REDISTRICTING: THE KEY TO POLITICS IN THE 1980s

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INTRODUCTION

The "Reapportionment Revolution" of the 1960s – a series of Supreme Court decisions that enforced equal population as the basis for the allocation of legislative and congressional seats – marks a watershed in the theory and practice of representative government in this country. Population was only one basis for apportionment prior to 1964. Land – units of territory, such as counties or parishes or townships – had serves as another, often competing basis.

The proper weight that should be given to population or to land in apportionment had always troubled representative governments. In England, the "rotten borough" – Old Sarum, a medieval town that had lost its population, but not its parliamentary representatives, was the classic example – became an issue on controversy as early as the 17th century. In America, the colonies also used both population and land units as bases for apportionment. Controversies arose, even then, over the population inequities of land-based systems. Thomas Jefferson, for example, sharply criticized Virginia's county-based system (in which the smallest county had 951 voters, while the largest had 22,105), became "among those who share the representation, the shares are unequal." The Northwest Ordinance of 1787 established a population basis for the apportionment of territorial legislative seats ("one for every 500 free make inhabitants"). But the U.S. Constitution, guaranteeing two U.S. Senators to each state, regardless of population, returned to a partially land-based system.

After 1787, state legislatures differed widely in apportionment practices. A majority of the states admitted to the Union employed population as the basis of apportionment; but several states followed the "national plan" of basing one house on population, the other on land units; and other, although they employed population as the principal basis for apportionment, modified it with requirement that each county have a minimum of one representative or that no county have more than some set maximum of representatives.

In the 20th century, land-based systems of representation came under increasing pressure: mass movements of population and the growth of great industrial centers produced ever greater population disparities among counties and other electoral units in the states. Yet state legislators, perhaps because they owed their election to the existent system, were often unwilling to reapportion. Indeed, in several states, rurally-dominated legislatures sought to perpetuate themselves by adopting new land-based apportionment schemes or by freezing existing plans into law.

Finally, in the 1960s, the U.S. Supreme Court acted to impose population as the basis of representation. The doctrine of "one-man-one-vote" was used to compel states to apportion both houses of their legislatures on population and to create substantially equal state legislative and congressional districts. Land units – except only the states, for their status was guaranteed in the Constitution – lost their role in the federal-state representative system.

Is the "Reapportionment Revolution" complete? Today, state legislatures and congressional districts are all based on population: compared with the district of the 1950s, they are models of population equality. This part of the revolution is indeed complete. But there are other unsettled matters, perhaps no less revolutionary in their final development.

Population-based representation has proved to be controversial in ways that were almost certainly unforeseen by the Court. Gerrymandering – the design of district lines for partisan and other political advantage – is widely charged, even against the most impeccably equal districting plans. The charges are embittered by disappointed expectations. Ethnic minorities, urban voters, suburban voters, minority parties – all expected more from the rhetoric of "one-man-one-vote" than population-based representation could in fact provide. There is also the perception that redistricting is now a much less predictable process than before. Districts shaped only by a head-count can stretch across county lines or dip for population into precincts in several cities: all the traditional territorially-based restraints once written into state constitutions (compactness, convenient contiguity, access to county towns, etc.) may now be ignored. But head-counts have not been the only basis for the new districts: computerized databases, permitting calculation of the political and demographic characteristics of different areas, now assist the configuration of districts. The reach for political advantage is not only freed of territorial constraints, but sophisticated by novel technology.

The expectations previously focused on population equality are now turning to the redistricting process itself. Can it be reformed to assure "fair representation"? Many different groups see their political fortunes at stake in a process that can decide not only the fate of individual legislators, but the character and partisan composition of legislatures, and even the outcomes of the policy process itself. A further movement of reapportionment reform has begun. Thus, Common Cause, in a current nationwide campaign, is advocating non-partisan redistricting by independent commissions. Others have proposed the use of different "anti-gerrymandering" standards and criteria for legislatively-conducted redistrictings. A new chapter of the "reapportionment revolution" seems about to unfold.

This paper offers a short, non-technical summary of some of major features of the law, politics, and technology of redistricting. A final section comments on possible future developments in the controversy over legislative versus non-legislative redistricting.

I. THE COURTS AND REAPPORTIONMENT

Beginning in 1962, the U.S. Supreme Court took jurisdiction over complaints against "malapportionment" and quickly developed population standards for redistricting state legislative, congressional and other electoral districts. It was a dramatic turnabout; as recently as 1946, in Colegrove v. Green[1], the Court had denied relief in a case challenging an Illinois Congressional districting plan that gave one district nine times as many people as another. In dismissing the challenge, the Court had then held that malapportionment was not "justiciable" – not appropriate for resolution by a court. "The courts," said Justice Felix Frankfurter in presenting the Colegrove opinion, "ought not to enter this political thicket."

Key Decisions. The major decisions through which the Court entered the "reapportionment thicket" are:

> Baker v. Carr (1962).[2] A group of urban residents of Tennessee had challenged the makeup of the rurally-controlled state legislature. Although the Tennessee constitution provided for a population-based apportionment and required decennial reapportionments, no apportionment changes had been made since 1901 – despite great population growth and shifts. By 1960, lower house districts ranged from 3,454 to 79,301 in population – a disparity of 23 to 1; Senate districts ranged from 39,727 to 237,905 – a 6 to 1 disparity. The Court held that the issue was justiciable, that the federal courts had jurisdiction over complaints against malapportioned legislatures. The Court refused, however, to specify what lesser population disparity might be constitutional or to consider appropriate remedies; the case was remanded to the lower court.
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> (Note: Justice Felix frankfurter's dissenting opinion read, in part: "What, then, is this question of legislative apportionment? Appellants invoke the right to vote and have their voices counted. But they are permitted to vote and their votes are counted. They go to the polls, they cast their ballots, they send their representatives to the state councils. Their complains is simply that the representatives are not sufficiently numerous or powerful – in short, that Tennessee has adopted a basis of representation with which they are dissatisfied . . . What is actually asked of the Court in this case is to choose among competing bases of representation, really, among competing theories of political philosophy." Appeal for relief, Frankfurter insisted, should not be made in the courts but rather "to an informed, civically militant electorate.").

