

RECOMMENDATIONS

Throughout the course of our operation, our semi-annual reports to Congress have included recommendations based on our observation and oversight. Many of them were incorporated and ultimately contributed to the operational success of Census 2000. Based on our overall experience, research and field observations, the following recommendations are offered in an effort to improve future censuses.

Overall Recommendations

All efforts should be made to remove partisan politics from the census process. The decennial census is Constitutionally mandated as the method to re-distribute representation fairly. In recent times, the census data has also been used as the most accurate basis for the allocation of federal funds. The perception of political manipulation of census results is an unfortunate by-product of making political appointees the final arbiters of census policy. The decisions regarding accuracy of the census should be based on sound science. While the National Academy of Sciences, the American Statistical Association, the Council of Professional Associations on Federal Statistics, the American Sociological Association, the National Association of Business Economists and other professional associations advocated the positive use of sampling methods, the decisions made by the Census Bureau left the issue unresolved, thereby co-opting it to the field of politics.

The Census Bureau Director should have a 5 or 7 year term appointment. Other agencies charged with developing critical statistical information, including the Bureau of Labor Statistics, have a fixed term for their directors. This would serve to provide continuity and remove the challenge of political pressure from the Office of the Director.

An early deadline should be set for resolving 2010 methodology. For the 2000 Census, the Bureau had to prepare a “dual track” census plan, pending resolution of a lawsuit regarding the Bureau’s methodology. One track of the plan would incorporate modern scientific methods, or sampling, while the other track would not. Just one year before the 2000 Census, the Supreme Court decided that based upon a 1976 statute, sampling could not be used for apportioning the House of Representatives. Following the decision, the Bureau requested an additional \$1.7 billion from Congress to adjust for the consequences of the court ruling. While it is important to recognize the need for flexibility in the planning and preparation stages, it is also important to note that operations used in the decennial census should be tested during the dress rehearsals. When an operation is employed during the decennial that has not been tested, it is necessary to understand that it may be subject to unknown error.

Congress and other oversight bodies should be more sensitive to the consequences of redundant or overlapping oversight. While a \$6.5 billion dollar operation deserves full Congressional scrutiny and oversight, the Census Bureau endured oversight and investigation by at least six different entities – the Commerce Department’s Inspector General, the General Accounting Office, the U.S. House of Representatives Census Subcommittee (which operates as two separate entities), the Census Bureau’s own Race and Ethnic Advisory Committees, the Commerce Department’s Census 2000 Advisory Committee and both sides of the U.S. Census Monitoring Board, which most often worked as two distinct bodies. Each entity was able to provide valuable information to Congress and to the public, but top officials at the Bureau spent many hours answering repetitive and at times, unreasonable requests

for information (including a request to read *all* Census Bureau e-mail) just when the Bureau was at the peak of its operation.

The Census Bureau should strive to maintain a transparent census operation. For the 2000 Census, most operational aspects were pre-specified and scrutinized by the public. During Acting Director James Holmes' and Director Ken Prewitt's tenure, the Bureau maintained a high level of transparency and public communication. The Bureau outlined a plan for making decisions and worked with the Commerce Department to establish regulations, which allowed for public comment. However, with the change in Administration, extracting information from the Bureau became difficult. For example, requests submitted by the CMBP went unanswered for months. In some cases the Bureau denied the requests citing the possibility that the information would be misunderstood as the basis for its decision on adjustment.

Congress should continue to fund a post-enumeration survey. Regardless of the debate over sampling, the post-enumeration survey serves as an invaluable quality check on the accuracy of the census. In 2000, the post-enumeration survey was called the Accuracy and Coverage Evaluation (A.C.E.) and allowed the Bureau to measure the net and differential undercounts and to document increased improvement.

A national paid advertising program should be included in future plans. Our own polling pointed to strong public interest in the messages that the Census Bureau and the paid advertising agency of Young & Rubicam employed to address the twin challenges of increasing awareness and commitment to participate. Both sides of the Monitoring Board unanimously endorsed the Bureau's decision to pursue a paid advertising campaign as part of Census 2000. Increased participation of all communities provided solid evidence that the overall objectives of the program were achieved.

