HOUSE RESEARCH ORGANIZATION
Texas House of Representatives

focus REPORT

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Redistricting by the Numbers: Issues for Census 2000

Every 10 years, America takes stock of its population. The decennial census has occurred each year ending in zero since 1790. Seldom without controversy since its inception, the census this year could be one of the most divisive and complicated ever. The U.S. Bureau of the Census plans to produce two numbers — a headcount (the "100 percent" total) and a second total adjusted to correct for undercounting (the "sample") — but a new administration taking office in January 2001 could alter that decision.

How Americans are counted has become as important as *how many* are counted. Census figures have become important variables in a series of calculations determining congressional representation, state legislative and many local governmental boundaries, and, to a large extent, the distribution of federal dollars from dozens of revenue-sharing and grants-in-aid programs. With demographics changing and federal authority devolving, the stakes are high, including control of Congress and many statehouses.

The U.S. Constitution requires a census every 10 years to apportion the 435 members of the U.S. House of Representatives among the states. Each state is guaranteed at least one member; the remaining 385 are allocated through a complex mathematical formula using population figures. Because the size of the House has not changed since 1912, distributing congressional seats is a zero-sum game.

For the first time ever in 2001, the Legislature could have two sets of census-derived population data available for use in drawing new district boundaries.

Inevitably, the census creates winners and losers. As the population goes, so go House seats (19 seats shifted after 1990) and almost $200 billion a year in population-based funding to state and local governments. As former Census Bureau Director Barbara Everitt Bryant observed in a recent column, "The U.S. census redistributes too much power and money not to be fought over."

In 1997, Congress required the Census Bureau to report figures derived by means of traditional census-taking methods for all purposes and geographic levels in Census 2000. In 1999, in *Clinton v. Glavin*, consolidated with *Department of Commerce, et al. v. U.S. House of Representatives, et al.*, 525 U.S. 316, the U.S. Supreme Court ruled that only an unadjusted headcount may be used in reapportioning the 435 U.S. House seats among the states. However, the court did not address the issue of using numbers adjusted through sampling for other purposes, such as congressional and state legislative redistricting and federal formula funding.

Consequently, state legislatures facing redistricting in 2001 will be navigating uncharted waters. Post-census redistricting has become commonplace for state legislatures since a series of U.S. Supreme Court rulings in the 1960s established the principle of "substantial equality of population" among electoral districts. For the first time, however, legislators may have two sets of data available, both of which will contain much more detailed information on race and ethnicity than ever before. Some states have enacted legislation barring use of adjusted census figures in their redistricting process, but Texas has not addressed this issue specifically.

How the 77th Texas Legislature chooses to use 2000 census data in redistricting will be watched closely because Texas will be among the first states to redistrict after release of the data in the spring of 2001. The release of adjusted census data for racial and ethnic minorities also will have implications for how the U.S. Department of Justice and the federal courts may apply the federal Voting Rights Act to Texas redistricting plans.

According to a February 1999 study by the U.S. General Accounting Office (GAO), *Formula Grants: Effects of Adjusted Population Counts on Federal Funding to States*, Texas and several other states stand to gain hundreds of millions of dollars a year in additional federal funding if adjusted population figures, rather than the headcount, are used in spending allocation formulas. But before any of that can happen, another round in the sampling debate will take place as elected officials, government officials, and interest groups and advocates again confront the persistent problem of census inaccuracy.

Effect of population shifts

Nationally, the traditional headcount in 2000 is expected to yield a resident population of about 275 million, reflecting growth of more than 10 percent since 1990. The shift of population to the South and West and to urban and suburban areas is expected to continue. As a result, as many as 15 states could see changes in the size of their congressional delegations, according to the National Conference of State Legislatures (NCSL). All the states expected to gain seats are in the so-called Sun Belt. NCSL also predicts the 2000 census could show that Hispanics/Latinos have surpassed African-Americans as the nation's largest minority group.

The Texas State Data Center at Texas A&M University estimates that Texas' population now exceeds 20 million, second only to California with more than 33 million. For 2000, the center projects a 20 percent increase over the 16.9 million Texans counted in 1990. Through 1998, only Georgia among the 10 most populous states grew faster and only California added more residents, according to the Census Bureau. Harris, Bexar, Tarrant, Dallas, and Hidalgo counties show the largest growth, but Williamson and Collin counties are among the 10 counties with the fastest percentage growth in the nation.

During the 1990s, most growth occurred in South Texas, along the Interstate 35 corridor, or next to major metropolitan counties. The Panhandle and rural East Texas grew more slowly. Only a few of Texas' 254 counties are expected to have lost population or not grown at all. According to the Census Bureau, three of the 10 fastest-growing U.S. metro areas in the past decade were in Texas — Laredo at 41 percent, McAllen-Edinburg-Mission at 36 percent, and Austin-San Marcos at 31 percent. Among the nation's 10 largest metro areas, the fastest growth occurred in Dallas-Fort Worth (19 percent) and Houston-Galveston-Brazoria (18 percent).

Almost three-fourths of Texas' recent population growth is attributable to racial and ethnic minorities, according to Steve Murdock, director of the Texas State Data Center. He also notes that Texas has a high rate of natural growth (births minus deaths). Murdock has estimated that 60 percent of all Texas births are minority children, and slightly less than half are Hispanic/Latino. As a recent *Fort Worth Star-Telegram* article put it, the typical new Texan is an urban Hispanic child.

In view of these projections, a July 1999 analysis by the Texas Legislative Council, *Projected Population Changes in Texas Districts, 1990-2000*, found that the ideal populations for congressional, legislative, and State Board of Education (SBOE) districts will increase significantly, especially since the number of legislative and SBOE districts will remain static. The uneven distribution of population change will require substantial redrawing of district lines. High-growth districts will have to relinquish constituents to low- or no-growth and loss districts, although geographic regions with the most growth likely will gain new districts. Such boundary changes necessarily will affect even districts with constituent populations close to the new ideal.

