Effects of Population Estimates on Voter Participation Rates

Jeffrey S. Passel, Urban Institute

Invited paper presented at session on Voting Statistics, Social Statistics Section, at the annual meeting of the American Statistical Association, Washington, DC, August 6–10, 1989. This paper reports the general results of research begun while the author worked at the Census Bureau. The views expressed are attributable to the author and do not necessarily reflect those of the Census Bureau or the Urban Institute.

Introduction

In recent years, a great deal of concern has been expressed about the low level of voter turnout, as measured by the voter participation rate, and its decreasing trend over time. The Census Bureau regularly produces two different sets of data that can be used in research on voter turnout. In November of even-numbered years, a supplement to the Current Population Survey (CPS) contains questions on voting and registration for the preceding Federal (Congressional/Presidential) election held that month. The Census Bureau also produces estimates and projections of the population by age for states that can be used to measure the percentage of the population voting.

In measuring voter participation, a number of different populations could be used for comparison to the number of votes cast or to the number of people who actually voted. These populations would include: the total population, the population of voting age (i.e., 18 years and over), citizens of voting age, the number eligible to vote, or the number of registered voters. Different denominators would, of course, be appropriate for different purposes. For example, comparisons based on the age-eligible populations ignore differences in citizenship composition and those based on eligible voters ignore differences in registration rates. Comparative studies across the entire country are further limited by the availability of comprehensive and fully comparable data on these various populations.

Voter turnout, or the voter participation rate, is traditionally calculated as the number of votes divided by the population aged 18 and over.The denominator of this proportion for states is derived from estimates and projections produced by the Census Bureau. Three different estimates of the denominator are actually released by the Census Bureau:

1) a short-term projection published early in the election year;
2) a postcensal estimate based on the previous census, first published one year after the election; and
3) an intercensal estimate based on the two surrounding censuses, first published the year after the following census.

This paper examines the effects of using different denominators for states to compare voter participation rates and trends over time. In addition, the potential sources and magnitudes of error in the various denominators are discussed. The paper focuses on Congressional elections, but the results apply equally to Presidential elections. Finally, the effects of including all persons over 18 years of age in the denominator rather than excluding those persons ineligible to vote (i.e., aliens and Federal/state prisoners) are examined with data from the 1980 census.

Census Bureau Information Related to Election Studies

Characteristics of the Electorate. In November of even-numbered years, the Census Bureau asks respondents in the CPS whether they are registered to vote and whether they voted in the November Federal election. For Presidential election years (e.g., 1988), an advance report summarizing the results is issued in January or February of the next year (e.g., 1989) and followed by a final report later in the same year; the reports are issued in the Census Bureau's Current Population Reports, Series P–20. (See U.S. Bureau of the Census, 1989 and 1987a for the latest reports of this genre.). For off-year elections, only the final report is issued. Reports on registration and voting have been issued for 1964–88.

The CPS universe is limited to the civilian, noninstitutional population. Socioeconomic characteristics of the electorate that are reported include: education, school enrollment (ages 18–24 only), occupation and class of worker (e.g., private, government, etc.) family income, and presence of children. These characteristics are reported by sex and by race/Hispanic origin. Because of sample size limitations, the geographic breakdowns are limited. The socioeconomic characteristics are reported only at the national level, but some data are reported for the four census regions, the nine divisions, and for metropolitan/nonmetropolitan populations.

The CPS reports show the percent of the population aged 18 and over, in each state, who report being registered and who report voting, by sex and for race/Hispanic groups. The same tables also show the civilian noninstitutional population aged 18 and over for each State. These population figures are estimates derived especially for this report. They are very similar to the postcensal estimates, described in the next section, but are of slightly poorer quality because of the report's timing.[1] Also, the CPS estimates represent the civilian, noninstitutional population and not the entire resident population of the State.

The CPS consistently shows higher voter participation rates than the election statistics. For example, in the presidential election of 1984, there was a 10 percentage point difference between the CPS estimate of voters and the actual votes cast (U.S. Bureau of the Census, 1987a). The CPS reports discuss

[1]Specifically, the populations in the CPS (Series P–20) are based on the initial (i.e., preliminary) postcensal estimates for a particular year. Whereas, those estimated populations published in the estimates reports (Series P–25) are done 2 years later and are revised (i.e., final) postcensal estimates.

some of the reasons for the differences. The hypotheses include:
1) understatement of total votes cast;
2) overreporting of voting in the survey;
3) CPS coverage;
4) use of proxy respondents in the CPS; and
5) nonresponse to the question on voting.

Although the various effects are not separable, overreporting by respondents and underreporting of total votes cast (i.e., the fact that not every person voting in the election casts a vote for President or Congress) probably account for most of the difference. (See the paper, "Estimating Voter Turnout in the Current Population Survey," by Jerry T. Jennings in this report.)

Voting-Eligible Population

There are three principal sources for Census Bureau figures on the number of potential voters: decennial censuses, regular population estimates, and special population estimates for election dates. These sources vary considerably in geographic coverage, timeliness, and availability of data on population characteristics. The actual population of eligible voters can only be approximated by the census or survey without direct questions relating to the eligibility criteria. Eligibility for voting in Federal elections is determined by age, citizenship, residence, and felon status. In Congressional/Presidential elections, nonfelon citizens aged 18 and over are eligible to vote. Not all of these characteristics can be obtained from each of the different data sources.

Residency requirements have been reduced (or virtually eliminated) in Federal elections, but, in any case, the Census Bureau does not collect data for length of residence at short durations (e.g., 30 days). All census counts and population estimates for States are based on the concept of usual residence (as implemented by the respondents in the census). The usual residence, as reported in the census, may differ from the legal or voting residence.

The decennial census provides the most comprehensive and geographically detailed data for measuring the population eligible to vote. Detailed data on Federal and State prisoners are available only from the decennial censuses, not from the CPS. Similarly, State-level data on aliens (non-citizens) by age can only be obtained from the census. These data for 1980 are presented and discussed in tables 7 to 9. None of the conventional data sources, including the census, has data on felons ineligible to vote, but who are not incarcerated.

Age-Eligible Population

In addition to the decennial census, the Census Bureau produces numerous estimates and projections of the total population and the population by age for the United States, States, counties, and subcounty governmental units. For most of the postcensal population estimates, the reference date is July 1, some 4 months before the election date. Annual estimates of the population aged 18 years and older are produced for the United States and for States; the estimates are generally available early in the year following the reference date. The Census Bureau produces estimates for counties, on an annual basis, and for subcounty areas, on a biennial basis; these estimates are available only for the total population, not for age groups.

The Census Bureau does produce biennial reports on the population of voting age for states and the Nation in which the reference date for the population estimates is November.[2] (See References for a list of the reports on the voting-age population.) These reports, usually published before the election, contain data for States and the United States. Estimates are available for elections since 1960. Three different types of population figures are shown:
1) postcensal estimates;
2) short-term projections; and
3) intercensal estimates.

These different population figures are produced somewhat differently, at different times, and have different characteristics.

Postcensal population estimates. The postcensal estimates of the voting-age population of States are derived from the Census Bureau's regular postcensal estimates of the total population for states. These estimates are published for all dates since the most recent census and are first published two years after the reference date (as a revision to the short-term projection).[3] The postcensal estimates are based on conventional population estimation techniques (e.g., ratio-correlation, administrative records) and use the most recent census as the base population. The age distribution is derived with a version of the Census Bureau's Component Method II. The series of postcensal population estimates may occasionally be revised to incorporate new data or methods. In the 1960's and 1970's, revisions in the postcensal estimates series were generally small and insignificant. In the 1980's, however, the methodology used for the underlying State estimates was changed twice, leading to significant revisions in the voting-age estimates (U.S. Bureau of the Census, 1987b and 1986b).

Short-term projections. In the report on voting-age population, the Census Bureau publishes projected populations for the upcoming election date. The

[2]Prior to 1972, there were differences among the states in age and residency requirements for voting. The various Census Bureau estimates and projections for these earlier years reflect the different age requirements and, to the extent possible, the different residency requirements. Since 1972, the age requirement has been uniform at 18 years and most residency requirements have been eliminated.

[3]Similar postcensal estimates of the civilian, noninstitutional population aged 18 and over for states are published in the P-20 Series of CPS reports. These figures are an earlier version of the postcensal estimates, produced one year earlier than those published in the P-25 reports on the voting-age population.

short-term projections are published for the upcoming election date only and are replaced in the next publication by postcensal estimates. These projections generally use extrapolations of recent trends in population growth (or migration) with the base population being the most recent set of postcensal estimates. Often, the age groupings are based on simple ratio techniques. Because the short-term projections are published before the election and replaced before the next election, the Census Bureau does not actually use them in calculating voter participation rates. They may, however, be used by others in such calculations.

Intercensal estimates. Intercensal estimates cover the period between two censuses and use these censuses as limits, or base populations, at each end of the period. The estimates use conventional population estimation techniques; they take into account final data for the decade on vital statistics, internal migration, international migration, and other data on the trajectory of population change between the two surrounding censuses. The intercensal estimates are first published two years after the census as revisions to the previous postcensal estimates; they are not usually revised.

Quality of Estimates of the Voting-Age Population. As with all population estimates and projections, the estimates of voting-age population for States are subject to errors. The errors can, in some cases, be relatively large and can vary over time and place. As such, the errors may affect conclusions about differences in voter participation and changes over time, particularly small differences and changes. This section catalogues the various types of errors present in the estimates of the voting-age population. (See table A for a list of the types of errors and which estimates they affect.) For some of the errors, their magnitude has been estimated; for others, only a qualitative assessment of the potential effect is possible.

Unfortunately, the "true" population of voting age in each State can never really be known. For the decennial censuses, some estimates of coverage error have been made, but for other years, no such assessment is possible. A consequence of this fact is that we also never really know the true magnitude of the errors in the population estimates. Rather, we must be wary of small differences in drawing conclusions from voter participation rates. The decennial censuses provide the best data on voting-age populations and are the standard for judging the quality of other estimates and projections.

Table A.
Types of Errors in Estimates of the Voting-Age Population, by Type of Estimate

Type of error	Estimate of voting-age population		
	Short-term projection	Postcensal estimate	Intercensal estimate
Census undercount	E	E	EE
Estimation error	E	E	—
Base population	E	—	—
Projection error	E	—	—
Age distribution	EE	E	E
Error of closure	—	—	E
Overall quality	Worst	Intermediate	Best

E Error is present.
EE Error is potentially very large.
— Error is not present or is insignificant.

Errors in the population figures used as denominators in measures of voter participation affect the measures, but the errors are not translated directly into the same level of error in measuring voter participation. For example, a 5 percentage point error in estimating the population of voting age does not result in a 5 percentage point error in the voter participation rate. Rather, it results in a 5 percent error in the rate. Thus, for a voter participation rate of about 60 percent, a 5 percentage point error in the population estimate translates into a 3 percentage point error in the rate.

