The 1980 Census in Alaska: A Review
by John Kruse

Introduction

In an effort to document the conduct of the U.S. Census of 1980 and to investigate concerns that local and state officials have expressed about the quality of the census in Alaska, the Office of the Governor, Division of Budget and Management, sponsored a report by the Institute of Social and Economic Research on the conduct of the 1980 census in Alaska. The study addressed the following questions:

1. Were a significant number of occupied households not counted?
2. Were a significant number of household members missed in houses that were enumerated?
3. Were a significant number of people who were temporarily away from home or not living in private households either not counted or counted as residing in some place other than their usual residence?
4. Did census workers consistently refer to a common “reference week” in asking employment questions from the long form?
5. Did a significant number of people refuse to answer census questions, thus making the information unreliable?
6. Did census workers substitute households from which long-form information was obtained, thus making the information unreliable?
7. What recommendations can be made regarding the use of 1980 census data and plans for the 1990 census?

In order to answer these questions, researchers interviewed 114 decennial census field staff during May and June 1981. These workers represented an estimated 25 percent of the entire field staff that worked in Alaska. ISER researchers deliberately sought to interview workers in all major regions of Alaska and in those areas where census counts varied considerably from local and state population estimates. Their findings were as follows:

Study Results

1. Accuracy of Household Count.

Various problems contributed to the initially inaccurate counting of households. Many of these were created by the most basic problem—the Census Bureau’s use of badly outdated maps. Outdated maps resulted in census districts being drawn too large for the number of field workers hired to properly enumerate them. Thus, districts had to be split and additional personnel hired. This in turn led to crew leaders having more enumerators than they could adequately supervise, which resulted in poor quality control. Other basic problems were: (1) some enumerators did not use correct listing techniques, thereby missing housing units; (2) poor maps and the resulting problems caused field work to drag out for months longer than initially anticipated; (3) a poor method of paying enumerators encouraged them to avoid making followup calls on houses where no one responded during the first call; and (4) lost forms and poorly written instructions.

Conclusions. We believe that until shortly before the district census office was closed, a significant number of housing units were not correctly enumerated. However, it appears that a small, dedicated office staff and field crew were successful in identifying most problems and adjusting counts where necessary. Post-enumeration survey workers we interviewed found few remaining problems. We think it likely that there was a small (perhaps 2 percent), but widespread, omission of occupied housing units throughout the state. More serious omissions occurred in scattered areas and communities including Nome, Wrangell, Yakutat, Barrow, and the nonurban areas of the Fairbanks North Star Borough. The areas identified reflect our best judgment based on the limited information available.

2. Accuracy of Household Members Count

There were indeed some factors that compli-
cated the counting of household members. These included (1) household members being temporarily away from home because of work or school and (2) illegal aliens and legally registered foreign-born individuals who did not understand the purpose of the census. However, with few exceptions, we found no evidence that a substantial undercount of household members had occurred. We believe that the small average household size reported (2.9 persons) primarily reflects profound demographic changes that have taken place in both Alaska and the U.S. as a whole since the 1970 census. These are: (1) an increase in the number of single-person households, (2) an increase in the number of single-parent households, and (3) a decrease in the birthrate.

3. Accurate Counting of “Special Places.”

“Special Places,” under the Census Bureau definition included hospitals, hotels, jails, orphanages, college dormitories, and large boarding houses. In Alaska, such places also included military bases, lumber camps, oil production and exploration facilities, fish-processing units, and boat harbors.

We believe the on-post and on-base counts of military personnel and their dependents were substantially correct. Most base camp workers at Prudhoe Bay were enumerated by their families or were counted at their normal place of residence.

Confusion and lack of cooperation in the enumeration of fish-processing-unit and lumber-camp employees probably resulted in undercounts at some locations. Fortunately, for the purpose of achieving an accurate count, activity levels in both sectors were not at their peaks at the time of the census. Therefore, possible undercounts probably did not seriously misrepresent the region’s population.

4. The Reference Week.

The long form, used by enumerators for every sixth household counted in communities over 2,500 and for one-half of all remaining households in the state, contained twenty-seven questions on employment, and several of these questions referred to a particular “reference week.” For example, “did this person work at any time last week?” (emphasis in original). Since the census was spread over a nine-month period, and since employment conditions in Alaska varied considerably over that time, the definition of this “reference week” is of critical importance to the interpretation of census data. According to Richard Schweitzer, Acting Regional Census Manager and the Seattle-based Director of Alaska Census Activities, the phrase “last week” referred to the week prior to January 22, 1980, or April 1, 1980, depending on whether the area in question was part of the early or the later enumeration.

