a prime example, is that a change in leadership can lead to a considerable change in policy. Department of Justice voting rights enforcement policy has changed dramatically during President Reagan's second term. In earlier years, lower echelon personnel were largely free to carry on policies made routine by several earlier administrations. Now, the Justice Department, under ideological guidance from the top, does not vigorously pursue section 5 enforcement; lower echelon recommendations are more likely to be overruled, and virtually no recent election changes have been denied preclearance (only three of over 700 submissions were denied between January and April 1985). As for section 2 violators, Reagan appointees in the Justice Department have taken such an extremely restrictive view of what section 2 requires as to essentially "gut" the Act, and only a handful of new section 2 challenges have been brought in 1985.<sup>247</sup> Indeed, one recent Justice Department action regarding section 2 was the intervention as amicus in the Supreme Court in support of defendants who were held to be in violation of section 2. The Department sought to limit the scope of the evidentiary standards needed to establish a section 2 violation.<sup>248</sup>

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245. H. BALL, D. KRANE & T. LAUTH, *supra* note 235.

246. C. Bullock, *The Effects of Redistricting on Black Representation in Southern State Legislatures* (Sept. 1983) (presented at the Annual Meeting of the American Political Science Association, Chicago); *cf.* K. Brace & B. Grofman, *Research Note: A Direct Test of the Hypothesis that Legislative Redistricting Plans in the South Which Make It Easier for Blacks to Get Elected Also Make It Easier for Republicans to Get Elected* (1985) (unpublished manuscript).

247. Zimmerman & Wilson, *More Justice Suits Filed on Election, Promotion Discrimination*, 74 NAT'L CIVIC REV. 141 (1985).

248. *See* Solicitor General's Brief, *supra* note 229. This brief argues, in contrast to the Senate Report, *see supra* note 227, that consistent black electoral failure is a necessary condition for there to be a § 2 violation. The view that the seven factors, *see supra* note 227, identified in the 1982 Senate Report are not to be given weight in determining legislative intent is at complete variance with the position taken by

## While the language of the 1982 Senate Judiciary Com-

the Department of Justice prior to 1985. See, e.g., Post-Trial Brief of the United States County Council of Sumter County at 31, *South Carolina v. United States*, 589 F. Supp. 757 (D.D.C.), *appeal dismissed*, 105 S. Ct. 285 (1984).

In its amicus brief in *Gingles*, the Justice Department attributes to the district court in *Gingles* a narrow view of what constitutes racially polarized voting, which is at complete variance with the multifaceted and sophisticated tests that the court in fact used. See 590 F. Supp. at 367 n.29, 368 nn.30-32. The factors the court examined included the magnitude of the correlation coefficient, the degree of statistical significance of the regression, the proportion of whites who voted for each black candidate, the comparative rankings of black candidates by white and by black voters, the lack of similarity between the candidates who would have been chosen by the black electorate as compared to those who would have been chosen by the white electorate, and election-specific factors such as the number of candidates of each race and the number of seats that were simultaneously contested. Only one of these factors is acknowledged in the brief—the test for substantive significance—and the brief gives the totally erroneous impression that this test is all the court relied on. The brief also errs in omitting critical case facts relied upon by the district court to support its findings that racially polarized voting was severe.

In particular, the Solicitor General's amicus brief in *Gingles* neglects to acknowledge that defendant's own expert found that race was statistically significant at the .00001 level as a factor accounting for the votes in each of the elections he examined (a fact reported in Appellant's trial brief but not mentioned in the opinion). I reached the same conclusion testifying as an expert witness for the plaintiffs. *Id.* at 368 n.30. Other key facts relied upon by the district court to support its finding of racially polarized voting which go unmentioned in the Solicitor General's amicus brief for Appellants in *Gingles* include the following:

In none of the elections, primary or general, did a black candidate receive a majority of white votes cast. On the average, 81.7% of white voters did not vote for any black candidate in the primary elections. In the general elections, white voters almost always ranked black candidates either last or next to last in the multi-candidate field except in heavily Democratic areas; in these latter, white voters consistently ranked black candidates last among Democrats if not last or next to last among all candidates. In fact, approximately two-thirds of white voters did not vote for black candidates in general elections even after the candidate had won the Democratic primary and the only choice was to vote for a Republican or no one. Black incumbency alleviated the general level of polarization revealed, but it did not eliminate it. Some black incumbents were reelected, but none received a majority of white votes even when the election was essentially uncontested.

*Id.* at 368-69. Also omitted from the brief is the language below:

[F]ewer white voters voted for black candidates than did black voters for white candidates. In these elections, a significant segment of the white voters would not vote for any black candidate, but few black voters would not vote for any white candidates. One revealed consequence of this disadvantage is that to have a chance of success in electing candidates of their choice in these districts, black voters must rely extensively on single-shot voting, *thereby forfeiting by practical necessity their right to vote for a full slate of candidates.*

*Id.* at 369 (emphasis added).

I believe that the demonstrated need for North Carolina blacks in the multi-

mittee Report on the Voting Rights Act Extension asserts that no particular factor must be present in order to establish a section 2 violation,<sup>249</sup> there is a general consensus among attorneys in the voting rights area that without a showing of racially polarized patterns of voting—one of the seven factors identified in the Senate Report—no section 2 case is likely to be won.<sup>250</sup> The nearly one-dozen section 2 cases decided since 1982 with which I am familiar support the view that evidence of racial polarization is critical.<sup>251</sup> The principal difficulty with racially polarized voting as a necessary component of a section 2 violation is that, recently, courts have enunciated new and rather strange definitions of racially polarized voting, and have set quite different standards for identifying its presence.<sup>252</sup>

The three-judge panel in *Gingles*, relying on the standard analysis,<sup>253</sup> defined racially polarized voting as having to do with “the extent to which blacks and whites vote differently

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member districts challenged in *Gingles* to give up their right to vote for more than one candidate in order to maximize the chances that the black candidate they support would be elected over white opposition (a need created by the severe level of racially polarized voting in those districts), *demonstrates in and of itself a denial of an equal opportunity “to participate in the political process and to elect representatives of their choice.”* See *Lee County Branch of NAACP v. City of Opelika*, 748 F.2d 1473, 1477 (11th Cir. 1984) (emphasis added). This restriction on equality of the franchise should be sufficient, in the totality of the circumstances shown in *Gingles*, to demonstrate a § 2 violation. The need for blacks to “bullet-vote” because of racially polarized voting by whites was clearly acknowledged by Dr. Hofeller, the defendant’s expert witness, in his trial testimony.

249. See SENATE REPORT, *supra* note 82.

250. The sole exception may be cases in small jurisdictions in which there is only one ballot box, and it is thus impossible to reconstruct the preferences of voters of different races or ethnicities by looking at precincts with racially or ethnically homogeneous populations. In these jurisdictions, patterns of minority political exclusion are often so clear that racially polarized voting can be inferred.

251. See, e.g., *Lee County Branch of NAACP v. City of Opelika*, 748 F.2d 1473, 1479 (11th Cir. 1984); *United States v. Marengo County Comm’n*, 731 F.2d 1546, 1572 (11th Cir.) (holding that racially polarized voting will ordinarily be the “key-stone” factor in a vote dilution case), *appeal dismissed and cert. denied*, 105 S. Ct. 375 (1984). These views are supported by the Department of Justice. See Department of Justice Amicus Brief for Appellants at 25, *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985).

252. However, “[p]olarized voting is not itself unconstitutional, and does not *ipso facto* render the electoral framework in which it occurs unconstitutional.” *Jones v. City of Lubbock*, 727 F.2d 364, 385 n.17 (5th Cir. 1984).

253. “Racial bloc voting is a situation where, when candidates of different races are running for the same office, the voters will by and large vote for the candidate of their own race.” *City of Rome v. United States*, 472 F. Supp. 221, 226 (D.D.C. 1979), *aff’d*, 446 U.S. 156 (1980).

from each other in relation to the race of candidates.”<sup>254</sup> The *Gingles* court accepted, as probative, evidence of all recent black-white contests in the counties in question (offered by myself and another expert, Dr. Theodore Arrington) which provided estimates for each of fifty-three elections of the proportions of white and black voters who voted for black candidates and of white and black voters who voted for white candidates,<sup>255</sup> and also estimates of the magnitude of (precinct-level-based) correlations<sup>256</sup> between the proportions of voters of one race and the proportions of voters who voted for a candidate of a specified race.<sup>257</sup> The panel found the magnitude of racially polarized voting to be severe in each and every district under challenge.

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254. 590 F. Supp. at 367 n.29.

255. Measuring the degree of racially polarized voting in multimember district elections (especially those without a numbered place system) provides certain special technical difficulties as compared to measuring polarization in single-member districts, but essentially the meaning of racial polarization is the same in single-member and multimember election systems. See B. Grofman & M. Migalski, *An Ecological Regression Technique to Estimate the Extent of Racially Polarized Voting in Multimember Districts Whose Voters May Vote for More Than One Candidate* (1984) (unpublished manuscript); Grofman, Migalski & Noviello, *supra* note 78; B. Grofman & N. Noviello, *An Outline for the Analysis of Racially Polarized Voting* (prepared testimony in *Gingles v. Edmisten*); see also J. LOEWEN, *SOCIAL SCIENCE IN THE COURTROOM* 185-89 (1982).

Failure to recognize these special difficulties can lead expert witnesses astray. This apparently occurred in *McCord v. City of Fort Lauderdale*, Civ. No. 83-6182 (S.D. Fla. filed Mar. 12, 1985), in which expert witness testimony on the presence of racially polarized voting in an at-large election without numbered places was rejected by the court as misleading.

256. 590 F. Supp. at 368 n.30. The correlation  $r$ , also known as the Pearson correlation coefficient, is a measure of the extent to which the relationship among several variables can be expressed by a linear additive model. The square of that correlation,  $r^2$ , also known as the coefficient of determination, indicates the proportion of “variance” in the independent variable (in this case voting support for white/black candidates) which is explained by a given set of other variables (in this case one variable, the race of the voters). For a fuller treatment of  $r^2$ , consult any standard statistics textbook. For a discussion of the relevance of the Pearson correlation coefficient to voting rights issues, see Grofman, Migalski & Noviello, *supra* note 78, at 206-08.

257. The court in *Gingles* stated:

In experience, correlations above an absolute value of .5 are relatively rare and correlations above .9 extremely rare. All correlations found by Dr. Grofman in the elections studied had absolute values between .7 and .98 with most above .9. This reflected statistical significance at the .00001 level—probability of chance as an explanation for the coincidence of voter’s and candidate’s race is less than one in 100,000.

590 F. Supp. at 368 n.30.

The *Gingles* court considered the *statistical significance* of the obtained correlation coefficients, and found the degree of racial polarization (reflected in the comparative proportions of whites voting for black/white candidates and blacks voting for these same candidates) to be *substantively significant* "in the sense that the results of the individual elections would have been different depending upon whether it had been held among only the white voters or only the black voters in that election."<sup>258</sup> The court also looked at the relative rankings of white and black voters for black candidates and at various election-specific factors.<sup>259</sup>

In contrast, in *Terrazas v. Clements*<sup>260</sup> a United States district court implied that racial polarization only takes place if the racial majority (in this case Anglo, with the minority bloc Hispanic) "can or will consistently out-vote a hispanic minority so as to render the ballots cast by hispanics meaningless."<sup>261</sup> With this definition, almost any degree of electoral success of minority candidates (for example, in contests in which white turnout was low or white voters split their vote among a number of white candidates allowing a minority candidate to be a plurality winner) would rule out the possibility of racially polarized voting. In my view, this is an inappropriate standard which confuses the question of the existence of polarized voting with the question of whether candidates of the racial minority sometimes win—questions appropriately distinguished by the *Gingles* court.<sup>262</sup> The *Terrazas* court also disputed an expert witness's claim that voting

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258. The court stated:

The two exceptions involved 1982 State House elections in Durham and Wake Counties, respectively, in which black candidates were elected to seats in majority white multi-member districts. Both were incumbents, and in Durham County there were only two white candidates in the race for the three seats so that the black candidate had to win. Though each black candidate won, neither received a majority of the white vote cast. These two exceptions did not alter Dr. Grofman's conclusion that, in his terms, racial polarization in the elections analyzed as a whole was substantively significant. Nor do they alter our finding to that same effect.

*Id.* at 368 n.31.

259. The *Gingles* court looked at each district individually, examining the election-specific context as well as the raw percentages and other statistical parameters. See *supra* note 248.

260. 581 F. Supp. 1329 (N.D. Tex. 1984).

261. *Id.* at 1352.

262. See 590 F. Supp. at 368-69.

was polarized in an election in which an Hispanic candidate received 90% of the vote in Hispanic precincts and 35% of the vote in the most predominantly Anglo precincts.<sup>263</sup> This is also a mistaken view of the requirements of racial polarization. Clearly, Anglos and Hispanics voted differently in this election. At least 90% of Hispanics supported the Hispanic candidate; at least 65% of Anglos did not.<sup>264</sup> In my view and, I think, in the view of any sensible observer, this voting is racially polarized.

In each and every election for which the necessary data is available, we may determine whether or not racially polarized voting has occurred and specify the magnitude of the differences between white and black (or Anglo and Hispanic) vote choices. No single election, looked at in isolation, can prove the existence of a *pattern* of racially polarized voting. But if minority candidates (or white candidates who take a sympathetic stand on race-related issues) who have strong support from the minority community frequently fail to be the choice of the majority of white voters, then obviously a racially polarized voting pattern exists.<sup>265</sup> It is really just as simple as that.

The *Terrazas* court is not alone in defining racial polarization in a way that violates common sense and makes racial polarization difficult to prove.<sup>266</sup> Two United States Courts of Appeals have suggested, in recent cases, that the evidence required to support a claim of racially polarized voting must be even stronger than what was required by the district court in *Terrazas*. After cautioning "against placing too much reliance solely on the coefficients," the court in *Lee County Branch*

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263. 581 F. Supp. at 1352.

264. To justify use of the term "at least" in the above sentence, I made use of the modified method of overlapping percentages. See B. Grofman & N. Noviello, *supra* note 255; J. Loewen, K. Brace & B. Grofman, Problems of Curvilinearity in Ecological Regression (1985) (unpublished manuscript). The basic idea underlying the modified overlapping percentages method is that some of the voters for the Hispanic candidate in the predominantly Anglo precinct will be Hispanic; some of the voters for the Anglo candidate in the predominantly Hispanic precinct will be Anglo.

265. In multicandidate elections for a single office we would look at which candidate was the plurality choice of the voters of each race, since there might be no candidate with a majority of votes. See B. Grofman & N. Noviello, *supra* note 255.

266. I share the *Terrazas* court's reluctance to accept a high  $r^2$ , standing alone, as proof of polarized voting; I differ with it on what is needed. Rather than multivariate statistics, I propose simple percentage and ranking comparisons. See sources cited *supra* note 255.



of *NAACP v. City of Opelika*<sup>267</sup> commented:

It will often be necessary to examine factors other than race that may also correlate highly with election outcomes—campaign expenditure, party identification, income, media advertising, religion, name recognition, position on key issues, and so forth. Well-established statistical methods such as step-wise multiple regressions can test the relative importance of multiple factors. Such analysis can assist in the determination of whether race is the dominating factor in political outcomes.<sup>268</sup>

Similarly, Judge Higginbotham, in a special concurrence in *Jones v. City of Lubbock*<sup>269</sup> asserted that “[m]ore complex regression study or multi-variate mathematical inquiry will often be essential to gauge the explanatory power of the variables necessarily present in a political race.”<sup>270</sup>

In both of these opinions, the principal problem is that the *existence* of racially polarized voting has been confused with the *etiology* of racially polarized voting. In addition, plaintiffs might be required to submit complex statistical calculations about a matter which ought to be largely one of commonsense inspection of electoral results matched with information about the racial composition of the precincts.<sup>271</sup> There are many reasons why voting might be racially po-

267. 748 F.2d 1473 (11th Cir. 1984).

