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**Report on Results of the Classroom Testing
for the Questionnaire Design Project**

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UNITED STATES DEPARTMENT OF COMMERCE
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1986 TEST CENSUS
PRELIMINARY RESEARCH AND EVALUATION MEMORANDUM NO. 75

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Subject: Results of Classroom Testing for the Questionnaire
Design Project

Attached is a report on the results of the classroom testing conducted as part of the Questionnaire Design Project. The classroom tests involved split-panel testing of the 1986 Los Angeles test census long form and an alternative long form developed by CSMR staff.

Attachment

NOTE: The data in this report are preliminary and tentative in nature. Users of the results memoranda should understand that these documents are prepared for internal office use, with the aim of circulating information among Census Bureau staff members as quickly as possible. These memoranda, therefore, do not undergo the careful review and clearance normally associated with published census documents. Conclusions and recommendations contained herein essentially reflect the thoughts of certain staff members at the time of publication and should not be interpreted as statements of Census Bureau position.

REPORT ON
RESULTS OF THE CLASSROOM TESTING
FOR THE QUESTIONNAIRE DESIGN PROJECT

by

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January 30, 1989

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I. Introduction

The Questionnaire Design Project (QDP) was begun in 1985 as part of an effort to conduct research on how the design and question wording of the census form affects the respondent's ability to complete it correctly. The goal of this research program is to improve census forms and thereby increase the quality of response, and also the level of mail return. This research project has three phases--protocol analysis done by an outside contractor, observations and classroom testing done by the Census Bureau, and a mailout/mailback survey done by the Census Bureau.

The contract work was conducted by Mimi Holt and Judy Lessler in the winter of 1986. They conducted observations of respondents completing the 1986 test census long form using the technique of protocol analysis, and also held group sessions at which respondents filled out the forms. The focus of their effort was on problems respondents had in completing the form. The final report they submitted has been circulated within the Bureau.

Simultaneously with the work of the contractor, Census Bureau staff conducted similar research, observing respondents as they completed 1986 test census long forms. Based on the information gained from these observations and the contractor's report, CSMR staff developed hypotheses about the problems that the form presents to respondents as well as an alternative census long form to alleviate these problems. The rationale for the changes in the alternative census form is documented in DeMaio and Martin, 1987. This report contains the results of the classroom testing in which the revised form was tested against the 1986 test census long form.

II. Executive Summary

The following summary contains a brief synopsis of the results of the classroom testing:

1. For the majority of items on the census long form, item nonresponse rates on the alternative questionnaire were lower than on the 1986 form. This is consistent with our attempts to improve the level of reporting on the alternative form. Although the general trend was in the expected direction, in many cases these differences were not statistically significant.
2. Overall, the alternative form resulted in few differences in substantive responses; that is, the distribution of responses differed little by questionnaire version for most items.
3. The following specific improvements were noted with the alternative form:
 - a. The revised version of Question 1, placed at the top of page 1 rather than rather than beneath the instructions for filling out the form, resulted in a four-fold decrease in item nonresponse (6.6 percent for the revised form vs. 28.1 percent for the 1986 form).

- b. The revised version and placement of the relationship item, after the sex and marital status items, resulted in a significantly lower item nonresponse rate (0.8 percent for the revised form vs. 6.7 percent for the 1986 form).
 - c. The revised version of the age and year-of-birth items resulted in significantly more cases of complete and correct responses to the FOSDIC and write-in portions of these items (age: 70.9 percent for the revised form vs. 62.0 percent for the 1986 form; year of birth: 73.9 percent for the revised form vs. 60.9 percent for the 1986 form).
 - d. The revised placement of the year built item, near the beginning of the housing section, resulted in reduction of item nonresponse by almost two-thirds (5.0 percent for the revised form vs. 14.5 percent for the 1986 form).
 - e. The revised placement of the place of birth item, at the beginning of the sample person section, resulted in a significant reduction in item nonresponse (16.5 percent for the revised form vs. 25.2 percent for the 1986 form).
 - f. Revisions in the wording of the question and response category that screens five-year-olds out of the remainder of the sample person section resulted in significantly fewer inconsistencies between the screener item and reported age and lower item nonresponse (inconsistent responses: 0.3 percent for the revised form vs. 4.5 percent for the 1986 form; item nonresponse: 18.0 percent for the revised form vs. 25.5 percent for the 1986 form).
 - g. Revisions in the format for reporting addresses in the place-of-residence-5-years ago-item resulted in significantly lower rates of item nonresponse (state: 6.3 percent for the revised form vs. 13.8 percent for the 1986 form; county: 18.9 percent for the revised form vs. 27.5 percent for the 1986 form; place: 4.4 percent for the revised form vs. 19.9 percent for the 1986 form).
 - h. The alternative form uses a different item than the 1986 form to ascertain whether a person works at home. This placement resulted in significantly higher reports of working at home (5.0 percent for the revised form vs. 1.4 percent for the 1986 form).
4. The following attempts to improve response in the revised form led to worse data:
- a. Separating the type-of-structure item into two questions that ascertain the type of structure and units in structure separately resulted in inconsistent information being provided by respondents (27 percent of respondents who did not report that they live in an "apartment building" indicated that their contained two or more apartments).
 - b. Our attempt to improve income reporting by eliminating FOSDIC circles and using only write-in entries increased item nonresponse significantly. (e.g., self-employment income: 65.2 percent for the revised form vs. 43.6 percent for the 1986 form).