Texas gained three U.S. House seats after each of the previous two censuses. If growth projections hold true, Texas should gain at least two more seats after the 2000 census, for a total of 32. If New York loses two seats and drops to 29, as expected, the Texas delegation would be second in size only to California's, which is expected to increase by one, to 53. If not for the Supreme Court

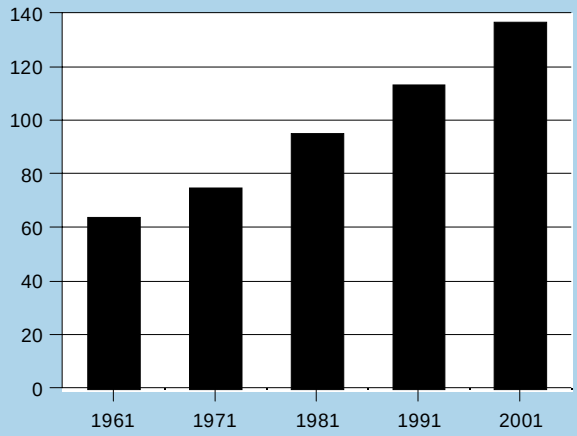
"Ideal" District Sizes Grow

The average congressional (U.S. House) district now contains 572,000 people. After the 2000 census, that number should rise by 10 percent to about 630,000. By 2010, it could be more than 670,000 if the number of House seats remains constant at 435, according to *Who Counts? The Politics of Census-Taking in Contemporary America* by Margo J. Anderson and Stephen E. Fienberg.

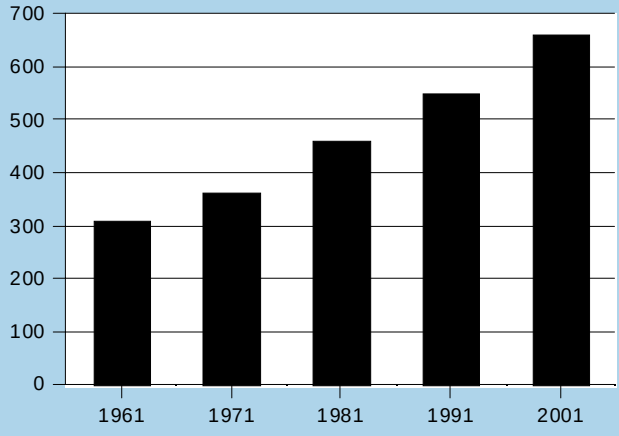
In 1991, the "ideal" population of each Texas congressional district was 566,217, based on 30 districts. The Texas Legislative Council (TLC) projects that the ideal district population in Texas for 2001 is 639,200, an increase of almost 13 percent based on a projected 32 districts. Current Texas congressional districts have one of the largest ranges of deviation from the ideal (0.82 percent) of any state, based on 1990 census figures. Under case law, congressional districts must be as equal as practicable within states so as to preserve the "one person, one vote" principle.

TLC projects that the ideal Texas House (legislative) district population will rise from 113,243 in 1991 to 136,360 in 2001. The ideal Texas Senate district population in 1991 was 547,952; for 2001, it is projected at 659,809. Both increases exceed 20 percent. If Texas' congressional delegation grows from 30 to 32 as expected, for the first time in Texas history, each of the 31 state senators would represent more constituents than members of Congress would represent.

Texas Population per House Seat (in thousands)



Texas Population per Senate Seat (in thousands)



Source: Texas Legislative Council.

ruling in the *Glavin* case prohibiting the use of adjusted data for House reapportionment, Texas might have added a third seat in 2001, according to Polidata, a Virginia-based research and consulting firm.

Taking Census 2000

The U.S. Constitution, in Art. 1, sec. 2 and in the 14th Amendment, sec. 2, requires a national census every 10 years. The 2000 census will determine the population as of April 1, known as Census Day. The Census Bureau must complete the national and state counts by December 31 and report them to the president. Within the first week of the next session of Congress, the president must report to Congress each state's population and number of allotted representatives. Within 15 days, the House clerk must inform the states of the number of representatives to which they are entitled. Since 1941, the bureau has calculated that number by means of a complex formula that assigns priority values to each seat and accounts for fractional remainders of states' populations.

Preparation. Census taking requires long-term advance preparation. In 1998, the Census Bureau conducted "dress rehearsals" of census-taking operations in Sacramento, Calif., Menominee County, Wis. (which includes the Menominee Indian Reservation), and 11 counties in the Columbia, S.C., area. Sampling was used both to generate the headcount and to compensate for any undercount in Sacramento and Menominee County. Overall net undercounts ranged from 3 percent to more than 9 percent.

The bureau has developed a master file listing the addresses of all living quarters in the nation. Congress enacted legislation in 1994 allowing the bureau to obtain postal address lists and combine them with the 1990 census address list for residences with city-style number and street-name addresses. Non-city-style addresses are incorporated by hiring workers to locate, record, and map each residence. Letter carriers were to verify the accuracy of the lists about three months before the census.

Census officials invited 39,000 local governments to assist in this process through the Local Update of Census Addresses program. In Texas, the Attorney General's Office made maps from 1990 data for hard-to-count areas. Officials of the Census Bureau's Dallas Regional Office, the Texas State Data Center, and various cities identified 200 new target areas in hopes of improving coverage.

Texas also participated in both phases of the Redistricting Data Program. In Phase 1, completed in late 1998, officials suggested topographic and geographic features to define census blocks, the smallest unit of census geography. In Phase 2, begun in January 1999, the state identified legislative districts and voting tabulation districts (census blocks approximating election precincts) and is verifying district boundaries on census maps. This phase should be complete by May 2000. Phase 3 is the actual delivery of census redistricting data — also known as "P.L. 94-171 data" after the federal law requiring its release — scheduled to occur by April 1, 2001.

Promotion. Past censuses relied heavily on "free media," public service announcements that typically do not reach many people because of their schedule placement. In November 1999, the Census Bureau launched its first paid advertising campaign, budgeted at more than $167 million. The multimedia campaign primarily will aim 250 different television spots at racial and ethnic minorities and other low-response groups. Themes include "How America knows what America needs" and "This is your future. Don't leave it blank." Of more than 130,000 messages in 17 languages, half will be aimed at the general public; of the other half, a third will target African-Americans, a third Hispanics/Latinos, and a third other minorities. The schedule calls for messages through mid-March to promote questionnaire completion and return and messages through mid-May to encourage cooperation with non-response follow-up.

The bureau has hired hundreds of specialists to manage more than 30,000 partnerships with businesses, civic groups, governmental entities, churches, and other organizations. The goal is to encourage innovation and creativity in promoting census participation. Promotions include parades, art and photo contests, in-store posters, and sales rack displays. Many communities also are forming voluntary "complete count committees" to develop plans to maximize participation. Texas has 450 such committees. The bureau has launched a nine-week, 12-van road tour ending April 15 to assist partners and committees.