Funding for the decennial Census must be judiciously considered. The actual and projected cycle cost of the 2000 Census (\$6.5 billion) nearly doubled the cycle cost of the 1990 Census. A national paid advertising program, advancing technology and adequate pay for temporary employees create costs but are an essential element of the operational success of the 2000 Census.¹ As the country and the associated census-taking costs continue to grow, Congress must continue to evaluate the swelling expenditures associated with traditional census taking methods.

Demographic Analysis (DA) is a useful benchmark from which to evaluate census results, however, it should not be used as a determining factor in the debate over adjustment. DA was designed to identify whether or not a racial differential undercount exists between the Black and Non-Black population primarily because when DA was developed in 1940, the largest minority was the Black population. Given the increased imprecision in measuring race and ethnicity caused by the changing nature of American society, the race/ethnic-specific estimates from DA for future censuses should probably not be held to the same standards as coverage measurement surveys. Inconsistencies between DA and the surveys in terms of relative coverage of race/ethnic groups would need to be "explained" in demographic or sociological terms, but failure to agree should not be treated as *prima facie* evidence that coverage has not been adequately measured or that adjustment is not warranted.

¹ "2000 Census Review of Partnership Program Highlights Best Practices for Future Operations," GAO-01-579, page 2 and "Bureau of the Census Federal Funds," Appendix to the Budget of the United States Government, submitted by the President of the United States, 1986 through 1996, adjusted for inflation.

Furthermore, measures of immigration have always been the weakest link in compiling a demographic estimate of the U.S. population. By its very definition, undocumented immigrants are the least likely to be included in an estimate of the U.S. population that relies largely on administrative records such as birth and death records. Most disappointing is that as the economy expanded and the number of immigrants dramatically increased over the past decade, the Census Bureau was unable to understand how its own survey results showed increases in immigration. In 2000, the failure of DA to incorporate estimates of immigration based on the best available information — estimates of undocumented immigration consistent with measures from the reweighted Current Population Survey, nonimmigrants from all categories based on INS data, and increased special agricultural worker (SAW) populations — changed the nature of the ESCAP decision on adjustment. Had the “base DA” estimate included a better estimate of the immigrant population, there would have been more attention paid to the A.C.E, more attention to the areas of agreement between the two measures, and more attention to the potential deficiencies in Census 2000 itself rather than the inconsistency between DA and the A.C.E.

It is essential that the Census Bureau develop greater capacity to measure immigration. The Census Bureau’s measure of undocumented immigration and nonimmigrants during the 1990s were drawn entirely from outside the agency. Developing current estimates of undocumented and legal immigration and measuring changes in the flow of immigration should be done by the Bureau. Developing the expertise within the agency is needed to enhance its ability to assess these changes.

Gross error, rather than net error, should be the primary basis for evaluating the accuracy of the census. Some errors “cancel out,” leaving the impression that the results are more accurate than they really are. For example, the net undercount in the 2000 Census is 3.3 million but the number of people missed is 6.4 million while the number of people counted twice is 3.1 million.² Knowing where people are missed is also important because omissions do not necessarily occur in the same place as duplications. Errors are often geographically and racially differential. Indeed, the persistent racial differential undercount in Census 2000 illustrates this point.³

Imputations and removed potential duplicates should be included when discussing measures of gross and net error in the census. Imputations make use of information not based upon direct observation but rather, a computer is directed to “impute” people, based upon various clues, including how their neighbors responded. Census 2000 included 5.7 million imputations – 2 percent of the nation’s population. Furthermore, imputations were applied differentially by race. The rate of imputation for Blacks and Hispanics was twice that for Whites. Potential duplicates were identified late in the census process but before delivering the apportionment number. The Bureau used a complex computer program to identify about 6 million potential duplicate persons in the census. The Bureau further screened the 6 million people and added 2.4 million people back into the census, while taking out 3.6 million people. Neither the 5.7 million imputations nor the 2.4 million re-instated duplications were included in the Accuracy and Coverage Evaluation. The effect of these uncertain cases should be thoroughly evaluated before they are extensively used in future censuses.

The effects of the Local Update of Census Addresses (LUCA) program should be further analyzed. The Census Bureau plans to conduct an ongoing LUCA program, which allows local governments and

² “Statement by William C. Barron, Jr. on the Current Status of Results of Census 2000 Accuracy and Coverage Evaluation Survey,” July 13, 2001.