Types of Errors

Census undercount. This error is the failure of the decennial census to count the entire population. There are no definitive estimates of census undercount for the voting-age population of States. However, there are a number of different sets of state level estimates of undercount for the 1970 and 1980 censuses. The range of errors is reasonably large, but there are definite patterns of regional variation. For 1970, State undercounts vary from a low of 0.5 percent overcount to a high of 9.2 percent undercount (Siegel, et al., 1977) with an overall mean of 2.9 percent (Fay, et al., 1988). The highest undercounts are in the South and the lowest in the Northeast and Midwest; the West has generally intermediate levels. In 1980, the estimates range from a 4.2 percent overcount to a 7.8 percent undercount. The average estimated undercount is 1.4 percent. The geographic pattern of coverage in 1980 is different from 1970. The West has the highest level of undercount, while the other three regions all have about the same level.

Census undercount affects the base population for all three types of voting-age estimates. The intercensal estimates are affected by undercount in both censuses used as base populations. Effects of undercount on voting-age estimates can be approximated using the available sources. The effects are potentially the most serious for

comparisons across states. Comparisons over time for the same State are virtually unaffected by census undercount.

Estimation error. Estimation error is the failure of the postcensal estimates to predict accurately the next census count or, alternatively, the difference from the (unknown) "true" population. In the aggregate, this estimation error is not a serious problem. For 1980, the average absolute error of estimation for the postcensal estimates of the total population of states was 1.5 percent (U.S.Bureau of the Census, 1983). For particular states, estimation error can be much larger, but the error may vary from decade to decade. Estimation error increases as the reference date becomes further from the previous census. The largest estimation errors (in percentage terms) tend to occur in small states and in states undergoing rapid population growth. Intercensal estimates are not affected by this dimension of estimation error, because they are anchored to two surrounding censuses.

Base population. Any population estimate or projection starts with a base population and adds population change over time to this base figure. For the postcensal voting-age estimates, the base populations are the previous census counts for states; for intercensal estimates, the bases are the two surrounding censuses. Thus, these two types of estimates are not affected by errors in the base population other than census undercount, as described above. The short-term projections, on the other hand, use the most recent postcensal estimates as the base populations. If these base populations are in error (through estimation error), then additional error is also introduced into the projection.

Projection error. In a population projection, it is necessary to make assumptions about future trends in demographic components of change. For state-level projections, the most critical assumptions generally surround the internal migration component. Even for the short-term projections used in the voting-age estimates, failure of the assumptions regarding future trends to match the actual course of events can result in significant errors in the projected total population. This failure of the assumptions is called projection error, an error which obviously affects only the short-term projections of the voting-age population.

Projection errors generally increase as the reference date becomes further from the base date of the projection. In addition, projection error is compounded with error in the base populations. As a result, the short-term projections of the voting-age population are the most error-prone of the various estimates. As with population estimates, the projections tend to be proportionately worse in small States and in rapidly growing states. In addition, states experiencing turnarounds in migration trends tend to be difficult to project accurately.

Age errors. This error represents error in estimating the age distribution for a state, that is, the error in deriving the population aged 18 and over, given the estimate of the total population. This error can be as large as the error in estimating the total population (i.e., estimation error) because the models used are not as good as the models for the total population (U.S. Bureau of the Census, 1987b). Age error, like estimation error, increases with distance from the census(es) being used as the base population(s). For intercensal estimates, age error may be the largest source of error.

Error of closure. Error of closure affects only the intercensal estimates. It is the difference between intercensal population change as measured by the difference between census counts and as measured by the components of population change—births, deaths, and net migration (Shryock and Siegel, 1980: 6). If the components are measured accurately, error of closure represents the difference in coverage between the two censuses; otherwise, it includes errors in measuring the components of change. Generally, error of closure is relatively small, but for the 1970-80 decade it amounted to about 2 percent nationally and more for some of the states (Fay, et al., 1988). Because intercensal estimates are constrained to agree with the two surrounding census counts, the error of closure must be distributed throughout the decade in some manner. In this sense, error of closure acts as an "imaginary" component of population change in intercensal estimates.

Comparison of Voting-Age Estimates and Projections

Differences among the three types of voting-age estimates—short-term projections, postcensal estimates, and intercensal estimates—for a given state in a given year represent the effects of the different types of errors (table A) and the various revisions in the estimates. The intercensal estimates are generally the best of the three. They are constrained to the census counts and use the most complete and reliable data. The short-term projections are generally the worst, because they use incomplete data and rely on extrapolations or assumptions regarding future trends in population change. The postcensal estimates are of intermediate quality, but are generally similar to the projections for which the estimates serve as base populations.

Although it is not possible to assess the errors in estimates of the voting-age population directly, it is possible to compare the different types of estimates. Given the types of errors and overall quality, the differences between the intercensal estimates and the short-term projections should be the largest; those between the postcensal estimates and the projections, the smallest. Differences between the the intercensal and postcensal estimates should be only slightly smaller than the largest differences. Tables 1 to 5 display the differences for the various types of estimates for different periods.

Table 1 compares postcensal and intercensal estimates for all States for the 1960's. No comparisons with the short-

term projections are shown for the 1960's because such projections were not generally published. Tables 2 to 4 show comparisons for the 1970's. Table 2 compares postcensal and intercensal estimates; table 3, postcensal estimates and short-term projections; and table 4, intercensal estimates and short-term projections. Table 5 compares the short-term projections and post-censal estimates for the 1980's (through 1986). No intercensal estimates are shown for the 1980's because they must obviously await the results of the 1990 census.

Differences between the postcensal estimates and the short-term projections are the smallest of the three comparisons for the 1970's (table 3). Since the projections are extrapolations of these estimates, their resemblance is not surprising. Also, since all of the projections have a short time horizon (only 1 or 2 years), the average differences do not increase through the decade. Some of the individual differences are large, however. For 1972, New Mexico has a difference of 5.5 percent and Arizona, 4.5 percent. For 1974, Rhode Island differs by 5.4 percent. In 1976, Alaska shows the largest difference of the entire decade at 10.8 percent. Alaska's average difference of 4.8 percent for the decade reflects the difficulties of making accurate projections for a small state undergoing rapid population growth. For the 1980s, the average difference between postcensal estimates and short-term projections is generally smaller than in the 1970s (table 5). This pattern may reflect improvements in both estimation and projection techniques. Note that Alaska still causes problems, showing a difference of 8.0 percent in 1982.

Differences between the intercensal estimates and the short-term projections for the 1970's are the largest of the three differences at every date, as expected (table 4). The average differences increase throughout the decade, reflecting the increasing effect of estimation error, base population error, and, to some extent, projection error on the short-term projections. Again, states that grew rapidly during the decade show the largest differences because of the inaccuracy of the projections. The intercensal estimates exceeded the short-term projections by 12.8 percent in 1978 and 12.9 percent in 1980 for Nevada, by 11.3 percent in 1976 for Alaska, by 10.7 percent in 1980 for Arizona, and by 10.2 percent in 1980 for Florida. These four states had the largest average absolute differences for the decade of the 1970's—all exceeding Florida's 4.9 percent.

Differences between the intercensal and postcensal estimates for the 1970's (table 2) are almost as large as the differences between the intercensal estimates and short-term projections. The differences increase steadily throughout the decade as the estimation error gets larger with increasing time from the base date of the estimates. By 1980, some very large differences have appeared: Nevada at 12.8 percent, Florida at 10.3 percent, Arizona at 9.9 percent, Georgia and Alaska at 6.6 percent, and South Carolina at 6.5 percent. Nevada, Arizona, and Florida have average absolute differences for the decade between 4.9 and 7.5 percent.

The 1960's show a similar pattern of increasing differences between the intercensal and postcensal estimates, with the exception of 1962 (table 1). Georgia's difference of -9.1 percent and Kentucky's of -7.7 percent in 1968 are the only examples in either decade of very large differences where the postcensal estimate exceeds the intercensal estimate (State-level data not shown in table 1). The average absolute differences for 1964–68 are almost exactly equal to the corresponding differences in the 1970's, in spite of the much larger national error of closure in the 1970–80 decade. Underlying this similarity is a significant difference, however. In the 1960's, there were large overestimates and underestimates, with almost 40 percent of the estimates being underestimates. In the 1970's, there were no large underestimates and only about 20 percent of the estimates were low. The largest errors were concentrated in the regions with the largest errors of closure for the 1970–80 decade, the South and the West.

Table 6 shows the percentage point differences in percent voting for 1962–66 and 1972–78 Congressional elections based on intercensal and postcensal estimates. These data use denominators that are the bases for tables 1 and 2. The differences in percent voting are all much smaller than the corresponding differences in the denominators. This pattern reflects the dampening effect of the numerator, i.e., the fact that only 40–70 percent of the age-eligible population votes, in general. Also these comparisons omit the final year(s) of the decade where the differences in population estimates are the largest.

Effects of Ineligible Populations on Voter Participation Rates

Four principal population groups are included in census counts and population estimates and projections, but are not eligible to vote in Federal elections. These groups are persons under 18 years of age, aliens, convicted felons, and persons who do not meet state residency requirements. There are no data on this last group, but the decennial census provides information that can be used to estimate the effects of the other three on denominators in voter participation rates. Table 7 contains data from the 1980 census on these three groups.

Ineligible Population Groups

Persons under 18 years of age. Nationally, 69.8 million persons, or 30.7 percent of the population was under 18 years of age and, therefore, ineligible to vote. Thirty-nine States were within 2 percentage points of this value; four states and the District of Columbia had less than 28.7 percent under 18, whereas seven States had more than 32.7 percent. The District of Columbia had the smallest percent of children at 26.1

percent with Pennsylvania next at 27.3 percent. Kansas, Missouri, and Florida also had comparatively small percentages of children.

Utah had by far the largest percentage of its population under 18 years of age at 38.3 percent. Hawaii at 34.9 percent was next. Other States with particularly large percentages of children were all in the West or Southwest—California (34.7 percent), Alaska (34.0), New Mexico (33.6), Idaho (33.5), and Texas (33.2).

Prisoners. Persons incarcerated in Federal and State prisons are not eligible to vote. The number of other felons ineligible to vote cannot be approximated with the data from the 1980 census. The number of prisoners aged 18 and over is relatively small, accounting for 297,000 persons or only 0.2 percent of the population aged 18 and over. This group has relatively little effect on voter participation rates. Not only is the group small, but the distribution across states is uniform. The proportion of the population aged 18 and over who are prisoners varies only from 0.1 to 0.4 percent.

Aliens. The number of aliens aged 18 and over is much greater than the number of prisoners. In 1980, there were 5.7 million aliens counted and identified as such in the census, accounting for 3.5 percent of the national population in the age group. In addition, Warren and Passel (1987) found evidence of substantial misreporting of citizenship by aliens in the 1980 census. For all ages, their estimates show 7.8 million aliens, rather than the 6.8 million who actually reported—a difference of almost 15 percent. The figures shown in tables 7 to 9 do not correct for this reporting error and thus understate the true effect of aliens on voter participation rates.