[1] 328 U.S. 549.
[2] 369 U.S. 186.

Gray v. Sanders (1963).[3] The case presented a challenge to Georgia's county unit system of voting in statewide and congressional primary elections, which gave each county a certain number of votes, usually the number of its seats in the state legislature. The court held that use of the system deprived city residents of equal protection of the laws and ruled that "within a given constituency, there can be room but for a single constitutional rule – one voter, one vote."

(Note: The majority opinion, written by Justice William O. Douglas, emphasized that the decision did not reach the question of state or federal legislative districts of unequal size. But the ground was laid: "The concept of 'we the people' under the Constitution visualizes no preferred class of voters, but equality among those who meet the basic qualifications." In dissent, Justice John M. Harlan said that the decision "surely flies in the face of history": the principle of "one person, one vote" had "never been the universally accepted political philosophy of England, the American colonies or the United States." He said a state should have the authority of state legislators or statewide officials "in order to assure against a predominantly 'city point of view' in the administration of the state's affairs.")

Wesberry v. Sanders (1964).[4] The Court struck down Georgia's Congressional districting plan, holding that Article 1, Section 2 of the Constitution required that "as nearly as is practicable one man's vote in a congressional election is to be worth as much as another's."

(Note: Commenting on this case in a later decision, Chief Justice Warren stated: "Wesberry clearly established that the fundamental principle of representative government in this country is one of equal representation for equal numbers of people, without regard to race, sex, economic status, or place of residence within a state.")

Reynolds v. Sims (1964).[5] The Court announced decisions in six reapportionment cases on June 15, 1964, which came to be known collectively by the name of the first case, Reynolds v. Sims, from Alabama. The ruling held all six state reapportionments unconstitutional and established several major points:

* The Equal Protection clause of the XIVth Amendment to the U.S. Constitution "requires that the seats in both houses of a bicameral state legislature must be apportioned on a population basis."

* Legislative districts must be substantially equal.

* Mathematical "exactness of precision" may be impossible, but apportionment must be "based substantially on population."

[3] 372 U.S. 268.
[4] 376 U.S. 1.
[5] 377 U.S. 533.

* Even if approved by a majority of the people in an initiative or referendum, an apportionment that is not based on substantial equality of population is unconstitutional. "A citizen's constitutional rights can hardly be infringed upon because a majority of the people chooses to do so."

* Any other basis for representation, other than population, is discriminatory. "Legislators represent people, not trees or acres." They are "elected by voters, not farms or cities or economic interests."

Swann v. Adams (1967).[6] In this case, the Court began to elaborate its definition of equality of population. Florida's state legislative reapportionment plan was overturned because it contained senate districts ranging from 15.09 percent above the average district and 10.56 below, and house districts ranging from 18.28 percent above to 15.27 percent below.

Kirkpatrick v. Preisler (1969).[7] The Court ruled that "the 'as nearly equal as practicable' standard requires that the State make a good-faith effort to achieve precise mathematical equality. Unless population variances among congressional district are shown to have resulted despite such effort, the State must justify each variance, no matter how small." The Court held that Missouri had failed to justify the deviations in its 1967 redistricting plan, and overturned it. The deviations were very small; the most populous district was 3.13 percent above the average district and the least populous was 2.84 percent below.

Whitcomb v. Chavis (1971).[8] A challenge was presented to a state legislative reapportionment in Indiana on the basis that the use of multi-member districts resulted in invidious discrimination against the black voters of Indianapolis. The Court held that the challengers had not proved that the multi-member districts had operated unconstitutionally to dilute or cancel the voting strength of racial or political elements in the state.

(Note: In a 1960 case, Gomillion v. Lightfoot, the Court had outlawed racial gerrymandering, finding that the city boundaries of Tuskegee, Alabama, had been drawn to exclude Negro voters in violation of the 15th Amendment. In 1964, in Write vs. Rockefeller, however, the Court dismissed a challenge to New York's Congressional districts brought by voters who charged that Manhattan's 17th "silk stocking" District was gerrymandered to exclude Negroes and Puerto Rican citizens. Wright and Whitcomb were widely cited as evidence that the Court was unwilling to deal with the whole problem of gerrymandering, whether racial or partisan gerrymanders.)

Mahan v. Howell (1973).[9] Justified deviations in population of state legislative districts were set at a significantly higher level than in the Kirkpatrick ruling on Congressional

[6] 385 U.S. 440.
[7] 394 U.S. 526.
[8] 403 U.S. 124.
[9] 410 U.S. 315.

districts. The Court upheld a 1971 Virginia state legislative reapportionment plan with a population deviation from the largest to the smallest district of 16.4 percent: the Court indicated, however, that "this percentage may well approach tolerable limits." The Court noted that the plan "may reasonably be said to achieve the rational state policy of respecting the boundaries of political subdivisions."

