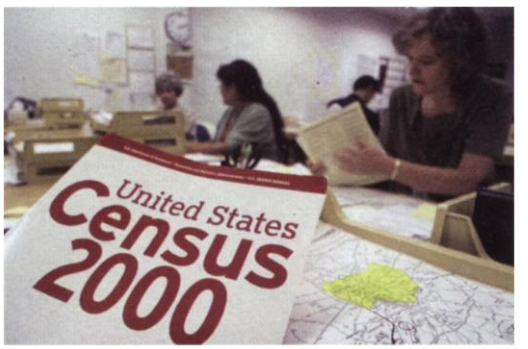
U.S. Census 2000: An Update

On this page 2 years ago, I posed the rhetorical question "Should scientists other than statisticians, demographers, and political scientists bother to follow the strange politics that have engulfed Census 2000?" Yes, because "When partisanship intrudes into the conduct of science, when widely accepted scientific methods are deliberately misrepresented, when scientific agencies are casually accused of dishonesty, a shadow falls across all of U.S. science."

An update is in order. On 28 December 2000, the U.S. Census Bureau reported to President Bill Clinton that 281.4 million people lived in the United States as of 1 April 2000, and further noted their numbers in each of the 50 states so that seats in the House of Representatives can be apportioned properly. The Census Bureau, which historically has been its own sharpest critic, believes that the total count of 281.4 million is as close to the true count of the population as can be achieved in a census based on enumeration alone. The bureau reached this conclusion through the early (still provisional and partial) evaluation of Census 2000 coverage programs and by comparing this census count with two other estimates of population size on 1 April: demographic projections based on vital statistics and the bureau's intercensal estimation program, calibrated to the previous census.



Of course, 281.4 million is a net national estimate that includes an as yet unknown level of two types of coverage error: persons missed in the census and persons mistakenly included in the census or erroneously counted twice. Historically, these coverage errors have differentially disadvantaged and advantaged particular demographic groups and geographic areas.

The Census Bureau believes that it may be possible to bring the current count of 281.4 million even closer to the true count. The method for doing so—dual system estimation—measures the magnitude of both types of coverage error and allows the census counts to be adjusted accordingly. After the initial census, the bureau conducted an Accuracy and Coverage Evaluation (A.C.E.) survey of 300,000 households to obtain an independent measurement of the population on 1 April 2000. On the basis of this survey and related statistical work, to be completed in late February 2001, it will be determined whether the accuracy of the initial census estimate (which is used for apportionment) can be improved. If so, the improved estimate will be used for other critical Census Bureau products: the block level counts used for drawing congressional district boundaries consistent with one person/one vote principles and for the enforcement of the Voting Rights Act; the census numbers used in the distribution of approximately $2 trillion in federal funds over the next 10 years; and the statistical controls that improve the accuracy of literally hundreds of sample surveys in the public and private sectors. Statutory language precludes the application of dual system estimation in the apportionment count, but, under current legal interpretation, allows for its use in other census products.

The Census Bureau should be allowed to render its best professional judgment.

The scientific community, led by a U.S. National Academy of Sciences panel on Census 2000, will have access to all data and will be well positioned to judge the scientific soundness of the census, of the A.C.E., and of the adjustment decision. This peer review is critical to the Census Bureau.

A federal regulation specifies that senior career statisticians, demographers, and officers of the Census Bureau are to determine whether dual system estimation will improve the accuracy of the census numbers, with the final decision to be made by the director of the bureau. If the answer is yes (which is by no means certain at this stage) but it is then overturned politically, the nation's number system will be less accurate than what state-of-the-art statistical science is capable of providing. Politics will have trumped science, and the perspective that the nation's number system brings to political and economic decision-making will be out of focus for a decade. If the bureau is allowed to render its best professional judgment based on the evidence then before it, science will have better served the nation. Stay tuned.

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