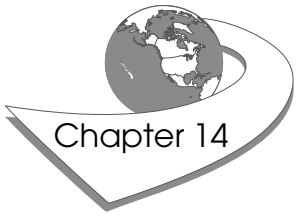

Voting Districts

Voting district (VTD) is a generic term adopted by the Bureau of the Census to include the wide variety of small polling areas, such as election districts, precincts, or wards, that State and local governments create for the purpose of administering elections. Some States also use groupings of these entities to define their State and local legislative districts, as well as the districts they define for election of members to the U.S. House of Representatives. In a nationwide cooperative program for the 1980 census, the Census Bureau gave States the opportunity to request use of these election precinct boundaries as the boundaries of census enumeration districts (EDs) or, in some areas, census blocks. The Census Bureau began using the term *voting districts* as it began planning for the 1990 census. This chapter describes the events that led to the development of the VTD program for the 1980 and 1990 censuses, and briefly explains the operations and procedures the Census Bureau used to implement the program.

Background

For many decades, the Census Bureau tabulated and published population totals for wards within certain incorporated places and some county subdivisions, such as minor civil divisions (MCDs) or census county divisions (CCDs). These *municipal* wards normally were composed of several adjacent election precincts from which voters elected governmental officials such as aldermen and councilmen. Wards have a long tradition in American census taking—from the reporting of population totals by wards in a 1768 census of Philadelphia through the Census Bureau's publications of ward data after the 1960 census[1] and the 1970 census.[2] The Census Bureau also used the ward boundaries for census enumeration; a ward boundary often was the outer boundary for a group of EDs. The Census Bureau developed plans to report population data by wards following the 1980 census, but deferred the tabulations because of budgetary constraints. During this time, it became apparent that wards had certain drawbacks for purposes of statistical analysis; as electoral subdivisions, their size and geographic composition varied widely, and since their boundaries shifted frequently, they had limited usefulness for trend analysis. In

addition, other programs offered by the Census Bureau, such as the 1980 Neighborhood Statistics Program and the 1980 Election Precinct Program, offered data for small areas in a variety of formats, thereby filling the need for data that would have been provided at the ward level.

The need to provide data for political representation, as prescribed by the Constitution, remains the primary purpose for conducting the decennial census of population. The U.S. Supreme Court's *one-person/one-vote* decision of 1964, and various subsequent rulings of the courts, have been instrumental in providing census data aggregated for small geographic units. Before the one-person/one-vote ruling, most State authorities favored drawing or revising congressional and State legislative districts to coincide with legally defined units such as counties, MCDs, and incorporated places. These geographic entities often are not demographically or statistically comparable, however. Consequently, the resulting districts often had significant population imbalances. In addition, there were other problems associated with the selection of only governmental unit boundaries for redistricting. Richard L. Morrill described some of these problems in his book, *Political Redistricting and Geographic Theory*:[3]

> "In the United States, representatives are elected at several levels of government, but there is no simple hierarchy of districts, only complex and overlapping systems. U.S. senators and presidential electors are elected at large from States, U.S. representatives from congressional districts of about equal size (510,000 in 1980). Within States, senators and representatives are elected to legislatures from a structure of districts totally unrelated to the congressional districts. In some States, like Mississippi, even districts for senate and house are unrelated. Again, the structure of county council or supervisor districts is wholly independent of state legislative or congressional districts. Finally, city council or school districts are likely to overlap confusedly with all the preceding systems and with each other. The only example of nesting or hierarchy of governmental units in the United States are councils of government (COGs) which are not directly elected, but consist of members elected from constituent city, county, or special district agencies.
>
> The *geographic* problem as such was historically not very profound or technical. Since population was not viewed as having to be very equal, there was a tendency to use simple existing boundaries of familiar legal territories, such as city limits, and merely group these in convenient ways. There was also a need to define voter precincts, the finest subdivision of districts. This was not always done on a clear basis

of mutually exclusive territory. Even in the 1970s, precincts in some Mississippi counties were places such as schools or fire stations, at which eligible citizens in the county could register and vote.