(Note: In two other cases in 1973 the Court hinted at further guidelines on the meaning of "equality." In Gaffney v. Cummings, Connecticut's 1971 state legislative reapportionment plan was upheld, despite a deviation of 7.83 percent between the largest and smallest district, and despite rather clear evidence of the use of partisan data in the drawing of district lines. The Court ruled that "minor deviations from mathematical equality among state legislative district are insufficient to make out a prima facie case of invidious discrimination under the Fourteenth Amendment so as to require justification by the state." In White v. Weiser, however, the Court overturned a Texas Congressional districting plan with maximum deviations of 2.43 percent above and 1.7 percent below the average on grounds that the deviations "were not 'unavoidable', and the districts were not as mathematically equal as reasonably possible.")

Chapman v. Meier (1975).[10] The Court rejected a court-ordered state legislative redistricting plan in North Dakota involving multi-member districts. The ruling was that "unless there are persuasive justifications," a court-ordered reapportionment plan of a state legislature must avoid use of multi-member districts. The Court carefully noted that it was not ruling that multi-member districts were unconstitutional, but merely exercising its supervisory powers over lower federal courts.

United Jewish Organizations v. Carey (1977).[11] Legislative modification of a New York redistricting plan (in order to bring it into compliance with the 1965 Voting Rights Act) had divided a community of Hasidic Jews to establish several substantially non-white districts in Kings County. The Court upheld the plan, ruling that such a use of racial criteria did not violate either the XIVth or the XVth Amendments.

Response to Court Decisions. The Court's decision on Baker v. Carr in 1962 was followed by a flurry of citizen suits challenging malapportionment in state legislatures. By March 1964, 26 states had approved new apportionment plans. Alabama, Oklahoma, and Tennessee were redistricted under court-drafted plans; several states redistricted under court threats of postponement of elections or at-large elections. In Delaware, a court order gave the legislature 12 days to reapportion; Wisconsin was given 19 days, and Michigan 33 days. Faced with these examples of judicial severity, most states now voluntarily undertook reapportionments.

[10] 420 U.S. 1.
[11] 97 U.S. 996.

At the time of the Reynolds decisions in June 1964, court action on reapportionment was underway in 39 states. The 1964 decisions further accelerated the process. Two years later, legislatures in 46 of the 50 states had bought their apportionments into some degree of compliance with judicial standards of population equality. Indeed, by this point, several states were experiencing their second reapportionment of the decade: legislatures that had been reapportioned after Baker now adopted their own new plans. In a few states, reapportionment had been handed over to specially created commissions, established by statute or by constitutional amendment. In some states too, constitutional provisions requiring geographic or other modifications to population-based apportionments were abandoned or amended. Elsewhere, states created multi-member and floterial districts in order to preserve the boundaries of traditional political subdivisions in their districting systems. A number of states actually changed the size of their state legislatures in order to accommodate to population-based apportionments.

Although in the period 1962 through 1965 there had been movements in Congress (principally, the so-called "Dirksen Amendment") and in the states (backed by groups such as the American Farm Bureau Federation) to limit the effect of the court decisions these faltered and faded from sight by the late 1960s. By 1970, the state legislatures were all effectively based on equal population; thus there was no longer any impetus in the movement to resist "one-man-one-vote." The "Reapportionment Revolution." A dramatic judicially-imposed change in the character of the representative system was apparently complete.

II. POLITICIANS AND REDISTRICTING

In the great majority of the states, the task of drawing new district lines was undertaken by the state legislatures themselves.[12] Not surprisingly, political considerations played a major part in the redistricting process. Individual legislators struggled to secure their incumbencies by drawing "safe" districts; legislative leaders sought to secure their positions by rewarding supports with improved district boundaries or by unseating opponents; majority parties developed plans to perpetuate their majority status and shelter them from adverse electoral tides. Gerrymandering – or re-districting for partisan and other political advantage – was widely, almost universally, practiced. Indeed, it was one of the ironic results of the Supreme Court's insistence on "one-man-one-vote", that many of the traditional restraints on gerrymandering were now ineffective. County boundaries and other historic jurisdictional or community-of-interest lines, state constitutional requirements for the compactness and contiguity of districts – all were now subordinated to the quest for population equality. It soon became obvious that the criterion of equality was a poor check on the reach for partisan and political advantage.

[12] See Congressional Quarterly, June 17, 1966. At the time of this CQ survey only four states (Hawaii, Louisiana, Maine, Mississippi) had legislative districts that varied widely from their average district population.

Techniques of Gerrymandering. The basis of all gerrymanders is the effort of power holders to perpetuate or add to their power in the legislature. There are two main types of gerrymander: (a) the bipartisan or "incumbent survival" plan; (b) the partisan or "majority party" plan. In bipartisan gerrymanders, the aim is simply to preserve incumbent legislators, generally by adding to the number of their party registrants within the district. The tell-tale signs of such a gerrymander are increased majorities for all or most incumbents, reduction in two-party competition, or even the elimination of electoral challenges in many districts. The partisan gerrymander has the aim of maintaining or adding to the number of seats held by the majority party. The basic technique is to waste votes for the opposition party. This may be achieved by concentration of the voters of the minority party in as few districts as possible: these districts will then produce huge majorities for minority party representatives, but at the price of preventing or limiting effective minority party competition in other districts. Alternately, the wasting effect may be achieved by dispersal of the voters of the opposing party: by dividing up concentrations of minority voters will always fall short of a majority in these districts, the majority party wins additional seats. Another technique that is sometimes used in partisan gerrymanders is to establish multi-member districts that have the effect of submerging or limiting the voting strength of minority parties. The tell-tale sign of a partisan gerrymander is that the percentage of the seats held by the majority party in the legislature is significantly higher than its percentage of the two-party vote in the preceding election.