The Texas 2000 Committee has met with regional census officials since January 1997. This informal working group includes the governor's census liaison and representatives of the governor, lieutenant governor, House speaker, comptroller, attorney general, land commissioner, secretary of state, and Texas Legislative

Council. In 1998, the committee tried to obtain 9-1-1 records for census purposes, but lack of 9-1-1 system uniformity across the state made the records incompatible. The committee has launched a state agency outreach campaign and has hired a coordinator. Agencies will appoint liaisons to the Census Bureau and will conduct educational activities aimed at agency employees and constituents. Gov. George W. Bush has named Secretary of State Elton Bomer as Texas' Census 2000 ambassador to spearhead promotion and raise awareness of the census' importance, especially in historically undercounted and hard-to-count areas.

Methodology. The census relies on mailed questionnaires to gather information in most areas. By July 1999, the Census Bureau had printed more than 180 million forms. The 2000 short form, the shortest in 180 years, will be sent to about 83 percent of Americans and should take about 10 minutes to complete on average. Instead of 13 questions, it will ask seven: name, sex, age, relationship to others in the household, Hispanic origin, race, and housing status (rent or own). Short-form recipients can use the form's unique serial number to respond via the Internet through a link on the Census Bureau's home page, *http://www.census.gov*.

The long form, more than 20 pages, will be sent to about one in every six American households and to a higher percentage in small towns and rural areas. It asks more than 50 questions, including citizenship, ancestry, work, housing, and income, and should take an average of 38 minutes to complete. A pilot program now underway could make the long form obsolete by 2010 (see box, page 7).

As a result of a 1997 directive by the Office of Management and Budget, the Census Bureau and all other federal agencies allow individuals to classify themselves as members of more than one race. There is no single multiracial category. People of any race may categorize themselves separately as Hispanic/Latino. Allowing multiple-race designations will increase significantly the detail of racial and ethnic data reported by the bureau, especially for redistricting purposes.

All individual census data are confidential by law and may not be shared with any other entity, including federal government and law enforcement agencies. Violations are punishable by up to five years in prison and $5,000 in fines.

Census 2000 Highlights

Several aspects of Census 2000 are new, including:

- paid advertising;
- Internet response (short form only);
- using address information provided by the U.S. Postal Service;
- asking state, local, and tribal governments to help correct census maps and address lists;
- digitizing forms to enable scanning of responses directly into computers that can read handwriting;
- using "matching" software to check individual blocks and identify multiple responses from the same household; and
- providing more response opportunities, such as placing forms in public places.

Major changes from past practice include:

- allowing respondents to identify themselves as members of more than one specific race, in addition to being Hispanic/Latino;
- shorter short form and a pilot program designed to phase out the long form;
- no second mailing of questionnaires;
- no post-census local review; and
- two population totals.

Operations. The census has been called this country's largest peacetime mobilization. By early January 2000, the bureau had acquired 4.5 million square feet of office space, 17,000 telephones, and 100,000 pieces of furniture. It had opened 520 field offices and budgeted $9.5 million for help-wanted advertising to fill 860,000 temporary positions, 45,000 in Texas alone. More personnel are needed than the bureau originally planned because — as a result of the *Glavin* decision requiring an actual headcount for congressional reapportionment — it has abandoned use of sampling in the actual counting process in favor of increased efforts to obtain a more accurate headcount. Census takers will be needed for 10 weeks instead of six, and the door-to-door workload has increased by 50 percent, from 30 million to 45 million housing units.

In early March 2000, the bureau will mail advance letters announcing the census to residences with city-style addresses. The bureau plans to mail questionnaires in mid-March, followed by reminder and thank-you postcards. Also during March, census workers will leave questionnaires at residences with non-city-style addresses. April 1 is the target date for mailing back questionnaires. A call center network providing toll-free assistance with questionnaires expects to handle up to 11 million calls between March 3 and June 8. Assistance also will be available on the Internet.

Census takers will conduct door-to-door non-response follow-up from late April through early July and will seek out homeless people and transients in shelters, soup kitchens, and public places April 27-29. From late July through mid-August, census staff will revisit residences that may have been classified mistakenly during non-response follow-up.

The sampling debate

By the government's admission, no census is ever 100 percent accurate. Undercounting has plagued the census since the first one in 1790 took 18 months to count 3.9 million Americans. President George Washington thought the figure was too low. In 1870, New York and Philadelphia successfully challenged the census results, and recounts revealed a 2 percent undercount. Societal changes in the latter part of the 20th century have made a precise counting of the American people even more difficult. Consequently, the Census Bureau is trying new methods and is modifying procedures in hopes of increasing both participation and accuracy.

The bureau considers statistical sampling the best way to improve census accuracy. However, the use of sampling in the census — once almost exclusively within the purview of statisticians and demographers — has become an increasingly partisan issue and the focus of national political debate.

In the late 1980s, the Democratic Congress clashed with the Republican administration over census policy. In the early 1990s, a coalition of states and large cities, seeking to increase levels of federal assistance, sued the federal government to adjust census figures. Later in the decade, the Republican-controlled House and a conservative advocacy group sued to prevent the use of sample data for congressional reapportionment. Congress and the Clinton administration have sparred repeatedly over spending for sampling and other counting methods, especially in the past three budget cycles.

The Bush administration declined to adjust the 1990 census, which the bureau determined to be the first to be less accurate than its predecessor. Under the Clinton administration's plan, Census 2000 will contain limited sampling. For redistricting purposes in 2001, the Census Bureau plans to release both traditional headcount figures and adjusted numbers. But the next administration could abrogate that policy, depending on what changes (if any) it makes in the bureau and its parent agency, the Department of Commerce. In any case, the census data issue may end up in the courts again.

Post-census sampling and adjustment. The Census Bureau has formulated a "two-number census" plan. It will pursue a conventional "100 percent" headcount using thousands of additional census takers to do traditional non-response follow-up with those who fail to return their questionnaires. It also will use a post-census survey to identify and analyze errors and, if necessary, adjust the initial count. But whether and how the adjusted numbers will be available to states and other jurisdictions remains an open question.

Census Bureau officials have interpreted Sec. 209(j) of Public Law 105-119 (the Commerce Department's fiscal 1998 appropriations act) to require that "100 percent" data — i.e., the actual headcount — be reported in identical format along with any reported "sample" data statistically adjusted to account for those whom the headcount missed. Congress approved the compromise language during the 1997 budget impasse in response to the bureau's original "one-number census" plan, which would have incorporated sampling into the actual headcount process. Under this plan, the bureau was going to follow up on a sample of non-responding households and statistically estimate the population in the remainder. The results were to have been corrected for counting errors by means of another survey and combined statistically with results of the actual headcount to provide a single, integrated set of population counts.

