

To Adjust or Not to Adjust?

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Background

Under the U.S. Constitution (Article I, Section 2), the federal government is required to conduct a decennial “enumeration” of the population in order to apportion seats in the House of Representatives to the states. Completing the census is a monumental task, and concern about persons missed in the count goes all the way back to the first census in 1790, which counted just under 3.9 million people. Thomas Jefferson, who directed that census, believed that the true population exceeded 4 million. The 1990 Census total was 248.7 million; the true population is estimated to be 252.9 to 254.9 million (NYT, April 19 1991). The “undercount” figure—roughly 4 to 6 million—represents the number of persons omitted less the number of “erroneous enumerations,” so a larger number of people were actually missed. A General Accounting Office report put the undercount at 5.3 million, with 9.7 to 15.5 million people omitted and 4.4 to 10.2 million erroneous enumerations (NYT, August 25 1991). It is also important to note that the degree of undercounting differs from among population subgroups and geographical locations. It is generally recognized to be higher in large cities than in smaller towns, higher for minorities than for whites, and higher for men than for women. Thus while the net undercount represents roughly 2% of the population, some groups will suffer much larger undercounts. For example, while Black men undercounted by 5.4% , Hispanic men by 5.8% (NYT, June 14, 1991).

When one considers the scope and complexity of the census project, it is clear that a perfect enumeration is impossible. The first phase of the process is a mail-out/mail-back phase, in which census questionnaires are mailed out to all known household addresses (commercial mailing lists are acquired by the government and checked with Post Office information). In the second phase, census enumerators go door to door to collect information from those households that did not return the the forms. Even when the forms from the

first phase are returned, there are many possibilities for error. The “head of household” has responsibility for providing information on all persons living there. In the process, individuals may be omitted or double counted (consider, for example, situations in which a relative lives with the family part of the time or a child is away at college and may be enumerated there). When forms are not returned, visits by census takers are necessary. The mail-back rate for 1990 was a disappointing 63% . Census officials had hoped for 70% , and the shortfall necessitated greater effort than had been anticipated for the followup phase. Statistician David Freedman points out that the 500,000 enumerators the bureau hired and trained in a year for this task exceeds the work force of GM! These enumerators make multiple attempts to contact residents, after which “last resort” information is sought from neighbors, building superintendents, etc. Inevitably, some housing units will be erroneously reported as vacant. The Bureau has computer “imputation” procedures which attempt to compensate for this by actually creating data for some units. Much less controllable distortions occur when census-takers themselves resort to “curbstoning”, the name give to the process of simply fabricating information about a household when the actual residents cannot be identified. Thus the final tally, far from being a straightforward one-by-one headcount, represents data obtained from a variety of sources in a variety of ways. Director of the Census Barbara Everitt Bryant gave the following breakdown of the overall figures (New York Times, February 2, 1991):

Mail-In Forms	166.9M
Counts By Census Takers	10.9M
Homeless, Transients (Counted in Group Quarters)	6.6M
Follow-Up By Census-Takers	55.8M

The above sums to 243.2 million, which accounts for 97.8% of the final total figure of 248.7 million quoted earlier. The rest were added after rechecking housing thought to be vacant, examining parole/probation lists and consulting local governments. This last effort came in response to a great outcry over early reports of Census figures, particularly from urban areas.

There is more at stake in the census than representation in Congress. Various accounts give estimates between 100 billion for the amount of federal aid to be allocated to the states on the basis of census information. Jurisdictions with large urban, minority and underclass populations-groups for which undercount is the highest-stand to lose. These concerns led in 1980

to a series of lawsuits filed by big-city politicians and minority group leaders seeking to force an adjustment of the census figures. Over 50 suits were filed, none of which were successful. The same concerns resurfaced prior to the 1990 census. This time the growing number of homeless people also became an issue. Census workers were sent out on the night of March 20 to make a special count of the homeless prior to Census Day (April 1). But the Bureau's figure of 230,000 was assailed by advocacy groups for the homeless, who have made estimates upwards of 1,000,000 (NYT, April 12 1991). Another debate concerned the counting of illegal aliens, whose numbers in 1980 may have influenced Congressional apportionment. The enumeration called for in the Constitution does not explicitly require legal residence, and Census procedure—affirmed by court action in 1980—has always been to count all permanent residents. As regards federal funds, it is argued that any person residing in a jurisdiction, regardless of immigration status, creates demand for services. Beyond these immediate financial ramifications, Barbara Bailar (Washington Post, March 6 1988) points out that the undercount ultimately affects all statistics that are benchmarked against census figures, thus obscuring our view of disease, poverty, unemployment and crime. For example, the incidence of AIDS is estimated by dividing the number of reported cases by the total number of people in a specified population group. Because the census substantially undercounts black males, their AIDS incidence rate might appear too high.

The news stories cited in the bibliography run from 1987-1992, weighted towards more recent articles. Earliest story concerns the Commerce department's original decision in 1987 not to adjust the 1990 census. This decision was made over the recommendation of the Census Bureau, and led to the resignation of Barbara Bailar, then the head of statistical research at the bureau, who had championed the plan for a special post-enumeration survey of 300,000 households to assess coverage levels and perhaps statistically adjust the Census enumeration (the adjustment procedure described in next section). Following the decision, in 1988 New York City and New York State filed a lawsuit that was eventually joined by Chicago, Los Angeles, Houston, California and others who felt they would be hurt by the undercount. Their fears were heightened in spring of 1990 as numerous stories of problems with the census emerged. As noted earlier, compliance with the mail-out/mail-back phase was a dismal 63% (compared to 75% in 1980 and 78% in 1970). There were also reports of neighborhoods omitted from mailing lists, problems understanding the forms and non-compliance stemming from general

distrust of the government's use of data. These fears were confirmed in the summer, when the Bureau released preliminary figures. (Mayor David Dinkins of NYC was appalled at the figure of 7 million for the city, insisted that it was at least half a million short). Meanwhile, the judge in New York City's lawsuit had ruled on June 7 that a post-enumeration survey should indeed be conducted in order to assess accuracy of the census, but left Commerce Secretary Robert Mosbacher the final decision on whether to actually use the results to adjust census figures. Due to lost time and dwindling resources, the project was scaled back from the 300,000 households originally planned. Ultimately, 165,000 were surveyed, on the basis of which the undercount of 4-6 million (cited in the opening paragraph) was reported in spring of 1991. Still, the final decision by Secretary Mosbacher, announced in July 1991, was to stay with the original enumeration figures. Expert statisticians were split on the issue; Mosbacher adopted the argument of those critics who held that the statistical adjustments would not be sufficiently accurate at the local level. He further refused to release the adjusted figures to state officials for use in redistricting. Democrats in the House of Representatives still pushed to see the results, and ultimately subpoenaed the computer tapes with the adjustment figures, which they received in early 1992. What comes of this remains to be seen.

Cast of Characters

- Commerce Secretary Robert Mosbacher. Bureau of the Census is in the Dept. of Commerce; Mosbacher made final decision on adjustment.
- Barbara Everitt Bryant. Census Bureau Director. Defended census numbers early on, but ultimately came out in favor of adjustment.
- Peter Buonpane. Assistant director of census. Recommended against adjusting.
- Barbara Bailer. Former head of statistical research at Commerce. Resigned in 1987 when plan for readjustment was originally scrapped.
- Tom Sawyer. (D-Ohio) Chairman of House census subcommittee. Strong proponent of adjustment.

- Herb Kohl. (D-Wisconsin). Chairman of Senate panel on census. Opposed to adjustment. (Note: WI would lose a seat under proposed adjustment!)