Redistricting Politics. The process of drawing new district lines can involve many other political considerations besides incumbent security or partisan advantage. The power struggle may spill over into many areas of the political process. The future careers of leading politicians may be affected, intra-party disputes and rivalries may be involved; even the resolution of major policy issues may be at stake. A few typical situations are sketched below:

* Future Careers. Legislators see redistricting as both a threat and an opportunity, the outcome of which may decisively affect their future political careers. Often, district lines are drawn with an eye to a bid for higher office: assemblymen, for example, interest themselves in the shape of neighboring senate or congressional districts in which they may someday run; (equally, of course, senators and congressmen watch and guard against the development of future challenges). Sometimes, a legislator will seek to head off a problem in his party primary: perhaps this can be done by stretching the district across county lines so that a primary challenger will have more difficulty in gaining a following or have to deal with tow county organizations: perhaps the key is to exclude potential challengers from the district, bypassing their residences; or perhaps it can be done by adjusting registration percentages. Sometimes, the aim is to use the redistricting to enhance a future bid for statewide office: perhaps this can be done by including areas of strong fundraising potential in the new district; perhaps it necessitates dropping an area that poses difficult or controversial issue problems; or perhaps the key is simply to improve party registration in the district in order to add to the incumbent's reputation as a vote-getter or to make it safer to assume a position as a party leader in the legislature.

* Ethnic Minorities. Redistricting has peculiar importance for ethnic minorities, many of which are concentrated in urban centers. Typically, minority spokesmen claim that "fair representation" requires districts that will elect members of their own group. (Occasionally, however, the contrary argument is made: in Miami in the mid-1960s, for example, some black leaders reportedly preferred at-large elections in multi-member districts, because they believe that single-member districts would produce one or two black winners at the price of several very conservative white representatives). In some cases, heavy ethnic minority districts can only be constructed at the expense of white incumbents. Especially in states where Democratic legislative majorities have been abased no the loyal voting behavior of ethnic minorities, the creation of ethnic seats may endanger Democratic control of neighboring districts: the creation of a district that will assure the election of a black representative, for example, typically involves the concentration of party loyalists and the "wasting" of their votes in a top-heavy Democratic district.

* Intra-Party Politics. Questions of legislative and party leadership are always raised by redistricting. A leader's control over the legislative party may be enhanced, diminished, or broken in the process. Typically, promises of future support of a leader are involved in the adjustment of district boundaries. Sometimes, a legislative leader will engineer a district to assure the defeat of an opponent and secure the election of a supporter. (The most dramatic form of this tactic is when two opponents are thrown together in one district and forced to compete against each other). In this way, the gerrymander may become a weapon of intra-party warfare. Partisan gerrymanders put majority party leaders to their greatest test, for they typically require some incumbents of the majority party to accept a reduction in their margin of safety (i.e., very safe incumbents must share some of their loyalist voters in order to shore up or build majorities in neighboring districts.) Inducements must be found to hold such incumbents in line: promises may be made of funds or other assistance in the next election; or perhaps the key is found in commitments on future legislation or in promises of patronage or appointments. If the leader fails to make appropriate concessions, rivals for the leadership may find their opportunity, and factions within the majority party caucus will form and re-form. The task of the minority party leader is no less demanding, for he must find ways to counter the very attractive offers made to the members of his caucus who have been identified as candidates for top-heavy minority party districts.

* Inter-Party Politics. The task of the majority party leadership is made much more difficult if the minority party is capable of countering every deal with proposals of its own (e.g., by committing to preserve or add to a majority party incumbent's margin of safety in its own plan). Sometimes a governor of a minority party is able to garner support for a veto of a majority plan by exposing or countering different accommodations. In such situation, redistricting quickly leads to inter-party warfare. Frequently, in legislatures where the margin of majority control is slight, redistricting will center around a complex process of trades and counter-trades, as each party leadership seeks to hold its own caucus in line

behind its own plan. In such circumstances, of course, the shrewd incumbent who is willing to risk charges of party disloyalty may competitively raise his bid to improve his own district and in other ways squeeze advantage from the process. In some cases, the majority party finds itself unable to carry its plan through the legislature, or is blocked by a gubernatorial veto. Then redistricting often becomes publicly controversial, involving the regular party organization, the press and the media, and is typically resolved only by court intervention.

III. THE TECHNOLOGY OF REDISTRICTING

Not so long ago, in the era before the application of computer technology to politics, it was common for politicians and their staffs to spread out maps on their office floors and, using adding machines to work their arithmetic, slowly build new districts from census tracts and precincts. Such a procedure was not only infinitely laborious, but also prevented the full reach for political advantage. The redistricting team might start out at one end of the state, for example build satisfactory districts until they reach the other end, and then find that they were short of majority party registrants or had miscalculated the population needed for the final districts. The task of "rippling" additional voters from one end of the state to the other presented huge difficulties in this kind of non-automated redistricting. Often, too, the plans would be built using only the most primitive political and demographic information: politicians backed their hunches after "eye-balling" a few statistics, or simply guessed what the political impact might be of adding or subtracting territory from districts.

In redistricting, most decisions must be made sequentially: one boundary change requires another, which requires yet another, and so forth. The computer is able to speed each decision, so that the whole process is accelerated. Many more alternatives, based on very much fuller information, can thus be considered.

Early Uses of Computers in Redistricting: Computer Modelling. During the 1960s a number of computerized redistricting systems were created. They were aimed to optimize goals such as equality of population, districts compactness, and various demographic standards. Most of these systems were designed to operate with population and demographic data, but not with vote history or registration data. Only one system – the Kaiser-Nagel system – saw extensive practical use:

* The Forrest Method. This system was used to create districts for possible reapportionment plans in New York and New Jersey in 1963. The system used geographic information in the form of an x,y coordinate representing the center of each census unit. These center coordinates were placed on a master data tape for the state and processed through a program that examined and broke down the state into diminishing fractions. When the computer completed a pass, it had broken the population with regard to geography and continued to break down each fraction until the desired number of districts was created.