268. *Id.* at 1482.

269. 730 F.2d 233 (5th Cir. 1984).

270. *Id.* at 234 (Higginbotham, J., concurring).

271. I agree with Judge Higginbotham's further comment in *Jones v. City of Lubbock*, 730 F.2d 233 (5th Cir. 1984), that “[a] healthy dose of common sense and intuitive assessment remain powerful components in this critical factual inquiry.” *Id.* at 234 (Higginbotham, J., concurring). Unfortunately, fancy statistics, when not properly understood, can get in the way of common sense. Nonetheless, sometimes statistical analysis is essential. Judge Higginbotham, for example, took to task the expert witness for the plaintiffs for using “census data [matched to precincts] as a substitute for the racial and ethnic makeup of the actual voters in a precinct in any given race.” *Id.* at 235. This, however, imposes an impossible burden on plaintiffs. In general, it is impossible to obtain the actual makeup of the electorate for any given election since few states keep registration data by race, much less turnout data. There are, however, standard statistical procedures (homogeneous precinct analysis and ecological regression) for converting census data by race (or registration data by race and turnout data by precinct) into valid estimates of turnout by race, and for using census (or registration) data by precinct and electoral data by precinct to estimate voting behavior by race. See *Gingles v. Edmisten*, 590 F. Supp. 345, 367 n.29, 368 n.30 (E.D.N.C. 1984), *prob. juris. noted sub nom.* *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985); see also sources cited *supra* note 255. I do not know whether the plaintiffs in *City of Lubbock* offered such analyses, but they certainly can be done in ways that will provide reliable estimates of the relevant parameters.

larized (for example, black candidates and white candidates may take different positions; black candidates may lack name recognition in the white community, and vice versa; or black candidates may be unable to effectively campaign in white neighborhoods). Determining which of these reasons best accounts for the patterns of racially polarized voting is irrelevant to the question of whether racially polarized voting exists. That question can be answered by simple statistics that report the extent to which black voters and white voters differ in their support for black candidates and white candidates in black-white contests.<sup>272</sup> In short, *why* racially polarized

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272. These are bivariate statistics, not the multivariate statistics which would be generated by the step-wise regression recommended by Judge Higginbotham in *City of Lubbock* and by the Eleventh Circuit in *City of Opelika*. The multivariate statistics proposed by the courts in these cases answer the wrong questions. In other cases in these circuits the standard bivariate methods for measuring racial polarization have been accepted. See, e.g., *United States v. Dallas County Comm'n*, 739 F.2d 1529 (11th Cir. 1984). Also, if for some reason multivariate analyses were to be used (and I emphasize again that multivariate analysis is not appropriate for the purpose of determining whether or not racially polarized voting exists), there may well be severe problems of multicollinearity, a situation in which several independent variables are highly correlated, making it difficult to properly apportion the explained variance among these variables. For example, since blacks are generally in average lower education and income levels than whites, education and race, and income and race, will be highly correlated. Thus, if education, for instance, is centered into a multivariate regression (stepwise or not), it conceivably could dramatically reduce the "explanatory" power of race; yet the correct causal ordering is that race affects education level, rather than the other way around. Similarly, if media endorsements go mostly to the whites who win, including endorsements as a variable in a multivariate regression could appear to wipe out the effects of race. Or, imagine that all incumbents who ran won and all incumbents were white. Would that mean that incumbency and not race was explaining the failure of blacks to be elected? I think not.

In practice, even when a number of other variables are entered into a *properly specified* multivariate regression involving only head-on-head black-white contests, it is likely that race will remain far and away the most important explanatory factor if, as is unfortunately so often the case, voting is truly polarized along racial lines. But the phrase "properly specified" in the above sentence is crucial. Some insightful work has shown that the "partial correlation" between race and votes for the white candidate may actually increase when other factors (such as income) are controlled. J. Loewen, Declaration at 11, *United States v. South Carolina*, No. 80-730-8 (D.S.C. 1980). Loewen also shows that factors such as income and education had little explanatory power for voting outcomes in South Carolina statewide contests once a control for race of voters was introduced.

However, improperly used multivariate regressions (such as those presented by the expert witness for the defendants in *McCord v. City of Fort Lauderdale*, Civ. No. 83-6182 (S.D. Fla. filed Mar. 11, 1985)), can mislead a court—as happened in that case. It is likely that the technical complexities involved in *multivariate* regression analyses, especially those encountered in ecological regressions, prohibit their useful application to an assessment of basic voting patterns. They are not the ap-

voting exists should not be confused with *whether* racially polarized voting exists.<sup>273</sup>

appropriate technique in the racially polarized voting context, and such application might prove more harmful than helpful. Since racially polarized voting is basically a very simple concept, *see* discussion of racially polarized voting in *Gingles v. Edmisten*, 509 F. Supp. 345 (E.D.N.C. 1984), *prob. juris noted sub nom. Thornhurg v. Gingles*, 105 S. Ct. 2137 (1985); Grofman, Migalski & Noviello, *supra* note 78, requiring plaintiffs to go to the expense of generating multivariate regression models and the data needed to enter into them is to impose a sizable burden which would deleteriously affect the ability of groups whose voting rights had been impaired to obtain legal redress. Even if defendants use multivariate regressions as a rebuttal to the claim that voting is racially polarized (as is suggested by Judge Higginbotham in *City of Lubbock*), while in the hands of a skilled analyst such as Loewen, multivariate correlations and partial correlations may be informative; typically they are devices used by defendants in voting rights litigation to muddy up the waters.

A clear example of how a federal court was misled by multivariate analyses occurred in *McCord v. City of Fort Lauderdale*, Civ. No. 83-6182 (S.D. Fla. filed Mar. 11, 1985). In *McCord*, the court accepted an expert witness' conclusion that "when race is added to the other independent variables . . . the factor of race explains .6 of 1 percent of the dependent variables [sic] of candidate success." Such use of multivariate regression techniques was totally inappropriate for the data being analyzed. There were only a handful of black candidates (7) and a large number (75) of white candidates, with elections conducted at-large without a numbered-place system. In such a context, the effects of race will not be captured by a multiple regression, since race cannot possibly account for the outcomes when white candidates lose to other white candidates. In addition, the multiple regression used by the expert witness in this case included some factors which were almost certainly correlated with race (a problem technically known as multicollinearity) which makes any causal assertions regarding the supposed irrelevance of race erroneous. Most importantly, however, the *McCord* court not only was bamboozled by misleading fancy statistics, but also was guilty of misinterpreting some very simple statistics it had at its disposal. For example, the court asserted that "since 1970 (counting the 1979 mayoralty race) there have been 75 white candidacies for city commission, of which 27 were successful in being elected, for a percentage of 36 percent, while there have been seven black candidacies, of which three were successful, for a percentage of 43 percent." The implication of this calculation is that whites and blacks are roughly equally likely to be elected, but this is simply the wrong way to calculate the percentages in an at-large election without a numbered-place system. The correct way to calculate the percentage is to note that of the 30 seats that were contested, all 30 could, in principle, have been won by white candidates. In fact, white candidates were successful in 27 cases, for a success score of 90%; while blacks, who contested seven seats, were successful three times, for a success score of 36%. Percentaging in this way casts a quite different (and more meaningful) light on the comparative electoral successes of white and black candidates in Fort Lauderdale.

273. I suspect that the reason the Fifth and Eleventh Circuits have sought to introduce the use of multivariate statistics in the measurement of racially polarized voting is because these statistics are used routinely in Title VII employment discrimination cases. In these cases, multivariate regressions are used to show that statistically and substantively significant differences in treatment by race persist even after controls have been effected for "neutral" factors such as education, job-related skills, or seniority. *See, e.g., Vuyanich v. Republic Nat'l Bank*, 505 F. Supp. 224 (N.D. Tex. 1980). In Title VII cases, it is appropriate to judge whether race-

Regardless of why it exists, if it does exist, racially polarized voting can make it harder for minority candidates to be elected.<sup>274</sup> Yet it is also wrong to confuse the question of whether racially polarized voting exists with the question of minority electoral success.<sup>275</sup> These are clearly separate questions and Congress intended that they be treated as such. In particular, the Senate report identifying the seven key factors of the "totality of circumstances" test lists racially polarized voting and minority electoral success as *distinct* factors.<sup>276</sup> In the Solicitor General's amicus brief in *Gingles*, the Department of Justice confuses these two factors and makes the error of arguing that racial polarization can exist only if black (or other minority) candidates always or virtually al-

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related differences can be "explained away." In § 2 cases for racially polarized voting, the claimed need to account for the factors leading voters to treat black candidates differently from white candidates is nonexistent; and it is improper to analogize racially polarized voting to Title VII cases which require a determination of whether the factors that lead employers to treat black employees and white employees differently are factors which do not reflect racial discrimination. White voters may vote for white candidates over black candidates for whatever reason they choose. Voters cannot be compelled to use equal treatment in the choice of their candidates the way employers can be compelled to be race-neutral in their hiring, promotion, and salary decisions. In § 2 cases, seeking to investigate the motives of voters introduces, via the back door, a *purpose* test that Congress intended to be a purely *effects* standard. Engstrom, *The Reincarnation of the Intent Standard: Federal Judges and At-Large Election Cases*, 28 How. L.J. (forthcoming 1985).

274. See *Gingles v. Edmisten*, 590 F. Supp. 345, 368 n.32 (E.D.N.C. 1984), *prob. juris noted sub nom.* *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985). However, there are special circumstances when racially polarized voting may actually assist minority candidates in getting elected (for example, in districts where the minorities comprise a majority of the district's total voting strength). Nonetheless, racially polarized voting will hurt the group which is in the minority and which can expect to find itself outvoted more often than not.

275. Judge Higginbotham, in *Jones v. City of Lubbock*, 730 F.2d 233 (5th Cir. 1984), was correct when he asserted that "a token candidacy of a minority unknown outside his minority voting area may attract little non-minority support and produce a high statistical correspondence of race to loss." *Id.* at 234 (Higginbotham, J., concurring). In other words, it is possible to have a high correlation with race, but yet have almost no one of either race voting for a given candidate. This potential problem is, however, handled in a fully satisfactory way by the court's distinction in *Gingles* between statistical and substantive significance and the tests imposed for each. Moreover, Judge Higginbotham goes too far when he claims "that there will almost always be a raw correlation with race in any failing candidacy of a minority whose racial or ethnic group is as small a percentage of the total voting population as here." *Id.* My own analyses of racial bloc voting suggest that token black candidacies will not usually result in high  $r^2$ . In statistical jargon, the correlations in such cases are often severely attenuated by noise.

276. SENATE REPORT, *supra* note 82.

ways fail to be elected.<sup>277</sup> *This is nonsense.* Voting can be racially polarized even though black candidates win. For example, whites may divide their vote among too many white candidates or black turnout may be especially high. Conversely, black candidates can lose even when voting is not racially polarized because black candidates can run poorly among both white and black voters. In other words, we cannot infer black electoral success from the absence of racially polarized voting, nor does the absence of racially polarized voting guarantee black electoral success.<sup>278</sup>

The section 2 "totality of circumstances" test has been characterized by one prominent civil rights attorney (who shall remain nameless) as a "throw mud against the wall and if enough of it sticks you win" standard. 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 almost equally plausibly reasoned opposing conclusions.<sup>279</sup>

The single most important conceptual muddle in section 2 litigation is the considerable confusion about the relationship between a group's vote share and the number of districts in which it can be expected to win in a single member district legislature or city council, if districts are drawn in an unbiased fashion. For example, Judge Kravitch asserted that "[n]ot accounting for other variables, elections would be expected to produce a ratio of successful black and white candidates corresponding roughly to the respective percentages of the population comprised by each race."<sup>280</sup> Kravitch also recognized that "some degree of deviation from proportionality to population would neither be unusual nor indicative of

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277. See Solicitor General's Brief, *supra* note 229.

278. It is important to recognize that there can be lingering effects of discrimination which may retard minority representation. For example, black candidates may be less likely to run because of the inhibiting effects of past discrimination. Those candidates who do run are likely to lack well-honed campaigning skills and experienced campaign staffs because full black participation in the political process is only now becoming commonplace. This can be true even in electorates where black registration and turnout levels now equal (or exceed) those of whites.

279. For an earlier and more charitable view of the "totality of circumstances" test, see Grofman, Migalski & Noviello, *supra* note 78.

280. *McMillan v. Escambia County*, 688 F.2d. 960, 966 n.14 (5th Cir. 1982).

intentional discrimination in the election system.”<sup>281</sup> As is well known to political geographers, but not well enough known to lawyers, judges, or civil rights activists, single-member districting can be expected to yield results which are *quite* far from proportional (especially if the minority voting population is less than 35%), even when there is not intentional discrimination in the drawing of district lines.<sup>282</sup> Indeed, if the minority population is evenly dispersed (i.e., not “ghettoized”), then even a near 50% minority population may win *no* seats. As long as we use single-member districts, minorities (whether racial, linguistic, or partisan) must expect actual representation to be less than proportional to their numbers. The smaller the group, the greater the expected discrepancy from proportionality.<sup>283</sup>

A second major conceptual muddle in section 2 litigation is the failure to recognize that vote dilution is inherently a *comparative* concept. Along with this failure comes the failure to define an appropriate base line against which dilution is to be measured. There are a number of ways in which such a base line might be developed, although I am not at present prepared to single out one of them for particular recommendation. My own views on this question are still evolving.

One possible base line is the expected results of a “color-blind” single-member districting plan.<sup>284</sup> The diffi-

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281. *Id.*

282. See Backstrom, Robins & Eller, *supra* note 154.

283. See Grofman, *supra* note 179, and sources cited therein; see also sources cited *supra* note 154. Minority representation will, in general, be even worse under multimember districts. See Engstrom & McDonald, *The Effect of At-Large vs. District Elections on Racial Representation in U.S. Municipalities*, in ELECTORAL LAWS AND THEIR POLITICAL CONSEQUENCES, *supra* note 94; B. Grofman, M. Migalski & N. Noviello, *Effects of Multimember Districts in State Legislative Elections in North Carolina* (1984) (unpublished manuscript). Nonetheless, minority litigants challenging an existing plan will usually be able to propose an alternative plan which, by concentrating minority voting strength, yields something approximating proportionality between minority vote strength and expected minority controllable seat share. Sometimes, however, such a plan may require contorted districts.