The proportions of aliens vary considerably and can significantly affect comparisons of voter participation across States and time. The states with the smallest proportions that are aliens among the population aged 18 and over are: Arkansas, Alabama, Kentucky, Wyoming (all 0.5 percent), Mississippi, Tennessee, and South Dakota (0.6 percent). In addition, another 9 States also have less than 1.0 percent aliens. At the other end of the spectrum, 10.5 percent of California's population aged 18 and over reported as aliens. Hawaii (8.9 percent), New York (6.8 percent), and Florida (5.7 percent) also exceed 5.0 percent. Four other States and the District of Columbia have more than 4.0 percent aliens in their voting-age population.

Effects on Percent Voting in 1980

The effect of including ineligible persons aged 18 and over in the denominator for calculating the percent voting can be significant in some States. Table 8 illustrates the effect on the Presidential election of 1980. Using the total population 18 and over as the denominator, 53.1 percent of the population voted in the Presidential election of 1980.[4] Excluding aliens from the calculation raises the overall voter participation rate to 55.1 percent.

The increases in participation rates if aliens are excluded from the calculations are not uniform across the States. California's participation rate increases by 5.8 percentage points from 49.7 percent (well below the national average) to 55.5 percent (slightly above the national average). This is a substantial increase as California would move from having the 28th highest rate to the 19th highest. Other States with significant increases include: Hawaii (4.3 percentage points), New York (3.5), Florida (3.0), New Jersey (2.9), Rhode Island (2.6), Massachusetts (2.5), Illinois (2.5), and Texas (2.0). On the other hand, there were 26 states where the effect of aliens was less than 1.0 percent.

[4]Table 8 uses data from the 1980 census for denominators. These populations refer to April 1, 1980, and not the actual November election day. Thus, they differ slightly from rates computed with November populations.

Conclusion

The comparison and analysis of different types of population estimates and projections shows that various types of errors and methodological differences can affect the estimated level of voter participation. The errors themselves cannot really be corrected in a timely or complete manner. However, the Census Bureau's procedure of replacing short-term projections with postcensal estimates and then, in turn, with intercensal estimates represents an attempt to introduce increasingly accurate data and methods as they become available.

Voter participation rates based on short-term projections are subject to the largest errors. Following closely behind are those based on postcensal estimates. The results presented in this paper suggest that *small differences in voter participation should not be accorded great substantive significance*. Furthermore, analyses based on short-term projections or postcensal estimates should be revised, when possible, to take into account the greater accuracy of participation measures based on intercensal population estimates.

The effects on estimates (or projections) of including ineligible populations, particularly aliens, in the calculation of voter participation rates can be quite large. In addition, these effects are increasing over time as the Nation's population comes to include increasing percentages of aliens. In 1970, aliens accounted for 1.7 percent of the population (and 2.2 percent of the population aged 18 and over). By 1980, the proportion had grown to 3.1 percent (and 3.5 percent of the population of voting age). By 1988, the percentage of aliens in the population had increased further to 3.9 percent (and 4.5 percent of the voting-age population).

The effects of ineligible populations (i.e., aliens) are concentrated in those States that receive the largest numbers of immigrants. Consequently, they are predictable. They should, and can, be taken into account in analyses of voter participation, at least implicitly. In addition, the Census Bureau needs to con-

sider the feasibility of producing estimates and projections of the number of citizens of voting age in each State so that more accurate analyses of voter participation can be done on a regular basis.

It must be stressed, however, that *errors and revisions in the population estimates and projections can have effects as large as the effects of including aliens in the voting-age population.* Table 9 compares the estimated percentages of the population voting in the 1980 Presidential election derived from three different denominators: short-term projections of the voting-age population, intercensal estimates of the voting-age population, and 1980 census data on the *eligible* population of voting age. There are many differences within a State exceeding 2 percent. However, in 15 states the effect of moving from the projection to the intercensal estimate is within 0.5 percentage point of the effect of moving from the estimate of voting-age population to the eligible population; in another 11 states, the effect is between 0.5 and 1.0 percentage points. In another comparison that highlights the relative sizes of these effects, 18 States show *greater* changes in rates when going from the projected denominator to the intercensal estimate of the denominator than when going from the intercensal estimate of voting-age population to the eligible population as the denominator of the rate. Included among these states that showed greater effects of projection errors are two States with relatively large alien populations, Florida and Nevada. Unfortunately, the locations of potential effects of errors and revisions in projections and postcensal estimates are not as predictable as the effects of including aliens in the estimates. The errors and revisions can occur in any State. Analysts should note, however, that large percentage errors in population estimates tend to occur in small states and in rapidly growing States. Findings related to voter participation rates should include the caveat that errors in the denominators could affect the results, particularly when unexpected results are found.

Studies of voter participation are limited by potential errors in the figures used as denominators for rates. When possible, analyses should be based on intercensal population estimates to take advantage of the best data possible. Aliens, who are not eligible to vote, should be eliminated from the denominators if possible; if not, analysts should note the effects since they are concentrated in a few States. Other effects of ineligible populations are extremely small and should not affect research results.

References

Fay, Robert E., Jeffrey S. Passel, and J. Gregory Robinson, "The Coverage of Population in the 1980 Census." U.S. Bureau of the Census, *Evaluation and Research Reports*, Series PHC80-E4. Washington, DC: U.S. Government Printing Office, February 1988.

Shryock, Henry S. and Jacob S. Siegel. *The Methods and Materials of Demography*. U.S. Bureau of the Census, Fourth Printing (rev.). Washington, DC: U.S. Government Printing Office, June 1980.

Siegel, Jacob S., Jeffrey S. Passel, Norfleet W. Rives, Jr., and J. Gregory Robinson. *Developmental Estimates of Coverage of the Population of States in the 1970 Census: Demographic Analysis*. U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 65. Washington, DC: U.S. Government Printing Office, December 1977.

Warren, Robert and Jeffrey S. Passel. "A Count of the Uncountable: Estimates of Undocumented Aliens Counted in the 1980 United States Census." *Demography*. Vol. 24, No. 3, 1987, pp. 375-393.

Reports on Voting and Registration

U.S. Bureau of the Census. Current Population Reports, Series P- 20, No. 435, *Voting and Registration in the Election of November 1988 (Advance Report)*. Washington, DC: U.S. Government Printing Office, February 1989.

_____. Current Population Reports, Series P-20, No. 414, *Voting and Registration in the Election of November 1986*. Washington, DC: U.S. Government Printing Office, September 1987a.

Reports on Voting-Age Population

U.S. Bureau of the Census. Current Population Reports, Series P- 25, No. 1019, *Projections of the Population of Voting Age, for States: November 1988*. Washington, DC: U.S. Government Printing Office, January, 1988.

_____. Press Release CB86-65, April 25, 1986 (1986a).

_____. Current Population Reports, Series P-25, No. 948, *Projections of the Population of Voting Age, for States: November 1984*. Washington, DC: U.S. Government Printing Office, April 1984.

_____. Current Population Reports, Series P-25, No. 916, *Projections of the Population of Voting Age, for States: November 1982*. Washington, DC: U.S. Government Printing Office, July 1982.

_____. Current Population Reports, Series P-25 No. 879, *Projections of the Population of Voting Age: November 1980*. Washington, DC: U.S. Government Printing Office, March 1980.

_____. Current Population Reports, Series P-25, No. 732. *Projections of the Population of Voting Age: November 1978*. Washington, DC: U.S. Government Printing Office, September, 1978.

_____. Current Population Reports, Series P-25, No. 626. *Projections of the Population of Voting Age: November 1976*. Washington, DC: U.S. Government Printing Office, May 1976.

_____. Current Population Reports, Series P-25, No. 526. *Projections of the*

Population of Voting Age, for States: November 1974. Washington, DC: U.S. Government Printing Office, September 1974.

_____. Current Population Reports, Series P-25, No. 479. *Projections of the Population of Voting Age, for States: November 1974.* Washington, DC: U.S. Government Printing Office, March 1972.

_____. Current Population Reports, Series P-25, No. 406. *Estimates of the Population of Voting Age, for States: November 1, 1968.* Washington, DC: U.S. Government Printing Office, October 1968.

_____. Current Population Reports, Series P-25, No. 342. *Projections of the Population of Voting Age, for States: November 1966 and 1968.* Washington, DC: U.S. Government Printing Office, June 1966.

Other Reports

_____. Current Population Reports, Series P-25, No. 1010. *State Population and Household Estimates, with Age, Sex, and Components of Change: 1981 to 1986.* Washington, DC: U.S. Government Printing Office, September 1987b.

_____. Current Population Reports, Series P-25, No. 985. *Estimates of the Population of the United States, by Age, Sex, and Race: 1980 to 1985.* Washington, DC: U.S. Government Printing Office, April 1986b.

_____. Current Population Reports, Series P-25, No. 933, *Evaluation of the Population Estimation Procedure for States, 1980: An Interim Report.* Washington, DC: U.S. Government Printing Office, 1983.

Table 1.
Resident Population of Voting Age for Regions and Divisions— Difference Between Postcensal Estimate and Intercensal Estimate: 1960 to 1968

(Population in thousands. Difference is intercensal estimate minus postcensal estimate; base of percents is postcensal estimate)

Region and division	Amount of difference						Percent difference					
	1960	1962	1964	1966	1968	Average	1960	1962	1964	1966	1968	Average
United States	665	1,831	290	255	279	664	0.6	1.6	0.3	0.2	0.2	0.6
Average absolute difference[1]	13	38	24	35	50	32	0.70	1.90	1.27	1.79	2.26	1.58
Northeast	119	476	−86	−108	−188	195	0.4	1.7	−0.3	−0.4	−0.6	0.7
New England	40	155	102	128	156	116	0.6	2.3	1.5	1.9	2.2	1.7
Middle Atlantic	79	320	−187	−236	−344	233	0.4	1.4	−0.8	−1.0	−1.5	1.0
Midwest	194	662	132	373	450	362	0.6	2.1	0.4	1.2	1.4	1.1
East North Central	136	478	127	375	354	294	0.6	2.2	0.6	1.7	1.5	1.3
West North Central	58	184	4	−2	95	69	0.6	2.0	0.0	0.0	1.0	0.7
South	224	266	25	−103	−270	178	0.7	0.8	0.1	−0.3	−0.7	0.5
South Atlantic	135	186	152	176	88	147	0.9	1.2	0.9	1.0	0.5	0.9
East South Central	56	13	−64	−140	−318	118	0.8	0.2	−0.9	−1.8	−4.0	1.5
West South Central	33	67	−63	−139	−40	68	0.3	0.7	−0.6	−1.3	−0.4	0.7
West	126	421	224	92	288	230	0.7	2.4	1.2	0.5	1.4	1.2
Mountain	24	92	67	−3	116	60	0.6	2.2	1.6	−0.1	2.6	1.4
Pacific	101	329	157	95	172	171	0.8	2.4	1.1	0.6	1.1	1.2

[1]Average of States.
Sources: Postcensal—U.S. Bureau of the Census (1966, 1968); Intercensal—U.S. Bureau of the Census (1974).