Each succeeding pass started from a perpendicular direction with respect to the previous pass. The state was thus broken down into rectangular districts with deviations of one-half to one percent variation from the mean. The x,y coordinates were then converted back into geographic units and plotted on an electronic plotting device.

* The Weaver-Hess Method. This system was used to create a preliminary redistricting plan for the State of Delaware in 1963. It is best characterized as a "compactness" system where the location of a citizen from the center of his district is minimized. The system started with the same basic procedure as the Forrest system. Each enumeration district was assigned geographic x,y coordinates which were placed in the computer. In the Weaver-Hess method, however, a center of population was selected (by estimate) for each district to be created. The computer then multiplied the population of each enumeration district times the square of the distance from the population centers. This product is called the moment of inertia, and each enumeration district was assigned by the computer to a population center so that each center had the lowest sum of moments of inertia, while also having the correct population assigned to it. After the new legislative districts were formed, the exact center of population of each district was determined. The computer then repeated the entire procedure over and over again until a new trial failed to produce districts with better equality of population. The districts formed were not necessarily geographically compact, but they were compact in terms of population distribution.

* The Ohio State University Method. This program produced districts substantially equal in population that were basically wedge-shaped, but formed around a circular central district. The districts were designed to be heterogeneous in nature, combining the center city, the suburbs and the rural areas. Like the Forrest method, the geographic input was in the form of the x,y coordinate representing the centers of the census units. The starting point in this method was specified at or near the center of the urban area. Using this starting point, the program scanned the census unit positions in a circular manner. The radius of the scan circle was increased until the population total was equal to that required for a district. This central district assured center city representation. Upon completing the center district, the scan process was changed. Starting with some specified bearing, the census units were collected as the scanning ray was rotated over the sector. When the total population equaled that of the desired district, a district was formed and the process continued until the ray had been rotated through the full circle.

* Kaiser-Nagel Method. This system was designed to start with existing legislative districts and to modify them to conform to new criteria. The system took the original districts – or, perhaps, a set of preliminary districts – and transferred geographical units from one district to another.

These different modelling systems were not more widely employed in actual redistrictings because they failed to meet the political needs of legislative users. They also suffered from carious technical deficiencies. Even the most practical and sophisticated of the modelling approaches, the Kaiser-Nagel method, suffered from certain weaknesses:

* The accuracy obtainable by trading whole census tracts might not be acceptable for use under the strictest court standards.

* The original accuracy of the political data was lost when it was keyed to census tracts.

* The system was slow because proposed district boundaries had to be converted into tabular form for input into the computer programs and then converted back into graphic form before they could be evaluated by legislators.

Moreover, all these systems failed to capitalize fully on the major advantage of the computer in the redistricting process: namely, the ability to sample and present information from a very extensive demographic and political database. The databases on which these systems operated represented only one single time period, i.e., the party counts, election results, and demographic figures for a particular year. As a result, the political decision maker could develop only a weak understanding of how an area would vote; he had no information, for example, on how the voting characteristics of an area were shifting over time.

Contemporary Computer Districting Systems. Today, computers are used to aid redistricting decisions from the beginning of the district formation process to the stage of final analysis and evaluation. They operate with inputs and outputs not only of tabular data, but also of graphic data. They accept interrogations in the form of geographic display. Thus, the user not only sees the facts, but he sees what areas they represent.

The systems are user-oriented – tailored to the specific needs and interests of legislative users. They work with very extensive databases, often those that have been developed for use in statewide election campaigns and that include great quantities of politically relevant information. They incorporate advanced software systems, generalized data management systems, and make use of a variety of advanced equipment (digitizers, plotters, etc.).

The greatest advance has been in the area of geographic retrieval, or the ability of the systems to determine accurate values (population or political and demographic characteristics) for any geographic area, no matter how large, or as small as an individual precinct or a fraction of a census tract. Generally geographic retrieval is accomplished by entering a map area on a digitizer – a table with x and y axis scales that are read by an electro-optical encoder that can transmit to the computer the x and y positions of tracing stylus. This function is particularly useful in the decisional stage on district boundaries, when large areas are bring traded between proposed districts, and at the fine tuning stage when very small areas are being moved in order to achieve equality of population (without losing the desired political characteristics of the districts involved.)

Modelling and simulation functions are possible on the new systems. For example, projections can be made for an entire district based on specific criteria, and assessments can be made of its future voting behavior in different political circumstances. Search functions are also incorporated in the new systems, providing the user with the ability to determine the areas in the state that possess certain specified characteristics: the results of the search can not only be listed, but plotted so the user can grasp the geographic pattern.

IV. REDISTRICTING: THE FUTURE

The decennial census conducted by the U.S. Bureau of the Census will occur in 1980. In 1981 or 1982, the great majority of the states will redistrict. Well before that, however, redistricting will almost certainly emerge as a major public issue. A national movement of "reapportionment reform" is under way that seeks to take redistricting out of the hands of state legislatures. Before the end of the current decade it is likely that "anti-gerrymandering" constitutional amendments will be pressed in many states. In most cases, intense legislative resistance to such initiatives is highly probable.

At the same time, a number of state legislatures and state party organizations are developing more and more powerful political/demographic databases. The new technology – which was used in only a few stated in the late 1960s and early 1970s – is almost certain to be much more widely applied. The prospect is that future legislatively-conducted redistrictings will have the advantage of much greater sophistication than in the past.