While the bureau will not use sampling in determining the actual headcount in 2000, it will conduct an Accuracy and Coverage Evaluation (ACE) survey to measure and compensate for the undercount of the U.S. population,

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All Census, All the Time

Has taking the census every 10 years become obsolete? In some ways, yes, and the U.S. Bureau of the Census is trying to speed up the obsolescence through its Continuous Measurement Program. While this program would not replace the decennial headcount required to apportion U.S. House seats among the states and possibly for redistricting and certain other purposes, it could eliminate the need to gather more detailed statistics every 10 years to measure the characteristics of the population.

In addition to the decennial census of population and housing, the Census Bureau periodically estimates the entire population between censuses, performs an economic census every five years, conducts more than 100 annual demographic and economic surveys, and issues monthly population estimates. In 1940, the bureau began regularly conducting the Current Population Survey (CPS) in collaboration with other federal agencies, primarily to estimate the labor force. But the CPS samples are not large enough to generate data below the state level, and decennial census data quickly become outdated.

Demand for more timely, detailed data — especially by state and local government planners and program administrators — prompted the bureau to move toward continuous measurement to fill statistical gaps more often than every 10 years.

The most ambitious program is the American Community Survey (ACS), scheduled for testing through 2002 in 31 select communities, including some in Harris, Fort Bend, Starr, and Zapata counties in Texas. Since 1996, Congress has appropriated $81.6 million for ACS, including $20 million for fiscal 2000.

The Census Bureau plans to implement ACS nationwide in 2003. If Congress approves, annual and multi-year estimates generated by monthly sampling would become available starting in 2004 and would replace the long form in Census 2010. That could enable the bureau to use the short form, or perhaps even return-mail postcards, for the actual population count every 10 years.

A fully implemented ACS each year would sample a random 3 percent of the population — 250,000 households each month, three million a year, none more often than once every five years — in every county in America. The survey would estimate annual demographic, housing, and socioeconomic characteristics for every state, county, metropolitan area, city, town, or population group of 65,000 or more. Smaller areas would have data averaged over three to five years. Data initially would be collected by mail, with non-responses followed up by telephone and personal interviews. As now planned, the survey would contain only questions that Congress has approved for the long form, which is mailed to about 17 percent of the U.S. population. ACS findings would be comparable across states.

The survey also could include questions of national policy interest or specialized supplements to help identify the status of special population groups. Delivery is projected to begin within six months of the end of each survey cycle via CD-ROM and the Internet.

The bureau touts ACS for its increased sampling options and flexibility of design and content, as well as enhanced frequency for evaluation. Specifically, the bureau hopes that ACS will allow more effective targeting of neighborhoods that require assistance (for example, those with many non-English speakers); simplify census data collection and processing by replacing the long form; improve coverage by continuously updating address lists through regular interaction with local officials; spread the decennial census budget more evenly over the decade; and establish a cadre of professional, experienced field representatives in hard-to-count areas.

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both overall and by racial, ethnic, regional, and other subgroups. Results of the ACE will be combined with the initial count to produce a "best estimate" of the total population by spring 2001. The bureau plans to release this separate set of adjusted numbers for redistricting and other purposes along with unadjusted headcount data.

Some have compared taking the census to trying to count the crowd at a basketball game during halftime. Such a numerical snapshot inevitably misses those at the concession stands or erroneously counts those who had switched seats. The ACE serves as a kind of parallel "mini-census" designed to address such inherent problems. It is the latest version of the post-enumeration survey the bureau has conducted after each census since 1970. The process is not unlike tagging a sample of fish in a lake, then catching more fish from the lake and using the number of tagged fish in that catch to calculate the lake's entire fish population.

According to GAO, the ACE will estimate the population by sampling households from an address list developed before Census Day, independent of the list used to conduct the actual headcount. The bureau has selected a sample of census blocks throughout all 50 states containing about 300,000 housing units. The blocks are supposed to represent a cross-section of the population, including urban and rural areas, ethnic minorities, renters and homeowners, and so on. The blocks also are grouped to account for regional characteristics.

Near the end of the headcount process, ACE interviewers will visit each housing unit in the selected blocks to determine who lived there on April 1. Interviewers will try to contact members of each household in the housing units. (In census terminology, a housing unit may contain more than one household.) Findings will be matched with the same blocks in the headcount and, if necessary, discrepancies will be resolved by additional interviews.

The bureau will determine the extent to which the more than 400 population subgroups (race, gender, etc.) were counted on the basis of who was included in both the ACE and the headcount, who was omitted in both, and who was included in one or the other. The bureau will calculate the number of people in each subgroup in each block by using coverage factors, the ratios of the estimated true population to the subgroup's census headcount. The bureau will apply the same error rate for all blocks for each subgroup. Fractions of persons will be rounded at the block level to produce a total estimate.

Pinpointing the problem. Until the mid-20th century, the Census Bureau and statisticians mainly were concerned with the *overall net* undercount — residents not counted less those counted more than once or otherwise miscounted. More recently, attention has turned to the *differential* undercount — the variation in the proportion of undercounting across races, regions, and other factors. Ethnic, racial, and language minorities, immigrants, inner-city dwellers, the urban poor and homeless, children, renters, and residents of remote rural areas historically are undercounted at higher rates than for other Americans. In other words, they are missed more often.

The Census Bureau has taken measures to compensate for the undercount, most notably the post-enumeration survey. Between 1940 and 1980, the bureau reduced the undercount from 5.4 percent to 1.2 percent. By the mid-1960s, however, expansion of federal aid to state and local governments, court-mandated population equality for redistricting, and landmark civil-rights legislation combined to politicize efforts to eliminate the undercount. Pressure mounted to incorporate increasingly sophisticated statistical sampling techniques into census methodology to produce more accurate data needed by smaller geographic areas and political subdivisions.

Although the 1990 census counted more than 98 percent of the American public, it still had an error rate of about 10 percent. Subsequent internal testing showed it to be less accurate than in 1980, perhaps by as much as 3 percent. More than 4 million people were counted more than once, while 8.4 million, including an estimated 486,000 in Texas, were missed altogether. For the first time in 50 years, the overall net undercount rose, to about 1.6 percent.