The geographic problem has become much more complex and technically difficult, if not profound, in recent years because of court requirements of precise population equality. Similar court requirements relate to treatment of racial minorities and concern with such matters as contiguity of territory and compact shape. The need for population equality has led to questioning the use of precincts as building blocks. Because they rarely coincide with census enumeration areas, adequate population data for them is lacking."

In planning for the 1980 census, the Census Bureau focused on trying to improve the usefulness of its data for precincts by providing programs designed to allow census enumeration area boundaries to coincide with precincts, thereby making census data for precincts more readily available to data users. To do this, the Census Bureau first had to evaluate the 1970 programs, data, and data products relevant to election precincts, and then develop recommendations based on surveys of interested data users.

The Election Precinct Program for the 1980 Census

Evaluating the Redistricting Data Program for 1970

After the 1970 census, the Census Bureau sent a copy of the Master Enumeration District List (MEDList) and census maps to appropriate officials in each State legislature for their use in redistricting. The MEDList included all 1970 EDs and block groups (BGs) by State, county, MCD or CCD, place, and census tract or block numbering area (BNA); the MEDList also provided the population and housing unit counts for each entity. Many States experienced problems in using the MEDList and maps in relation to their election or legislative areas because the boundaries of the census entities often did not coincide with the State or local voting district boundaries. Recognizing this and other deficiencies, the Census Bureau decided that two major goals for the 1980 census would be to improve, where possible, (1) the boundaries of its small-area geographic entities used for redistricting decisions, and (2) its associated data and data products.

The Census Bureau's efforts to achieve this goal began in 1973 with the establishment of a close working relationship with the National Conference of State Legislatures (NCSL) and its Reapportionment Task Force. The Census Bureau worked with this group to identify the specific weaknesses in the 1970 census data for use in legislative redistricting, and to minimize these weaknesses for 1980. In 1974, the NCSL conducted a mail survey of State legislative officials and legislative staff throughout the Nation to better define the existing problems and elicit recommendations for improvements. The Census Bureau also held discussions with the International City Management Association, the National League of Cities, the U.S. Conference of Mayors, and the National Association of Counties about ways to obtain similar information from members of these organizations. During 1974 and 1975, over 70 communities across the Nation organized a series of public hearings on the upcoming decennial census; as a result of these meetings, the Census Bureau was able to obtain additional suggestions for improving its redistricting data products and associated geographic criteria.

The surveys and discussions resulted in focusing attention on three major recommendations: (1) the early release of data, (2) the geographic compatibility of census tabulation units with voting districts, and (3) the need for block-by-block population counts for incorporated places. For many States, the final census data often arrived too late to be of any use to them. In other States, the timing of data publication may have been acceptable, but the size and boundaries of some of the tabulation units, specifically EDs, were not. Because census tabulation units were not directly compatible with local voting districts, State authorities involved in redistricting could only approximate the population and characteristics of the areas they were delineating. Many users who had been frustrated with the 1970 data and data products felt that data for the smallest possible census geographic unit, the census block, should be available for more areas so that State and local governments could make more acceptable delineations.

Developing the Election Precinct Program for 1980

In the fall of 1975, the Census Bureau agreed to develop and implement a program aimed at improving the geographic and data products from

the 1980 census for use in legislative redistricting. The Director of the Census Bureau invited each State Governor, Secretary of State, and the majority and minority leaders of all State legislatures to meet with the Census Bureau to discuss their needs for 1980 census data and data products.

At the same time, reflecting State and congressional concerns about data for redistricting, the Congress passed H.R. 1753, which was enacted as Public Law (P.L.) 94-171 in late December 1975. This law directed the Secretary of Commerce to issue a set of technical criteria, by April 1, 1976, for States to follow in specifying the geographic entities for which they wished to receive data tabulations. Second, the law also required the States to submit these geographic plans to the Secretary for consideration no later than April 1, 1977. Finally, the law required the Secretary of Commerce to transmit the population counts to the Governor and public bodies having initial responsibility for legislative districting in all States by April 1, 1981—one year after census day. The Secretary of Commerce delegated all responsibilities assigned by the legislation to the Census Bureau. The text of the P.L. 94-171 is shown in Figure 14-1.