284. Recent analytic work has shown considerable promise of developing statistical measures of the extent of racial bias in a districting plan. See, e.g. Engstrom & Wildgen, *supra* note 217; Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, *supra* note 7; O’Loughlin, *supra* note 217; O’Loughlin, *Racial Gerrymandering: Its Potential Impact on Black Politics in the 1980s*, in THE NEW BLACK POLITICS: THE SEARCH FOR POLITICAL POWER 241 (M. Preston, L. Henderson & P. Puryear eds. 1982).

culty with this approach is that neutral guidelines may not satisfy the desire to overcome the effects of past discrimination.<sup>285</sup>

Another base line would be the identical treatment of minority bloc and majority bloc voting strength in terms of avoiding fragmentation (cracking) and packing.<sup>286</sup> Here, a significant measurement problem arises regarding the extent to which a particular group has had its voting strength fragmented or packed. In measuring the effects of cracking or packing it is necessary to take into account differential voter eligibility, registration, and turnout rates across various groups.<sup>287</sup> In particular, the 65% minority population rule of thumb commonly used to determine whether a given district is "genuinely" under minority control (and is not packed),<sup>288</sup> is often inappropriate.<sup>289</sup>

Still, a third potential base line is proportionality. Although no group has a right either to proportionality or to voting strength maximization, proportionality provides an obvious base line against which to measure discrepancies. As noted above, however, under a color-blind plan, the minority would expect to receive a seat share less than proportional to its voting strength, and the majority would expect to receive a seat share more than proportional to its voting strength.

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285. See Blacksher, *supra* note 82, at 9-10.

286. Packing refers to concentrating a group's voting strength in such a fashion that some of it is *unnecessarily* "wasted" in districts won by lop-sided margins. Cracking (or fragmentation) refers to the dispersal of a group's geographically concentrated voting strength over more than one district *so as to prevent it from achieving majority voting control*. See, e.g., Parker, *Racial Gerrymandering and Legislative Reapportionment*, in *MINORITY VOTE DILUTION* (C. Davidson ed. 1984).

287. See B. Grofman, *supra* note 16.

288. See, e.g., *Ketchum v. Byrne*, 740 F.2d 1398 (7th Cir. 1984), *cert. denied*, 105 S. Ct. 2673 (1985).

289. I shall not try to spell out my argument on this point here because I have done so at length elsewhere. See B. Grofman, *supra* note 16; B. Grofman, *What's Special About 65%?* (1985) (unpublished manuscript).

It is often held that the 65% figure has been given special significance by the Department of Justice. See *id.* This emphasis on the 65% figure as necessary for nondilution of minority voting strength is a misreading of *United Jewish Org's v. Carey*, 430 U.S. 144 (1977), which validated the 65% figure, but only for a particular time and place. The Solicitor General's Brief for the United States as Amicus Curiae on Petition for a Writ of Certiorari to the United States Court of Appeals for the Seventh Circuit, *City Council v. Ketchum*, No. 84-627 (U.S. Oct. 1984), asserted that the Department of Justice attaches "no particular significance to a 65 percent figure." *Id.* at 10.

Thus, using proportionality as the base line will, in general, exaggerate the degree of the perceived racial unfairness.

A claim that proportional or near proportional representation of a minority group has been achieved has been used by defendants in attempts to ward off allegations of vote dilution.<sup>290</sup> In my view such a claim is justified if continued minority representation by candidates of the group's choice is reasonably *guaranteed* by the geographic distribution of minority voting strength, and if black electoral success does not come at the price of giving up a portion of their electoral franchise to "bullet-vote" for black candidates to counter the racially polarized voting patterns of white voters. I do not believe that occasional minority electoral success should forestall a section 2 finding of vote dilution.<sup>291</sup>

A fourth approach to providing a base line measure for vote dilution is to look at the "symmetry" of seats/votes relationships. This approach is reviewed in the context of partisan fairness in Part V,<sup>292</sup> and I shall not elaborate further on it here, except to note that it is an approach that I believe to be quite promising.<sup>293</sup>

Several other issues related to section 2 are worthy of discussion. First, in identifying the potential for minority electoral success, I believe that the number of districts in which minorities can exert majority voting control (or at least

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290. This claim was successful in *Indiana Branches of the NAACP v. Orr*, 603 F. Supp. 1479 (S.D. Ind. 1984), and in *Latino Political Action Comm. v. City of Boston*, 609 F. Supp. 739, 748 (D. Mass. 1985), but unsuccessful in *Gingles v. Edmisten*, 590 F. Supp. 345, 355 (E.D.N.C. 1984), *prob. juris noted sub nom. Thornburg v. Gingles*, 105 S. Ct. 2137 (1985). I testified in *Gingles* that the black electoral successes were sporadic, or, if continuous, reflected the reelection of a particular incumbent in a district where voting was otherwise severely racially polarized and in which black voting strength was submerged and/or in which blacks needed to bullet-vote and thus forfeit a portion of their franchise.

291. As noted above, the Solicitor General's Brief, *supra* note 229, at 15-18, takes the view that only if blacks are completely locked out of the political process can a § 2 violation be found. If this view were to be accepted, it would dramatically reduce the scope of § 2 applicability. The brief takes the position that, in rejecting the use of multimember districts as a § 2 violation, the *Gingles* court was requiring the state of North Carolina to create the maximum possible number of single-member districts in order to attempt to provide guaranteed proportional representation for blacks. *Id.* at 12. This in my view is a complete misreading of the opinion.

292. See *infra* notes 299-338 and accompanying text.

293. For a technical treatment of some important issues in measuring the symmetry of seats/votes relationships, see Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, *supra* note 7.



substantial voting influence) is more important than the number of districts which actually have representatives from the minority community.<sup>294</sup> If the minority community wishes to elect minority community members, so be it; if they sometimes *freely* choose to elect nonminority representatives in districts under minority control that, too, is their own business.<sup>295</sup> The point is that they should have an equal chance to participate in the election and elect candidates of their choice.<sup>296</sup>

A second issue in section 2 litigation, and one which has not yet been definitively resolved, is the appropriateness of lumping together disparate minorities (such as blacks and Hispanics, or Hispanics and Asians) in calculating minority voting strength. Minority plaintiffs will commonly seek to use a combined minority figure to emphasize the discrepancies between minority voting strength and minority seat share. The winner-take-all feature of plurality contests means that a small voting block may expect to receive no representation. Thus, any claimed vote dilution against such a small block may make sense only if it is posited that this minority block has natural allies among other minorities, generating combined voting strength to form a coalition of minorities.<sup>297</sup>

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294. See Grofman, *Should Representatives Be Typical of Their Constituents?*, in REPRESENTATION AND REDISTRICTING ISSUES, *supra* note 91, at 97.

295. Determining whether minority voters have "freely" chosen to elect candidates of an ethnicity different from their own may not be straightforward. Often defendants in voting rights litigation will argue that white officials who received the votes of a majority of the black or Hispanic electorate were the "choices" of those groups. This argument rings hollow if, say, black voting strength was submerged in a predominantly white multimember district in which it is virtually impossible for a black candidate to be elected, and thus blacks might well have been picking the least of several evils.

This issue arose in my testimony in *Indiana Branches of the NAACP v. Orr*, 603 F. Supp. 1479 (S.D. Ind. 1984), a case consolidated with *Bandemer v. Davis*, and decided against the plaintiffs. In that case I testified that a white legislator elected in an overwhelmingly black three-member district was in fact the choice of the black community. I offered as evidence the support he received from black voters in the primary against black candidates and the parallels between his voting record and those of black legislators.

296. I do not wish to neglect the importance of having minority role models, but I have considerable sympathy for the view of one anonymously quoted black official who said that "if those people who are elected are not Black but only dark in color then it won't make much difference to the Black community . . . Black is an attitude of mind, not a color."

297. See *Latino Political Action Comm. v. City of Boston*, 609 F. Supp. 739 (D.

A third source of controversy in section 2 litigation is the extent to which minority groups may claim dilution based on the treatment of the minority voting strength (a) that remains after districts in which minority voters comprise a voting majority have been created, (b) if that left-over voting strength is not large enough or concentrated enough to form even one more district in which the minority group would be a majority of the new district's voting strength. In their supplementary opinion in *Gingles*, the three-judge panel asserted that, once majority black districts have been created, blacks have no right to a districting configuration which optimizes their voting strength.<sup>298</sup>

## V. POLITICAL OUTCOME CRITERIA

The political outcome criteria considered in this section have, as yet, little or no standing in United States law. They have been advocated primarily by political scientists and political geographers, based on an underlying notion of the collective representation of partisan interest.<sup>299</sup>

### A. Districting Plans and Partisan Bias

#### 1. No Bias in Favor of a Particular Party

Simple discrepancies between a party's vote share and its seat share are not proof of gerrymandering no matter how gerrymandering may be defined. As noted above, single-member districting will not, except under very special circumstances, produce proportionality between a party's share of the total vote (across all districts in a party) and its share of legislative or council seats. We can ask, however, whether a

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Mass. 1985). In that case I testified that evidence to establish that minority groups do in fact vote as a bloc is needed before it is appropriate to look at vote dilution of a multiethnic community rather than examining vote dilution for each minority group separately. The court in its findings treated each minority separately, stating that no evidence that blacks, Asians, and Hispanics voted as a bloc had been presented to it. See also *Ketchum v. Byrne*, 740 F.2d 1398 (7th Cir. 1984), cert. denied, 105 S. Ct. 2673 (1985).

298. *Gingles v. Edmisten*, 590 F. Supp. 345, 381 (E.D.N.C. 1984), prob. juris noted sub nom. *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985).

299. See, e.g., G. GUDGIN & P. TAYLOR, *supra* note 154; P. TAYLOR & R. JOHNSTON, *supra* note 65; Backstrom, Robins, & Eller, *supra* note 154; Engstrom & Wildgen, *supra* note 217; Grofman & Scarrow, *supra* note 94; Niemi & Deegan, *supra* note 157. But cf. *Karcher v. Daggett*, 462 U.S. 725 (1983) (Stevens, J. concurring); *Bandemer v. Davis*, 603 F. Supp. 1479 (S.D. Ind. 1984), prob. juris. noted, 105 S. Ct. 1840 (1985).

plan is symmetrical in the way it treats the different political parties. A districting plan is said to be *neutral* (free of bias) if, for a given vote share, all parties are (on average) treated alike. Stated more formally, "a districting plan is neutral when V percent of the popular vote results in S percent of the seats, and this holds for all parties and all vote percentages."<sup>300</sup> If voter representation through the issue-aggregating mechanism of political parties is desirable, then districting schemes should be neutral (i.e., free from partisan bias).

## 2. No Imposed Bias in Favor of a Particular Party

While it might be thought that, absent deliberate gerrymandering, districting schemes would be expected to be neutral in their effects, this is erroneous. Because partisan strength is differentially distributed, one party or the other may be advantaged for a given level of vote support. In general, if the mean and the median of the distribution of partisan support across districts do not coincide (i.e., if the distribution is asymmetric) then bias exists. For example, if the distribution of party support across districts in a ten-seat legislature is three seats which are 100% Democrat, and seven seats which are only 28.6% Democrat, then the Republicans will win seven of the ten seats even though both parties have roughly equal vote shares. Such a situation could arise "naturally" if many Democrats were concentrated in inner city areas almost devoid of Republican voters, while remaining areas had Democratic and Republican voters interspersed (on average) with a Republican preponderance. Alternatively, such a situation might arise if Democratic voters were victims of a combination of concentration and dispersal gerrymandering techniques.<sup>301</sup>

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300. Niemi & Deegan, *supra* note 157, at 1304; cf. Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, *supra* note 7, at 297.

301. One way to determine which of these two scenarios is the more plausible would be to look at the spatial distribution of partisan strength at the building block level (e.g., precinct, census block, or census tract) and use monte carlo techniques to generate a plethora of possible districting plans whose partisan consequences can then be charted. See, e.g., G. GUDGIN & P. TAYLOR, *supra* note 154; Engstrom & Wildgen, *supra* note 217; O'Loughlin, *supra* note 65; O'Loughlin, *supra* note 217. If the modal plan generated by the monte carlo simulation had a more than 30% Democratic vote share, this would suggest the original plan exhibited the effects of partisan gerrymandering. The likelihood that any obtained distribution was due to intended (or unintended) gerrymandering rather than to the "nat-

B. *No Partisan Bias in the Treatment of Incumbents of Opposing Parties*

By incumbent-centered partisan bias, I mean a situation in which incumbents of one party are treated differently from incumbents of another party (i.e., are more likely to have their districts cut up or to find themselves placed in the same district as another incumbent), and in which these differences cannot be accounted for by neutral factors such as population shifts. Such differential treatment of incumbents is a prime tool of political gerrymandering.<sup>302</sup>

C. *Responsiveness of Electoral Outcomes to Changes in Electorate Preferences*

It seems commonsensical that, as voters change preferences, electoral outcomes ought to change in rough accord. The term "swing ratio" has been coined to indicate the percentage point change in a party's seat share obtained for each additional percentage point increment in its vote share above 50%.<sup>303</sup> When the swing ratio is near one, votes translate into seats on a more or less proportional basis. The *responsive range* is the range of vote shares such that the swing ratio is at least one.<sup>304</sup> Outside the responsive range the impact of voter choices is reduced because such choices do not effectively translate into seats. Niemi and Deegan assert that a desirable responsive range should be relatively wide: for example, 35–65%.<sup>305</sup>

D. *Preservation of Political Competitiveness*

Responsiveness is closely related to district competitiveness. If most districts are not competitive, then even very large shifts in vote percentages for the major parties may lead to few or no seats changing hands. As far as I am aware,

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ural" geographic spread of partisan preferences could then be calculated using standard statistical techniques. This method, however, is quite cumbersome and quite expensive to set up. For a similar point of view, see Niemi, *supra* note 191. I shall consider alternative (and computationally simple) ways to demonstrate gerrymandering in the concluding discussion in this section.

302. See generally Cain, *supra* note 94.

303. See, e.g., Tuft, *The Relationship Between Seats and Votes in Two-Party Systems*, 67 AM. POL. SCI. REV. 540 (1973).

304. See Niemi & Deegan, *supra* note 157, at 1304–05.

305. *Id.* at 1305, 1311.

neither seat competitiveness (nor its mirror image, responsiveness) has ever been given any special force as a districting criterion—although in *Gaffney* one of the claimed justifications for the Connecticut legislative plans was that they included a certain proportion of reasonably competitive districts as well as a roughly equal number of districts safe for each of the two major parties.

E. *Translation of a Party's Vote Majority into a Majority of Seats in the Legislature*

The early "one-person-one-vote" cases asserted that "one man's vote . . . is to be worth as much as another's."<sup>306</sup> In *Baker* and other early cases the courts focused on the *electoral percentage* (i.e., the proportion of the state population which could in principle elect a majority of the State's legislature). When the electoral percentage was well below 50%, the "one-person-one-vote" doctrine was held to be violated.<sup>307</sup> As far as I am aware, the closest the Supreme Court has ever come to explicitly avowing a majoritarian principle<sup>308</sup> (rather than an egalitarian principle) is in *Reynolds v. Sims*.<sup>309</sup> In *Reynolds* the Court recognized that "to sanction minority control of state legislative bodies would appear to deny majority rights in a way that far surpasses any possible denial of minority rights that might otherwise be thought to result."<sup>310</sup> Even here the focus remains on the representation of *individuals*, and not on collective representation achieved through the mechanism of party responsibility and legislative control.

F. *Proportionality Between Vote Share of Each Major Political Party and Its Legislative Seat Share*

The winner-take-all element of any district system has been clearly recognized by the Supreme Court, which has repeatedly rejected the view that groups (whether racial, linguistic, or partisan) are entitled to representation

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306. *Wesberry v. Sanders*, 376 U.S. 1, 8 (1964).

307. *Reynolds v. Sims*, 377 U.S. 533 (1964).