Participation in the census has declined steadily. In 1970, when questionnaires first were mailed, the response-return rate for households was 78 percent. By 1990, the rate had dropped to 65 percent (61 percent in Texas). For 2000, the Census Bureau has budgeted for a national household response-return rate of 61percent. GAO figures indicate that each percentage point below 61 percent could cost an additional $34 million. Most of that amount would pay for hiring extra workers to do lengthier direct non-response follow-up, which the bureau considers less accurate than sampling.

Estimates based on the 1990 post-enumeration survey showed that the census had missed less than 1 percent of non-Hispanic whites but missed much higher percentages of minorities: Hispanics/Latinos, 5 percent; Native Americans, 4.5 percent; blacks/African-Americans, 4.4 percent; and Asians/Pacific Islanders, 2.3 percent. The census missed 4.3 percent of renters, versus only 0.1 percent of homeowners. For the first time since 1940, the difference between the proportion of blacks and non-blacks counted grew larger. Minors comprised almost half the total undercount, and infants and children up to age 4 were almost three times more likely to be missed than older children. The undercount was even larger among minority children. Six Texas cities were among the top 20 cities nationally where at least 5.5 percent of the children were missed.

The Census Bureau has estimated that it missed 2.9 percent of all Texans in 1990, including 5.7 percent of Hispanics/Latinos, 4.1 percent of blacks/African-Americans, and 1.4 percent of non-Hispanic whites. Mayor Lee Brown has estimated that 66,000 Houstonians, or almost 4 percent of the city's population, went uncounted, depriving Houston of $53 million in federal funds. The census missed 1,000 residents of Plano, according to the U.S. Conference of Mayors. Hidalgo County Judge Eloy Pulido believes that the undercount in his county averaged as much as 31.5 percent.

The 1990 undercount may have cost Texas an additional House seat, according to some demographic analyses. Estimates vary as to how much more federal money Texas might have received over the past decade due to adjustment, but most sources, including GAO, put the amount at close to $1 billion.

Seeking a solution. Some segments of the American population are inherently difficult to locate and/or count, such as transients, college students, and senior citizens. Other reasons cited for undercounting in general include:

- increases in the number of households with multiple wage-earners;
- decreases in the number of households maintained by married couples, from more than 75 percent in 1970 to 56 percent in 1990;
- increases in remote or less accessible housing, such as gated communities and apartment complexes;
- a more mobile populace;
- heightened concerns for privacy;
- the proliferation of "junk" mail and an aversion to surveys;
- distrust of government, especially among immigrants and undocumented workers; and
- a growing sense of social alienation.

If these trends continue, as many observers expect, they could hinder participation in and accuracy of the census again in 2000.

Sampling allows extrapolation across an entire population based on data collected from a randomly selected cross-section of that population. Sampling routinely is used in opinion polling, marketing research, and rating television programs, for example. Since the mid-1990s, the federal government has used adjusted 1990 census figures for sample surveys of economic and social indicators. The Census Bureau uses sampling to update its population estimates between decennial censuses.

During each census, one of every six Americans receives the long-form questionnaire containing detailed questions used to develop national demographic data. In the past several decades, the bureau has increased its internal use of sampling techniques to measure census coverage and to adjust for error, primarily the undercount. However, sampling never has been used in the actual counting of the population, nor have adjusted numbers ever been used for reapportionment or redistricting.

In 1990, after the initial headcount, the bureau's post-enumeration survey sampled about 150,000 housing units. The bureau had planned to sample 300,000, but the Commerce Department scaled back the survey in negotiating a court-ordered settlement of a pro-sampling lawsuit. Census takers (enumerators) contacted households, matched the survey responses to those obtained from the initial count, and compared the two data sets to estimate what proportions of people were missed. Although criticized for its weaknesses, the survey found higher overall and differential undercounts than originally reported. Eventually, the federal government used the adjusted numbers to some extent, but the official 1990 census figures remained unchanged.

Proponents maintain that sampling is the most efficient means to ensure the overall numerical accuracy of the census. Given the logistical problems of finding more than a quarter of a billion people in less than a year, they point to sampling as more cost-effective than direct counting, which has its own shortcomings. They

argue that sampling methodology has become sophisticated enough for all census applications and that it excels at reducing gross error across broad ranges of the population and over large geographic areas. Supporters believe sampling will make the census fairer and more equitable, especially for Americans who historically have been missed, and they note that sampling has been incorporated into federal law.

Opponents of sampling contend that it is unconstitutional. They interpret the Constitution as requiring that each person be counted physically, not "invented" mathematically or subtracted numerically. Opponents also have attacked sampling on legal and technical grounds. Federal law expressly prohibits the use of sampling for reapportioning the House, they argue, and the Census Bureau's methods and plans are flawed and unfeasible. Opponents note that even some proponents of sampling concede that sampling for the purpose of estimating population is less accurate than conventional counting methods at lower levels of census geography. Critics argue that sampling does not perform well in identifying sources of undercounting, nor does it differentiate among population subgroups in precise proportions. Opponents also charge that sampling is open to manipulation and exploitation for political purposes.

The Census Bureau originally planned to conduct a "one-number" census in 2000 to address the controversy over adjusting the headcount.

Legal disputes over sampling

Conflicts over census sampling began escalating during the Reagan administration. In late 1987, the Commerce Department decided to drop the longstanding post-enumeration survey and not to adjust the 1990 census statistically. In November 1988, five days before the presidential election, a coalition of civil-rights groups and large undercounted cities and states, led by New York, sued the Commerce Department to force the use of sampling in the 1990 census (*City of New York, et al. v. U.S. Department of Commerce, et al.*, 822 F. Supp. 906 (ED N.Y. 1993); 34 F.3d 1114 (CA2 1994); cont'd. as *Wisconsin v. City of New York*, 517 U.S. 1).

In 1989, the Commerce Department under President Bush agreed to a court order that it reconsider its decision not to sample, reinstate a scaled-back survey, and review a special advisory panel's recommendations on correcting the undercount. In 1990, the department issued guidelines for deciding whether to adjust the census. Critics attacked the guidelines for being weighted in favor of non-adjustment.

In 1991, the eight-member advisory panel split evenly over adjustment, with the plaintiffs' experts supporting it and the government's experts opposing it. Shortly thereafter, an internal committee of the Census Bureau voted decisively in favor of adjustment. But Commerce Secretary Robert Mosbacher decided against adjusting the official numbers, declaring, "The 1990 census is not the vehicle to address equity concerns raised by the undercount." Among his stated reasons were concerns about reducing the accuracy of the proportions within various census categories, the possible disincentive to participate, the adverse impact on some states and communities, and the specter of political tampering, especially in advance of congressional reapportionment.