Responding to the requirements of P.L. 94-171, on March 31, 1976, the Census Bureau issued cartographic criteria for States to follow in designing geographic plans that it would use as the basis on which to tabulate the 1980 counts. By mid-1976, the Census Bureau had discussed these requirements with legislative officials in each State to solicit their interest in participating in this voluntary program.

The NCSL also drafted model legislation, which each State could adopt or modify to fit its situation, to help ensure that the boundaries of election precincts (or similar areas) in the State followed visible ground features or the limits of legally defined entities for which the Census Bureau normally would tabulate data. The model legislation helped States design election precincts that would conform to the Census Bureau's guidelines for boundaries to be used in preparing data tabulations.

Figure 14-1. **Federal Register Notice for Public Law 94-171**

Public Law 94—171
94th Congress

An Act

Dec. 23 1975

[H.R.1753]

To amend section 141 of title 13, United States Code, to provide for the transmittal to each of the several States of the tabulation of population of that State obtained in each decennial census and desired for the apportionment or districting of the legislative body or bodies of that State, in accordance with, and subject to the approval of the Secretary of Commerce, a plan and form suggested by that officer or public body having responsibility for legislative apportionment or districting of the State being tabulated, and for other purposes.

Population, tabulation for State legislative apportionment.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 141 of title 13, United States Code, is amended by adding at the end thereof the following new subsection:

"(c) The officers or public bodies having initial responsibility for the legislative apportionment or districting of each State may, not later than three years prior to the census date, submit to the Secretary a plan identifying the geographic areas for which specific tabulations of population are desired. Each such plan shall be developed in accordance with criteria established by the Secretary, which he shall furnish to such officers or public bodies not later than April 1 of the fourth year preceding the census date. Such criteria shall include requirements which assure that such plan shall be developed in a nonpartisan manner. Should the Secretary find that a plan submitted by such officers or public bodies does not meet the criteria established by him, he shall consult to the extent necessary with such officers or public bodies in order to achieve the alterations in such plan that he deems necessary to bring it into accord with such criteria. Any issues with respect to such plan remaining unresolved after such consultation shall be resolved by the Secretary, and in all cases he shall have final authority for determining the geographic format of such plan. Tabulations of population for the areas identified in any plan approved by the Secretary shall be completed by him as expeditiously as possible after the census date and reported to the Governor of the State involved and the officers or public bodies having responsibility for legislative apportionment or districting of such State, except that such tabulations of population of each State, requesting a tabulation plan, and basic tabulations of population of each State shall, in any event, be completed, reported and transmitted to each respective State within one year after the census date."

Options for Participation in the 1980 Election Precinct Program

The goal of the 1980 Election Precinct Program was to provide each State with population counts by April 1, 1981, for their use in revising State legislative districts and Congressional Districts. A State could select a number of methods for receiving the data, but every State, regardless of participation, would receive population counts for the legal and statistical entities in that State by April 1, 1981. The program offered the opportunity for States to get these population counts tabulated by election precinct.

The Census Bureau offered three separate options for participating in the Election Precinct Program: (1) the *plan,* (2) the *alternative approach*, and (3) the *enumeration district plan.* The first of these options, the *plan option* allowed a State to submit election precinct boundaries following criteria established by the Census Bureau. The deadline for submitting boundaries, April 1, 1977, reflected the legal requirements established in H.R. 1753. Eighteen States submitted geographic plans to the Census Bureau by this deadline. After comprehensive review and negotiations with the submitting authorities, the Census Bureau approved election precinct plans for all or part of 15 States.

When it became apparent that only 15 States were either willing or able to freeze their election precinct boundaries by April 1, 1977, the Census Bureau decided to offer two additional options for participation in the Election Precinct Program. The first of these additional options, presented in two versions, was known as the *alternative approach.* This option allowed participating States to develop election precinct plans using a listing of block numbers that reflected the association between these precincts and higher levels of geography within the county—census tracts or block numbering areas (BNAs), places, and county subdivisions. Twenty-nine States participated in this option with the assistance of staff from the Census Bureau.

