The National Headcount

Census emphasizes outreach to improve accuracy

BY BETTY JOYCE NASH

ounting the nation's diverse and mobile population can be difficult and contentious. The final numbers will determine the state and local funding allocations for many federal spending programs for a decade, and can also reassign seats in the 435-member U.S. House of Representatives. South Carolina, for instance, may gain a seat after 2010's final tally.

But this year's census — or that of any year — couldn't possibly count households everywhere with 100 percent accuracy. For one thing, in 2000, the final response rate was only 67 percent. That's down from a high of 78 percent in 1970 but better than 1990's rate of 65 percent. And imagine the possibilities for error. You might count your college student on the form but the college does too. Parents of multiple children may not list the baby. Fear can prevent the poor or undocumented from naming people in the household.

One way to increase response rates is to increase awareness of the national headcount. Some of the economic stimulus money has been used to double the resources devoted to publicizing Census 2010. This effort will help but may not completely solve the disproportionate undercounts of minorities and overcounts of whites identified first in 1940. In 2000, for instance, whites were overcounted by an estimated 1 percent.

The emphasis on advertising will help reach people who are hard to count. This is an alternative to relying on statistical adjustments and allocation to the local level after the fact, ever a controversial practice. Even though Census 2010 numbers will not be statistically adjusted, the debate remains unresolved over how to account for those who might be missed.

Census 2010

Using \$14 billion in expenditures, 1.4 million temporary employees, and 500 field offices, the decennial census is the nation's biggest peacetime undertaking. Census data underpinned some \$430 billion in federal assistance to states in fiscal 2008, according to a 2009 Brookings Institution analysis. That's money disbursed for Medicaid and education and many other programs. People in business also use the data to make investment, location, capital expenditure, and employment decisions. Migration, commuting, and housing patterns as well as education, income, and information about poverty emerge from the data.

For Census 2010, the federal government is spending roughly \$400 million, including \$250 million in stimulus funds, to advertise and promote the count. The ad campaign even included a Super Bowl TV spot. This is only the second paid ad campaign in its history — the first ever was in 2000.

Previous censuses relied on public service announcements, typically aired at times like 2 a.m., when most people aren't watching television.

Census 2010 also hit the road and the Internet to generate buzz. Representatives traveled to communities like Gaffney, S.C., where an event included a performance by a Hispanic dance troupe. The road show also went to Huntington, W.Va.'s Marshall University to remind students to list Cabell County as their primary residence since they live there more than six months of the year.

To simplify the process this year, the Census Bureau has switched to a short form with fewer questions, leaving detailed information to the timelier, monthly American Community Survey, introduced earlier in the decade. ACS is a rolling sample of 250,000 households designed to provide detail. Aggregated over the decade, ACS will in theory provide the same number of interviews captured by the long form in years past.

Completing and returning a census form is required by law, and the Census Bureau follows up with nonrespondents by telephone or in person. Still, final response rates vary from state to state. For instance, in South Carolina, it was 58 percent in 2000.

With improved mapping technology and geo-coding, workers canvass neighborhoods using handheld computers to verify addresses. Technological glitches, however, have prevented the use of handhelds in the follow-up visits to nonresponders.

Contacting the least reachable is the goal: the poor, minorities, children, and immigrants who comprise the undercounted. "That's where the resources have shifted instead of working on a technical adjustment process," says Margo Anderson, a professor at the University of Wisconsin, Milwaukee. Anderson and co-author Stephen Fienberg of Carnegie Mellon University have written widely about census and statistical sampling controversies, including the 1999 book, Who Counts? The Politics of Census-Taking in Contemporary America.

In every city, committees have been formed to tap grass-roots groups to publicize and demystify the census. Carmen Morosan is a Baltimore city planner who is coordinating efforts to ensure a successful count. In 2000, the census missed less than 1 percent of Baltimore's population of 651,000. Mail responses are the most accurate, yet in 2000, Baltimore's mail response rate of 53 percent was the lowest in the nation among cities with similar populations, according to Morosan.

Education about the purpose of the census is critical because the counters on foot with clipboards may not fare any better. "When someone comes to your door, you might not want to answer questions for a stranger," Morosan says. The city's got characteristics typical of hard-to-count areas: a high percentage of recipients on public assistance, a high ratio of renters to owners, a higher than average number of unoccupied housing units, and others. Surveys in general don't do well there, Morosan says, and the census is no exception. "There's a lack of understanding about the purpose and benefits."

Census and Statistical Sampling

The first census was held in 1790, mandated by the Constitution, with federal marshals directed to count people. This involved hiring reputable assistants who would canvass towns and territories. Assistants sometimes tallied on court day, the day people came to town. "They were told to visit each home, but obviously in the frontier world in much of the 18th and 19th century, that was hit or miss," Anderson says. And in the mid- to late-19th century, enumerators were provided army escorts in frontier areas. "At no point in the nation's history was there a physical count of each person in the country."

In 1940, a natural experiment revealed the level of what's known as the "differential" undercount when 453,000 more men registered for the draft than had been recorded by the previous April's Census. Though the results varied by region and race, 13 percent of draft-eligible black men had been missed. Nationally, 229,000 more black men registered for the draft than would have been expected from Census estimates. Overall, the net undercount in 1940 was 5.6 percent, 10.3 percent for all blacks and 5.1 percent for nonblacks.