308. The majority rule principle is subsumed in our earlier principle of neutrality. Any two-party system which satisfies neutrality will (unless it is perverse) necessarily give a voting majority at least a bare majority of the legislative seats.

309. 377 U.S. 533 (1964).

310. *Id.* at 565.

proportional to their numbers.<sup>311</sup> Except when some reference to group rights was unavoidable, as in the racial vote dilution cases, United States reapportionment law emphasized, until *Bandemer*, individual and not group rights. In *Bandemer*, as noted previously, the deviation from seats/votes proportionality was considered a strong indication of probable partisan gerrymandering.

### G. *Reflections on Political Effect Criteria*

There are five basic arguments against treating political gerrymandering as justiciable. First, reapportionment is said to be inherently political and thus an inappropriate area for judicial intervention. Second, political gerrymandering is said to be an area in which no clear standards of measurement exist or can exist, and thus is an area which courts should avoid. Third, it is argued that judicial involvement in evaluating the partisan impact of plans to see if impermissible gerrymandering has taken place will force judges to rely heavily on their personal predictions because no true standards exist. This may foster partisan decision making in the guise of judicial fact finding. Fourth, because partisan fairness and racial fairness may conflict, giving partisan groups the protection of the fourteenth amendment is argued to detract from the more compelling need to protect against racial vote dilution. Fifth, it has been suggested that if political gerrymandering is made justiciable, courts will be forced to impose a proportional representation standard, a clear reversal of the majoritarian tradition in United States law.<sup>312</sup>

At the end of Part III,<sup>313</sup> I gave four reasons why I believe partisan gerrymandering ought to be justiciable.<sup>314</sup> Let me now respond to each of the preceding five arguments against justiciability.

First, while I concur with the notion that reapportionment is fundamentally a legislative task, the legislature should not be immune from judicial scrutiny when basic voting rights are impinged upon. Judicial review of reappor-

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311. See, e.g., *Whitcomb v. Chavis*, 403 U.S. 124, 148-49 (1971).

312. Most of these arguments are contained in the various briefs (including the amicus briefs) in *Bandemer* and *Badham*; others have been presented to me in personal conversations with attorneys and political scientists.

313. See *supra* notes 92-210 and accompanying text.

314. See *supra* notes 157-61 and accompanying text.

tionment should not be lightly undertaken. Clearly, for example, the "threshold" test for prima facie gerrymandering suggested by Justice Stevens in *Karcher* should be met. More importantly, legislative plans should be overturned only upon a compelling showing that there has been invidious partisan (or racial) gerrymandering. But judicious restraint is not the same as judicial abstention.

Second, the argument that there is no way to measure partisan gerrymandering provides a smokescreen behind which gerrymandering can be hidden.<sup>315</sup> Certainly there are alternative methodologies available for calculating swing-ratios or measures of partisan bias in seats/votes relationships, or for judging the degree to which a plan has districts which are competitive.<sup>316</sup> But the statistical complexities here are less than those routinely confronted by courts in Title VII employment discrimination cases, in which the use of competing multivariate statistical models and extensive reliance on expert statistical opinions is common.<sup>317</sup> In Part III,<sup>318</sup> I enumerated twelve indicators of prima facie political gerrymandering and three other "flags" that point to political gerrymandering. All of these are quite straightforward and require no statistical hocus-pocus.<sup>319</sup> If there is prima facie evidence for the existence of political gerrymandering, then defendants may rebut it by showing that district lines can be accounted for by reliance on "neutral" districting criteria, or by showing that the discrimination against one political party is no more than could be expected given population shifts and/or the nature of the geographic distribution of partisan voting strength in the state.<sup>320</sup>

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315. Those who devise gerrymanders know full well how to measure their impacts: the lost seats of the opposition party that would not have been lost had plans been less skillfully crafted.

316. See Niemi, *supra* note 301; Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, *supra* note 7; Niemi & Fett, *The Swing Ratio: An Explanation and Assessment of Alternative Measurements*, 11 LEGIS. STUD. Q. (forthcoming 1986).

317. Moreover, the difficulties are ones which can in principle be resolved by the usual process of case-by-case adjudication—exactly as occurred for statistical measures of population inequality used in the one-person-one-vote cases.

318. See *supra* notes 92–210 and accompanying text.

319. See *supra* text accompanying notes 177–79.

320. I do not believe that a partisan bias in seats/votes relationships which occurs "naturally," because of the spatial distribution of partisan strength, should fall under any constitutional prohibition.

Grofman and Scarrow define an aggregate gerrymander as occurring *only* when some group or groups (e.g., a given political party or a given ra-

In determining whether partisan gerrymandering has taken place I would place particular reliance on (1) showing an incumbent-centered partisan bias, (i.e., a differential treatment of the incumbents of the two major parties); (2) demonstrating that concentration and dispersion gerrymandering techniques had been used;<sup>321</sup> (3) showing that deviations from compactness and failure to follow political subunit boundaries were systematically linked to probable partisan impacts; and (4) demonstrating that the plan so constrains the probable range of politically competitive seats as to create a near certainty of continued partisan unfairness for the foreseeable future. Perhaps the most common mistaken belief about political gerrymandering is the notion that the *best*

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cial/linguistic group) is discriminated against compared to one or more other groups in that a greater number of votes is needed for the former to achieve a given proportion of legislative seats than is true for the latter, *and* this bias is *not* one which can be attributed solely to the differing degree of geographic concentration among the groups.

Grofman & Scarrow, *supra* note 94, at 454 (emphasis in original). As far as I am aware, no court has ever been confronted with a well substantiated rebuttal to a claim that a plan is a political gerrymander based on the sort of sophisticated seats/votes analysis proposed above.

One key difficulty in operationalizing such a claim is how to realistically project "bypothetical" election outcomes. I discussed this problem in detail in my declaration to the court in *Badham v. Eu*. Scarrow's review of *Gaffney* and its aftermath, *supra* note 142, warns that it is important to distinguish between a plan's intent and its (short-run or long-run) political effects. Scarrow's findings are rather discouraging for those who (like Dixon, Scarrow, and myself) had hoped that the concept of "fair and effective" representation could be operationalized beyond mere population counts, although I believe that multifaceted tests can be developed to project a plan's long run political impact—especially for plans with many lopsidedly safe seats. See, e.g., G. GUDGIN & P. TAYLOR, *supra* note 154; *infra* notes 299–338 and accompanying text. In particular, when a plan has an abundance of very safe seats with well-entrenched incumbents, projections can be quite plausibly made. Also, when persistent racially polarized voting exists, projecting the racial implications of districting plans does not suffer from nearly the same difficulties as making political projections in a world of uncertain partisan loyalties and district-specific factors which affect local elections.

321. Because sophisticated gerrymanderers are aware that it is a bad idea to try to cut victory margins too thin, see *infra* note 322 and accompanying text, the key to detecting sophisticated gerrymandering is finding that the party that has done the districting will have arranged its voting strength more efficiently than that of the opposing party. Cain, *supra* note 94, provides a test to compare the partisan efficiencies of different redistricting plans. In my First Declaration in *Badham*, see B. Grofman, First Declaration, *supra* note 171, I also used this test, and although my methodology was not identical to that used by Cain, it was similar in spirit. See also B. Grofman, Second Declaration, *Badham v. Eu*, No. C-83-1126 RHS (N.D. Cal. 1984), excerpted in 18 PS 573 (1985) [hereinafter cited as B. Grofman, Second Declaration].



gerrymander is one which packs the opponent's voting strength in districts which it will win by overwhelming majorities, while creating paper-thin majorities for one's own party in as many of the remaining districts as possible. This erroneous belief is held by academics, members of the general public, and many politicians—which is why so many putative gerrymanders backfire. The strategy of creating paper-thin majorities makes sense only if partisan voting habits are perfectly predictable and no demographic changes can be anticipated. Neither of these assumptions is justified in contemporary American politics. When gerrymanderers try to spread their party's voting strength thinly, in order to capture as many seats as possible, they leave themselves vulnerable to electoral tides that may sweep their party out of office.<sup>322</sup> The California congressional plan passed in 1982<sup>323</sup> exemplifies the well-designed *sophisticated* gerrymander—one that created most of the districts with a sufficient cushion of partisan sympathizers for the majority party to make the districts safe for that party for the rest of the decade.<sup>324</sup>

In my declarations in *Badham v. Eu*<sup>325</sup> I presented clear evidence that the 1980 California congressional plan (re-passed in 1982 in slightly different form)<sup>326</sup> was a partisan gerrymander. I found eleven of the twelve *prima facie* indicators of gerrymandering identified in Part III,<sup>327</sup> along with two of the three “flags.” In particular, I provided evidence of an incumbent-centered partisan bias of striking magnitude, evidence of the use of dispersion and concentration gerrymandering techniques, evidence that deviations from compactness and natural boundaries in certain areas of the state were linked to partisan advantage, and evidence that the plan (in each of its incarnations) so eliminated competition that it constituted a lock-in of the 1.5:1 Democratic congressional seat advantage in a state in which the electo-

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322. Owen & Grofman, *Optimal Partisan Gerrymandering*, 5 POL. GEOGRAPHY Q. (forthcoming 1986).

323. 1981 Cal. Stat. ch. 535, § 2, at 1906 (rejected in referendum, June 1982).

324. See B. Grofman, First Declaration, *supra* note 171; B. Grofman, Second Declaration, *supra* note 321.

325. B. Grofman, First Declaration, *supra* note 171; B. Grofman, Second Declaration, *supra* note 321.

326. 1983 Cal. Stat. ch. 6.

327. See *supra* notes 92–210 and accompanying text.

rate is very evenly divided between Democrats and Republicans.

The simplest way to dispel doubts that gerrymandering can be detected is by providing an example of a gerrymandered plan in which the partisan biases are clear. Since the analysis of the California congressional plans in my declarations in *Badham* was extensive,<sup>328</sup> it is impossible for me to reproduce it fully here. Rather, I shall excerpt a table from them which illustrates how one aspect of partisan gerrymandering can be clearly shown.<sup>329</sup>

I regard incumbent-centered partisan bias as one of the most pernicious forms of sophisticated partisan gerrymandering, and perhaps as the single strongest indicator of probable partisan gerrymandering. In Table 4<sup>330</sup> I demonstrate the differential treatment of Republican and Democratic 1980 California congressional incumbents under the first plan passed by the California legislature.<sup>331</sup> It is apparent from this table that twenty-two of the twenty-two Democratic incumbents had their seats protected, while only thirteen of the twenty-one Republican incumbents were so favored. Six of the Republican incumbents were together in the same district as a fellow Republican; one (Clausen) was put into a new district which was less favorable than his old district (he ran anyway and lost), and one (Dornan) had his district so chopped to bits that he chose not to run for reelection. Unless this table can somehow be explained away by factors unrelated to partisan motivations—and I doubt that it can be—it seems to me that we have clear evidence of partisan lust on the part of the California Democrats who drew up this congressional plan.

In my view, the level of discrimination against Republican incumbents (and thus against the voters who wish to support them) shown in Table 4 is of such magnitude as to qualify as a violation of the equal protection standard.<sup>332</sup>

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328. See B. Grofman, First Declaration, *supra* note 171; B. Grofman, Second Declaration, *supra* note 321. These declarations had a combined length of over 70 typed pages and included nearly two dozen pages of tables and maps.

329. Adapted from Summary Table I in B. Grofman, First Declaration, *supra* note 171, at 13.

330. See *infra* p. 184.

331. This plan is commonly known as "Burton I" in honor of Philip Burton, the late California Congressman, who was instrumental in its creation.

332. Other aspects of the California plans which either singly or in toto would

Thus, while proving political gerrymandering may be difficult, the task for the courts is no greater than in other cases involving issues of discrimination against other groups, and is certainly not insuperable.

The third argument against the justiciability of partisan gerrymandering—the alleged danger that court involvement in adjusting partisan gerrymandering may trigger improper partisan motivations on the part of judges who are forced to make decisions without satisfactory guidelines—I regard as a make-weight argument. Judges are frequently placed in situations in which their own personal ideology or sympathies may tempt them to deviate from neutral treatment of the litigants.<sup>333</sup>

The fourth argument against making political gerrymandering justiciable—that it will lead to conflicts between racial fairness and political fairness—is well-founded, but is not a major problem. Reapportionment decision making requires trade-offs between conflicting desires. If political gerrymandering were held unconstitutional, courts could still accord priority to avoiding racial vote dilution.

The fifth argument against making political gerrymandering justiciable—the commonly held belief that “if gerrymandering is ruled unconstitutional, America will be moving toward a form of proportional representation”<sup>334</sup>—is simply wrong. To repeat a point that cannot be too strongly empha-

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constitute a violation of equal protection are identified in my declarations in *Badham*. See B. Grofman, First Declaration, *supra* note 171; B. Grofman, Second Declaration, *supra* note 321.

333. There have always been claims that particular courts have disguised partisan motivations in their redistricting decisions. In *In re Illinois Congressional Districts Reapportionment Cases*, No. 81 C-3915 (N.D. Ill. Nov. 1982), *aff'd sub nom. Ryan v. Otto*, 454 U.S. 1130 (1984), the federal district court selected a plan which was lowest in population deviation and which was proposed by and favored by Democrats. Some Illinois political observers believe that the court may not have been totally insensitive to the plan's political features. Similarly, the *Bandemer* court divided along lines which might have been said to be predictable from the judges' previous partisan allegiances. However, I am extremely reluctant to say that judicial outcomes are politically inspired. There has never been a systematic analysis of the relationship between the partisan backgrounds of judges and their decisions on reapportionment issues having partisan consequences. To look at isolated instances which seem to support a claim for partisan bias is to commit the fallacy of biased sampling (i.e., selecting the evidence to fit the conclusion, and possibly confusing what are only random coincidences with systematic relationships). *But see supra* note 136.

334. See *Electoral Districts: Towards PR*, *supra* note 153; *Fact and Comment II: Pornographic Like Quagmire*, FORBES, May 20, 1985, at 31.

sized, plurality-based districts cannot be expected to give rise to proportional representation. This statistical fact cannot be changed by court fiat. Unless and until courts are prepared to replace our present system of winner-take-all, head-on-head legislative contests with some proportional representation mechanism, no districting plan can be expected to guarantee proportional results. In general, the seats advantage will go to the party with the greater overall voting strength (the so-called "balloon effect"),<sup>335</sup> but the geographic distribution of party support also plays an important role. For example, a party's strength may be wastefully concentrated in certain areas (urban areas for Democrats, rural areas for Republicans, as noted in our earlier example), reducing its ability to turn votes into seats. The relevant question in analysis of partisan gerrymandering is not whether proportionality has been achieved (it will not have been), but rather whether there have been egregious violations of fairness in terms of inequality of treatment.<sup>336</sup>

Having disposed of what I regard as the five basic arguments against making political gerrymandering justiciable, I feel obligated to mention my own worst fear, namely, that even though statistical methods to detect gerrymandering do exist, courts will be unable to grasp the sophisticated nuances of seats/votes relationships and the need for multifaceted tests. In trying to simplify the measurement of partisan gerrymandering to make it manageable, courts may end up not simplifying but simply writing bad law, which could throw the reapportionment process into chaos. As I indicated in Part III,<sup>337</sup> the *Bandemer* majority opinion is my fear come to life: It oversimplifies the relationship between the existence of seats/votes discrepancies and evidence of political gerrymandering.<sup>338</sup>

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335. See Backstrom, Robins & Eller, *supra* note 154.