Many different interest groups have begun to realize their stake in redistricting. Groups that find themselves confronted by hostile majorities in state legislatures see that the publicly-appealing concept of a non-partisan, commission-directed redistricting might result in major, beneficial change in legislative membership. Unexpected alliances – for example, between business groups and minorities – might well form to "re-shuffle the legislative deck." In many states, the press and media might throw their weight behind "model districting plans" or "community-of-interest redistricting."

Some of these developments are already obvious. But what exactly will happen is, of course, a matter of very uncertain prediction. The paragraphs below outline some of the factors that are likely to play a role in the redistrictings of the future.

The Challenge to Legislatively-Conducted Redistrictings. In 37 states, redistricting is the initial responsibility of the legislature. It was a responsibility, however, that many legislatures found difficult, or even impossible, to perform in the early 1970s: in more than a dozen states, federal or state courts stepped in to the process to imposed their own plans. Great political turmoil surrounded the redistricting process in a number of other states, and their final legislative plans were often intensely controversial.

In a sense, the legitimacy of legislatively-conducted redistrictings is now under challenge. It is widely charge that there is an inherent "conflict-of-interest" in allowing state legislators to draw distinct lines – for "incumbent protection" is the aim, and the result, of many legislative plans. The claim is also made that legislatively-conducted redistricting undermines two-party competition, not only in individual sage districts, but in state-wide politics. Parties are weakened, the argument insists, by the security of their officeholders, for there is no need to field high-quality candidates. Districts that are top-heavy with registrants of one party tend to elect candidates who represent the extreme, ultra-loyalist wings of the party. Moreover, the responsiveness to public opinion of individual officeholders and legislative parties is lessened, for they can ride out all but the most massive electoral tides in the security of sage districts. The policy process itself, it is claimed, is distorted, for there is less need to seek support from different interest or to build diverse issue coalitions. Indeed, many groups (particularly ethnic minorities), it is said, are permanently shut out of the policy process by party-controlled districting. Thus the indictment embraces many facets of the representative system – its competitiveness or its responsiveness, the quality of representation, its capacity to produce effective policy, and the adequacy of group participation in politics.

Legislative control of the redistricting process is supported by a number of counter-arguments:

* Stability and Continuity. There is public interest, it is claimed, in the stability and continuity of representation. Effective legislative service requires experience in the traditions and procedures of the legislature. Substantial numbers of long-tenured members (who necessarily represent safe districts) are required to assure the professionalism of the legislative body and to prevent sudden, disruptive change in the conduct of the public business. From this perspective, therefore, any effective districting plan will provide a degree of "incumbent protection." Proposals for non-legislative redistrictings ignore this criterion, with the risk that large numbers of novice legislators would be elected.

* Inherent Political Character of Redistricting. It is argued that the creation of districts is an inherently political process. Proposals for non-partisan redistricting would merely cloak the politics of the process. So-called "non-political" or "non-partisan" commissions would be drawn willy-nilly into politics: the drawing of district boundaries cannot but involve political judgments and political results. But such commissions, to the extent they are artificially isolated from the political system, would be unable to accommodate and respond appropriately to political pressures. The argument concludes that this is the task of the legislature, a body that is supremely qualified to balance interests and to compromise among different groups.

* Community. The legislature, it is claimed, is better able than any other body to produce districting plans that promote "community of interest." No one is more expert than the individual legislator on the political character of his district – its mix of opinions on issues, its center of group power. In redistricting, the incumbent's political interest is generally to

reduce the cross-pressures of opinions. He will seek a district that does not suffer from intense strains and divisions, in which group conflict is tempered, and that will support consistent policy positions. Such district, it is argued, are much more likely to contain true communities of interest than any created by "non-partisan" boards or commissions. The heterogeneous constituencies, in which many conflicting groups are jumbled together, that might result from non-legislative districting could render effective representation impossible.

* An Historic Responsibility, Well Performed. The whole history of representative government, it is argued, suggests that redistricting is a legislative responsibility. Legislatures have traditionally carried the responsibility for their own apportionment and, even in the best ordered of modern democracies, generally continue to do so. The argument continues that the historical record is one of effective and responsible performance. It is said that judgments should not be based on the redistrictings of the late 1960s and early 1970s: it was the difficulty of adapting to the wholly new ground rules of "one-man-one-vote" that caused many legislative plans to fail in that period. Moreover, it is claimed that the problem of the partisan gerrymander has been much exaggerated: in state after state, so-called gerrymanders have not led to any reduction in two-party competition. Indeed, it is pointed out that many of the most notorious gerrymanders were quickly followed by the rise to power of the minority party.

The Redistricting Commission. The national movement of "reapportionment reform" is currently headed by Common Cause. The Common Cause approach has three main elements: establishment of an independent, non-partisan reapportionment commission in every state; strict anti-gerrymandering standards; and prompt judicial review. The argument for the approach is summarized in the Common Cause publication, "Reapportionment: A Better Way":

> The purpose of political gerrymandering is to shut people out of the political process. Reapportionment reform is designed to benefit the public by broadening political participation and increasing electoral competition. Reapportionment reform is designed to strengthen the political process by providing an incentive for political parties to bring new ideas and new people into the process. By reforming the reapportionment process and improving state legislatures, states may increase public respect for state government and strengthen the role of state government in our federal system . . . Common Cause proposes a reapportionment process designed to produce districts that are fairly drawn as well as districts of substantial population equality. Unlike district lines produced by political gerrymandering, fair district lines are not drawn to pre-determine election results.