However, directions to field workers on the reference week were apparently inadequate because two out of three enumerators reported that the reference week was “the week before I got there.” Such a misunderstanding of the reference week caused resulting data to span an entire 9-month period of changing labor patterns in Alaska. Thus, analysts attempting to interpret any census data on employment that is based on the reference week should be extremely cautious.

5. Refusal to Complete Long Forms

While enumerators reported few households (we estimate one in fourteen) where the respondent refused to fill out the entire long form, one in five refused to answer at least one question on the form. In addition, 78 percent of the enumerators experienced some difficulties in administering the long-form interview.

Most Alaskans refusing to answer some of the questions on the long form thought that the government did not need or had no right to the information or that other government agencies such as the Internal Revenue Service would obtain access to individual census forms.

Respondents most frequently refused to answer the questions on income, marital status, child-bearing, and housing characteristics. Census workers noted relatively higher refusal rates among upper-income households and lower-middle-class households. Regionally, refusals were relatively higher in Fairbanks and on the Kenai Peninsula.

Over half the census workers interviewed did not appreciate the need for some of the information requested. Therefore, doubting the value of some census questions and faced with public hostility, census workers often tended to be timid in encouraging respondents to answer all questions on the long form. As a result, we believe some of the long-form information, particularly on income, may be unreliable.

6. Problems of Substitution

In deciding which households would be required to answer the long form, the Census Bureau followed accepted sampling procedures. They used a sampling interval of one-half and one-sixth to achieve represen-

1Work at the Prudhoe Bay facility was probably the largest single cause of such absences.

2According to the U.S. Immigration Service, Alaska has 6,000 registered aliens, including populations of Mexican, Filipino, Korean, and Vietnamese nationals.

3In order to avoid breakup problems, enumeration of Northern and Western Alaska began on January 22, 1980, and the remainder of Alaska on April 1.
tative samples in rural and urban areas, respectively. However, widespread deviation from this sampling selection by census workers may have resulted in unreliable census data. For example, if households where an adult was home during the day was substituted for households where no one was at home, the labor force participation rate among adults could be understated and household income data erroneously shown to be lower than it actually was.

To determine how well they followed sampling instructions, we asked enumerators:

When you could not contact or find households selected to receive the long-form interview, were you able to select another household in its place?

An alarming 18 percent of all enumerators and 40 percent of those in Western Alaska said “yes.” Fortunately, those who thought they could substitute households without harming census results did not frequently do so. The exception appears to have occurred in western Alaska where we estimate that one in five long forms came from substituted households.

Overall, household substitution, breakdowns in sampling procedures, and refusals of interviewees to answer questions tended to jeopardize the validity of long-form data. We believe that these three factors in combination have seriously reduced the quality of selected long-form data collected in interior, western Alaska, and on the Kenai Peninsula.

**Reasons for Census Problems**

We believe that census problems in Alaska primarily resulted from four basic causes: inadequate budget, political appointment of underqualified key supervisors; the use of inadequate or inappropriate procedures; and adverse publicity.

**Inadequate Budget**

As the population has grown, as other objectives beyond mere head-counting have been added, and as prices and wages have escalated, the cost of conducting a decennial census has grown enormously. However, the budget for the 1980 census did not realistically reflect this increase. In addition, Alaska, with its small population and remote location fared poorly in competition for census funding since the major census planning concerns were focused on the larger cities of the contiguous states.

This shortage of funds resulted in a lack of working materials for census workers, inadequate travel money, poor-quality maps, low wages, an underestimation of the population, and did not allow enough time for census preparation.

**Underqualified Political Appointees**

While some of the census supervisors who obtained their jobs through political patronage were qualified, many were not. Our observations of the census and the observations of over half the crew leaders we interviewed suggested that the 1980 census in Alaska suffered from too many unqualified high-level supervisors. This in turn led to inadequate supervision and poor organization of the census field workers and ultimately to poor quality control, inadequate instruction of field staff, and a high turnover of key personnel. Field staff often waited in vain for important decisions to be made, continued to make mistakes that went unchecked at the central office, and often quit in frustration.

**Poor Directions and Inappropriate Procedures**

One of the problems most obvious to census workers was that examples and references in their training manuals had been designed for workers in large central cities of the other states. They were simply not relevant to situations encountered by workers in small towns, villages, and scattered homesteads of rural Alaska.

Another serious error was the method by which enumerators were paid in some areas of Alaska. This method gave enumerators little financial incentive to make followup calls on houses where no one was at home during the first call.