The second of these additional options, the *enumeration district plan,* offered States the option of proposing enumeration district (ED) boundaries for the 1980 EDs delineated outside of block-numbered areas. Using the guidelines of the Redistricting ED (R-ED) Program, States participating in this option had the opportunity to propose boundaries for EDs that also would serve as boundaries of census tabulation areas. Participating States specified features to be held as ED boundaries, and the Census Bureau honored these requests to the extent possible within the technical guidelines of the program. Officials in seven States submitted ED plans for selected counties in their States.

Because the Census Bureau offered several different ways for a State to receive data and to prepare for the use of these data, it was not uncommon for a State to choose a combination of options for participation in the 1980 Election Precinct Program. Twenty-two States took advantage of a combination of options for election precinct data. Six States, Colorado, Hawaii, Massachusetts, New Mexico, Vermont, and Wyoming, chose not to take part in any aspect of the Election Precinct Program.

The availability of block-level data was critical to States in their redistricting efforts. Partly as a response to the complaint that the tabulation units were too large for many areas in 1970, the Census Bureau expanded the coverage of the Block Statistics Program. For 1980, in addition to the regular census program of having the tabulation and publication of data for all blocks within a 1980 urbanized area (see Chapter 12 for more information on the relationship of urbanized areas to blocks), the Census Bureau extended the program to any incorporated place that had (1) a population of 10,000 or more as of the 1980 census, (2) a subsequent official Census Bureau estimate through 1976, or (3) a special census through 1977.

In addition, the Census Bureau offered the Contract Block Statistics Program, as it had in the past. This gave State and local governments the opportunity to have the Census Bureau collect and publish data—at cost—by block for areas not in the Census Bureau's regular block program.

In anticipation of the value of block data for redistricting, five States chose to have census block data for their entire State: Georgia, Mississippi, New York, Rhode Island, and Virginia. The expansion of the Block Statistics Program provided some States with the data needed to redistrict so that participation in the three options for the 1980 Election Precinct Program was not necessary.

The operations associated with reviewing and processing the map submissions from the 15 States responding by the April 1977 deadline were complicated by variations in the maps submitted. The maps were unique for each State; the style, format, layout, scale, vintage, map symbology, and accuracy of the maps varied from State to State. As a result, the transfer of the boundaries from these maps to Census Bureau maps, and the subsequent map review, approval, and geocoding processes, were time-consuming, complicated, and error-prone. For example, if a precinct boundary followed a feature that appeared on the State's map but did not appear on the Census Bureau's map, it was necessary to move the precinct boundary to an acceptable feature or combine the precincts sharing the boundary. In addition, the appropriate State official had to authorize and approve each adjustment or combination. The Census Bureau then used these boundaries to define 1980 census ED boundaries, and kept track of which EDs equated to each election precinct. At the end of the process, the Census Bureau returned all State-submitted maps to the States for their use in the redistricting process. The Census Bureau kept no copies of these maps and did not show the boundaries of the precincts on any 1980 census maps available to the public. The submission of plans was further complicated by changes occurring in governmental unit boundaries between 1977 and 1980. Approximately 1,000 incorporated places were affected by boundary changes occurring over this time period.

The Census Bureau tabulated data for 36,361 precincts using the plans that States submitted. It also tabulated data for all the R-EDs, EDs, contract block States, and other standard decennial census geographic

entities. The Census Bureau delivered the data with census maps to all States by April 1, 1981. The Census Bureau produced the resultant election precinct tabulations as a special computer subfile and not, therefore, as part of the standard decennial data dissemination programs. As a result, the data were available only on computer listings and magnetic tape, not in any published report.

The Redistricting Data Program for the 1990 Census

Evaluation of the Redistricting Data Program for 1980

Immediately after releasing the 1980 P.L. 94-171 data to the States, the Census Bureau began evaluating the evolving needs of the redistricting officials to determine how best they could be addressed. In 1983, a Stakeholder's Conference co-sponsored by the Census Bureau and the NCSL produced a set of recommendations for the 1990 Census Redistricting Data Program. These were to:

- Eliminate large census blocks and block groups that had noncontiguous pieces.
- Expand the criteria for acceptable census block boundary features to include such features as power lines, permanent fences, mountain ridges, pipelines, and firebreaks.
- Allow more street extensions, to break up large census blocks.
- Develop a suffix to identify each component of a block split by a governmental unit boundary in order to account for changes in governmental unit boundaries that would occur after the Census Bureau assigned its initial block designations for the 1990 census operations.
- Allow States to specify block boundary features for inclusion on the Census Bureau's maps so that the block boundaries would correspond to voting district boundaries (in those States delineating voting districts based on census blocks).
- Issue the 1990 P.L. 94-171 criteria in early 1985.
- Provide nationwide census block coverage for 1990 data tabulations.