³ Executive Steering Committee on Accuracy and Coverage Evaluation Policy Report, March 1, 2001.

the Census Bureau to develop a more comprehensive address list over time.⁴ LUCA allows direct input by local governments in the process of assembling address lists, a process, which should be encouraged. However, there is much yet to understand about the effectiveness of LUCA. It is presumed that by improving the address lists for the 2000 Census, it should have decreased the number of persons missed or allocated to the wrong locality. However, it may also have increased the variability by local area in the undercount or overcount, which in turn might have made the census estimates of shares (by state or local area) more accurate or less accurate.

*Federal funds should be made available to state and local governments to allow them to modernize and standardize their own address list and mapping technologies in order to better contribute to updating the Bureau's national address list.*⁵

The Census Bureau should comply with its pre-determined data products release schedule. Following its scheduled timeframe, the Bureau released the Congressionally mandated redistricting data summary file and additional Census 2000 demographic products. However, it failed to provide information regarding the number of people sleeping in shelters, living in cars, under bridges and on sidewalks, again out of fear that the public would misunderstand the numbers. Their action only added to the degree of frustration, confusion and suspicion surrounding Bureau decisions.

Census Bureau Headquarters and the Regional Offices should continue partnerships with governmental, community-based, and religious organizations, as well as school systems, to encourage cooperation with the Census Bureau's activities throughout the decade. It is widely believed that the over 140,000 partnerships contributed significantly to the reduced net undercount. The Census Bureau has already expanded its Census Information Center program which partners the Bureau with community based organizations in an effort to distribute census information more widely in traditionally less accessible communities. The Census Bureau would benefit from its continued outreach to traditionally undercounted communities through its Census in the Schools program. Scholastic, Inc. developed a census curriculum for teachers to use in the classroom during the 2000 Census, which proved to be highly popular. Better-educated children lead to better enumerated households.

Census Bureau Headquarters should strive to provide the Regional Offices with materials and other resources available for partnership efforts. Local and state governments often times communicated directly with Census Bureau Headquarters rather than their Regional Offices for partnership information because information appeared not to filter down to the Regional Offices in a timely manner.

Congress should provide adequate funds to increase the number of qualified Partnership Specialists who can serve as a bridge between the Bureau and local community leaders. While the more than 600 partnership specialists the Bureau hired often performed Herculean tasks, these census ambassadors were often spread too thin. Partnership specialists were expected to attend public functions, schedule meetings and organize census awareness events in order to ensure that every member of every community in the country was enumerated by the census. There are over 39,000 communities in the nation and many of them have their own governments, several civic organizations, and numerous religious institutions. More partnership specialists would allow the Bureau to achieve greater participation.

⁴ LUCA was mandated by P.L. 103-430, to allow the Census Bureau to share their address list with local governments for a local check on the address list's accuracy. This public law also mandated that the Post Office share their address list with the Census Bureau.

⁵ Both sides of the Monitoring Board also agree that federal funds should be made available for cities and towns to form Complete Count Committees, which allowed local governments to help raise awareness about participating in the 2000 Census. Joint Report to Congress by U.S. Census Monitoring Board, April 1, 1999.

Operational Recommendations

The following recommendations are the result of Monitoring Board staff meeting with 50 local census office (LCO) managers during peak decennial operations in the months of April, May, June and July of 2000.⁶ The 50 offices visited cover a broad cross-section of the country – rural, urban and suburban, East Coast, West Coast and the Mid-West. Most of the offices were selected because they contained large numbers of historically undercounted populations, as documented by the Bureau's Planning Database.⁷ We selected two locations in each of the Bureau's 12 Regions, attempting to include a variety of operations – mailout/mailback, update/leave, and list/enumerate.⁸

Local Census Offices should be encouraged to contact building and gated community managers early, in order to gain access to some areas with surprisingly low cooperation. Most of the attention to fixing the undercount in the years leading up to Census 2000 was focused on educating people who have historically been undercounted – children and minorities. In many areas of the country, traditionally undercounted communities worked closely with the Bureau to increase awareness such as in Chula Vista, California and El Paso, Texas. However, during Census 2000, an unexpected challenge arose in gaining access to large apartment buildings and gated communities in wealthier neighborhoods in Chicago and New York. Contacting building and gated community managers early on could help prevent some of these unexpected and last minute problems that arose during field operations during Census 2000.