336. In the discussion in this section, see *supra* notes 325-32 and accompanying text, and in my declarations in *Badham*, see B. Grofman, First Declaration, *supra* note 171; B. Grofman, Second Declaration, *supra* note 321, I have indicated ways in which deviations from equal treatment of a party's voters or its candidates can be detected.

337. See *supra* notes 92-210 and accompanying text.

338. See *supra* notes 196-99 and accompanying text.

## VI. ALTERNATIVES TO SINGLE-MEMBER PLURALITY-BASED DISTRICTING

I have emphasized that single-member plurality-based districting will not normally achieve proportional representation of either political or racial groups. From the standpoint of minority representation, there are election systems that are likely to be even worse than single-member districting. There are also election systems which can be expected to be considerably better. Because alternatives to single-member plurality-based districts have been extensively explored in the literature on comparative politics,<sup>339</sup> I shall concentrate on points which are of particular relevance to United States judicial decision making.

### A. Multimember Plurality-Based Districts

While multimember districts are not per se unconstitutional,<sup>340</sup> they commonly submerge minority voting strength.<sup>341</sup> This is particularly true for racial groups, since these groups (unlike political parties) are commonly the minority faction in almost all districts,<sup>342</sup> and because racial polarization is often extreme and persistent. When multimember districts are large, or when they are used in conjunction with a numbered place system or a majority runoff, their effects on minority vote dilution are enhanced.

In *Gingles*<sup>343</sup> a number of multimember districts in North Carolina were struck down under the "totality of circumstances" doctrine. In its first amicus brief in *Gingles*, the Department of Justice asserted that no section 2 case could be established when minority candidates "had achieved significant success at the polls."<sup>344</sup> The Department further asserted that "[a] finding of adverse electoral 'results' is a

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339. See, e.g., D. RAE, *THE POLITICAL CONSEQUENCES OF ELECTORAL LAWS* (2d ed. 1971); *CHOOSING AN ELECTION SYSTEM* (A. Lijphart & B. Grofman eds. 1984) [hereinafter cited as A. LIJPHART & B. GROFMAN]; Grofman, *Alternatives to Single-Member Plurality Districts*, *supra* note 7; Grofman, *A Review of Macro-Election Systems*, 60 *GERMAN POL. Y.B.* 4 (1975); Grofman & Scarrow, *The Riddle of Apportionment: Equality of What?*, 70 *NAT'L CIVIC REV.* 242 (1981).

340. See *White v. Regester*, 412 U.S. 755, 765 (1973).

341. See sources cited *supra* note 7.

342. See Niemi, Hill & Grofman, *supra* note 7.

343. 590 F. Supp. 345 (E.D.N.C. 1984), *prob. juris noted sub nom.* *Thornburg v. Gingles*, 105 S. Ct. 2137 (1985).

344. Solicitor General's Brief, *supra* note 229, at 14.

necessary—though not sufficient—element in the plaintiff's [section 2] case."<sup>345</sup> As noted earlier, I hold the view that a districting system which can be expected to reliably provide a minority group proportional or near proportional representation cannot dilute minority voting strength. That is, however, a much more restrictive view than that espoused in the Justice Department's amicus brief. The brief confused occasional minority electoral success, or the repeated reelection of a particular minority incumbent, with equal access of minority voters to the political process. The fact that minority candidates may occasionally be successful in multimember district elections (because of white voters splitting their vote among too many white candidates, or because an exceptionally well-known and well-qualified minority candidate succeeds in attracting a larger than average crossover vote, or even because particular minority candidates achieve repeated success (a minority candidate, who by some quirk becomes an incumbent, may be reelected in heavily partisan elections)) does not mean that minority voters as a class have an equal opportunity to participate in elections and to elect candidates of their choice.<sup>346</sup>

## B. *Proportional and Semi-Proportional Systems*

### 1. In other countries

With the exception of the United States, Great Britain and various former British colonies, proportional or semiproportional systems are the norm. The most common

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345. *Id.*

346. The Justice Department amicus brief asserted that the district court "erroneously equated the legal standard of Section 2 with one of *guaranteed* electoral success in proportion to the black percentage of the population." *Id.* at 12 (emphasis in original). This totally misinterprets the *Gingles* opinion. The *Gingles* court recognized that in a multimember district in which black voting strength was submerged and racially polarized voting severe and continuing, and black voters forced to forfeit the full use of their ballot by single-shot voting, the occasional success of black candidates, even if during some particular election year in numbers proportional to black voting strength, was not sufficient to forestall a finding of a § 2 violation. In the North Carolina elections reviewed by the court in *Gingles*, the price black voters have invariably paid for occasional black electoral success has been the renunciation of the full use of their votes, because they must single-shot vote for the black (or black-supported) candidates in the multimember districts without a numbered place system in order to give those candidates *any* chance of electoral success. In *Gingles*, even the expert witness for the state of North Carolina admitted that, given the degree of racially polarized voting that was present, black voters were compelled to single-shot vote.

election systems at the national level are variants of *list proportional representation*. These systems use multimember districts. Voters cast ballots for a single political party list, and each party elects a number of candidates "proportional" to its share of the vote.<sup>347</sup> Very few political scientists advocate list proportional representation for the United States because (at least in its most common forms) it requires straight-ticket voting and allows voters a very limited role in the slating process. If we exclude plurality, the two election methods which have attracted some degree of support from contemporary political scientists are the *single transferable vote* (also known as the Hare system) used in Ireland,<sup>348</sup> and the *mixed system*, or "topping up" method, used in West Germany.<sup>349</sup> The mixed system combines single-member districting with proportional representation at the national level to remedy any disproportion introduced by district level outcomes. The principal advantages of the Hare system are that it can operate both within a partisan and a nonpartisan system and that it offers voters considerable ballot flexibility. The principal advantage of the German system is that it combines single-member districts with proportional results by providing extra seats (from a party list) to parties whose seat gains were less than their share of the popular vote.<sup>350</sup>

## 2. *In the United States*

Two other systems that can be expected to be less than perfectly proportional in their degree of party representation (but more nearly so than plurality-based elections) also de-

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347. Variation in list systems stem from the nature of the proportionality rule used: for example, from "greatest remainder" to various "quota" methods such as D'Hondt and Ste. Lague, and from differences in the abilities of voters to reorder candidates within a party list. See D. RAE, *supra* note 339.

348. See, e.g., Hallett, *Proportional Representation with the Single Transferable Vote: A Basic Requirement for Legislative Elections*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 113; Lakeman, *The Case for Proportional Representation*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 41; Weaver, *Semi-Proportional and Proportional Representation Systems in the United States*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 191.

349. See, e.g., Irvine, *Additional-Member Electoral Systems*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 165; Kaase, *Personalized Proportional Representation: The "Model" of the West German Electoral System*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 155.

350. We shall not bother to describe the operation of these systems in detail, since this information can be found in any standard source. See, e.g., D. RAE, *supra* note 339; A. LIJPHART & B. GROFMAN, *supra* note 339.

serve mention: the *limited vote* (variants of which are also used in Spain and Japan),<sup>351</sup> and the *cumulative vote* (used for the period 1880-1980 in Illinois elections for the lower chamber of the state legislature). The limited vote and the cumulative vote are commonly known as semiproportional systems. In the limited vote, voters have fewer ballots to cast than there are seats to be filled; in the cumulative vote, voters may choose to express their intensity of preference by casting multiple votes (up to a fixed total) for less than a full slate of candidates.<sup>352</sup>

In the United States, election mechanisms which enhance minority representation are neither as historically rare nor as presently nonexistent as is sometimes thought. Since 1915, slightly over two dozen United States cities have used the single transferable vote (the Hare System) for city council elections. Most cities, however, used the single transferable vote for only a short period. One wave of adoptions occurred in the early 1920's, and another wave of adoptions came in the 1940's.<sup>353</sup> By 1982, the only city council elected by the single transferable vote was in Cambridge, Massachusetts. Cambridge also uses this method for electing its city-wide school board.<sup>354</sup> New York City has used this method for its community school board elections since the early 1970's.<sup>355</sup>

Since 1870, over half a dozen cities including New York, Indianapolis, and Boston, have made use of the limited vote at one time or another. Philadelphia has used it since 1951

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351. See Lijphart, *Trying to Have the Best of Both Worlds: Semi-Proportional and Mixed Systems*, in A. LIJPHART & B. GROFMAN, *supra* note 339, at 207.

352. A fifth election method, weighted voting, may also be relevant to minority representation since it permits constituencies to be of different sizes. Each legislator is given a weight that properly reflects the size of the electorate being represented. Thus, weighted voting might provide minority groups some direct representation. See Grofman, *Alternatives to Single-Member Plurality Districts*, *supra* note 7; Grofman & Scarrow, *Iannucci and Its Aftermath: The Application of the Banzhaf Index to Weighted Voting in the State of New York*, in APPLIED GAME THEORY (S. Brams, A. Schotter & G. Schwodiauer eds. 1979); Grofman & Scarrow, *Weighted Voting in New York*, 6 LEGIS. STUD. Q. 287 (1981).

353. See, e.g., C. HOAG & G. HALLETT, *PROPORTIONAL REPRESENTATION* (1926); Weaver, *supra* note 348.

354. L. Weaver, *Two Cheers for Proportional Representation in Cambridge, Massachusetts* (Sept. 1982) (presented at the Annual Meeting of the American Political Science Association, Denver).

355. See Zimmerman, *A Proportional Representation System and New York Community City School Boards*, 63 NAT'L CIVIC REV. 472 (1974).



for its seven at-large council seats. Pennsylvania counties have used limited voting since 1871. By present law, all counties in Pennsylvania except for Philadelphia and a few others under Home Rule Charters elect County Commissioners under a limited vote system in which voters can only vote for two of the three commissioners to be elected at large.<sup>356</sup> A Connecticut statute adopted in the early 1960's required the limited vote method for all local school board elections in the state.<sup>357</sup> Hartford, Connecticut and other Connecticut cities and counties currently use limited voting.<sup>358</sup> The Democratic Party in Conecuh County, Alabama, under pressure to achieve some representation for racial minorities, adopted limited voting in 1982.<sup>359</sup>

Illinois used cumulative voting for the election of its state house (three member districts) from the period 1880-1980. That use was ended largely as an incidental consequence of a Republican-backed referendum to reduce legislative size. Rockfield, Illinois used cumulative voting for a brief period in the 1880's. In addition, cumulative voting is used in many United States states for electing corporate boards of directors.<sup>360</sup>

In the United States, the single transferable vote was usually adopted as part of a package of municipal reforms,

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356. S. Featherman, *Limited Voting and Local Governance: A View from the Politician's Seat* (Aug. 1980) (presented at the Annual Meeting of American Political Science Association, Washington, D.C.).

357. *See* *LoFrisco v. Schaffer*, 341 F. Supp. 743 (D. Conn.), *aff'd*, 409 U.S. 972 (1972). Connecticut also has a statute, upheld in *LoFrisco*, providing that no party may have more than two-thirds of the membership of any representative state political body with more than nine members. For bodies smaller than nine, there are specific party quotas (e.g., four of five). I am indebted to Howard Scarrow for calling this reference to my attention. *See* CONN. GEN. STAT. ANN. § 9-167a (West Supp. 1985); Note, *Minority Representation on Local Legislative Bodies in Connecticut*, 2 CONN. L. REV. 191 (1969).

358. T. McNelly, *Limited Voting in Japanese Parliamentary Elections* (Sept. 1982) (presented at the Annual Meeting of the American Political Science Association, Denver) (indicating that 29 municipalities in Connecticut presently make use of limited voting).

359. Interview with Edward Still (Sept. 1982); *see also* Still, *Alternatives to Single Member Districts*, in *MINORITY VOTE DILUTION* (C. Davidson ed. 1982); L. Weaver, *Court-ordered Limited Voting as a Remedy for At-Large and Multi-Seat Districts: The Case of Conecuh County, Alabama* (Sept. 1983) (presented at the Annual Meeting of the American Political Science Association, Chicago).

360. *See generally* S. BRAMS, *GAME THEORY AND POLITICS* (1975); Glazer, Glazer & Grofman, *Cumulative Voting in Corporate Elections: Introducing Strategy into the Election*, 35 S.C.L. REV. 295 (1984).

including the city manager system and nonpartisan elections intended to break the power of machine politics. Proportional representation advocates found it tactically expedient to piggyback the single transferable vote onto other reforms that had their own "good government" constituency.<sup>361</sup> Until the early 1960's, the National Municipal League, into which the American Proportional Representation League had been merged in 1932, included the single transferable vote as one of the components of its model city charter. In contrast, 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. The Illinois adoption of cumulative voting predated by nearly two decades the founding of the Proportional Representation League in 1893, and arose from rather idiosyncratic historical factors not replicable elsewhere.

While the constitutionality of limited voting seems clear in terms of both state and federal law,<sup>362</sup> the legal status of cumulative voting and the single transferable vote has at times been in doubt, although all the negative decisions are rather ancient. For example, although the constitutionality of cumulative voting in Illinois has been upheld by the Illinois Supreme Court,<sup>363</sup> when the Michigan legislature in 1889 passed a virtually identical act, the Michigan Supreme Court in 1890 invalidated this statute primarily on the grounds that it contravened the principle of majority rule implicit in the Michigan Constitution.<sup>364</sup> In the opinion of most scholars, however, this case is poorly reasoned,<sup>365</sup> although it apparently remains an important case. Another Michigan case, *Wattles ex rel. Johnson v. Upjohn*,<sup>366</sup> held the single transferable vote in Kalamazoo to be unconstitutional, primarily on the grounds that voters were deprived of the right to vote

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361. F. HERMENS, *DEMOCRACY OR ANARCHY? A STUDY OF PROPORTIONAL REPRESENTATION* 360 (1941).

362. See *Blaikie v. Power*, 13 N.Y.2d 134, 193 N.E.2d 55, 243 N.Y.S.2d 185 (1963), *appeal dismissed*, 375 U.S. 439 (1964).

363. A more recent Illinois case on this topic is *People ex rel. Daniels v. Carpenter*, 30 Ill. 2d 590, 198 N.E.2d 514 (1964).

364. *Maynard v. Board of Dist. Canvassers*, 84 Mich. 228, 47 N.W. 756 (1890).

365. Personal communications with Leon Weaver (Sept. 1980).

366. 211 Mich. 514, 179 N.W. 335 (1920).

for each office to be filled. In 1929 Michigan adopted legislation permitting "preferential voting," without precisely defining this term.<sup>367</sup> Weaver's reconstruction of the legislative history makes clear that, at a minimum, this legislation provided authorization for the alternative vote (used in several cities in Michigan since shortly after the turn of the century) and might also have been intended to legalize use of the single transferable vote, thus overturning the *Wattles* decision.<sup>368</sup> In any case, *Wattles* no longer is persuasive, since the single transferable vote was subsequently held to be constitutional in New York City.<sup>369</sup> In addition, other recent cases on the constitutionality of limited voting explicitly reject the *Wattles* view that limitations on a voter's right to cast as many votes as there are seats to be filled constitute a deprivation of the voter's right to vote for each office to be filled.<sup>370</sup>

My reading of post *Baker v. Carr* case law is that most reasonable election mechanisms for local governments that are intended to achieve some form of minority representation would be held constitutional. Local governments have been allowed greater flexibility regarding equal population standards than have larger political units.<sup>371</sup> The language in *Montano v. Lee* is directly relevant to the issue of the constitutionality of the single transferable vote and other minority representation schemes:

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 equal basis with all others.<sup>372</sup>

The court in *Montano* notes that "the constitutional limitations of such methods and devices have been little explored, and an essential starting point in such an exploration must be

367. MICH. COMP. LAWS §§ 3, 4 (1929).

368. L. Weaver, *supra* note 359.

369. *Johnston v. City of New York*, 274 N.Y. 411, 432, 9 N.E.2d 30, 45 (1937); *see also Moore v. Election Comm'rs*, 309 Mass. 303, 35 N.E.2d 222 (1941); *Reutener v. Cleveland*, 107 Ohio St. 117, 141 N.E. 27 (1923); *cf. People ex rel. Devine v. Elkus*, 59 Cal. App. 396, 211 P. 34 (1922).