The Census Bureau determined that it could adopt some of these suggestions. As a result, the Census Bureau expanded the criteria for acceptable census block boundaries, allowing more frequent use of street extensions and other nonstandard features as a method to break up large census blocks. In addition, the Census Bureau adopted the use of an alphabetic suffix attached to the originally assigned census block number to facilitate the reporting of block-level data by governmental unit.

The Census Bureau also approved the recommendation to allow States to identify specific features they wanted the Census Bureau to hold as block boundaries. States that had contracted for block statistics in the 1980 census often found it difficult to use the resulting census blocks to delineate election precinct boundaries because these boundaries frequently did not coincide with the census block boundaries. As a result, States that had paid the Census Bureau to receive block-level data incurred additional expenses to receive detailed data for census blocks split by precinct boundaries. In addition, these States were forced to modify the Census Bureau's population counts and develop population estimates conforming to the redistribution of population within the adjusted boundaries.

In five States in 1984, the Census Bureau tested the feasibility of implementing the recommendation that States be allowed to specify individual block boundaries that would correspond to voting district boundaries. Two important assumptions for this test were that (1) the Census Bureau would hold all named roads and railroad boundaries as census block boundaries, and (2) the Census Bureau would hold all double-line drainage, as shown on the United States Geological Survey (USGS) quadrangle maps, as census block boundaries.

Technical staff from the States visited the Census Bureau's regional offices (ROs) to review the maps that RO staff were updating for entry into the Topologically Integrated Geographic Encoding and Referencing (TIGER) data base and for subsequent use to prepare the 1990 census enumeration maps. They compared these feature change maps (FCMs) to their own

maps showing voting district boundaries and the features those boundaries followed. The test of this project was successful; the Census Bureau found it could add most additional features requested by the States to the FCMs. The States were able to provide an acceptable level of verification for the features they wanted added, and they found the Census Bureau willing to accept nearly all of the suggested features as block boundaries.

The Block Boundary Suggestion Project: Phase 1 of the Redistricting Data Program for 1990

In April 1985, the Census Bureau announced Phase 1 of the 1990 Redistricting Data Program, the Block Boundary Suggestion Project (BBSP). Thirty-eight States and the District of Columbia participated in the BBSP. (In addition, the Census Bureau devised a similar program called the Block Boundary Definition Project for the Commonwealth of Puerto Rico.) Using guidelines provided by the Census Bureau, participating States began the task of collecting their voting district information from local officials such as county clerks and election offices. Acknowledging the practical and technical reasons for the Census Bureau's requirement that visible features be used as census block boundaries, many States went a step further and initiated legislation requiring that all voting districts within their States follow visible features.

States divided their workload into whole counties and used the Census Bureau's internal work schedule to set their own priorities. With the help of the RO geographic staff, States compared their block boundary suggestions with the FCMs before the ROs sent the FCMs to the Census Bureau's Field Digitizing Sites; this was done to ensure that the Census Bureau could include the States' suggestions in the map updates it was entering in the TIGER data base for use in the 1990 census. Staff from many States visited the Census Bureau's ROs to review the FCMs. After one or two visits, State staff usually could review 16 or more counties in a day. States that were using the U.S. Geological Survey's 7.5 minute quadrangle maps as their cartographic base could expedite their review, as this was the base map being used by the Census Bureau for the FCM program. For cases in which local officials had drawn their voting district boundaries

along nonvisible features, the State staff selected a nearby visible feature that would approximate the location of the original voting district line. By June 1986, 95 percent of all BBSP work was complete. By early 1987, the remaining work, mostly for areas not having 7.5 minute map coverage, concluded successfully. The Census Bureau then inserted the visible features identified by the States into the TIGER data base, assigning special *must-hold* flags to ensure that it would hold these features as 1990 census block boundaries. (However, due to operational and technical considerations, the Census Bureau was unable to hold all railroads as census block boundaries.)