Subsequently, the Commerce Department, Congress, and the Census Bureau created four new advisory panels, including one under the auspices of the National Academy of Sciences. By mid-decade, a consensus emerged that the 2000 census design should incorporate some form of sampling.

The State of Texas and the cities of Houston, San Antonio, and El Paso joined the *City of New York* lawsuit to force correction of 1990 undercounts. In 1996, however, the U.S. Supreme Court upheld Mosbacher's decision not to adjust the 1990 census (517 U.S. 1 [1996]). The court ruled it reasonable and within the government's broad constitutional and statutory discretion to conduct the census and for the commerce secretary to determine its content. The justices did not address the constitutionality of sampling or adjusted census numbers.

The State of Texas, the Mexican American Legal Defense and Educational Fund, and the Texas Civil Rights Project filed similar separate lawsuits in 1991. They were unsuccessful in attempting to force the federal government to distribute money on the basis of the adjusted census figures or to prevent the use of the unadjusted numbers without compensating minorities for the undercount (*State of Texas, et al. v. Robert Mosbacher*,

Secretary of Commerce, et al., 783 F. Supp. 308 (SD Tex. 1992)). These cases were dismissed in 1996, two months after the Supreme Court upheld Mosbacher's decision not to adjust the 1990 census.

By 1996, the political positions had switched. The Republicans now controlled Congress and generally opposed using sampling to adjust for the undercount. The Commerce Department under a Democratic administration had reversed field and now supported integrating statistical sampling into the counting procedure. The Census Bureau planned to conduct a "one-number census" to address the adjustment controversy. For the first time in history, the 2000 census would use sampling to estimate the count as well as to adjust it.

The non-response follow-up proposal called for direct sampling of census tracts (county statistical subdivisions with 2,500 to 8,000 residents) immediately after the initial counting phase. The bureau wanted to sample randomly a portion of the non-responding households in each tract, contacting them with census takers, and use the results to estimate the unsampled population that did not respond.

The "one-number census" was to have been produced by an expanded post-enumeration survey called integrated coverage measurement. This independent count of 750,000 housing units in 25,000 census blocks was to determine what proportion of households were counted and were missed, either in the initial phase or during non-response follow-up. The idea was to compare data sets to estimate undercounts, overcounts, and miscounts and to adjust the census accordingly. Unlike in 1990, however, the adjustment was to be made *before* any numbers were released.

In 1997, Congress tried to block this plan by inserting a prohibition into an emergency flood-relief bill, but President Clinton vetoed the bill. In the fiscal 1998 appropriations act covering the Commerce Department and the Census Bureau, Congress instructed the bureau to prepare for a traditional headcount along with its sampling plan. Congress also required that headcount data be reported "for all levels of census geography . . . for use in redistricting." The act also created and funded the Census Monitoring Board to oversee census preparations and implementation. The White House appointed half the panel, Congress the other half.

Also, the appropriations act authorized expedited antisampling lawsuits against the Census Bureau. Early in 1998, two such suits were filed: *Glavin v. Clinton* by the conservative Southeastern Legal Foundation of Atlanta, along with Cobb County, Ga., and individuals including U.S. Rep. Robert Barr, R-Ga., and *U.S. House of Representatives, et al. v. Department of Commerce, et al.*, under the direction of then-Speaker Newt Gingrich. Both suits sought to prohibit the use of sampling in the 2000 census for reapportioning House seats among the states.

The plaintiffs contended that sampling is precluded by constitutional language requiring apportionment from "counting the whole number of persons in each State" and a census that is an "actual enumeration." In its suit, the House asserted its sole right to determine how the census is conducted and complained that adjusted numbers "could be politically manipulated to alter the composition of the House." The plaintiffs in *Glavin* alleged potential vote dilution, loss of political representation, and loss of federal funds. They sought to prevent any census plan that did not attempt to count everyone, as well as any congressional reapportionment based on adjusted census data.

The Census Act, Title 13, U.S.C., contains two seemingly contradictory references to sampling. Sec. 141(a) directs the commerce secretary to conduct the census "in such form and content as he may determine, including the use of sampling procedures and special surveys." Sec. 195 requires the secretary to use statistical sampling, if considered feasible, "[e]xcept for the determination of population for purposes of apportionment of Representatives in Congress among the several States."

The justices in the majority in Glavin *found that sampling to determine population for the purpose of reapportioning the House violates the Census Act.*

In January 1999, the Supreme Court dismissed the House suit on direct appeal and by 5-4 affirmed the Virginia federal district court's judgment in *Glavin*. The justices in the majority found that sampling to determine population for reapportioning the House violates the Census Act, which includes a specific exemption from the use of sampling for congressional reapportionment. The court did not address specifically

the use of sampling to generate census figures for other purposes, such as redistricting. Justice Sandra Day O'Connor's majority opinion noted that the act's 1976 amendments, which require that census data be reported to states for redistricting, also may require that the data be adjusted through sampling "if feasible," although the commerce secretary still retains substantial authority to determine how the census should be conducted. The majority opinion specifically did not address constitutional issues.

Justice Antonin Scalia, joined by Chief Justice Rehnquist and Justices Kennedy and Thomas, concurred in the decision but also said that it was "unquestionably doubtful" whether the constitutional requirement of an "actual enumeration" would be satisfied by statistical sampling. Justice Scalia also noted that "genuine enumeration may not be the most accurate way of determining population, but it may be the most accurate way of determining population with minimal possibility of partisan manipulation."

In his dissent, Justice John Paul Stevens interpreted Sec. 195 of the Census Act as commanding the commerce secretary to use sampling, subject to two exceptions: when sampling is not feasible and when determining population for congressional reapportionment. Although the act does not require sampling for congressional reapportionment, it also does not prohibit it, according to Justice Stevens. Joined by Justices Souter, Ginsburg, and Breyer, Justice Stevens addressed the constitutional issue by noting that the Art. 1, sec. 2 requirement that Congress provide for an "actual enumeration" is modified by "in such Manner as they shall by Law direct." He said that the constitutional goal of equal representation among the states is served best by conducting the census in a "manner" in which it is most likely to be complete and accurate and that Congress has broad discretion to authorize sampling to ensure the most accurate census possible.