The Census Bureau also erred in not considering the problems associated with enumerating populations of petroleum base camps, fish-processing facilities, and lumber camps. These special places are not adequately covered by the “special place” procedures used throughout the United States. Although not unique to Alaska, these special places do constitute a major part of the regional population base in which they are located. Therefore, their proper enumeration takes on a special importance here.

**Two Phases of Enumeration**

In order to avoid enumerating northern and western Alaska during spring breakup when travel conditions are poor, the State of Alaska and the Census Bureau jointly decided to split enumeration of the state into two phases, the first to start January 22, 1980, and the second on the traditional census day of April 1. Although the first phase was supposed to be completed before the second was begun, delays unfortunately caused the two to overlap.

The problem with split enumeration is that it makes interpretation of the resulting data doubly difficult and increases the probability that population movements between the early and later enumeration
regions may reduce the accuracy of population counts. However, if split enumeration is unavoidable, we believe it would be wise to start the two phases closer together and plan on an overlap, since the previous phases overlapped anyway. We suggest a March 1 date for Northern and Western Alaska. Perhaps most important, we recommend that both phases be completed by mid-June to avoid double counting or missing populations that migrate between regions.

Adverse Publicity

During the course of the census in Alaska, a public debate started over the propriety of the government questioning Alaskans about their incomes, family situations, and housing characteristics. This debate, regardless of its merits, seriously reduced the chances of obtaining an accurate count of Alaskans; most enumerators whom we interviewed felt that negative press coverage had engendered hostility that hindered their efforts.

Ironically, this resistance to the census tended to hurt those who resided. In one small community, for example, public hostility resulted in a undercount of population, which residents later found would jeopardize the revenue-sharing allocation they were counting on for community projects.

Unfortunately, the public debate over the census did not stress the value of accurate census data for Alaskans, nor did it accurately disclose the census procedures designed to safeguard individuals from government abuses of confidential information.

Conclusions

Although the 1980 Census in Alaska suffered from serious problems, most of these were corrected before the census was concluded. Still, census data users should be cautious in their application of census results. Based on our review we believe:

1. The statewide count of population and housing is substantially correct.
2. Some local census counts may be low enough to justify a special census under the auspices of the Alaska Department of Labor, Research and Analysis Section.
3. Localities which include “special places,” such as fish-processing units, selected lumber camps, and petroleum-related base camps, may wish to review local census data to determine if they believe the counts fairly represent the population that requires local services. Other census data users should assume that counts in such areas generally reflect the resident population and do not include transient populations.
4. Because of a wide misinterpretation among enumerators of the term “reference week,” the resulting census data on employment (from the long form) is not based on a specific week or even a specific season. We therefore advise extreme caution in the use of this data.

5. High refusal rates for selected long-form questions may further render the data unreliable. A lack of response to the following question areas are of particular concern: income (qs. 32, 33), fertility (q. 20), and marriage (q. 21).

6. The high rate of household substitutions for the census long forms may lead to misinterpretations of the data. Until further information from the Census Bureau is obtained, users should be particularly cautious with data from the North Slope, Kobuk, Yukon-Koyukuk, Nome, Wade Hampton, Bethel, Aleutians, Dillingham, Bristol Bay, and Kodiak Census Areas.

Recommendations

Alaska, along with all other states, plays a key planning role for each decennial census. Prior to the 1990 Census, the state will be asked by the Census Bureau to form a census planning committee; our Congressional delegation will vote on Census Bureau appropriations and will participate in a Congressional review of census plans; and the state legislature may consider legislation affecting the census. Based on our review of the 1980 census in Alaska, we suggest that:

1. Our Congressional delegation be apprised of the need for (a) additional funding for decennial census activities in Alaska, (b) a publicized review of the relevance and value to Alaska of each census question, and (c) a procedure whereby qualified personnel are located for appointed positions.

2. Alaska consider augmenting federal funds to ensure that adequate resources are available for conducting a census in Alaska.

3. The state census committee be charged with the responsibility for developing and maintaining a file of up-to-date maps and housing-count estimates for enumeration purposes.

4. The state hire an executive officer for the state census committee to work with the Census Bureau as it designs field procedures and schedules. The executive officer should also work with the Census Bureau throughout the census.

We do not recommend that the state conduct its own census. We do, however, suggest that the state continue to offer assistance to individual communities that wish to conduct their own census. And to ensure that such local censuses achieve a consistently high quality, we suggest that the state accept responsibility for field checking each special census.