The 1986 Test Census and the 1988 Dress Rehearsal

Participants in the 1980 Election Precinct Program recommended that the States be able to submit their 1990 VTD plans on block-numbered maps produced by the Census Bureau. The Census Bureau tested its ability to implement this recommendation and determine overall mapping requirements for the VTD program during the 1986 Test Census, held in central Los Angeles County, CA. This test generally proved successful. In response to Test Census recommendations, the Census Bureau adjusted its mapping specifications to limit the total number of map sheets required while ensuring that both VTD names and codes would be included on the maps.

The 1988 Dress Rehearsal, held in portions of central Missouri and eastern Washington State, provided another opportunity to test the procedures and operations to be used for defining VTDs. The Census Bureau worked with the Missouri Office of Administration to ensure that 57 VTDs in Boone County were properly inserted into the TIGER data base and that the VTDs were revised to account for changes in governmental unit boundaries reported in the 1988 Boundary and Annexation Survey (BAS). Most of this preparatory work had been completed by mid-1987.

Dress Rehearsal Data and Products

In early 1989, the Census Bureau began to deliver the data and geographic products from the Dress Rehearsal to serve as prototypes for the release of

all the P.L. 94-171 products. For Boone County, this included Voting District Outline Maps, the P.L. 94-171 County Block Maps, a 1988 Dress Rehearsal TIGER/Line™ file, data listings, and a computer file providing the P.L. 94-171 population and housing data in the hierarchical format proposed for use in the 1990 census. The delivery schedule mirrored the planned delivery of P.L. 94-171 data and geographic products in the spring of 1991.

Based on the feedback from the 1988 Dress Rehearsal, the Census Bureau made several additional changes to its geographic plans for the 1990 Redistricting Data Program. First, the Census Bureau adopted the suggestion that it distinguish *true VTDs* from *pseudo VTDs* as an option for participating States. (True VTDs are those for which the boundaries shown on the Census Bureau's maps conform exactly to the boundaries that appeared on the local source maps; all other VTDs are termed pseudo VTDs, either because the State staff modified their boundaries in some way to conform to the Census Bureau's visible feature criteria for block boundaries or because the State staff identified default VTDs in a county for which local officials did not identify *true VTDs*.) Where States did not opt to provide this identification, the Census Bureau defaulted to the pseudo identification.

Second, the Census Bureau took steps to include, in its data products and the TIGER/Line™ files, latitude and longitude coordinates for a point internal to each census block (often referred to as a block centroid even though it might not be at the true center of the block). Finally, the Census Bureau attempted to implement a suggestion that would have allowed State staff to identify segments of a voting district boundary that were to remain coincident with the boundary of a legal entity if the underlying legal entity boundary was changed by a legal action, such as an annexation or detachment, and reported to the Census Bureau in the BAS. Because of technical and operational constraints, the Census Bureau was not able to automate this process, and the process of updating VTD boundaries to maintain consistency with the changing governmental unit boundaries remained a manual operation.

Implementing Phase 2 of the Redistricting Data Program for 1990

Phase 2 of the 1990 Redistricting Data Program provided an opportunity for each State to designate a State Liaison to coordinate the State's participation, provide its VTD boundaries to the Census Bureau, update the boundaries to reflect changes in governmental unit boundaries, and receive all data and geographic products associated with the program.

During the summer of 1987, the Census Bureau sent a letter about participating in this voluntary project to officials in each State responsible for redistricting; this included the legislative leadership of each State, except Alaska and Maryland, in which the Governor is responsible. By January 1989, the 46 participating States had named a liaison (some States named more than one) for the Census Bureau to work with on Phase 2 of the project. In the spring of 1989, the Census Bureau delivered precensus maps depicting legally defined entities (with boundaries current as of 1988) and the 1990 collection geography (census tracts, block numbering areas, and non-suffixed census block numbers) to State liaisons. Participants had seven months to annotate the maps with their VTD boundaries and return them for the Census Bureau to produce the tabulated data products. After receiving the maps, the Census Bureau inserted the VTD boundaries into the TIGER data base. Subsequently, to ensure accurate data tabulations, the Census Bureau updated any VTD boundaries coincident with a governmental unit boundary that changed after 1988.