In a separate dissenting opinion, Justice Stephen Breyer found that Sec. 195 prohibits sampling from being used as a *substitute* for traditional enumeration methods but allows sampling to be used as a *supplement* to achieve the most accurate census count possible. Because the Census Bureau did not propose to use sampling to replace the headcount but to supplement it, he found no violation of the Census Act.

Far from ending the sampling war, the *Glavin* ruling prompted a budget battle in Congress over 2000 census appropriations. In February 1999, the Census Bureau announced that it would issue two sets of numbers: headcount numbers and numbers adjusted by statistical sampling to account for people whom the census may miss. Efforts by the Republican majority in Congress to block this plan were stymied by veto threats by President Clinton. With the time for the census drawing near, Congress added $1.7 billion to the 2000 census budget of $2.8 billion, designated as emergency spending. Most of the additional money is to hire more census takers in lieu of the sampling procedures dropped from the bureau's original plan. Actual and budgeted expenditures for Census 2000 now exceed $6.2 billion. For comparison, the 1990 census cost a record $2.6 billion.

Challenges for Census 2000

Many of the factors contributing to the poor results of the 1990 census will remain during Census 2000. The bureau anticipates a national mail-back response rate of 61 percent, although it is encouraging state and local governments to increase their 1990 rates by 5 percent. The target figure for the national overall net undercount is 1 percent (550,000 Texans). The ACE survey could be less effective in compensating for the undercount, however, because the sample size has been reduced by more than half, from 750,000 housing units to 300,000.

The Supreme Court's *Glavin* ruling in January 1999 left little time for course correction. Although plans for Census 2000 always had included a traditional headcount, the bureau had to abandon the use of sampling to supplement counting for congressional reapportionment. For other purposes, the bureau still plans to release figures adjusted for the undercount.

Congressional critics have complained about the bureau's contingency planning. Some fear that major operational changes in the census may delay delivery of redistricting data in 2001. GAO's December 1999 report on Census 2000 contingency planning criticized the bureau's decision not to mail second questionnaires to non-responding households. GAO also expressed concern about the bureau's ability to hire enough additional temporary workers in a low-unemployment market. Maintaining a workforce of 860,000 would require an applicant pool of 3.5 million, GAO noted. The bureau's target is 3 million, and as of February 8, the bureau had recruited almost 1.3 million.

The *Glavin* decision has not diminished the potential for more legislation and litigation over census issues. While opposing forces in Congress maintain an uneasy truce, lawsuits are inevitable, regardless of whether headcount or adjusted census data are used. At least two opposing groups have vowed publicly to challenge new redistricting plans based on the type of data used. The American Civil Liberties Union opposes use of unadjusted figures, and the Southeastern Legal Foundation (the *Glavin* plaintiff) opposes use of adjusted figures.

The Supreme Court, in *City of New York*, upheld the commerce secretary's authority over conduct of the census. This authority could become important when the new administration decides in 2001 whether to release both sets of numbers. Whoever is elected president could appoint a commerce secretary who could reverse the Census Bureau's current plans to release two sets of census figures.

As a presidential candidate, Gov. George W. Bush has indicated that he prefers a conventional headcount but has stopped short of saying what he would order as president. Vice President Al Gore, U.S. Sen. John McCain, and former U.S. Sen. Bill Bradley, also contenders for the presidency, have said they would release both sets of data.

Members of the 77th Legislature will be under extreme deadline pressure in redrawing legislative, congressional, and other boundaries.

Implications of a two-number census

The Census Bureau plans to ship each state its data on CD-ROM via overnight delivery by April 1. Once legislative and executive leaders have confirmed receipt, the bureau will post the data on its American FactFinder site on the Internet, *http://factfinder.census.gov*.

Texas lawmakers will have access to the data on their Capitol offices' personal computers as well as on those at the Texas Legislative Council. The redistricting software can generate maps using either adjusted or unadjusted data, both of which will have census block-level detail tabulated by race, Hispanic origin, and voting age.

Census officials are proceeding with plans to apply the ACE survey results to the headcount and are reserving the right to adjust the data accordingly. "If there are no major operational problems in taking the census or conducting the ACE, we will provide P.L. 94-171 redistricting data corrected for counting errors to each state, and we will designate these data as the most accurate for redistricting," stated Marshall L. Turner Jr., chief of the Census 2000 Redistricting Data Office. The unadjusted block counts that Congress required also will be made available publicly. If that happens, the Legislature could choose to develop a redistricting plan with or without adjusted data.

If the bureau opts not to adjust the data, the situation would become similar to that in 1991, when the Legislature had only unadjusted data available. A lawsuit could be filed to force an adjustment as being the most accurate census under Public Law 94-171, the federal law (13 U.S.C. 141(c)) requiring the bureau to report data to the states for redistricting purposes. But if a subsequent adjustment is made, those data might be obtained by request under the federal Freedom of Information Act even if they were not released by the new administration. "Which data is released to the states is a big wild card depending on who's president," observed Tim Storey, redistricting specialist with NCSL. "It will be challenged in court regardless."

Legislative deadlines. After the 77th Texas Legislature convenes January 9, 2001, it will have to decide whether to use adjusted or unadjusted census data in redrawing boundaries for legislative, congressional, judicial, and State Board of Education districts, depending on what data are available.

Lawmakers will be under extreme deadline pressure. The Census Bureau's change in plans after the *Glavin* ruling to abandon sampling for non-response follow-up could prolong the time it takes to prepare Texas' data, depending on how Texans respond to the census. P.L. 94-171 requires the bureau to supply the states with detailed redistricting data no later than 12 months after the census is taken — that is, by April 1 of the following year.

Art. 3, sec. 28 of the Texas Constitution requires completion of legislative redistricting during the regular session following publication of the census. The courts have interpreted this provision to mean the regular session during which census data are released (see Attorney General Opinion DM-6, February 27, 1991).

Under current legislative rules, the last day the House could consider a House bill on second reading would be May 10, 2001. To be considered by the Senate, any bill would have to be reported by a Senate committee no later than midnight on May 11. The last day for the House to consider a Senate bill on second reading would be May 22. The regular session will end May 28, 2001.

The Constitution provides that if the Legislature does not enact valid redistricting bills for the Texas House or Senate during the regular session, or if the governor later vetoes a legislative plan or the U.S. Justice Department or a state or federal court invalidates it, the task shifts to the Legislative Redistricting Board (LRB), comprising the lieutenant governor, House speaker, attorney general, comptroller, and land commissioner. They must meet within 90 days of the Legislature's adjournment and adopt a redistricting plan within 60 days of their initial meeting.