Table 2.
Resident Population of Voting Age for States—Difference Between Postcensal Estimate and Intercensal Estimate: 1972 to 1980

(Population in thousands. Difference is intercensal estimate minus postcensal estimate; base of percents is postcensal estimate)

Region, division, and State	Amount of difference						Percent difference					
	1972	1974	1976	1978	1980	Average	1972	1974	1976	1978	1980	Average
United States	709	1303	2181	2657	3890	2148	0.5	0.9	1.5	1.7	2.4	1.4
Average absolute difference[1]	18	29	46	59	84	47	0.87	1.26	1.80	2.32	2.92	1.83
Northeast	106	148	183	210	235	176	0.3	0.4	0.5	0.6	0.7	0.5
New England	25	48	45	39	36	39	0.3	0.6	0.5	0.4	0.4	0.4
Middle Atlantic	81	102	138	170	198	138	0.3	0.4	0.5	0.6	0.7	0.5
Midwest	9	102	212	120	78	104	0.0	0.3	0.5	0.3	0.2	0.3
East North Central	54	113	192	175	149	137	0.2	0.4	0.7	0.6	0.5	0.5
West North Central	−45	−10	21	−54	−70	40	−0.4	−0.1	0.2	−0.4	−0.6	0.3
South	436	765	1219	1628	2525	1315	1.0	1.7	2.5	3.3	4.9	2.7
South Atlantic	284	452	706	935	1507	777	1.3	2.0	3.0	3.8	5.9	3.2
East South Central	62	119	214	283	278	191	0.7	1.3	2.3	2.9	2.8	2.0
West South Central	90	196	300	411	739	347	0.7	1.4	2.1	2.7	4.6	2.3
West	158	286	566	699	1053	552	0.6	1.1	2.1	2.4	3.5	1.9
Mountain	32	81	199	254	375	188	0.6	1.3	3.0	3.5	4.9	2.7
Pacific	126	206	367	444	678	364	0.7	1.1	1.8	2.1	3.0	1.7
New England:												
Maine	9	9	16	20	20	15	1.3	1.3	2.2	2.6	2.5	2.0
New Hampshire	5	9	15	17	14	12	1.0	1.6	2.6	2.7	2.1	2.0
Vermont	2	5	7	8	10	6	0.7	1.6	2.1	2.3	2.8	1.9
Massachusetts	−5	6	−1	−9	−17	8	−0.1	0.1	0.0	−0.2	−0.4	0.2
Rhode Island	11	24	20	27	23	21	1.6	3.7	3.0	4.0	3.3	3.1
Connecticut	2	−6	−12	−24	−14	12	0.1	−0.3	−0.5	−1.1	−0.6	0.5
Middle Atlantic:												
New York	54	33	29	42	45	41	0.4	0.3	0.2	0.3	0.3	0.3
New Jersey	13	38	33	39	19	28	0.3	0.7	0.6	0.7	0.4	0.5
Pennsylvania	14	30	76	88	133	68	0.2	0.4	0.9	1.0	1.5	0.8
East North Central:												
Ohio	26	15	41	37	30	30	0.4	0.2	0.6	0.5	0.4	0.4
Indiana	2	26	39	35	34	27	0.1	0.7	1.1	0.9	0.9	0.7
Illinois	44	115	148	177	178	132	0.6	1.5	1.9	2.2	2.2	1.7
Michigan	8	−11	−6	−8	−31	13	0.1	−0.2	−0.1	−0.1	−0.5	0.2
Wisconsin	−26	−31	−30	−65	−63	43	−0.9	−1.0	−0.9	−2.0	−1.8	1.3
West North Central:												
Minnesota	−9	−11	−4	−31	−30	17	−0.4	−0.4	−0.1	−1.1	−1.0	0.6
Iowa	−19	3	19	6	−2	10	−1.0	0.2	0.9	0.3	−0.1	0.5
Missouri	12	13	22	5	8	12	0.4	0.4	0.6	0.1	0.2	0.4
North Dakota	−2	−1	-	−2	−4	2	−0.5	−0.2	0.0	−0.4	−0.9	0.4
South Dakota	−4	−5	−2	−2	-	3	−0.9	−1.1	−0.4	−0.4	0.0	0.6
Nebraska	−9	−3	−3	−8	−10	7	−0.9	−0.3	−0.3	−0.7	−0.9	0.6
Kansas	−14	−6	−11	−24	−30	17	−0.9	−0.4	−0.7	−1.4	−1.7	1.0
South Atlantic:												
Delaware	1	5	8	11	12	7	0.3	1.3	2.0	2.7	2.9	1.8
Maryland	31	39	35	38	43	37	1.2	1.4	1.2	1.3	1.4	1.3
District of Columbia	7	16	18	23	18	16	1.3	3.1	3.6	4.7	3.8	3.3
Virginia	55	54	57	73	103	68	1.7	1.6	1.6	2.0	2.7	1.9
West Virginia	−2	10	21	36	38	21	−0.2	0.8	1.6	2.7	2.8	1.6
North Carolina	52	57	102	135	210	111	1.5	1.6	2.7	3.4	5.2	2.9
South Carolina	14	41	70	103	135	73	0.8	2.2	3.6	5.1	6.5	3.7
Georgia	55	87	103	148	239	126	1.8	2.7	3.0	4.2	6.6	3.7
Florida	71	143	292	368	709	317	1.4	2.4	4.8	5.7	10.3	4.9
East South Central:												
Kentucky	19	31	58	72	58	48	0.9	1.4	2.4	2.9	2.3	2.0
Tennessee	5	31	59	87	108	58	0.2	1.1	2.0	2.8	3.4	1.9
Alabama	11	25	48	60	46	38	0.5	1.0	1.9	2.3	1.7	1.5
Mississippi	27	32	49	64	66	48	1.9	2.1	3.2	4.0	4.0	3.0

Table 2.
Resident Population of Voting Age for States—Difference Between Postcensal Estimate and Intercensal Estimate: 1972 to 1980—Continued

(Population in thousands. Difference is intercensal estimate minus postcensal estimate; base of percents is postcensal estimate)

Region, division, and State	Amount of difference						Percent difference					
	1972	1974	1976	1978	1980	Average	1972	1974	1976	1978	1980	Average
West South Central:												
Arkansas	-	11	31	47	67	31	0.0	0.8	2.1	3.1	4.3	2.0
Louisiana	16	37	56	71	135	63	0.7	1.5	2.2	2.6	4.9	2.4
Oklahoma	9	24	27	37	68	33	0.5	1.3	1.4	1.8	3.2	1.6
Texas	64	123	186	257	469	220	0.8	1.5	2.2	2.8	4.9	2.4
Mountain:												
Montana	1	-2	3	4	-1	2	0.2	-0.4	0.6	0.7	-0.2	0.4
Idaho	-1	1	8	12	9	6	-0.2	0.2	1.4	2.0	1.4	1.0
Wyoming	-3	-3	-2	-3	-3	3	-1.3	-1.2	-0.7	-1.0	-0.9	1.0
Colorado	18	24	46	45	64	39	1.1	1.4	2.6	2.3	3.1	2.1
New Mexico	-2	3	16	23	27	14	-0.3	0.4	2.1	2.8	3.1	1.7
Arizona	20	46	84	114	177	88	1.5	3.2	5.5	6.9	9.9	5.4
Utah	-10	-5	11	17	35	16	-1.4	-0.7	1.4	2.0	3.9	1.9
Nevada	10	21	32	44	68	35	2.8	5.4	7.5	9.2	12.8	7.5
Pacific:												
Washington	24	29	55	43	52	41	1.0	1.2	2.2	1.6	1.7	1.5
Oregon	-8	2	21	25	12	14	-0.5	0.1	1.3	1.4	0.6	0.8
California	93	156	272	345	557	285	0.7	1.1	1.8	2.1	3.3	1.8
Alaska	6	6	1	7	17	7	3.0	2.8	0.4	2.7	6.6	3.1
Hawaii	11	12	19	26	39	21	2.1	2.1	3.1	4.1	5.9	3.5

[1]Average for States.
Source: Postcensal U.S. Bureau of the Census (1980); Intercensal—U.S. Bureau of the Census (1982).

Table 3.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Postcensal Estimate: 1972 to 1978

(Population in thousands. Difference is postcensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference					Percent differnce				
	1972	1974	1976	1978	Average	1972	1974	1976	1978	Average
United States	426	106	86	220	210	0.3	0.1	0.1	0.1	0.1
Average absolute difference[1]	24	18	23	17	21	1.43	0.95	1.05	0.80	1.06
Northeast	-99	-80	-7	-148	84	-0.3	-0.2	0.0	-0.4	0.2
New England	7	-29	-8	-5	12	0.1	-0.3	-0.1	-0.1	0.1
Middle Atlantic	-105	-52	1	-142	75	-0.4	-0.2	0.0	-0.5	0.3
Midwest	-37	-115	68	99	80	-0.1	-0.3	0.2	0.2	0.2
East North Central	-55	-35	-20	36	37	-0.2	-0.1	-0.1	0.1	0.1
West North Central	18	-80	88	63	62	0.2	-0.7	0.8	0.5	0.5
South	434	167	-29	-83	178	1.0	0.4	-0.1	-0.2	0.4
South Atlantic	270	171	-190	-108	185	1.3	0.8	-0.8	-0.4	0.8
East South Central	115	-12	33	-15	44	1.3	-0.1	0.4	-0.2	0.5
West South Central	49	7	129	39	56	0.4	0.1	0.9	0.3	0.4
West	127	135	54	352	167	0.5	0.5	0.2	1.2	0.6
Mountain	164	3	-24	89	70	2.9	0.0	-0.4	1.3	1.1
Pacific	-37	131	78	264	128	-0.2	0.7	0.4	1.2	0.6
New England:										
Maine	17	14	2	-5	10	2.6	2.0	0.3	-0.6	1.4
New Hampshire	-1	1	4	7	3	-0.2	0.2	0.7	1.1	0.6
Vermont	-3	-	3	1	2	-1.0	0.0	0.9	0.3	0.5
Massachusetts	13	-32	-40	-8	23	0.3	-0.8	-1.0	-0.2	0.6
Rhode Island	-2	-37	21	2	16	-0.3	-5.4	3.2	0.3	2.3
Connecticut	-17	25	2	-1	11	-0.8	1.2	0.1	0.0	0.5
Middle Atlantic:										
New York	-110	1	-47	-97	64	-0.9	0.0	-0.4	-0.7	0.5
New Jersey	-28	-29	33	-18	27	-0.6	-0.6	0.6	-0.3	0.5
Pennsylvania	32	-24	14	-26	24	0.4	-0.3	0.2	-0.3	0.3
East North Central:										
Ohio	-62	15	-39	12	32	-0.9	0.2	-0.5	0.2	0.4
Indiana	-13	-26	13	25	19	-0.4	-0.7	0.4	0.7	0.5
Illinois	-10	-34	73	-20	34	-0.1	-0.4	0.9	-0.3	0.4
Michigan	-6	40	-48	9	26	-0.1	0.7	-0.8	0.1	0.4
Wisconsin	36	-31	-18	9	24	1.2	-1.0	-0.6	0.3	0.8
West North Central:										
Minnesota	-14	-3	9	26	13	-0.5	-0.1	0.3	0.9	0.5
Iowa	27	-44	-3	12	22	1.4	-2.2	-0.1	0.6	1.1
Missouri	-38	10	38	23	27	-1.2	0.3	1.1	0.7	0.8
North Dakota	11	-6	10	-4	8	2.7	-1.4	2.3	-0.9	1.8
South Dakota	13	-5	2	-2	6	3.0	-1.1	0.4	-0.4	1.2
Nebraska	8	-12	4	-1	6	0.8	-1.1	0.4	-0.1	0.6
Kansas	12	-20	29	11	18	0.8	-1.2	1.8	0.6	1.1
South Atlantic:										
Delaware	7	-1	1	-3	3	1.9	-0.3	0.2	-0.7	0.8
Maryland	2	2	22	-15	10	0.1	0.1	0.8	-0.5	0.4
District of Columbia	12	-11	-7	-7	9	2.3	-2.1	-1.4	-1.4	1.8
Virginia	5	44	28	-15	23	0.2	1.3	0.8	-0.4	0.7
West Virginia	39	2	12	-14	17	3.3	0.2	0.9	-1.0	1.4
North Carolina	33	42	-42	-11	32	1.0	1.2	-1.1	-0.3	0.9
South Carolina	42	11	-10	-10	18	2.5	0.6	-0.5	-0.5	1.0
Georgia	-6	24	16	-24	18	-0.2	0.7	0.5	-0.7	0.5
Florida	137	57	-210	-8	103	2.7	1.0	-3.3	-0.1	1.8
East South Central:										
Kentucky	-2	-12	2	-1	4	-0.1	-0.5	0.1	0.0	0.2
Tennessee	45	-22	16	-15	25	1.7	-0.8	0.5	-0.5	0.9
Alabama	40	12	5	5	16	1.8	0.5	0.2	0.2	0.7
Mississippi	32	10	10	-4	14	2.3	0.7	0.6	-0.2	1.0