Implementation of this approach is sought via voter approval of a constitutional amendment – either proposed by the legislature or petitioned to the ballot by citizen initiative – by 1980. The proposed Common Cause amendment provides for the following:

* Decennial Reapportionment in Single Member Districts. The amendment provides for reapportionment of state legislative and congressional district in 1981 and every tenth year after that. Single member districts are required.

* Establishment of Commission. The amendment provides for the establishment of a five-member reapportionment commission in 1980 and every tenth year after and at any other time of court-ordered reapportionment. Four members of the commission are appointed by the legislative leaders – one each by the President of the Senate, the Speaker of the House, the Minority Leader of the Senate, and the Minority Leader of the House. The four members select a fifth member who serves as chair. None of the five members may be a public official. The amendment requires the legislature to provide by law for the qualifications, duties, and powers of commissioners, procedures for the selection of commissioners and filling of vacancies, and adequate funding for the commission.

* Population Parameters. The amendment provides that districts in each house shall have "population as nearly equal as is practicable" based on the federal census. Specific population parameters are established to give definition to the requirement of substantial population equality. For state legislative districts, the amendment provides that the average percentage deviation of all the districts of a house from the average population of all districts in that house shall not exceed one percent. No district shall have a population which varies from the average population of all districts unless necessary to comply with one of the other reapportionment standards. In no case shall a district have a deviation from the average of more than five percent. Thus, the maximum allowable deviation from the highest to the lowest populated district is ten percent. In the event of a court challenge, the commission has the burden of justifying any deviation.

  For congressional district, the amendment provides that the same standards shall be used as for state legislative districts except that no district shall have a population deviation of more than one percent from the average population of all districts.

* Use of Traditional Jurisdictional Boundaries. The amendment provides that district lines be drawn to coincide with the boundaries of political subdivisions (for example, towns and counties) to the extent consistent with the requirement of substantial population equality.

* Compactness and Convenient Contiguity. The amendment requires districts to be "compact in form and composed of convenient contiguous territory." The amendment provides that the aggregate length of all district boundaries shall be as short as practicable consistent with the constitutional requirements of substantial population equality and maintenance of political subdivision boundaries. The amendment establishes a judicially enforceable compactness requirement by providing that in no case shall the aggregate length of all the districts exceed by more than five percent the shortest possible aggregate length of all the districts under any other plan consistent with the population and political

subdivision standards. The same compactness standard applies to district lines within local political subdivisions that have two or more complete districts.

* Ben on Use of Political Information. The proposed amendment provides that: "No district shall be drawn for the purpose of favoring any political party, incumbent legislator, or other person or group." The amendment prohibits the commission from taking into account the addresses of incumbent legislators. The commission may not use the political affiliations of registered voters, previous election results, or demographic information other than population headcounts for the purpose of favoring any political party, incumbent legislator, or other person or group. The amendment further provides that no district shall be drawn for the purpose of diluting the voting strength of any racial or language minority group.

* Judicial Review. The amendment provides that the state supreme court has original jurisdiction over apportionment matters. The model authorizes any registered voter to file a petition to challenge a reapportionment plan or to compel the commission or any person to perform duties required by the model. Challenges to an apportionment plan must be filed within forty-five days of adoption of a plan. The court must give apportionment maters precedence over all other matters and must render a decision within sixty days after a petition is filed. The court may declare a plan invalid in whole or in part and must order the commission to prepare a new plan.

* Duration. The amendment provides that reapportionment plans remain in effect for ten years unless invalidated or modified pursuant to court order. A plan shall not be subject to amendment, approval, or repeal by initiative, referendum, or act of the legislature.

The Role of Interest Groups and Media. Many different groups are beginning to be alerted to their stake in redistricting – whether in the shape of individual districts, or in the outcomes of an entire plan, or in the choice between legislative and non- legislative processes. The groups principally concerned include:

* Minorities. In the period 1971-1973, in a number of states, blacks lobbied aggressively for districts that would increase the numbers of black congressmen and state legislators. A widespread conviction arose among many blacks that they were blocked in this aspiration by the "white liberal establishment," which gave precedence, so it was claimed, to the preservation of white incumbents. In the Southwestern states, Mexican-Americans suffered similar frustrations. They also faced additional difficulties, since the Census count provided little information on Spanish-speaking population, and the dispersal of Mexican-Americans over the agricultural areas of the states (in contrast to the urban concentration of black population) blocked the creation of more than a handful of "ethnically-representative districts." These minorities have already made clear their determination to press for new districts in 1981; they may be joined by several other ethnic groups.

* Business and Industry. The elections of 1972 and 1974 – which occurred when anti-business sentiment was running at high levels – produced legislative majorities in many state that have remained critical of business and industry. Undoubtedly, many business groups – particularly, perhaps, those that have suffered under increased regulations – will not wish to see these majorities perpetuate via the redistricting process. The outlook, then, is that such groups may seek to influence redistricting, perhaps by allying with public interest groups in pressing for commission-type amendments, or by proposing model plans for more competitive districts.

* Professional Groups. Doctors and lawyers, and many other professional groups that perceive their steadily increasing stake in the legislative process in Congress and the states, may also be drawn into redistricting politics. Professional associations are generally organized on a county-by-county basis in the states, and some groups may now press for giving greater weight to the use of county groups will undoubtedly vary, depending on the legislative configurations they confront and their political creation of model districting plans. Such plans – perhaps co-authored with a variety of group allies – may become an important means of imposing constraints on legislatively-conducted redistricting.