Adjusted census data that boost minority population numbers could have a major impact on determinations under the federal Voting Rights Act.

Even if the census data are released only a few days before the regular session ends, the Legislature must complete legislative redistricting or else the task falls to LRB. But what happens if the Census Bureau releases adjusted numbers after the regular session ends? AG Opinion DM-6 addressed such issues in the context of the 1990 census. If the Census Bureau released unadjusted headcount figures during the regular session and the Legislature failed to enact a valid House or Senate plan, LRB still would have jurisdiction to redistrict even if adjusted numbers were released after the regular session ended. The first set of figures would count as the census "publication," triggering the Art. 3, sec. 28 deadline. The Legislature could not enact a legislative redistricting plan during a special session held during the period when LRB had jurisdiction, regardless of the subsequent release of adjusted census figures.

The attorney general specifically refused to offer an opinion on whether post-session release of adjusted census numbers would invalidate legislative redistricting plans that the Legislature had enacted during the regular session using unadjusted headcount data. He also refused to determine whether the Legislature or LRB would have to use unadjusted or adjusted figures in their redistricting plans. However, under the circumstances surrounding the 1990 census adjustment controversy, the attorney general determined that post-session publication of adjusted census figures would have been treated as a new census publication under Art. 3, sec. 28, triggering a new round of legislative redistricting in the subsequent regular session.

Another state constitutional issue that may have to be resolved if the Census Bureau makes available two sets of census numbers involves Art. 3, sec. 26. This provision requires that members of the Texas House of Representatives must be apportioned among the counties based on their population, according to a ratio obtained by dividing the state population "as ascertained by the most recent United States census" by the number of House members. Counties with larger populations are entitled to have within their boundaries the number of whole districts to which they are entitled based on their population, plus a partial district if any surplus is left over. Counties with enough population for one whole district are entitled to have that district wholly within their boundaries. Yet to be determined is the issue of what constitutes "the most recent United States census" if the Census Bureau issues two sets of substantially different numbers simultaneously or issues adjusted numbers after issuing the headcount numbers.

There is no state constitutional deadline for congressional or State Board of Education redistricting, and both may be accomplished during a special session if necessary. However, court-mandated population equality for these districts would require that redistricting be completed before the 2002 election cycle begins with candidate filing in December 2001. Federal courts have ruled that population-equality standards generally do not apply to judicial districts. Under Art. 5, sec. 7a of the Texas Constitution, the Legislature has about two and a half years to accomplish judicial redistricting before this task reverts to the Judicial Districts Board.

Voting Rights Act implications. Texas is one of 16 states with a history of electoral discrimination and low participation by minority voters that are required to preclear any election-law change under Sec. 5 of the federal Voting Rights Act. The Sec. 5 provisions require prior review of any state or local redistricting plan by the U.S. Justice Department or a three-judge federal court panel in the District of Columbia.

Not only must redistricting plans pass muster under Sec. 5 preclearance review — under which governmental entities must show that a redistricting plan did not worsen the position of minority voters (called "retrogression") when compared to existing plans — but the plans also may be challenged under Sec. 2, a general provision applicable nationwide that prohibits dilution of minority votes. Also, recent U.S. Supreme Court decisions based on the equal-protection clause of the 14th Amendment prohibit redistricting that is unjustifiably race-conscious, so-called "racial gerrymandering."

Census data are an important factor in making the legal determination of whether redistricting plans discriminate against minority voters or are the product of racial gerrymandering. Because minority groups are among those considered most likely to be undercounted, adjusted census data that boost minority population numbers could have a major impact on these determinations, as could the decision concerning which set of census figures to use in redistricting.

Arizona, Alaska, Colorado, and Kansas have enacted laws prohibiting the use of sampled data in redistricting. The U.S. Justice Department's Civil Rights Division is reviewing the Arizona and Alaska statutes pursuant to its preclearance jurisdiction over those states under Sec. 5 of the Voting Rights Act. A ruling is expected later this year. If the department invalidates either law, the states may ask for federal court review. The Justice Department also is deciding how it will approach redistricting plans that use adjusted census numbers and is gauging the possible impact of the expanded racial data on its Sec. 5 preclearance determinations.

Another new variable is the expanded reporting of race, with single- and multirace responses and 63 racial categories (instead of the original 20) broken down by combinations, including Hispanic origin. The Justice Department has yet to decide how multiracial identification may affect its preclearance analysis of criteria for determining Voting Rights Act violations. How to count each category for purposes of Sec. 5 becomes important, NCSL's Storey notes, if a district's minority population falls because a high number of multiracial categories are checked.

Other implications. Release of two sets of census figures also could result in redistricting plans being challenged on the ground of violating "one person, one vote" equal-population requirements. The state must justify even the smallest deviation from exact equality in the population of newly drawn congressional districts (*Karcher v. Daggett*, 462 U.S. 725 (1983)). The population-equality standard for legislative districts is not as strict. Legislative district populations must fall within at least a 10-percent range of deviation from the ideal district population (*White v. Regester*, 412 U.S. 755 (1973)), but the state may offer persuasive justification for an even greater deviation. Districts that are drawn using unadjusted headcount numbers could contain significant population deviations if adjusted numbers were used instead and could be subject to challenge on that basis. Local government entities also must adjust their districts on the basis of the new population figures and could face similar challenges on both equal-population and Voting Rights Act grounds.

It also remains unclear who will decide whether adjusted population numbers will be used in federal-program funding formulas. Congress, the administration, and heads of agencies all could have a say. An across-the-board decision seems most likely, although the numbers could vary across programs.

The GAO study on formula grants estimated that Texas would gain an additional $93 million a year (an increase of 1 percent) from the 15 largest population-based federal grant programs if adjusted census figures are used. That estimate is based on the 1990 proportional undercount and budget allocations for fiscal years 1997-99. More than $84 million would be in the Medicaid program, which provides health care to the poor.

Hundreds of provisions scattered throughout the Texas statutes apply to cities, counties, and other political subdivisions based on their population, as determined by the latest census. Following each census, the Texas Legislative Council customarily drafts an omnibus bill to update and correct all existing state laws based on population. If the Census Bureau makes available both unadjusted headcount data and adjusted numbers, the Legislature also will have to decide which set of figures to use in making these changes.

— by Patrick K. Graves

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