Table 3.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Postcensal Estimate: 1972 to 1978—Continued

(Population in thousands. Difference is postcensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference					Percent differnce				
	1972	1974	1976	1978	Average	1972	1974	1976	1978	Average
West South Central:										
Arkansas	44	3	-32	-7	22	3.4	0.2	-2.1	-0.5	1.5
Louisiana	34	-14	35	15	25	1.5	-0.6	1.4	0.6	1.0
Oklahoma	-3	-7	26	1	9	-0.2	-0.4	1.3	0.0	0.5
Texas	-26	25	100	30	45	-0.3	0.3	1.2	0.3	0.5
Mountain:										
Montana	9	10	-2	6	7	2.0	2.1	-0.4	1.1	1.4
Idaho	12	9	-8	3	8	2.5	1.7	-1.4	0.5	1.5
Wyoming	4	1	3	9	4	1.8	0.4	1.1	3.1	1.6
Colorado	28	-9	19	29	21	1.8	-0.5	1.1	1.5	1.2
New Mexico	35	-14	-4	3	14	5.5	-1.9	-0.5	0.4	2.1
Arizona	56	2	-28	10	24	4.5	0.1	-1.8	0.6	1.8
Utah	10	-5	-3	14	8	1.5	-0.7	-0.4	1.7	1.0
Nevada	9	8	.1	15	8	2.6	2.1	0.2	3.3	2.0
Pacific:										
Washington	-65	42	10	98	54	-2.7	1.8	0.4	3.7	2.1
Oregon	3	-6	5	33	12	0.2	-0.4	0.3	1.9	0.7
California	24	86	32	149	73	0.2	0.6	0.2	0.9	0.5
Alaska	-3	7	25	-10	11	-1.5	3.4	10.8	-3.7	4.8
Hawaii	5	3	5	-6	5	0.9	0.5	0.8	-0.9	0.8

[1]Average for States.
Source: Postcensal—U.S. Bureau of the Census (1980); Projection—U.S. Bureau of the Census (1972, 1974, 1976, 1978).

Table 4.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Intercensal Estimates: 1972 to 1980

(Populations in thousands. Difference is intercensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference						Percent difference					
	1972	1974	1976	1978	1980	Average	1972	1974	1976	1978	1980	Average
United States	1135	1409	2267	2877	4104	2358	0.8	1.0	1.5	1.9	2.6	1.5
Average absolute difference[1]	31	37	51	64	89	54	1.72	1.72	2.22	2.53	3.10	2.26
Northeast	7	68	176	62	226	108	0.0	0.2	0.5	0.2	0.6	0.3
New England	32	19	37	34	32	31	0.4	0.2	0.4	0.4	0.4	0.4
Middle Atlantic	-24	50	139	28	193	87	-0.1	0.2	0.5	0.1	0.7	0.3
Midwest	-28	-13	280	219	128	134	-0.1	0.0	0.7	0.5	0.3	0.3
East North Central	-1	78	172	211	168	126	0.0	0.3	0.6	0.7	0.6	0.4
West North Central	-27	-90	109	9	-40	55	-0.2	-0.8	0.9	0.1	-0.3	0.5
South	870	932	1190	1545	2611	1430	2.0	2.0	2.5	3.1	5.0	2.9
South Atlantic	554	623	516	827	1537	811	2.6	2.7	2.1	3.3	6.0	3.4
East South Central	177	107	247	268	310	222	2.1	1.2	2.6	2.7	3.1	2.3
West South Central	139	203	429	450	763	397	1.1	1.5	3.0	2.9	4.7	2.6
West	285	421	620	1051	1140	703	1.2	1.6	2.3	3.7	3.7	2.5
Mountain	196	84	175	343	406	241	3.5	1.3	2.6	4.9	5.3	3.5
Pacific	89	337	445	708	734	463	0.5	1.8	2.2	3.3	3.2	2.2
New England:												
Maine	26	23	18	15	21	21	3.9	3.3	2.4	1.9	2.7	2.8
New Hampshire	4	10	19	24	15	14	0.8	1.8	3.3	3.9	2.3	2.4
Vermont	-1	5	10	9	11	7	-0.3	1.6	3.1	2.6	3.1	2.1
Massachusetts	8	-26	-41	-17	-20	22	0.2	-0.6	-1.0	-0.4	-0.5	0.5
Rhode Island	9	-13	41	29	23	23	1.3	-1.9	6.3	4.3	3.3	3.4
Connecticut	-15	19	-10	-25	-17	17	-0.7	0.9	-0.5	-1.1	-0.7	0.8
Middle Atlantic:												
New York	-56	34	-18	-55	33	39	-0.4	0.3	-0.1	-0.4	0.3	0.3
New Jersey	-15	9	66	21	24	27	-0.3	0.2	1.3	0.4	0.4	0.5
Pennsylvania	46	6	90	62	135	68	0.6	0.1	1.1	0.7	1.6	0.8
East North Central:												
Ohio	-36	30	2	49	43	32	-0.5	0.4	0.0	0.6	0.6	0.4
Indiana	-11	-	52	60	43	33	-0.3	0.0	1.4	1.6	1.1	0.9
Illinois	34	81	221	157	189	136	0.5	1.1	2.9	2.0	2.3	1.7
Michigan	2	29	-54	1	-37	25	0.0	0.5	-0.9	0.0	-0.6	0.4
Wisconsin	10	-62	-48	-56	-71	49	0.3	-2.0	-1.5	-1.7	-2.1	1.5
West North Central:												
Minnesota	-23	-14	5	-5	-24	14	-0.9	-0.5	0.2	-0.2	-0.8	0.5
Iowa	8	-41	16	18	6	18	0.4	-2.0	0.8	0.9	0.3	0.9
Missouri	-26	23	60	28	9	29	-0.8	0.7	1.8	0.8	0.3	0.9
North Dakota	9	-7	10	-6	-2	7	2.2	-1.6	2.3	-1.3	-0.4	1.6
South Dakota	9	-10	-	-4	3	5	2.1	-2.2	0.0	-0.8	0.6	1.1
Nebraska	-1	-15	1	-9	-5	6	-0.1	-1.4	0.1	-0.8	-0.4	0.6
Kansas	-2	-26	18	-13	-26	17	-0.1	-1.6	1.1	-0.8	-1.5	1.0
South Atlantic:												
Delaware	8	4	9	8	12	8	2.2	1.0	2.2	1.9	2.9	2.0
Maryland	33	41	57	23	41	39	1.2	1.5	2.0	0.8	1.3	1.4
District of Columbia	19	5	11	16	20	14	3.7	1.0	2.1	3.2	4.2	2.8
Virginia	60	98	85	58	113	83	1.9	2.9	2.4	1.6	3.0	2.3
West Virginia	37	12	33	22	43	29	3.1	1.0	2.6	1.6	3.2	2.3
North Carolina	85	99	60	124	219	117	2.5	2.7	1.6	3.1	5.4	3.1
South Carolina	56	52	60	93	146	81	3.3	2.8	3.1	4.6	7.1	4.2
Georgia	49	111	119	124	241	129	1.6	3.4	3.5	3.5	6.6	3.7
Florida	208	200	82	360	702	310	4.1	3.4	1.3	5.5	10.2	4.9
East South Central:												
Kentucky	17	19	60	71	64	46	0.8	0.8	2.5	2.9	2.5	1.9
Tennessee	50	9	75	72	118	65	1.8	0.3	2.5	2.3	3.7	2.1
Alabama	51	37	53	65	55	52	2.2	1.5	2.1	2.5	2.0	2.1
Mississippi	59	42	59	60	73	59	4.2	2.8	3.8	3.7	4.4	3.8

Table 4.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Intercensal Estimates: 1972 to 1980—Continued

(Populations in thousands. Difference is intercensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference						Percent difference					
	1972	1974	1976	1978	1980	Average	1972	1974	1976	1978	1980	Average
West South Central:												
Arkansas	44	14	-1	40	66	33	3.4	1.0	-0.1	2.6	4.2	2.2
Louisiana	50	23	91	86	139	78	2.1	0.9	3.6	3.2	5.0	3.0
Oklahoma	6	17	53	38	76	38	0.3	0.9	2.7	1.9	3.6	1.9
Texas	38	148	286	287	482	248	0.5	1.8	3.4	3.2	5.0	2.8
Mountain:												
Montana	10	8	1	10	-	6	2.2	1.7	0.2	1.9	0.0	1.2
Idaho	11	10	-	15	12	10	2.3	1.9	0.0	2.5	1.9	1.7
Wyoming	1	-2	1	6	-3	3	0.4	-0.8	0.4	2.1	-0.9	0.9
Colorado	46	15	65	74	73	55	3.0	0.9	3.7	3.9	3.6	3.0
New Mexico	33	-11	12	26	31	23	5.2	-1.5	1.6	3.2	3.6	3.0
Arizona	76	48	56	124	191	99	6.1	3.3	3.6	7.6	10.7	6.3
Utah	-	-10	8	31	34	17	0.0	-1.3	1.0	3.7	3.8	2.0
Nevada	19	29	33	59	69	42	5.5	7.6	7.8	12.8	12.9	9.3
Pacific:												
Washington	-41	71	65	141	62	76	-1.7	3.0	2.6	5.3	2.1	2.9
Oregon	-5	-4	26	58	20	23	-0.3	-0.3	1.6	3.3	1.0	1.3
California	117	242	304	494	592	350	0.8	1.7	2.0	3.1	3.5	2.2
Alaska	3	13	26	-3	20	13	1.5	6.3	11.3	-1.1	7.8	5.6
Hawaii	16	15	24	20	40	23	3.0	2.6	4.0	3.1	6.1	3.8