A similar program to the Planning Database should be locally updated leading up to the next censuses. The planning database organized 1990 Census data to help the Bureau determine census tracts that would need greater attention in 2000 to improve the census count. Factors such as mail response rate, poverty rate and racial composition helped local census offices direct their resources. Both sides of the Monitoring Board agree that the Planning Database was a useful tool in guiding local census offices where to concentrate resources.⁹ For example, while cities such as New York, Chicago or Los Angeles have always experienced a large population of immigrants, even remote and rural areas saw more recent immigrants settle into their communities. Places like Burlington, Vermont, Dalton, Georgia and Cheyenne, Wyoming saw an increased immigrant population since the 1990 Census and the Bureau was able to both identify pockets of recent immigrants and to work with local community leaders to encourage increased inclusion in the census count.

The “notice of visit” cards – flyers left by enumerators after an unsuccessful non-response follow-up visit – should include information in the 5 other major languages spoken in the U.S. (Spanish, Chinese, Vietnamese, Tagalog, and Korean). The English-only flyers were successfully used in 2000 as a calling card when people were not at home. However, the practice could be improved by providing them in multiple languages.

⁶ Findings from these visits are included in the October 2000 semi-annual report to Congress which was authored jointly by both sides of the U.S. Census Monitoring Board.

⁷ In preparation for the 2000 Census, Census Bureau Headquarters examined every local census office jurisdiction to determine factors that might pose challenges to enumeration. This information gathered is called the Planning Database.

⁸ Mailout/mailback is the type of enumeration area where the Census Bureau relies on the U.S. Postal Service to deliver a form to an address and expects a form returned in the mail. For those housing units that do not return their form in the mail by the deadline, the Bureau sends an enumerator to the door. This type of enumeration is used in 80 percent of the nation's housing units. Update/leave is when the Census Bureau updates its address list as it delivers a questionnaire to housing units that did not have a city-style address. For those housing units that do not return their form in the mail by the deadline, the Bureau sends an enumerator to the door. List/enumerate is when the Census Bureau updates its address list at the same time as sending a person to the housing unit's door for enumeration. This type of enumeration is used in sparsely populated and remote areas.

⁹ Joint Report to Congress by U.S. Census Monitoring Board, April 1, 1999.

In-language forms should be continued. Findings from the Census 2000 Supplemental Survey indicated that one in five persons speaks a language other than English at home. This clearly identifies the need for continued use of in-language forms. In 2000, the census forms were available in six languages – English, Spanish, Korean, Chinese, Vietnamese, and Tagalog. In areas along the Mexican border where the update/leave type of enumeration is used, both sides of the CMB agree that LCOs, working in consultation with the Regional Offices, should be able to determine whether or not leaving a Spanish-language form is a better option than leaving an English-language form.¹⁰

More attention should be paid to recruiting and hiring bilingual enumerators and translators. Further, LCOs should prioritize hiring to reflect the population of the community it serves. The 2000 Census results document the need for greater diversity in the census workforce. With nearly a 60 percent growth in the Asian and Hispanic population and a surprising growth of immigrants even in areas not historically associated with large immigrant populations, the diverse staff helped the Bureau reach those traditionally hard to enumerate.

The Bureau's policy of adjusting its wage scales based on local labor market conditions should be continued. The caliber and dedication of the temporary workforce was extremely impressive in the 2000 Census. With few exceptions, the temporary employees interviewed and observed performed their duties professionally and competently. In areas where recruiting was difficult, adjusting the wage scale proved to be an effective tool in generating a larger applicant pool.

Enumerators would benefit from photo-identification badges, especially in urban areas where residents are most concerned about security. The badges used during the 2000 Census identified enumerators by signature only. Residents might be more comfortable with each enumerator's photograph on his or her badge.

Partnership specialists should report to the LCO Manager rather than a Regional Office Manager. Partnership specialists played an important role in the operational success of the 2000 Census. However, they were hired and directed by the Regional Offices rather than the LCO Manager that, at times, created communication difficulties and animosity among LCO staff.

Local facilitators should be used again. Local facilitators were not required to pass the enumerator test or security background checks but served as invaluable “gatekeepers” for the Bureau to enter traditionally closed communities such as Alaska Native villages or some publicly assisted housing neighborhoods. Facilitators were used on an ad hoc basis to reach areas that resisted cooperation with the census. LCOs identified ahead of time where facilitators would be most useful.

¹⁰ Joint Report to Congress by U.S. Census Monitoring Board, April 1, 2000.