Table 14-1 lists the number of *true* and *pseudo* VTDs for the 46 States that participated in Phase 2 of the 1990 Redistricting Data Program. The District of Columbia and the Commonwealth of Puerto Rico also delineated all their VTDs. Thirty-eight States participated in full; that is, they delineated their VTDs in all counties or equivalent entities. Four States delineated their VTDs in all but one or two counties. In four other States, the extent of participation was significantly lower; the percentage of counties for which the States delineated VTDs ranged from a high of 57 percent to a low of 35 percent.

Table 14-1. **True and Pseudo VTDs for 1990**

	Number of VTDs	True VTDs	Pseudo VTDs
	(total)	*(percent)*	*(percent)*
Alabama	1,629	0	100
Alaska	442	11	89
Arizona	1,930	87	13
Arkansas	2,631	0	100
California	25,575	21	79
Colorado	2,812	99	>1
Connecticut	779	52	48
Delaware	346	66	34
District of Columbia	140	37	63
Florida	4,687	55	42
Georgia	2,296	91	9
Hawaii	279	32	68
Idaho	596	57	43
Illinois	11,827	6	94
Indiana	5,427	58	42
Iowa	2,815	49	51
Kansas	13,381	>1	99
Louisiana	3,286	>1	99
Maine	314	99	>1
Maryland	1,621	77	23
Massachusetts	2,158	59	41
Michigan	5,923	45	55
Minnesota	4,093	0	100
Missouri	14,180	58	42
Nebraska	2,088	54	46
Nevada	1,024	66	34
New Hampshire	109	99	>1
New Jersey	5,819	51	49
New Mexico	984	99	>1
New York	11,744	83	17
North Carolina	1,684	99	>1

Table 14-1. (cont.)

	Number of VTDs (total)	True VTDs (percent)	Pseudo VTDs (percent)
North Dakota	1,106	>1	99
Ohio	2,084	0	100
Oklahoma	2,317	>1	99
Pennsylvania	9,498	52	48
Rhode Island	580	61	39
South Carolina	1,929	12	88
South Dakota	1,353	44	56
Tennessee	2,303	32	68
Texas	2,313	0	100
Utah	1,649	20	80
Vermont	124	73	27
Virginia	11,985	55	45
Washington	2,672	67	33
West Virginia	2,038	12	88
Wisconsin	4,355	17	83
Wyoming	468	>1	99
Puerto Rico	1,479	85	15

Note: Kentucky, Mississippi, Montana, and Oregon did not participate in Phase 2.

Delivery of the P.L. 94-171 Data and Geographic Products

The Census Bureau delivered all 1990 P.L. 94-171 data and geographic products before the April 1, 1991 deadline. The official P.L. 94-171 products included (1) a summary tape file and paper listings reporting the P.L. 94-171 counts for all delineated geographic entities in each State, (2) Voting District Outline Maps for counties in which the States had provided VTD boundaries, (3) Census Tract/Block Numbering Area Outline Maps for counties in which the States had not submitted VTD boundaries, and (4) P.L. 94-171 County Block Maps depicting VTD boundaries in all appropriate counties. In addition, many States purchased the 1990 Census TIGER/Line™ files for their States in order to automate the redistricting process.

Notes and References

1 U.S. Bureau of the Census, Census of Population: 1960, Supplementary Report PC(S1)-6, *Population of Cities of 10,000 or More by Wards*, U.S. Government Printing Office, Washington, DC, 1961.

2 U.S. Bureau of the Census, Census of Population: 1970 Supplementary Report PC(S1)-9, *Population of Places of 10,000 or more by Wards*, U.S. Government Printing Office, Washington, DC, 1972.

3 Richard L. Morrill, *Political Redistricting and Geographic Theory*, Association of American Geographers, Washington, DC: 1981.