While there had been complaints about the census before, it wasn't until the development of large-scale data systems that alternative estimates could be compared to census numbers. Until the 1960s, the undercount and methods to evaluate the work of the Census Bureau held interest for few besides statisticians. The increasing flow of taxpayer money through urban renewal, highway, public health, and other government programs, though, upped the ante on the census count.

That was the era of Great Society programs and equal protection laws, when funds began to be disbursed, according to the headcount data. Voting rights tests hinged on population numbers in voting precincts. And in 1962, the Supreme Court decided a case that set off a chain of reapportionment lawsuits. More than ever, accuracy counted.

By 1970, coalitions of state and local officials and private citizens had started to challenge methods through lawsuits. The government usually won. A 1996 ruling over the potential undercount in the 1990 Census, brought in 1988 by a coalition of city and state governments led by New York City, went to the Supreme Court. The plaintiffs sought to reinstate a statistical sampling plan that had been developed by panels from the National Academy of Sciences as well as private and government researchers. The issue was over post-enumeration surveys that could estimate population in



The Census Road Show stopped in Gaffney, S.C., and the rally featured the Ballet Folklorico Internacional of Greenville, S.C.

areas of high undercount. Ultimately, the Commerce Department, the agency in which the Census Bureau is based, opted against adjustment. The Supreme Court upheld the department's decision.

In the 1999 case of Department of Commerce v. House of Representatives, the Supreme Court disallowed sampling but only for congressional apportionment. The court decisions, however, didn't end the sampling controversy.

Adjusting the Count

Since the 1950s, the Census Bureau has used probability-based evaluations of population subsets, in addition to other demographic tools, to assess accuracy. One type of demographic analysis takes vital records data and immigration records and projects the size of any particular cohort. "So, we can make an estimate of how many white females aged 40 to 44 there are in the country. Then you look and see what number comes out in the census," Anderson notes. But that doesn't reveal the location of those over- or undercounted.

The second method is capture-recapture, first used to count wildlife. The idea is to combine two estimates to generate one that is closer to the actual number. In the census, the traditional count is the "capture" phase and a second nationwide survey serves as the "re-capture" phase. That allows an estimate to be extrapolated. This year, the instruments to allocate population to local jurisdictions based on the derived estimates have not been put in place. It would take, according to Anderson, a large-scale sample size to ensure accuracy. This estimated allocation was planned for the 1990 and 2000 censuses, but did not happen and will not be part of Census 2010 either.

As it turns out, Census 2000 overcounted the population by several million. While over- and undercounts are not unusual, on net, until 2000, there was always an undercount. In 2000, proposals for sampling in the case of follow-up (when people can't be reached or don't return the survey form) met with resistance and were eventually abandoned continued on page 26

discounted sales of distressed properties to local governments and nonprofits.

There is no reason to believe that overbuilt neighborhoods must stay empty forever. Venkatu sees an analogy between fundamentally desirable neighborhoods and the vast expansions and oversupply of fiber-optic capacity during the late 1990s tech boom. "It's not like that stuff doesn't get used," he says. "It gets used — it just gets sold at a loss." At some point these new developments — which for now look more like movie sets than neighborhoods — will start to look attractive to buyers.

Not all homes will be candidates for resale. In economically declining areas that are rapidly losing both jobs and residents, the strategy of community organizations buying and rehabbing homes nicely and trying to sell them would almost certainly be a failure. "And in fact, it should be," Mallach says, "because it's crazy to spend that kind of money or try to entice people into a neighborhood that may be

already three-quarters empty," he says.

That may be where there is potential to find alternative uses for vacant homes, from rental units to office space or, at the extreme, razing the property to use the land for something else. But this requires new strategic plans for the community at a time when local governments are being stretched thin. When faced with the choice of spending resources to convene local community organizations and neighbors to gain consensus on the direction of an abandoned property, or funneling those resources to programs that attract jobs, the latter often seems to be the priority.

And perhaps that's for good reason. Job opportunities are a large part of what will make neighborhoods hit hard by foreclosures once again desirable places to live. For many areas affected by foreclosure, economic recovery that brings strong employment prospects and income stability, as well as a well-functioning housing market, may be the quickest path to community revitalization.

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along with proposals to adjust the population figures afterward using statistical sample results.

"The methodology in 2000 could not be shown to be an improvement over the actual enumeration," Anderson says. "You have to argue that it is better, not just that it's different, and there are big arguments over what better means — numerical accuracy, distributive accuracy, all of which get tangled up in the politics of it."

Anderson further explains: "There were two approaches; one was that the Census Bureau should improve the method to reach everybody and the other was that it's more efficient and potentially more accurate to use statistical methodology." Many statisticians and demographers believe the

sound methodology of sampling techniques could provide more accuracy, but the two main political parties have staked out opposite positions. That has made compromise unworkable. Not surprisingly, the census has become a political issue. Republicans have tended to favor unadjusted counts while Democrats tend to support adjustments. Most Americans, Anderson says, don't object to sampling, but do worry about the possibility of political machinations behind technical matters that are hard to understand.

In any case, methods for counting people are likely to always be an imperfect way to capture the scope of a constantly evolving nation. The controversies over how we count may be as recurrent as the decennial census. **RF**

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