370. *See, e.g., LoFrisco v. Schaffer*, 341 F. Supp. 743 (D. Conn. 1972); *Blaikie v. Power*, 13 N.Y.2d 134, 143, 193 N.E.2d 55, 59, 243 N.Y.S.2d 185, 190 (1963), *appeal dismissed*, 375 U.S. 439 (1964).

371. *See, e.g., Abate v. Mundt*, 403 U.S. 182 (1971).

372. 384 F.2d 172, 175 (1967).

a determination of the legislative intent in adopting the plan, method or device."<sup>373</sup>

In *LoFrisco v. Schafer*,<sup>374</sup> in considering the constitutionality of a Connecticut limited voting statute and of a Connecticut limited election statute, the federal district court paid great attention to the state legislature's intent for boards to "have a significant minority voice, to air and introduce ideas which the majority might not otherwise consider."<sup>375</sup> According to the court, the limited election statute "was not meant to wrest power and control from the majority but to assure intelligent decision-making."<sup>376</sup> Paraphrasing the view expressed in a Connecticut Bar Journal article<sup>377</sup>, the *LoFrisco* court stated:

[I]t is hard to fault minority representation as non-democratic or impermissible as a legislative goal. It avoids instability by having members of two parties always present, and it is not anti-majoritarian to limit the power of the majority to command more power than its actual strength at the polls.<sup>378</sup>

The single transferable vote, the limited vote, cumulative voting, and party list systems, though they are all nonmajoritarian schemes,<sup>379</sup> have quite different political and racial consequences. Weaver has suggested that "much which has been written on proportional (usually party-list) versus plurality systems in terms of national parliaments is largely inapplicable to experience in the United States with single-transferable-vote proportional representation, confined as it was to local governments with a nonpartisan ballot and usually very nonpartisan political cultures."<sup>380</sup> In like manner, I believe that generalizations about proportional

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373. *Id.*

374. 341 F. Supp. 743 (D. Conn.), *aff'd*, 409 U.S. 972 (1972).

375. *Id.* at 750.

376. *Id.*

377. Snyder & Pearson, *Effect of Malapportionment Cases on Political Subdivisions of the State*, 39 CONN. B.J. 1 (1965).

378. 341 F. Supp. at 750. In *Gaffney v. Cummings*, 412 U.S. 735 (1972), the Supreme Court upheld a similar rationale for partisan fairness in support of a Connecticut legislative single-member districting plan intended to achieve partisan representation roughly proportional to partisan electoral strength.

379. A majoritarian voting scheme is one in which the majority of voters can, if they coordinate their ballots, elect the entire slate of candidates. Nonmajoritarian schemes lack this property. See Grofman, *A Review of Macro-Election Systems*, *supra* note 339.

380. L. Weaver, *supra* note 354, at 9.

representation based on European party-list experience are of very limited applicability to understanding the American use of either cumulative voting, which reinforced a strong *two*-party system in Illinois, or of the limited vote, which provided only token minority representation in Pennsylvania.

I believe that the effect of a particular voting system can be fully understood only in the context of the politics in which it is embedded—a belief for which the Illinois experience with cumulative voting provides strong support. Most election systems are neither as awful nor as wonderful as they are sometimes painted. In particular, the early twentieth century polemics regarding the single transferable vote in the United States—many of which portrayed it as either the salvation of the cities (by the proponents) or their ruination (by its opponents)—should be swallowed with several grains of salt.

A look at the Cincinnati experience with the single transferable vote is instructive on how election systems cannot be fully understood outside the context in which they operate. Prior to the single transferable vote's adoption in 1925, Cincinnati had partisan and corrupt machine politics. The reformers used this election method as a vehicle to kick out the Democratic machine and bring in city manager government. Under the single transferable vote, Cincinnati, for over thirty years, had by and large effective governance, brought about in part by competition fostered by a good government slating organization which successfully competed with the two political parties. When Cincinnati voters repudiated this election system in 1956 in favor of a nine-member at-large election system, Cincinnati kept the city manager system. Despite the at-large elections, Cincinnati voters also kept a three-party system (perhaps better described as a 2½-party system because of occasional fusion tickets). This system still yielded remarkably proportional results by virtue of two facts: First, many voters split their tickets, and second, most voters failed to use all nine of their votes, giving rise to what in effect was a limited voting system. The differences between the efficiency of city government under the single transferable vote and under its successor, the at-large system, are minimal or nonexistent.<sup>381</sup> The single transferable vote does not, by it-

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381. By the 1970's blacks made up a large proportion of Cincinnati's popula-

self, guarantee outstanding candidates with glowing civic virtue or efficiently run cities, any more than ward elections inevitably produce political hacks and machine politics.

The repudiation of cumulative voting by the one state which used it (Illinois), and of the single transferable vote by all but one of the American cities which used it, has often been alleged to demonstrate the unsuitability of these election methods in the United States. Actually, cumulative voting appears to have worked rather well in Illinois; furthermore, in those jurisdictions where the single transferable vote was used, it too seems to have worked reasonably well (except for occasional delayed ballot counts). Undesirable consequences were mostly in the eyes of the previously impregnably entrenched majority or those who believed that they could become such a majority under a winner-take-all system.<sup>382</sup> It can be said with confidence that both the single transferable vote and cumulative voting usually yield more nearly proportional electoral results than single-member districting and that these two systems, as well as the limited vote, usually provide considerably greater minority representation than at-large plurality elections. Other systems, such as party list systems, or the German mixed system,<sup>383</sup> or a mixed system with a 60-40 quota and voter flexibility to vote for candidates on more than one slate, once proposed by Hermens,<sup>384</sup> also share these traits—although the various systems do differ in the extent to which they approximate proportionality. If, like Hermens, we strongly favor two-party competition and simple majority rule, we may wish to pick an election system that fosters guaranteed minority rep-

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tion, and the city had its first black mayor. Blacks, however, were not always being proportionally represented on the city council. Some black leaders sought a return to some form of proportional representation for the city, or at least the replacement of the at-large elections with single-member districts. See H. HAMILTON, *ELECTING THE CINCINNATI CITY COUNCIL: AN EXAMINATION OF ALTERNATE ELECTORAL-REPRESENTATION SYSTEMS* (1978).

382. The single transferable vote operates in Ireland in the context of considerable party slate voting. See Mair, *Districting Choices under the Single Transferable Vote in Ireland*, in *ELECTORAL LAWS AND THEIR POLITICAL CONSEQUENCES*, *supra* note 94. In the United States, in the cities where the single transferable vote was most long-lasting, it was also usually slate dominated. See B. Grofman, *Nonmajoritarian Election Systems in the United States* (1985) (unpublished manuscript).

383. See *supra* notes 347-50 and accompanying text.

384. F. HERMENS, *supra* note 361, at 362.

resentation rather than proportional representation.<sup>385</sup> Similarly, we may wish an election system which we believe will encourage assimilationist and accommodationist politics. Hermens, for example, argued that the limited vote, which provides limited minority representation within the context of two-party competition, was to be preferred to the single transferable vote, which is more "personalistic" (at least in principle) and more open to avowedly ethnic candidacies.<sup>386</sup>

Each election system has advantages and disadvantages. There is no perfect system. I do not propose to weigh the attributes of the various proportional and semiproportional schemes which have been proposed or used in the United States.<sup>387</sup> In this country, the factual historical record is far from complete. There are gaps even in our basic knowledge of which systems were used where and when,<sup>388</sup> and still greater gaps in our knowledge of their political consequences.<sup>389</sup>

### CONCLUSION

In addition to providing a review of current reapportionment law, there are seven principal points I have sought to make in this Article.

First, if citizens are to achieve equally effective representation in legislatures organized along party lines, then political gerrymandering ought to be justiciable.

Second, strict adherence to formal criteria such as equal

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385. While Hermens is well known for his opposition to proportional representation, *id.*, it is less well known that he was not opposed to minority representation per se, provided it did not threaten stable majority government (as evidenced by the 60-40 quota scheme he suggested as an option for large cities). *Id.* at 362-63. Hermens also suggests limited voting of a six of nine or even six of ten variety as an option for small cities *Id.*

386. *Id.*

387. See A. LIJPHART & B. GROFMAN, *supra* note 339.

388. The annual editions of the Municipal Year Book, the standard reference work, distinguishes at-large and district elections; but within at-large elections it does not distinguish among plurality, the single transferable vote, and the limited voting methods. I do not know how many cities there are that presently use limited voting; I am reasonably confident that Cambridge is the only city presently using the single transferable vote.

389. Moreover, because the single transferable vote often came as part of a package of reforms including at-large nonpartisan elections and the city manager system, it is difficult to separate out the effects of the single transferable vote system, per se, without before and after studies which are lacking (except for fragmentary journalist or polemic accounts).

population and compactness cannot be relied upon to prevent gerrymandering, and acceptance of plans simply because they have low deviations or are highly compact may merely act as a cloak of legitimacy to hide sophisticated gerrymandering from judicial scrutiny. Gerrymandering can readily occur even when formal reapportionment criteria are satisfied: also the usefulness of nonpartisan or bipartisan reapportionment commissions as a device to prevent gerrymandering is far from clear.

Third, the detection of political gerrymandering will require a considerably more statistically sophisticated and multifaceted analysis than that engaged in by the *Bandemer* court majority. Otherwise, courts may wrongly identify gerrymandering when none exists, or fail to identify sophisticated forms of gerrymandering.

Among the factors neglected by the *Bandemer* court majority in its analysis of gerrymandering were the varying degrees of competitiveness among districts, the extent (if any) to which incumbents of one party were treated differently from incumbents of the other party, alternative explanations for the partisan seats/votes discrepancies (for example, explanations based on the partisan geography of the State of Indiana), alternative measurement techniques for calculating the seats/votes discrepancy (such as the one proposed by Judge Pell in his dissent), and consideration of the symmetry of the seats/votes relationship. While no single factor is necessary, the absence of any of these factors leaves the *Bandemer* court's conclusions inadequately justified. Moreover, the *Bandemer* court placed undue reliance on a single factor—the absence of proportionality in the seats/votes relationship in the Indiana house. But, as I have emphasized repeatedly, plurality-based districting, even when done with no intent to gerrymander, cannot be expected to achieve proportional representation of either political or racial groups—a fact which the *Bandemer* court acknowledged and then promptly disregarded in its subsequent analysis. In addition, the *Bandemer* majority placed too much emphasis on miscellaneous deviations from compactness or township boundaries in the absence of testimony linking these deviations to actual attempts to harm the political minority. The court also failed to enunciate manageable standards for showing partisan gerrymandering, and failed to suggest a remedy (especially for



the senate) which logically followed from the actual findings of fact.

Fourth, the current section 2 and fourteenth amendment standards for detecting racial gerrymandering, although seemingly less problematic than the standards used to detect partisan gerrymandering, are based on a grab-bag of factors and suffer from an absence of well-grounded theory and from the failure to recognize that vote dilution is inherently a comparative concept. As a consequence, different courts can readily reach different conclusions on virtually identical facts.

Fifth, the multivariate analysis of racially polarized voting proposed in *Terrazas*,<sup>390</sup> *City of Opelika*,<sup>391</sup> and *City of Lubbock*,<sup>392</sup> is inappropriate because it seeks to answer the wrong question through a mistaken analogy to Title VII litigation. It is undesirable because it imposes a potentially unreasonable evidentiary burden on plaintiffs and on the courts. Finally, it is at variance with the intent expressed in the Senate Report on the 1982 amendments to the Voting Rights Act.<sup>393</sup> In contrast, the three-judge panel in *Gingles*,<sup>394</sup> with its basically commonsensical approach, understood quite well what racially polarized voting was all about.

Sixth, if the section 2 "totality of circumstances" test were to be interpreted in the fashion proposed by the Solicitor General's amicus brief for Appellants in *Gingles*,<sup>395</sup> then occasional black (or other minority) electoral success would foreclose the possibility of a section 2 violation. If this view were to be accepted, it would gut section 2 and frustrate the will of Congress as expressed in the 1982 amendments to the Voting Rights Act.

Seventh, the Department of Justice has inadequate personnel to effectively police voting rights violations, even if it had the will to do so. Furthermore, in President Reagan's second term, voting rights enforcement under section 5 of the Voting Rights Act has come to a virtual standstill, with many changes precleared after only cursory review, in some

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390. 581 F. Supp. 1319 (N.D. Tex. 1983).

391. 748 F.2d 1473 (11th Cir. 1984).

392. 730 F.2d. 233 (5th Cir. 1984).

393. SENATE REPORT, *supra* note 82.

394. 590 F. Supp. 345 (E.D.N.C. 1984), *prob. juris. noted sub nom.* Thornburg v. Gingles, 105 S. Ct. 213 (1985).

395. *See supra* note 248.

instances over the objections of career staff in the Department of Justice. This state of affairs exhibits the potential difficulties of administrative "discretionary justice" and "negotiated compliance" embodied in the section 5 enforcement mechanism.

In sum, we still have a long way to go in enunciating clear substantive guidelines to achieve the "fair and effective representation" that was the mainspring of *Reynolds v. Sims*<sup>396</sup> and the justification of court involvement in the reapportionment process.<sup>397</sup>

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396. 377 U.S. 533, 565 (1964).

397. For a leading political geographer's overview of redistricting standards that is complementary to this essay, see Morrill, *Redistricting Standards and Strategies After 20 Years*, 1 POL. GEOGRAPHY Q. 361 (1982).

TABLE I  
CRITERIA FOR SINGLE MEMBER DISTRICTING

Formal Criteria	Racial Intent Criteria	Political Intent Criteria	Racial Outcome Criteria	Political Outcome Criteria
A. Equal population districts	A. No intent to dilute the voting strength of a racial or linguistic minority	A. No intent to bias districting in favor of a particular political party	A. No retrogression in the representation of a racial or linguistic group	A. (1) No substantial bias in seats/votes relationships in favor of a particular party. A. (2) No substantial imposed bias in seats/votes relationships in favor of a particular party.
B. Contiguous districts		B. No intent to bias districting in favor of a particular incumbent or other candidate	B. No substantial dilution of the voting approach of a racial or linguistic group	B. No substantial bias in favor of a particular incumbent or other candidate.
C. Compact districts		C. No use of political data in drafting the plan	C. Proportionality between vote share of each racial or linguistic group and its legislative seat share	C. Responsiveness of electoral outcomes to changes in electorate preferences.
D. (1) Districts following local political subunit boundaries and other and other 'natural' demarcation lines; D. (2) Nonfragmentation of communities of interest		D. "Good faith" effort to minimize deviation from equal population and to satisfy other state and federal districting guidelines		D. (1) Existence of political competition at the district level. D. (2) Political homogeneous districts
E.. Coterminality of House and Senate plans		E. Intent to achieve political "fairness"		E. Translation of a party's vote majority into a legislative seat majority.
		F. Deference to legislative intent		F. Proportionality between vote share of each major political party and its legislative seat-share.
		G. "Least-changed" plans		

Source: Adapted and extended from Grofman & Scarrow, *Current Issues in Reapportionment*, 4 *Law & Pol'y Q.* (1982) (Table 1). The criteria in that earlier form of the table dealing with choice among different types of election systems, e.g., PR vs. plurality, have been omitted.