Although coverage was given by the press and media to the Court apportionment decision of the 1960s, the actual redistricting processes of 1971-73 attracted relatively little attention. In part, this may be explained by the technical character of the process and the difficulty of interpreting it to the general public. In part, however, it was also due to the success of many legislatures in redistricting public involvement in the understanding of the process. It is likely that the redistrictings of 1981-1983 will receive much more critical scrutiny from the press and media. Controversy and public interest will certainly be generated by Common Cause or other commission-type amendments; group involvement in redistricting is likely to be much more intense than previously, and this will also lead to greater coverage.

Analysis of Districting Plans. It is likely that the period 1981-82 will see the development of different groups of a sophisticated ability to evaluate and critique redistricting plans. The new computer technology permits very rapid read-out of political and demographic characteristics: indeed, an entire plan, even for a large state, can be analyzed in as little as 24 or 48 hours. Possible developments here include:

* Business, Professional and Minority Groups. Legislatures may find that their plans are subjected to almost instant analysis by groups that have developed their own databases and geographic retrieval systems. Information on the political and socioeconomic composition of proposed districts may enable such groups to exert pressure for changes in redistricting plans.

* Press and Media. It is not unlikely that some newspaper and media organizations will also develop a computerized capability for analyzing districting plans. There is thus a prospect

that the public debate on redistricting will be informed by much more accurate and comprehensive data than in the past.

* Counties, Cities, and Local Communities. Analytic capability may strengthen the position of local governments and other official bodies to play a role in redistricting.

V. CONCLUSION

The 1960s did, indeed, produce a "reapportionment revolution," but one that is far from complete. One may safely predict that the rest of this decade will see a mounting controversy over the law, politics, and technology of redistricting: by 1981, it will be one of the major issues of the day. The districting plans that are finally written – whether by state legislatures or by commissions, or as a result of a complex bargaining process involving many official and unofficial participants – will be a key to the politics of the 1980s.

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[Note: Publications of the National Municipal League (for example, its Compendium on Legislative Apportionment and Court Decisions on Legislative Apportionment) and the sections on representation in the National Civic Review should be consulted. Congressional Quarterly publications (for example,, Congressional Districts in the 1970s,1974) and CQ Weekly provide detail on individual states and congressional districting. Publications of the Council of State Governments (for example, the latest edition of Book of the States and American State Legislatures: Their Structures and Procedures, rev. ed., 1977) are extremely informative. A number of U.S. Government agencies and departments publish materials that should be reviewed, including: U.S. Department of Commerce, Bureau of the Census, (see, e.g., County and City Data Book, Congressional District Data Book, Statistical Abstract of the United States); Advisory Commission on Intergovernmental Relations (see, e.g., Apportionment of State Legislatures); Library of Congress, Legislative Reference Service (see e.g., Legislative Apportionment: The Background and Current Status of Developments in Each of the 50 States). A number of state governments have also published materials on redistricting.].

Redistricting is the process of drawing electoral district boundaries in the United States. A congressional act passed in 1967 requires that representatives be elected from single-member districts, except when a state has a single representative, in which case one state-wide at-large election be held.[1].Â To reduce the role that legislative politics might play, twelve states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Missouri, Montana, New Jersey, Ohio, Pennsylvania, and Washington) determine congressional redistricting by an independent or bipartisan redistricting commission.[2] Five states: Maine, New York, Rhode Island, Vermont, and Virginia give independent bodies authority to propose redistricting plans, but preserve the role of legislatures to approve them. A very preliminary look at redistricting in the 1980s suggests that, in those states characterized by one-party control of both houses of the legislature and of the governorship, the concern for increasingpartisan advantage is greatest for congressional redistricting (see, for example, California and Indiana) and considerably less in legislative redistricting where â€˜sweetheart.Â Two of the key factors that make 1980s redistricting significantly different from redistricting in the 1960s and 1970s are: (1) the strengthened role of the US Justice Department in exercising pre-clearance of all redistricting plans affecting. BERNARDGROFMAN. 309.Â Taking the politics out of redistricting. A central question in redistricting in the US is the issue of who shall do it. 1980s Redistricting Case Summaries. 1/13/2016. Table of Contents.Â Following the courtâ€™s order in Burton requiring elections in the fall of 1983, plaintiffs sought to require primaries prior to the general election, instead of having the State Democratic Executive Committee (SDEC) select nominees. They contended that the SDEC had a smaller percentage of black representation than the 1egislative districts from which nominees would be selected in the primary, and would thereby dilute the black vote. Connecticut's three largest cities - Hartford, Bridgeport and New Haven - each lost a House seat because of the population declines recorded in the 1980 census. Mr. Brouillet was the loser in Hartford. Representaive Geil H. Orcutt, a Democrat, was the loser in New Haven.Â The current legislative and Congressional districts were drawn by the courts in the early 1970's. "This is the best plan that we can have at this eleventh hour," added Representative John G. Groppo of Winsted, the Democratic majority leader. "If you don't support this one," Mr. Groppo said of the reapportionment plan devised by the committee, "you're going to be quite surprised to see what a commission does, or what the courts do." Congressional Redistricting: An Overview. completed by the state legislatures, but a number of states provide for nonpartisan or bipartisan commissions to draft the plans.5. Although the technology has changed, the process of redistricting in the 21st century is likely to be much the same as it was in the 20th century. Line-drawers use information from the census (and other data, such as voting patterns and voter registration figures) to plot district boundaries on maps.Â During the 1980s and 1990s the redistricting process moved from calculators and paper maps to computerized databases and mapping software.Â 16 Robert G. Dixon, Jr., Democratic Representationâ€”Reapportionment in Law and Politics (New York: Oxford University Press, 1968), pp. 459-460. 17 Brickner, p. 17.