[1]Average for States.
Source: Projection—U.S. Bureau of the Census (1972, 1974, 1976, 1978, 1980) Intercensal—U.S. Bureau of the Census (1986a)

Table 5.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Postcensal Estimate: 1980 to 1986

(Population in thousands. Difference is postcensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference					Percent difference				
	1980	1982	1984	1986	Average	1980	1982	1984	1986	Average
United States	214	443	511	147	329	0.1	0.3	0.3	0.1	0.2
Average absolute difference[1]	6	18	19	18	15	0.25	0.85	0.70	0.65	0.61
Northeast	-9	-33	161	-73	69	0.0	-0.1	0.4	-0.2	0.2
New England	-4	-54	69	-22	37	0.0	-0.6	0.7	-0.2	0.4
Middle Atlantic	-5	21	93	-51	43	0.0	0.1	0.3	-0.2	0.2
Midwest	50	94	148	101	98	0.1	0.2	0.3	0.2	0.2
East North Central	19	32	116	87	64	0.1	0.1	0.4	0.3	0.2
West North Central	30	62	30	14	34	0.2	0.5	0.2	0.1	0.3
South	86	206	97	-88	119	0.2	0.4	0.2	-0.1	0.2
South Atlantic	30	-41	214	48	83	0.1	-0.1	0.7	0.2	0.3
East South Central	32	106	23	-5	42	0.3	1.0	0.2	0.0	0.4
West South Central	24	142	-139	-130	109	0.1	0.8	-0.7	-0.7	0.6
West	87	176	105	207	144	0.3	0.5	0.3	0.6	0.4
Mountain	31	83	11	3	32	0.4	1.0	0.1	0.0	0.4
Pacific	56	92	92	204	111	0.2	0.4	0.4	0.8	0.4
New England:										
Maine	1	-1	8	-	3	0.1	-0.1	0.9	0.0	0.3
New Hampshire	1	2	12	10	6	0.1	0.3	1.7	1.3	0.9
Vermont	1	2	1	1	1	0.3	0.5	0.3	0.2	0.3
Massachusetts	-3	-36	37	-28	26	-0.1	-0.8	0.8	-0.6	0.6
Rhode Island	-	-3	5	-	2	0.0	-0.4	0.7	0.0	0.3
Connecticut	-3	-19	4	-5	8	-0.1	-0.8	0.2	-0.2	0.3
Middle Atlantic:										
New York	-12	-11	36	-66	31	-0.1	-0.1	0.3	-0.5	0.2
New Jersey	5	7	50	-3	16	0.1	0.1	0.9	-0.1	0.3
Pennsylvania	2	26	7	18	13	0.0	0.3	0.1	0.2	0.1
East North Central:										
Ohio	13	25	11	17	17	0.2	0.3	0.1	0.2	0.2
Indiana	9	38	29	-1	19	0.2	1.0	0.7	0.0	0.5
Illinois	11	-2	26	11	13	0.1	0.0	0.3	0.1	0.1
Michigan	-6	-11	61	58	34	-0.1	-0.2	0.9	0.9	0.5
Wisconsin	-8	-18	-11	2	10	-0.2	-0.5	-0.3	0.1	0.3
West North Central:										
Minnesota	6	13	4	14	9	0.2	0.4	0.1	0.5	0.3
Iowa	8	19	2	-17	12	0.4	0.9	0.1	-0.8	0.5
Missouri	1	-4	15	22	11	0.0	-0.1	0.4	0.6	0.3
North Dakota	2	7	-	-7	4	0.4	1.5	0.0	-1.4	0.8
South Dakota	3	12	6	1	6	0.6	2.5	1.2	0.2	1.1
Nebraska	5	7	6	-7	6	0.4	0.6	0.5	-0.6	0.5
Kansas	4	9	-3	7	6	0.2	0.5	-0.2	0.4	0.3
South Atlantic:										
Delaware	-	2	1	6	2	0.0	0.5	0.2	1.3	0.5
Maryland	-2	-14	-	39	14	-0.1	-0.4	0.0	1.2	0.4
District of Columbia	2	2	6	5	4	0.4	0.4	1.2	1.0	0.8
Virginia	10	-3	38	-	13	0.3	-0.1	0.9	0.0	0.3
West Virginia	5	11	-1	-23	10	0.4	0.8	-0.1	-1.6	0.7
North Carolina	9	12	41	-10	18	0.2	0.3	0.9	-0.2	0.4
South Carolina	11	18	3	-15	12	0.5	0.8	0.1	-0.6	0.5
Georgia	2	9	24	28	16	0.1	0.2	0.6	0.6	0.4
Florida	-7	-79	102	16	51	-0.1	-1.0	1.2	0.2	0.6
East South Central:										
Kentucky	6	34	-4	-4	12	0.2	1.3	-0.1	-0.1	0.5
Tennessee	10	33	14	5	16	0.3	1.0	0.4	0.1	0.5
Alabama	9	11	18	-2	10	0.3	0.4	0.6	-0.1	0.4
Mississippi	7	27	-6	-3	11	0.4	1.5	-0.3	-0.2	0.6

Table 5.
Resident Population of Voting Age for States—Difference Between Short-Term Projection and Postcensal Estimate: 1980 to 1986—Continued

(Population in thousands. Difference is postcensal estimate minus projection; base of percents is projection)

Region, division, and State	Amount of difference					Percent difference				
	1980	1982	1984	1986	Average	1980	1982	1984	1986	Average
West South Central:										
Arkansas	-1	11	11	3	7	-0.1	0.7	0.6	0.2	0.4
Louisiana	4	-5	-23	-29	15	0.1	-0.2	-0.7	-0.9	0.5
Oklahoma	8	46	-51	-40	36	0.4	2.0	-2.1	-1.6	1.5
Texas	13	90	-77	-65	61	0.1	0.8	-0.7	-0.5	0.5
Mountain:										
Montana	1	7	-3	-7	5	0.2	1.2	-0.5	-1.2	0.8
Idaho	3	4	8	-12	7	0.5	0.6	1.2	-1.7	1.0
Wyoming	-	-1	-11	-8	5	0.0	-0.3	-3.0	-2.2	1.4
Colorado	9	31	-18	-18	19	0.4	1.4	-0.8	-0.7	0.8
New Mexico	4	15	-2	10	8	0.4	1.6	-0.2	1.0	0.8
Arizona	14	30	57	38	35	0.7	1.5	2.6	1.6	1.6
Utah	-1	7	-16	-7	8	-0.1	0.7	-1.5	-0.7	0.8
Nevada	1	-9	-3	8	5	0.2	-1.4	-0.4	1.1	0.8
Pacific:										
Washington	10	-18	26	6	15	0.3	-0.6	0.8	0.2	0.5
Oregon	8	-1	29	2	10	0.4	-0.1	1.5	0.1	0.5
California	35	80	31	204	88	0.2	0.4	0.2	1.0	0.5
Alaska	3	23	3	-7	9	1.1	8.0	0.9	-1.9	3.0
Hawaii	1	9	3	2	4	0.1	1.3	0.4	0.3	0.5

[1]Average for States.
Source: Postcensal — U.S. Bureau of the Census (1988, 1984, 1986a, 1988)
Projection — U.S. Bureau of the Census (1982, 1984, 1986a)

Table 6.
Estimates of the Percent of the Age-Eligible Population Casting Votes for U.S. Representatives—Difference Between Estimates Based on Postcensal Population Estimates and Intercensal Population Estimates: 1962 to 1978

Difference is postcensal estimate minus intercensal estimate

Region and division	1962	1964	1966	Average absolute difference, 1962-66	1972	1974	1976	1978	Average absolute difference, 1972-78
United States	0.2	-0.1	-0.2	0.2	-0.2	-0.3	-0.7	-0.6	0.5
Average absolute difference[1]	0.89	0.67	0.91	0.82	0.43	0.46	0.83	0.75	0.62
Northeast	-0.9	-0.3	-0.2	0.5	-0.2	-0.2	-0.2	-0.2	0.2
New England	-1.4	-0.6	-1.1	1.0	-0.2	-0.3	-0.3	-0.2	0.2
Middle Atlantic	-0.8	-0.2	0.0	0.3	-0.2	-0.2	-0.2	-0.3	0.2
Midwest	-1.1	-0.3	-0.3	0.6	0.0	-0.1	-0.3	-0.1	0.1
East North Central	-1.2	-0.4	-0.5	0.7	-0.1	-0.1	-0.3	-0.2	0.2
West North Central	-1.0	-0.1	0.0	0.4	0.2	0.1	-0.1	0.2	0.2
South	-0.2	0.0	0.0	0.1	-0.4	-0.4	-1.0	-0.7	0.6
South Atlantic	-0.7	-0.3	-0.4	0.5	-0.5	-0.5	-1.2	-0.9	0.8
East South Central	-0.7	0.3	0.5	0.5	-0.3	-0.3	-0.9	-0.8	0.6
West South Central	-0.2	0.2	0.3	0.2	-0.2	-0.3	-0.8	-0.5	0.5
West	-1.2	0.1	-0.6	0.6	-0.4	-0.5	-1.1	-0.9	0.7
Mountain	-1.2	-1.0	-1.6	1.3	-0.4	-0.6	-1.6	-1.4	1.0
Pacific	-1.3	0.5	-0.3	0.7	-0.4	-0.4	-0.9	-0.8	0.6

X Not applicable.
[1]Average for States.
Source: See tables 1 and 2.