TABLE 2  
 OVERALL POPULATION RANGE (TOTAL  
 DEVIATION) IN U.S. REDISTRICTING  
 PLANS COMPLETED AS OF  
 APRIL, 1983

	<u>Congressional</u> <u>Districts</u>	<u>State House</u> <u>Districts</u>	<u>State Senate</u> <u>Districts</u>
ALABAMA	2.45%	9.80%	8.50%
ALASKA	NA (f)	9.99	9.77
ARIZONA	0.08	8.40	8.40
ARKANSAS	0.73	9.15	9.15
CALIFORNIA	0.08 (d) (g)	3.60 (d) (g)	4.60 (d) (g)
COLORADO	0.002 (h)	4.94	3.98
CONNECTICUT	0.46	8.35	3.92
DELAWARE	NA (f)	25.10 (j)	9.78
FLORIDA	0.13	0.46	1.05
GEORGIA	(b)	9.94	9.99
HAWAII	< 0.01 (h)	8.60 (h)	18.60 (h)
IDAHO	0.04	5.35 (a)	5.35 (a)
ILLINOIS	0.03 (h)	2.80	1.75
INDIANA	2.96	4.45 (a)	4.04 (a)
IOWA	0.05	1.78	0.71
KANSAS	0.34 (h)	9.90	6.50
KENTUCKY	1.39	13.47	7.52
LOUISIANA	0.42 (a)	9.69	8.40
MAINE	.0014	10.94	10.18
MARYLAND	0.35	15.7 (e)	9.80
MASSACHUSETTS	1.09	NA (i)	NA (i)
MICHIGAN	< 0.01	16.34 (h)	16.24 (h)
MINNESOTA	0.007 (h)	3.93 (h)	4.61 (h)
MISSISSIPPI	(b) (h)	4.90 (a)	4.61 (a)
MISSOURI	0.18 (h)	9.30	6.10
MONTANA	NA (f)	NK (i)	NK (i)
NEBRASKA	0.23	Unicameral	9.43
NEVADA	0.60	9.70	8.20
NEW HAMPSHIRE	0.24	13.74 (b)	7.60
NEW JERSEY	0.69 (c)	7.70	7.70
NEW MEXICO	0.87 (a)	9.87 (a)	9.83 (a)
NEW YORK	1.64	8.17	5.29
NORTH CAROLINA	1.76 (a)	9.66	9.46
NORTH DAKOTA	NA (f)	9.93	9.93
OHIO	0.68	9.67	8.88
OKLAHOMA	0.58	10.98	5.60
OREGON	0.15	5.34	3.73
PENNSYLVANIA	0.24	2.82 (a)	1.93 (a)
RHODE ISLAND	0.02	10.47 (j)	(c)
SOUTH CAROLINA	0.28 (g)	9.88	NK
SOUTH DAKOTA	NA (f)	12.40	12.90
TENNESSEE	2.40	1.66	10.22
TEXAS	0.28 (h)	9.95 (k)	1.82 (k)
UTAH	0.43	7.80	5.41
VERMONT	NA (f)	19.33 (a)	16.18
VIRGINIA	1.81	5.11 (k)	10.65
WASHINGTON	0.061	5.70	5.40
WEST VIRGINIA	0.50	9.94	8.96
WISCONSIN	0.14	1.74 (h)	1.23 (h)
WYOMING	NA (f)	89.40	63.70

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Source: NATIONAL CONFERENCE OF STATE LEGISLATURES AND COUNCIL OF STATE GOVERNMENTS, REAPPORTIONMENT INFORMATION UPDATE (1982) (updated as of Sept. 1982, from NCSL provided data).

- Overall population range represents the sum of the largest deviations above and below the mean (ideal) district population. Whenever possible, percentages are rounded off to two decimal places.
- (a) Subject to court review.
- (b) Includes 17 floterial districts
- (c) Plans declared unconstitutional and must be redrawn.
- (d) Plans rejected by voter referendum.
- (e) State House plan has three types of districts with different overall ranges: 14 single-member @ 15.7%; 8 two-member @ 11.3%; 39 three-member @ 9.8%.
- (f) Only one congressional representative.
- (g) New plan needed in 1984.
- (h) Court ordered plan in whole or part.
- (i) Districts will be drawn in 1983.
- (j) Plan contains inadvertent errors which increase total deviation, but which were not yet corrected by technical amendments.
- (k) New plan needed in 1983

TABLE 3  
LEGAL REQUIREMENTS FOR STATE LEGISLATIVE REDISTRICTING

STATE	Proportion of multi-member districts in the house (as of 1981)	Proportion of multi-member districts in the senate (as of 1981)	Contiguity	Compacness	Subject to Voting Rights Act	Preserving political boundaries	Senate and House districts to be coterminous	Following natural boundaries	Preserving communities of interest	State Constitutions retain provisions other than equipopulation districting	Other
						noncrossing of county lines	Y <sup>4</sup>	N	N	Y <sup>10</sup>	
Alabama	0	0	N	N	Y	noncrossing of county lines	Y <sup>4</sup>	N	N	Y <sup>10</sup>	
Alaska	.45	.18	Y	Y <sup>7</sup>	Y	local govt. boundaries may be considered	N	Y	Y	N	
Arizona	1.00	0	N	N	Y	N	Y	N	N	N	
Arkansas	.12	0	N	N	N	N	N	N	N	Y <sup>10</sup>	
California	0	0	Y	N <sup>7</sup>	4 counties	to the extent possible	N	N	N	N	
Colorado	0	0	Y	Y <sup>5</sup>	1 county	avoid crossing of county, city, and town lines	N	Y <sup>6</sup>	Y <sup>6</sup>	N	max total deviation of 5%
Connecticut	0	0	Y	N	3 towns	for house, noncrossing of town lines	N	N	N	N	
Delaware	0	0	Y	N	N	N	N	Y	N	N	not unduly favor any person or political party
Florida	.47 <sup>16</sup>	.74 <sup>16</sup>	N	N	5 counties	N	N	N	N	N	
Georgia	.11	0	N	Y <sup>7</sup>	Y	for senate, noncrossing of county lines	N	N	N	N	
Hawaii	0 <sup>1</sup>	0 <sup>3</sup>	Y <sup>8</sup>	Y <sup>7</sup>	1 county	keep basic island units intact	N	Y <sup>7</sup>	Y <sup>7</sup>	Y <sup>7</sup>	not unduly favor a person or political faction
Idaho	1.00	0	Y <sup>11</sup>	N	1 county	counties to be kept whole	Y	N	N	Y <sup>9</sup>	
Illinois	1.00	0	Y	Y	N	N	Y	N	N	N	

STATE	Proportion of multi-member districts in the house (as of 1981)	Proportion of multi-member districts in the senate (as of 1981)	Contiguity	Compactness	Subject to Voting Rights Act	Preserving political boundaries	Senate and House districts to be coterminous	Following natural boundaries	Preserving communities of interest	State Constitutions retain provisions other than equipopulation districting	Other
Indiana	.27	0	Y <sup>11</sup>	N	N	for senate, noncrossing of county lines	N	N	N	N <sup>12</sup>	
Iowa	0	0	Y <sup>13</sup>	Y <sup>14</sup>	N	Y <sup>15</sup>	Y <sup>4</sup>	N	N <sup>17</sup>	N <sup>18</sup>	Y <sup>19</sup>
Kansas	0	0	N	N	N	N	N	N	N	N	
Kentucky	0	0	Y	N	N	noncrossing of county lines	N	N	N	N <sup>20</sup>	
Louisiana	0	0	Y <sup>4</sup>	Y <sup>4</sup>	Y	Y <sup>21</sup>	N	Y <sup>21</sup>	N	N	
Maine	.09	0	Y	Y	N	minimize crossing <sup>22</sup> political subdivision lines	N	N	N	N	
Maryland	1.09	0	Y	Y	N	due regard to be given to political subdivision lines	Y	due regard to be given to natural boundaries	N	N	Y <sup>23</sup>
Massachusetts	0	0	Y	N	9 towns	noncrossing of county, town and city lines <sup>24</sup>	N	N	N	N <sup>25</sup>	
Michigan	0	0	Y <sup>26</sup>	Y <sup>27</sup>	2 townships	noncrossing of county lines; follow city and township lines to the extent possible	N <sup>28</sup>	N	N	Y <sup>29</sup>	Y <sup>30</sup>
Minnesota	0	0	Y	N	N	N	Y	N	N	N	
Mississippi	0	0	Y	N	Y	N	N	N	N	N	
Missouri	0	0	Y	Y <sup>6</sup>	N	N	N	N	N	N	Y <sup>31</sup>
Montana	0	0	Y	Y	N	N	Y	N	N	N	
Nebraska	Unicam	0	Y	Y	N	division of larger counties into equally populated districts <sup>32</sup>	Unicam	N	N	N	N <sup>33</sup>
Nevada	0	0	N	N	N	N <sup>34</sup>	N	N	N	N	

STATE	Proportion of multi-member districts in the house (as of 1981)	Proportion of multi-member districts in the senate (as of 1981)	Contiguity	Compactness	Subject to Voting Rights Act	Preserving political boundaries	Senate and House districts to be coterminous	Following natural boundaries	Preserving communities of interest	State Constitutions retain provisions other than equipopulation districting	Other
New Hampshire	.79	0	Y <sup>35</sup>	Y <sup>35</sup>	9 polit. subdivisions	no crossing of town, ward or place boundaries <sup>36</sup>	N	N	N	N	
New Jersey	1.00	0	Y	Y <sup>6</sup>	N	Y <sup>37</sup>	Y	N	N	Y	max permissible deviation of ± 20%
New Mexico	0	0	N	N	N	N	N	N	N	N	
New York	0	0	Y	Y <sup>7</sup>	3 NYC boroughs	noncrossing of county lines	N	N	N	N <sup>38</sup>	
North Carolina	.78 <sup>6</sup>	.67 <sup>2</sup>	Y	N	40 counties	no county shall be divided	N	N	N	N	
North Dakota	1.00 <sup>5</sup>	.02 <sup>2</sup>	Y	Y	N	N	Y	N	N	N	
Ohio	0	0	Y	Y	N	noncrossing of political subdivisions and city wards <sup>40</sup>	N	N	N	N	
Oklahoma	0	0	Y <sup>7</sup>	Y <sup>7</sup>	N	noncrossing of county lines	N	Y <sup>7</sup>	Y <sup>7</sup>	Y <sup>41</sup>	Y <sup>42</sup>
Oregon	0	0	Y	N	N	noncrossing of county lines	Y <sup>4</sup>	N	N	Y <sup>43</sup>	
Pennsylvania	0	0	Y	Y	N	noncrossing of political subdivision boundaries	N	N	N	N	
Rhode Island	0	0	N <sup>44</sup>	Y <sup>6</sup>	N	noncrossing of city and town lines	N	N <sup>45</sup>	N	Y <sup>46</sup>	
South Carolina	0	.81	N	N	Y	noncrossing of county lines	N	N	N	Y <sup>46</sup>	
South Dakota	1.00	.11	N	N	2 counties	N	Y	N	N	Y <sup>46</sup>	N
Tennessee	0	0	Y	N	N	noncrossing of county lines	N	N	N	Y <sup>46</sup>	
Texas	0	0	Y	N	Y	noncrossing of county lines	N	N	N	Y <sup>48</sup>	
Utah	0	0	N	N	N	N	N	N	N	N	



STATE	Proportion of multi-member districts in the house (as of 1981)	Proportion of multi-member districts in the senate (as of 1981)	Contiguity	Compactness	Subject to Voting Rights Act	Preserving political boundaries	Senate and House districts to be coterminous	Following natural boundaries	Preserving communities of interest	State Constitutions retain provisions other than equipopulation districting	Other
Vermont	.54	.85	Y <sup>49</sup>	Y <sup>49</sup>	N	Y <sup>49</sup>	N	Y <sup>49</sup>	Y <sup>49</sup>	Y <sup>50</sup>	Y <sup>51</sup>
Virginia	.54	.03	Y	Y	Y	N <sup>52</sup>	N	N	N	N	N
Washington	1.00	0	Y	N	N	N <sup>2</sup>	N	N	N <sup>5</sup>	N	N
West Virginia	.69	1.00	Y	Y	N	noncrossing of county lines	N	N	N	Y <sup>54</sup>	Y <sup>55</sup>
Wisconsin	0	0	Y	Y <sup>5</sup>	N	use political subdivision boundaries to draw district lines	Y	N	N	N	N
Wyoming	.52	.56	N	N	1 county	noncrossing of county lines	N	N	N	Y <sup>5</sup>	

Sources: Compiled from data in L. EIG & M. SEITZINGER, STATE CONSTITUTIONAL AND STATUTORY REVISIONS CONCERNING CONGRESSIONAL AND STATE LEGISLATIVE REDISTRICTING (Congressional Research Service 1981); REAPPORTIONMENT INFORMATION SERVICE, STATE PROFILES (1981); and REAPPORTIONMENT: LAW AND TECHNOLOGY (A. Wollock ed. 1980).

1. 81% multimember districts in the State of Hawaii Reapportionment Commission plan struck down as unconstitutional by a federal district court on other grounds in 1982.
2. Use of multimember districts in Voting Rights Act covered counties subject to Justice Department preclearance.
3. 88% multimember districts in the State Reapportionment Commission plan struck down as unconstitutional by a federal district court on other grounds in 1982.
4. Not a constitutional requirement.
5. Each district to be as compact as possible and the aggregate linear distance of all district boundaries to be as short as possible. See COLO. CONST. art. V, § 47.
6. To the extent possible, or where possible, or as may be, or as possible. See CAL. CONST. art. XXI, § 1; COLO. CONST. art. V, § 47; MO. CONST. art. III, § 2; N.J. CONST. art. IV, § 1, par. 3; N.C. CONST. art. III, § 5; R.I. CONST. art. XIII, § 1.
7. To the extent practicable, or as nearly as practicable, or to the extent feasible. See ALASKA CONST. art. VI, § 6; N.Y. CONST. art. III, § 4; OKLA. CONST. art. V, § 9A; WIS. CONST. art. III, § 4; CA. CODE ANN. § 47-121 (1979).
8. Except for districts encompassing more than one island. See HAWAII REV. STAT. § 25-1 (Supp. 1980).
9. The Idaho Constitution (art. III, § 4) permits voters in congressional elections rather than population to be used as the basis of apportionment.
10. Each county entitled to at least one representative. See ALA. CONST. art. IV, § 201; ARIZ. CONST. art. VIII, § 2.
11. Contiguity applies to counties, counties to be kept whole. See IDAHO CONST. art. III, § 5; IND. CONST. art. IV, § 1.
12. The state constitution specifies apportionment according to adult males, as determined by state census. This provision does not appear to be operative. See IND. CONST. art. IV, § 5.
13. The 1980 Iowa General Assembly bill setting standards for reapportionment specifies that "[a]reas which meet only at the points of adjoining corners are not contiguous." See 1980 Iowa Legis. Serv. H.F. 707, § 4(3) (West).
14. Two different operational definitions of compactness were offered by the 1980 Iowa General Assembly bill setting standards for reapportionment. Both are to be used. The first takes precedence over the second if they are in conflict. A general definition of compactness is also given: "[C]ompact districts are those which are square, rectangular, or hexagonal in shape to the extent permitted by natural or political boundaries." *Id.* § 4(4). The first operational definition of compactness for a district is "the absolute value of the difference between the length and the width of the district," when length and width are defined in terms of N-S and E-W geographic axes. *Id.* The second operational definition involves measuring "the ratio of the dispersion of population about the population center of the district to the dispersion of population about the geographic center of the district," with maximum compactness indicated by a ratio of one. *Id.* Comparisons of plans are done for the state as a whole, or for sections of it, by looking at the mean values of districts on the compactness measures. "Equal population and noncrossing of political subunit boundary standards are to take precedence over the compactness standard." *Id.*

15. The 1980 Iowa General Assembly bill setting reapportionment standards provided that, consistent with population equality standards, "district boundaries shall coincide with the boundaries of political subdivisions of the state. The number of counties and cities divided among more than one district shall be as small as possible. When there is a choice between dividing local political subdivisions, the more populous subdivision shall be divided before the less populous, [except for] a legislative district boundary drawn along a county line which passes through a city that lies in more than one county." *Id.*
16. Legislative intent is to use mmds in densely populated areas, and single-member districts in rural areas.
17. The Iowa General Assembly in its 1980 bill setting reapportionment standards provided that "No district shall be drawn for the purpose of . . . augmenting or diluting the voting strength of a language or racial minority group."
18. The Iowa Constitution (art. III, § 34) provides that "[t]he General Assembly may provide by law for factors in addition to population, not in conflict with the Constitution of the United States, which may be considered in the apportioning of Senatorial districts . . . whereby a majority of the members of the Senate shall represent not less than forty (40) percent of the population of the state as shown by the most recent United States decennial census." For the 1980's reapportionment, however, the Iowa General Assembly set 1% as the maximum permissible average deviation of any reapportionment plan for both the house and senate, and required that the largest district could be no more than 5% greater than the smallest district. Moreover, upon legal challenge to a plan, it is the General Assembly which is assigned "the burden of justifying any variance in excess of 1% between the population of a district and the applicable ideal district population." See 1980 Iowa Legis. Serv. H.F. 707, § 4 (West).
19. The 1980 Iowa General Assembly bill setting reapportionment standards specified that "No district shall be drawn for the purpose of favoring a political party, incumbent legislator or member of Congress . . . or other person or group." The bill further provided that "In establishing districts, no use shall be made of any of the following data: (a) addresses of incumbent legislators or members of Congress; (b) political affiliations of registered voters; (c) previous election results; (d) demographic information other than population head counts except as required by the constitution and the laws of the United States." 1980 Iowa Legis. Serv. H.F. 707, § 4 (West).
20. The Kentucky Constitution provides that "Not more than two counties shall be joined together to form a Representative District; Provided, In doing so the principle requiring every district to be as nearly equal in population as may be shall not be violated . . . If, in making said districts, inequality of population should be unavoidable, any advantage resulting therefrom shall be given to districts having the largest territory." Ky. CONST. art. I, § 33.
21. A Louisiana statute provides that districts are to have "clearly defined and clearly observable boundaries corresponding with visible features readily distinguishable on the ground, except where the precinct boundary is coterminous with the boundary of a parish, an incorporated place, or a police jury ward or the equivalent subdivision." See LA. REV. STAT. ANN. § 18:1903 (Supp. 1985).
22. The Maine Constitution provides that "Whenever the population of a municipality entitles it to more than one district, all whole districts shall be drawn within municipal boundaries." Me. CONST. art. IV, pt. 1, § 2.
23. Maryland law in 1974 provided that "In any legislative district which contains more than two counties or parts of more than two counties and where delegates are to be elected at large by the voters of the entire district, no county, or part of a county, shall have more than one delegate residing in it." Md. ANN. CODE art. 40, § 46 (1974).
24. In addition to an injunction to devise districts, as nearly equal in population as may be without crossing political submit boundaries, the Massachusetts Constitution specifically provides that "[n]o town containing less than twenty-five hundred inhabitants . . . shall be divided." MASS. CONST. art. 101, § 1.
25. Reapportionment to be based on state decennial census, 1975 and subsequently. *Id.*
26. The Michigan Constitution specifies "contiguity by land" for state house and senate districts. MICH. CONST. art. IV, §§ 2, 3.
27. For state senate districts the Michigan Constitution specifies "as rectangular in shape as possible" for the smaller county-based districts, and "as nearly uniform in shape as possible" for districts in counties entitled to two or more senators. *Id.* § 2. For state house districts in counties entitled to two or more representatives the Michigan Constitution specifies "as nearly square in shape as possible," and for house districts in general, the phrase "compact and convenient" is used. *Id.* § 3.
28. Coterminality may be established because of provisions for county-based districting. *see infra* note 29; there are 38 senate districts and 110 house districts. *Id.*
29. Michigan's Constitution provides complex rules which require allocating seats to counties. *See id.* §§ 2, 3. These rules are different for house and senate districts. For the senate the apportionment formula takes into account both population and area, but population is given four times the weight of area. For the house it specifies how smaller counties are to be combined and how counties entitled to two or more representatives are to be divided (including population guidelines). It is not obvious whether these rules could result in an apportionment which would also satisfy federal equipopulation guidelines, but we would expect (especially for the senate) that the could not.
30. The Michigan Constitution requires that "Insofar as possible, existing senatorial districts at the time of reapportionment shall not be altered unless there is a failure to comply with the above [specified] standards." *Id.* art. IV, § 2.
31. The Missouri Constitution prohibits reapportionment plans from being subject to referendum. MO. CONST. art. III, §§ 2, 7.
32. The Nebraska Constitution provides that "county lines shall be followed whenever practicable, but other established lines may be followed at the discretion of the Legislature." NEB. CONST. art. III, § 5.
33. Nebraska legislative reapportionment is on a population basis excluding aliens. *Id.*
34. The Nevada Constitution provides for apportionment "among the several counties of the state, or among legislative districts which may be established by law, according to the number of inhabitants in them, respectively." NEV. CONST. art. IV, § 5.
35. The New Hampshire Constitution provides that in combining smaller political subunits into districts, "towns, wards and unincorporated places forming one district shall be reasonably proximate to one another." N.H. CONST. pt. 2, art. XI.
36. Notwithstanding the prohibition against dividing political subunits in the New Hampshire Constitution, *see id.* arts. IX, XI, that constitution also provides that any town, ward or unincorporated place may, by referendum, request its own division. *Id.* art. XII, § A.

37. For the New Jersey Senate, the New Jersey Constitution provides that districts shall be composed "wherever practicable of one single county, and, if not so practicable, of two or more contiguous whole counties." N.J. CONST. art. IV, § 1, para. 1. For the General Assembly, the New Jersey Constitution has provisions which require the avoidance of crossing county or municipality lines. *Id.* § 4, para. 3.
38. The New York Constitution specifies that apportionment shall exclude aliens and Indians not taxed from the population count. N.Y. CONST. art. III, §§ 4, 5. (Article III, sections 4 and 5, also retain provisions which assign representation by county, set maximum limits on the number of senators per county, and require at least one assembly representative from each county.)
39. The North Dakota Code provides that for any post-1979 reapportionment "Legislative districts and subdistricts shall be compact and of contiguous territory except where impracticable in multimerber senatorial districts." N.D. CENT. CODE § 154-03-01.5 (1982).
40. The Ohio Constitution requires that "[T]he population of each house of representatives district shall be substantially equal to the ratio of representation in the house of representatives and in no event shall any house of representatives district contain a population of less than ninety-five percent nor more than one hundred five percent of the ratio of representation in the house of representatives, except in those instances where reasonable effort is made to avoid dividing a county. . . ." OHIO CONST. art. XI, § 3. Article XI, section 9 provides: "In those instances where the population of a county is not less than ninety percent nor more than one hundred ten percent of the ratio of representation in the house of representatives, reasonable effort shall be made to create a house of representatives district consisting of the whole county." Article 11, section 7 provides that "[I]n making a new apportionment, district boundaries established by the preceding apportionment shall be adopted to the extent reasonably consistent with the [equal population] requirements of Section 3 of this Article."
41. The Oklahoma Constitution apportions the senate on the basis of counties, with the 19 most populous counties having one senator each and the 58 smaller counties joined into 29 two-county units with one senator each. OKLA. CONST. art. V, § 9A. Article V, section 10A also apportions the house on the basis of counties, with all counties having at least one representative, and subsequent representation less than proportional to unrepresented population.
42. The Oklahoma Constitution provides that consideration shall be given to a number of factors "to the extent feasible." OKLA. CONST. art. V, § 9A. These factors include historical precedents and district area.
43. The Oregon Constitution provides that counties with at least 1/2mth of the total state population (where *m* is the number of seats in a chamber of the legislature) shall be entitled to one representative. ORE. CONST. art. IX, § 6.
44. The Rhode Island Supreme Court has stated that "any deviation from contiguity and from natural, historical, geographical and political lines for the purposes of achieving a political gerrymander is constitutionally prohibited by the mandate of compactness." Opinion to the Governor, 221 A.2d 793, 803 (1966). But it also stated that "the requirement for territorial compactness . . . was intended to be peripheral in its thrust and to leave to the legislature the question of determining the territorial structuring that will provide districts as compact as possible. In short, whether there has been a complete departure from the requirement for compactness is a judicial question, but the determination of the territory that necessarily would have to be included in a district to provide that district be as compact as possible is for legislative determination. *Id.*" The compactness of Rhode Island legislative plans and how the term compactness was to be interpreted were issues litigated in 1982 challenges to those plans before the Rhode Island state courts. See Holmes v. Farmer, 475 A.2d 976 (R.I. 1984); Licht v. Quattouchi, 454 A.2d 1210 (R.I. 1982).
45. The Rhode Island Constitution provides that each town or city shall be given at least one representative in each house. R.I. CONST. arts. IX, XIII. These provisions were declared unconstitutional in *Sweeney v. Noite*, 95 R.I. 68, 183 A.2d 296 (1962).
46. The South Carolina Constitution requires that each county shall be given at least one representative and that the senate be composed of one senator from each county. S.C. CONST. art. III, §§ 4, 6.
47. The South Carolina Constitution permits the General Assembly to make use of a number of different criteria in its apportionment decisionmaking, including geographical and political subdivisions "provided such apportionment when effective shall comply with the Constitution of the United States as then amended or authoritatively interpreted." *Id.* art. II, § 4. Nonetheless, other provisions prohibit the crossing of county lines. *Id.* §§ 5, 6.
48. The Texas Constitution specifies apportionments on the basis of counties. It requires the senate be apportioned on the basis of one senator per county. For the house it uses a special apportionment formula for counties which would be allocated seven or more members on the basis of population alone. TEX. CONST. art. III, §§ 2, 5, 26, 27.
49. The reapportionment provisions of the Vermont Constitution, which provide for districting on other than a population basis, were struck down by a federal district court in an order modified and affirmed by the United States Supreme Court in *Parsons v. Buckley*, 379 U.S. 559 (1965). The legal provisions we identified are those specified by the legislature in 1965. VT. STAT. ANN. 17, § 1903 (1982).
50. The districts shall be formed consistent with the following policies insofar as practicable: (1) preservation of existing political subdivision lines; (2) recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interest; (3) use of compact and contiguous territory." *Id.*
51. The legislature has required apportionment on the basis of voters rather than population. VT. STAT. ANN. 17, § 1891 (1982).
52. Although no provision about preservation of county lines appears in the Virginia Constitution, the United States Supreme Court in *Mahan v. Howell*, 410 U.S. 815 (1973), accepted the Virginia legislature's argument that counties in Virginia had a special status which could justify somewhat larger deviation from equal population than had previously been found acceptable.
53. Apportionment is to take place every five years, based on the decennial United States census on even-numbered years and on a decennial state census in years ending in five. WASH. CONST. art. II, § 3. Apportionment is to be based on population "excluding Indians not taxed, soldiers, sailors and officers of the United States Army and Navy in active service." *Id.*
54. For the house, the West Virginia Constitution permits counties with populations greater than three fifths of the ratio of representation but less than the ratio of representation to be given one representative. W. VA. CONST. art. VI, § 7. It also requires all apportionment to be on the basis of county lines. *Id.* § 4. These provisions come into conflict with federal equal protection standards. See *W. Va. Code* § 1-2-1 (Supp. 1985).
55. For two-member senate districts containing more than one county, the West Virginia Constitution requires that both senators shall not be from the same county. W. VA. CONST. art. VI, § 4.
56. The compactness requirement applies only to house districts. However, senate districts are coterminous. WIS. CONST. art. IV, §§ 4, 5.

57. The Wyoming Constitution requires that each county shall be given at least one senator and one representative and stipulates that county lines shall not be crossed in composing districts. Wyo. CONST. art. III, §§ 3, 49.

58. In the South Dakota Senate the few remaining urban mmms were eliminated by voter referendum in November 1982.

**TABLE 4**  
**DIFFERENTIAL TREATMENT OF**  
**REPUBLICAN AND DEMOCRATIC**  
**1980 INCUMBENTS:**  
**BURTON I AND BURTON II**

## (a) Incumbent Preservation and Incumbent-seat Preservation

Elected in 1980		1980	
		Incumbent put alone in a district, ran and won that district in 1982	1980 Incumbent put alone in a district but didn't run; seat won by candidate of same party as incumbent <sup>2</sup>
D	22	21	1
R	21	11	2

## (b) Incumbent Disadvantaged

Elected in 1980	1980		1980		1980	
	Incumbent put alone in a district, ran and lost that district in 1982 <sup>1</sup>	Incumbent put alone in a district but didn't run; seat won by candidate of opposite party <sup>3</sup>	Incumbents put together in a District with another incumbent of same party <sup>4</sup>	Incumbents put together in a District with another incumbent of opposite party		
D	22	0	0	0	0	0
R	21	1	1	6	0	0

## (c) Summary

## Number of 1980 Incumbents Disadvantaged (or potentially disadvantaged) by Redistricting

Democratic	Republican
0	8

## Number of 1980 Incumbents Helped (or potentially helped) by Redistricting

Democratic	Republican
22	13

Source: B. Grofman, First Declaration, *Badham v. Eu*, No. C-83-1126 RHS (N.D. Cal. 1984), excerpted in 18 PS 544 (1985).

1. For Column 2, Republican seat is Clausen R-2 (becomes Bosco D-1).
2. For Column 3, Democratic seat is Burton D-5 (becomes D-6), Republican seats are Burgener R-43 and McCloskey R-12.
3. For Column 3, Republican seat is Dornon R-27. This seat was cut to pieces.
4. For Column 4, Republican seats are Goldwater R-20 and Fiedler R-21 (becoming Fiedler R-21), Moorhead R-22 and Rousselot R-26 (becoming Morhead R-2), and Grisham R-33 and Dreier R-35 (becoming Dreier R-33). Goldwater chose to run for another office, Rousselot to change districts. (He ran unsuccessfully against a Democratic incumbent.) Thus, six Republican seats in 1980 were turned into three Republican seats in 1982.