Table 7.
Population Eligible to Vote and Not Eligible to Vote, by State: 1980 Census
(Populations in thousands)

Region, division, and State	Total population	Population not eligible to vote					Citizens 18 and over eligible to vote		Persons 18 and over not eligible to vote as a percent of persons 18 and over		
		Total		Population under 18	Prisoners 18 and over	Aliens 18 and over					
		Number	Percent				Number	Percent	Total	Aliens	Prisoners
United States	226,546	69,784	30.8	63,755	297	5,731	157,060	69.3	3.7	3.5	0.2
Northeast	49,135	14,688	29.9	13,083	45	1,560	34,492	70.2	4.5	4.3	0.1
New England	12,348	3,608	29.2	3,281	9	318	8,750	70.9	3.6	3.5	0.1
Middle Atlantic	36,787	11,080	30.1	9,802	36	1,242	25,742	70.0	4.7	4.6	0.1
Midwest	58,866	17,727	30.1	16,918	68	740	41,207	70.0	1.9	1.8	0.2
East North Central	41,682	12,743	30.6	12,065	50	628	28,989	69.5	2.3	2.1	0.2
West North Central	17,183	4,983	29.0	4,853	18	113	12,218	71.1	1.1	0.9	0.1
South	75,372	23,004	30.5	21,638	135	1,231	52,504	69.7	2.5	2.3	0.3
South Atlantic	36,959	10,875	29.4	10,117	72	686	26,156	70.8	2.8	2.6	0.3
East South Central	14,666	4,431	30.2	4,358	18	56	10,253	69.9	0.7	0.5	0.2
West South Central	23,747	7,697	32.4	7,163	46	489	16,095	67.8	3.2	2.9	0.3
West	43,172	14,365	33.3	12,116	49	2,200	28,857	66.8	7.2	7.1	0.2
Mountain	11,373	3,658	32.2	3,458	13	187	7,728	67.9	2.5	2.4	0.2
Pacific	31,800	10,707	33.7	8,658	37	2,013	21,129	66.4	8.9	8.7	0.2
New England:											
Maine	1,125	335	29.8	321	1	13	790	70.3	1.7	1.6	0.1
New Hampshire	921	270	29.3	258	-	11	651	70.7	1.8	1.7	0.0
Vermont	511	153	29.9	145	-	7	359	70.2	2.0	1.9	0.1
Massachusetts	5,737	1,662	29.0	1,490	3	169	4,078	71.1	4.0	4.0	0.1
Rhode Island	947	274	28.9	243	1	30	674	71.2	4.4	4.3	0.1
Connecticut	3,108	915	29.4	823	4	87	2,197	70.7	4.0	3.8	0.2
Middle Atlantic:											
New York	17,558	5,581	31.8	4,688	20	873	11,998	68.3	6.9	6.8	0.2
New Jersey	7,365	2,260	30.7	1,991	6	263	5,111	69.4	5.0	4.9	0.1
Pennsylvania	11,864	3,239	27.3	3,123	9	106	8,634	72.8	1.3	1.2	0.1
East North Central:											
Ohio	10,798	3,192	29.6	3,094	13	85	7,618	70.6	1.3	1.1	0.2
Indiana	5,490	1,659	30.2	1,618	7	34	3,838	69.9	1.1	0.9	0.2
Illinois	11,427	3,598	31.5	3,243	12	343	7,840	68.6	4.3	4.2	0.1
Michigan	9,262	2,896	31.3	2,752	14	130	6,380	68.9	2.2	2.0	0.2
Wisconsin	4,706	1,397	29.7	1,358	4	35	3,313	70.4	1.2	1.1	0.1
West North Central:											
Minnesota	4,076	1,208	29.6	1,172	3	34	2,871	70.4	1.3	1.2	0.1
Iowa	2,914	844	29.0	826	2	16	2,072	71.1	0.9	0.8	0.1
Missouri	4,917	1,396	28.4	1,362	6	27	3,527	71.7	0.9	0.8	0.2
North Dakota	653	195	29.9	191	-	4	458	70.2	0.9	0.8	0.1
South Dakota	691	210	30.3	206	1	3	482	69.8	0.8	0.6	0.2
Nebraska	1,570	458	29.2	447	1	9	1,113	70.9	0.9	0.8	0.1
Kansas	2,364	673	28.5	649	5	20	1,695	71.7	1.4	1.1	0.3
South Atlantic:											
Delaware	594	173	29.2	167	1	6	422	71.0	1.6	1.3	0.3
Maryland	4,217	1,254	29.7	1,168	7	80	2,970	70.4	2.8	2.6	0.2
District of Columbia	638	167	26.1	143	1	22	473	74.1	4.7	4.4	0.3
Virginia	5,347	1,557	29.1	1,474	8	74	3,798	71.0	2.1	1.9	0.2
West Virginia	1,950	569	29.2	560	2	7	1,383	70.9	0.7	0.5	0.2
North Carolina	5,882	1,703	29.0	1,658	16	29	4,195	71.3	1.1	0.7	0.4
South Carolina	3,122	965	30.9	942	7	16	2,164	69.3	1.1	0.7	0.3
Georgia	5,463	1,693	31.0	1,646	12	36	3,781	69.2	1.2	0.9	0.3
Florida	9,746	2,795	28.7	2,360	17	418	6,969	71.5	5.9	5.7	0.2
East South Central:											
Kentucky	3,661	1,101	30.1	1,083	5	13	2,565	70.1	0.7	0.5	0.2
Tennessee	4,591	1,324	28.8	1,299	6	19	3,273	71.3	0.8	0.6	0.2
Alabama	3,894	1,179	30.3	1,162	4	13	2,718	69.8	0.6	0.5	0.1
Mississippi	2,521	826	32.8	814	2	10	1,697	67.3	0.7	0.6	0.1

Table 7.
Population Eligible to Vote and Not Eligible to Vote, by State: 1980 Census—Continued
(Populations in thousands)

Region, division, and State	Total population	Population not eligible to vote					Citizens 18 and over eligible to vote		Persons 18 and over not eligible to vote as a percent of persons 18 and over		
		Total		Population under 18	Prisoners 18 and over	Aliens 18 and over					
		Number	Percent				Number	Percent	Total	Aliens	Prisoners
West South Central:											
Arkansas	2,286	682	29.8	671	3	8	1,607	70.3	0.7	0.5	0.2
Louisiana	4,206	1,373	32.6	1,330	7	35	2,841	67.5	1.5	1.2	0.3
Oklahoma	3,025	886	29.3	855	5	26	2,145	70.9	1.4	1.2	0.2
Texas	14,229	4,757	33.4	4,306	30	420	9,503	66.8	4.5	4.2	0.3
Mountain:											
Montana	787	236	30.0	232	1	4	551	70.0	0.8	0.7	0.1
Idaho	944	317	33.6	307	1	10	627	66.5	1.7	1.5	0.1
Wyoming	470	150	31.9	146	-	4	320	68.2	1.2	1.1	0.1
Colorado	2,890	855	29.6	809	3	43	2,038	70.5	2.2	2.1	0.1
New Mexico	1,303	440	33.7	418	2	20	865	66.4	2.5	2.3	0.2
Arizona	2,718	860	31.6	791	4	65	1,862	68.5	3.6	3.4	0.2
Utah	1,461	560	38.3	540	1	19	902	61.7	2.2	2.1	0.1
Nevada	800	240	30.0	216	2	23	562	70.2	4.2	3.9	0.3
Pacific:											
Washington	4,132	1,231	29.8	1,139	5	87	2,905	70.3	3.1	2.9	0.2
Oregon	2,633	767	29.1	723	3	41	1,869	71.0	2.3	2.2	0.1
California	23,668	8,234	34.8	6,389	28	1,817	15,462	65.3	10.7	10.5	0.2
Alaska	402	137	34.1	131	-	6	265	66.0	2.3	2.1	0.2
Hawaii	965	337	35.0	276	1	61	628	65.1	9.0	8.9	0.1

Table 8.
Percent of Population Voting Based on Different Denominators from the 1980 Census, for States: 1980 Presidential Election
(Population in thousands)

Region, division, and State	Votes cast for President	1980 population			Percent voting			Difference from percent of total 18 and over	
		Total 18 and over	Citizens 18 and over	Eligible voters only*	Total 18 and over	Citizens 18 and over	Eligible voters only*	Citizens 18 and over	Eligible voters
United States	86,497	162,791	157,060	156,762	53.1	55.1	55.2	1.9	2.0
Northeast	19,206	36,052	34,492	34,447	53.3	55.7	55.8	2.4	2.5
New England	5,467	9,068	8,750	8,741	60.3	62.5	62.5	2.2	2.3
Middle Atlantic	13,739	26,985	25,742	25,706	50.9	53.4	53.4	2.5	2.5
Midwest	25,176	41,947	41,207	41,139	60.0	61.1	61.2	1.1	1.2
East North Central	17,458	29,617	28,989	28,939	58.9	60.2	60.3	1.3	1.4
West North Central	7,718	12,330	12,218	12,200	62.6	63.2	63.3	0.6	0.7
South	25,806	53,735	52,504	52,369	48.0	49.2	49.3	1.1	1.3
South Atlantic	12,582	26,842	26,156	26,084	46.9	48.1	48.2	1.2	1.4
East South Central	5,147	10,309	10,253	10,235	49.9	50.2	50.3	0.3	0.4
West South Central	8,078	16,584	16,095	16,050	48.7	50.2	50.3	1.5	1.6
West	16,309	31,057	28,857	28,807	52.5	56.5	56.6	4.0	4.1
Mountain	4,341	7,915	7,728	7,715	54.8	56.2	56.3	1.3	1.4
Pacific	11,969	23,142	21,129	21,093	51.7	56.6	56.7	4.9	5.0
New England:									
Maine	523	803	790	789	65.1	66.2	66.2	1.1	1.1
New Hampshire	384	663	651	651	58.0	59.0	59.0	1.0	1.0
Vermont	213	366	359	359	58.3	59.4	59.5	1.1	1.2
Massachusetts	2,524	4,247	4,078	4,075	59.4	61.9	61.9	2.5	2.5
Rhode Island	416	704	674	673	59.1	61.7	61.8	2.6	2.7
Connecticut	1,406	2,285	2,197	2,193	61.6	64.0	64.1	2.5	2.6
Middle Atlantic:									
New York	6,202	12,870	11,998	11,977	48.2	51.7	51.8	3.5	3.6
New Jersey	2,976	5,374	5,111	5,105	55.4	58.2	58.3	2.9	2.9
Pennsylvania	4,562	8,741	8,634	8,625	52.2	52.8	52.9	0.6	0.7
East North Central:									
Ohio	4,284	7,703	7,618	7,605	55.6	56.2	56.3	0.6	0.7
Indiana	2,242	3,872	3,838	3,831	57.9	58.4	58.5	0.5	0.6
Illinois	4,750	8,183	7,840	7,828	58.0	60.6	60.7	2.5	2.6
Michigan	3,910	6,510	6,380	6,366	60.1	61.3	61.4	1.2	1.4
Wisconsin	2,273	3,348	3,313	3,309	67.9	68.6	68.7	0.7	0.8
West North Central:									
Minnesota	2,052	2,904	2,871	2,868	70.7	71.5	71.5	0.8	0.9
Iowa	1,318	2,088	2,072	2,070	63.1	63.6	63.7	0.5	0.6
Missouri	2,100	3,554	3,527	3,521	59.1	59.5	59.6	0.5	0.6
North Dakota	301	462	458	458	65.2	65.7	65.8	0.5	0.6
South Dakota	328	485	482	481	67.5	68.0	68.1	0.4	0.6
Nebraska	640	1,123	1,113	1,112	57.0	57.4	57.5	0.5	0.5
Kansas	980	1,715	1,695	1,690	57.1	57.8	58.0	0.7	0.8
South Atlantic:									
Delaware	236	428	422	421	55.1	55.8	56.0	0.7	0.9
Maryland	1,540	3,049	2,970	2,963	50.5	51.9	52.0	1.4	1.5
District of Columbia	174	495	473	472	35.1	36.7	36.9	1.6	1.7
Virginia	1,866	3,872	3,798	3,790	48.2	49.1	49.2	0.9	1.0
West Virginia	738	1,390	1,383	1,381	53.1	53.3	53.4	0.3	0.3
North Carolina	1,856	4,224	4,195	4,179	43.9	44.2	44.4	0.3	0.5
South Carolina	888	2,180	2,164	2,157	40.7	41.0	41.2	0.3	0.4
Georgia	1,597	3,817	3,781	3,770	41.8	42.2	42.4	0.4	0.5
Florida	3,687	7,387	6,969	6,952	49.9	52.9	53.0	3.0	3.1
East South Central:									
Kentucky	1,296	2,578	2,565	2,559	50.3	50.5	50.6	0.3	0.4
Tennessee	1,618	3,293	3,273	3,267	49.1	49.4	49.5	0.3	0.4
Alabama	1,342	2,732	2,718	2,715	49.1	49.4	49.4	0.2	0.3
Mississippi	892	1,706	1,697	1,694	52.3	52.6	52.6	0.3	0.4

Table 8.
Percent of Population Voting Based on Different Denominators from the 1980 Census, for States: 1980 Presidential Election—Continued
(Population in thousands)

Region, division, and State	Votes cast for President	1980 population			Percent voting			Difference from percent of total 18 and over	
		Total 18 and over	Citizens 18 and over	Eligible voters only*	Total 18 and over	Citizens 18 and over	Eligible voters only*	Citizens 18 and over	Eligible voters
West South Central:									
Arkansas	838	1,615	1,607	1,605	51.9	52.1	52.2	0.2	0.3
Louisiana	1,549	2,875	2,841	2,833	53.9	54.5	54.7	0.7	0.8
Oklahoma	1,150	2,170	2,145	2,139	53.0	53.6	53.7	0.6	0.8
Texas	4,542	9,923	9,503	9,472	45.8	47.8	47.9	2.0	2.2
Mountain:									
Montana	364	555	551	550	65.6	66.1	66.1	0.5	0.5
Idaho	437	637	627	627	68.6	69.7	69.8	1.1	1.2
Wyoming	177	324	320	320	54.5	55.2	55.2	0.6	0.7
Colorado	1,184	2,081	2,038	2,035	56.9	58.1	58.2	1.2	1.3
New Mexico	456	885	865	863	51.6	52.8	52.9	1.2	1.3
Arizona	874	1,927	1,862	1,858	45.4	46.9	47.0	1.6	1.7
Utah	604	921	902	901	65.6	67.0	67.1	1.4	1.5
Nevada	244	585	562	560	41.7	43.4	43.5	1.7	1.8
Pacific:									
Washington	1,742	2,993	2,905	2,901	58.2	60.0	60.1	1.8	1.8
Oregon	1,182	1,910	1,869	1,866	61.9	63.2	63.3	1.4	1.5
California	8,583	17,279	15,462	15,434	49.7	55.5	55.6	5.8	5.9
Alaska	158	271	265	265	58.4	59.7	59.8	1.3	1.4
Hawaii	303	689	628	627	44.0	48.3	48.4	4.3	4.3

* Excludes persons under 18 plus prisoners and aliens aged 18 and over.

Table 9.
Percent of Population Voting Based on Different Denominators, for States: 1980 Presidential Election
(Population in thousands)

Region, division, and State	Votes cast for President	1980 population			Percent voting			Difference in percent voting		
		Eligible voters only*	Short-term projection	Interc-ensal estimate	Eligible voters only*	Short-term projection	Interc-ensal estimate	Projection minus eligible	Estimate minus eligible	Estimate minus projection
United States	86,497	156,762	160,493	164,597	55.2	53.9	52.6	-1.3	-2.6	-1.3
Average absolute difference[1]	(X)	(X)	(X)	(X)	(X)	(X)	(X)	1.34	1.98	1.55
Northeast	19,206	34,447	36,062	36,287	55.8	53.3	52.9	-2.5	-2.8	-0.3
New England	5,467	8,741	9,112	9,145	62.5	60.0	59.8	-2.5	-2.8	-0.2
Middle Atlantic	13,739	25,706	26,950	27,142	53.4	51.0	50.6	-2.5	-2.8	-0.4
Midwest	25,176	41,139	42,066	42,194	61.2	59.8	59.7	-1.3	-1.5	-0.2
East North Central	17,458	28,939	29,599	29,766	60.3	59.0	58.7	-1.3	-1.7	-0.3
West North Central	7,718	12,200	12,467	12,428	63.3	61.9	62.1	-1.4	-1.2	0.2
South	25,806	52,369	51,947	54,557	49.3	49.7	47.3	0.4	-2.0	-2.4
South Atlantic	12,582	26,084	25,737	27,274	48.2	48.9	46.1	0.6	-2.1	-2.8
East South Central	5,147	10,235	10,089	10,399	50.3	51.0	49.5	0.7	-0.8	-1.5
West South Central	8,078	16,050	16,121	16,884	50.3	50.1	47.8	-0.2	-2.5	-2.3
West	16,309	28,807	30,418	31,559	56.6	53.6	51.7	-3.0	-4.9	-1.9
Mountain	4,341	7,715	7,661	8,068	56.3	56.7	53.8	0.4	-2.5	-2.9
Pacific	11,969	21,093	22,757	23,491	56.7	52.6	50.9	-4.2	-5.8	-1.6
New England:										
Maine	523	789	790	811	66.2	66.2	64.5	0.0	-1.8	-1.7
New Hampshire	384	651	657	672	59.0	58.4	57.1	-0.5	-1.9	-1.3
Vermont	213	359	359	370	59.5	59.4	57.6	0.0	-1.8	-1.8
Massachusetts	2,524	4,075	4,298	4,278	61.9	58.7	59.0	-3.2	-2.9	0.3
Rhode Island	416	673	687	710	61.8	60.5	58.6	-1.2	-3.2	-2.0
Connecticut	1,406	2,193	2,321	2,304	64.1	60.6	61.0	-3.5	-3.1	0.4
Middle Atlantic:										
New York	6,202	11,977	12,900	12,933	51.8	48.1	48.0	-3.7	-3.8	-0.1
New Jersey	2,976	5,105	5,398	5,422	58.3	55.1	54.9	-3.2	-3.4	-0.2
Pennsylvania	4,562	8,625	8,652	8,787	52.9	52.7	51.9	-0.2	-1.0	-0.8
East North Central:										
Ohio	4,284	7,605	7,701	7,744	56.3	55.6	55.3	-0.7	-1.0	-0.3
Indiana	2,242	3,831	3,849	3,892	58.5	58.2	57.6	-0.3	-0.9	-0.6
Illinois	4,750	7,828	8,046	8,235	60.7	59.0	57.7	-1.6	-3.0	-1.4
Michigan	3,910	6,366	6,557	6,520	61.4	59.6	60.0	-1.8	-1.5	0.3
Wisconsin	2,273	3,309	3,446	3,375	68.7	66.0	67.4	-2.7	-1.4	1.4
West North Central:										
Minnesota	2,052	2,868	2,957	2,933	71.5	69.4	70.0	-2.2	-1.6	0.6
Iowa	1,318	2,070	2,093	2,099	63.7	63.0	62.8	-0.7	-0.9	-0.2
Missouri	2,100	3,521	3,569	3,578	59.6	58.8	58.7	-0.8	-0.9	-0.1
North Dakota	301	458	469	467	65.8	64.2	64.5	-1.6	-1.3	0.3
South Dakota	328	481	485	488	68.1	67.6	67.2	-0.5	-0.9	-0.4
Nebraska	640	1,112	1,138	1,133	57.5	56.2	56.4	-1.3	-1.1	0.2
Kansas	980	1,690	1,756	1,730	58.0	55.8	56.6	-2.2	-1.3	0.8
South Atlantic:	236	421	420	432	56.0	56.1	54.6	0.1	-1.4	-1.6
Maryland	1,540	2,963	3,039	3,080	52.0	50.7	50.0	-1.3	-2.0	-0.7
Dist. of Columbia	174	472	475	495	36.9	36.6	35.1	-0.2	-1.7	-1.5
Virginia	1,866	3,790	3,817	3,930	49.2	48.9	47.5	-0.3	-1.8	-1.4
West Virginia	738	1,381	1,357	1,400	53.4	54.4	52.7	0.9	-0.7	-1.7
North Carolina	1,856	4,179	4,055	4,274	44.4	45.8	43.4	1.4	-1.0	-2.3
South Carolina	888	2,157	2,069	2,215	41.2	42.9	40.1	1.7	-1.1	-2.8
Georgia	1,597	3,770	3,629	3,870	42.4	44.0	41.3	1.6	-1.1	-2.7
Florida	3,687	6,952	6,876	7,578	53.0	53.6	48.7	0.6	-4.4	-5.0
East South Central:										
Kentucky	1,296	2,559	2,532	2,596	50.6	51.2	49.9	0.5	-0.7	-1.3
Tennessee	1,618	3,267	3,205	3,323	49.5	50.5	48.7	1.0	-0.8	-1.8
Alabama	1,342	2,715	2,702	2,757	49.4	49.7	48.7	0.2	-0.8	-1.0
Mississippi	892	1,694	1,650	1,723	52.6	54.0	51.8	1.4	-0.9	-2.3

Table 9.
Percent of Population Voting Based on Different Denominators, for States: 1980 Presidential Election—Continued
(Population in thousands)

Region, division, and State	Votes cast for President	1980 population			Percent voting			Difference in percent voting		
		Eligible voters only*	Short-term projection	Interc-ensal estimate	Eligible voters only*	Short-term projection	Interc-ensal estimate	Projection minus eligible	Estimate minus eligible	Estimate minus projection
West South Central:										
Arkansas	838	1,605	1,562	1,628	52.2	53.6	51.4	1.4	−0.8	−2.2
Louisiana	1,549	2,833	2,780	2,919	54.7	55.7	53.1	1.0	−1.6	−2.7
Oklahoma	1,150	2,139	2,131	2,207	53.7	54.0	52.1	0.2	−1.6	−1.9
Texas	4,542	9,472	9,648	10,130	47.9	47.1	44.8	−0.9	−3.1	−2.2
Mountain:										
Montana	364	550	560	560	66.1	65.0	65.0	−1.1	−1.1	0.0
Idaho	437	627	634	646	69.8	69.0	67.7	−0.8	−2.1	−1.3
Wyoming	177	320	335	332	55.2	52.8	53.2	−2.5	−2.0	0.5
Colorado	1,184	2,035	2,050	2,123	58.2	57.8	55.8	−0.4	−2.4	−2.0
New Mexico	456	863	869	900	52.9	52.5	50.7	−0.4	−2.2	−1.8
Arizona	874	1,858	1,779	1,970	47.0	49.1	44.4	2.1	−2.7	−4.8
Utah	604	901	901	935	67.1	67.1	64.6	0.0	−2.5	−2.4
Nevada	244	560	533	602	43.5	45.7	40.5	2.2	−3.0	−5.2
Pacific:										
Washington	1,742	2,901	2,978	3,040	60.1	58.5	57.3	−1.6	−2.8	−1.2
Oregon	1,182	1,866	1,909	1,929	63.3	61.9	61.3	−1.4	−2.1	−0.6
California	8,583	15,434	16,956	17,548	55.6	50.6	48.9	−5.0	−6.7	−1.7
Alaska	158	265	257	277	59.8	61.7	57.2	1.8	−2.6	−4.5
Hawaii	303	627	657	697	48.4	46.2	43.5	−2.2	−4.8	−2.6

X Not applicable.
* Excludes persons under 18 plus prisoners and aliens aged 18 and over. April 1 population; others are November populations.
[1]Average for States.