c. Our attempt to use the term "home" as a replacement for "house or apartment" for questions in the housing section, to make the questions applicable to all types of housing situations, produced higher item nonresponse for key items (e.g., tenure: 15.1 percent for the revised form vs. 7.0 percent for the 1986 form; property value: 15.6 percent for the revised form vs. 3.1 percent for the 1986 form).

d. Our reformatting of the response format for the utility items resulted in higher item nonresponse (e.g., electricity: 30.9 percent for the revised form vs. 22.7 percent for the 1986 form; water: 33.2 percent for the revised form vs. 24.6 percent for the 1986 form).

III. Methodology

Two long form questionnaires were used in the classroom tests. One was the DC-2-U(F), which was used in the 1986 Test Census of Los Angeles. The second was an alternative census form designed by CSMR (Form DC-1409). Further description of this form is provided in the next section. Copies of both forms are provided in Appendix A.

The testing of the alternative questionnaires took place in April 1987. We conducted split-panel classroom tests in which half of the participants were randomly assigned the revised long form and the other half were assigned the 1986 test census form.

A total of 515 people participated in these testing sessions. The participants were recruited by Census Bureau staff in four regional offices (Boston, Chicago, Dallas, and Philadelphia) who develop and maintain contact with local community organizations as part of their job responsibilities. Using these contacts with local community groups, the staff in many cases organized sessions as part of previously-scheduled activities; in other cases, special sessions were organized with members of specific organizations (e.g., employees, group members, community service participants).

The sessions were scheduled to last an-hour-and-a-half, and consisted of two parts. The participants first completed the census form. During each session, half of the participants were randomly assigned the 1986 form and the other half were assigned our revised form. Fifty-five minutes were allotted for this activity, and all respondents were instructed to stop work at the end of that time, whether or not they were finished. (This allowed us to get a feel for how long it took respondents to complete the form, and it also allowed us to schedule sessions of a specified length.) After completing the census form (or at the end of 55 minutes), participants were given a debriefing questionnaire tailored to the census form they had received. When these were completed, the moderator was free to answer questions or have a discussion about the census--no questions were allowed earlier in the session, so that all participants would have been exposed to the same amount of information while they completed their forms.

Participants included people aged 18 to 80, members of different racial and ethnic groups, and people with various levels of education. Volunteers were recruited to overrepresent minority racial and ethnic populations with relatively little education, to enable us to test our revised form among

subjects who are likely to encounter problems filling out a census form. Even though these respondents do not represent a sample, the randomization by form type does permit us to make some statistical comparisons between forms.

Coding and keying of the completed questionnaires were done in CSMR. An elaborate coding scheme was developed which captured the content of the data reported as well as information about how well the form was completed. A scheme for quantifying the errors made in reporting FOSDIC and write-in entries was applied to each item on the questionnaire. This information, as well as information about the responses themselves, is contained in this report.

Analysis was initially conducted using SAS, which assumes that the respondents were selected using a simple random sampling method. This was not the case in these experiments. To the extent that persons within classrooms might respond in the same ways, the sampling errors estimated under the assumption of simple random sampling will underestimate the true sampling errors for a clustered design. Therefore, statistically significant differences in SAS were subjected to further analysis using CPLX (for categorical variables) and PC CARP (for continuous variables) software packages, which make adjustments for clustering in the sample design. (For further documentation, see Fay, 1987, and Fuller, 1986.) In addition, this more stringent analysis makes adjustments for the clustering of person information being completed by a single household respondent. The goodness-of-fit statistics presented in this report are those resulting from the use of a jackknife replication method. Statistics for continuous variables (t-tests) are calculated through Taylor Series estimation. Test statistics do not appear for differences which were not significant.

IV. Alternative Questionnaires

The previous stages of our research identified several different types of errors made by respondents. In this section we present first, a general description of these errors and second, a summary of the revisions that were incorporated into the alternative form to alleviate them.

The errors made by respondents fall into three major categories. Some of the specific kinds of errors within each category are presented below:

1. Major structural errors. The census long form involves a fairly complex sequence of tasks: respondents must first make a list of all household members, then fill a matrix of information about each person, next answer housing questions, and finally answer additional questions about each person listed. This sequence, which is dictated by the need to obtain short-form information early in the questionnaire, is not a natural order, and can be difficult for respondents to understand and follow. Respondents who do not understand the sequence of the form can (and do) make a number of different kinds of errors, including the following: skipping whole sections of the form (Question 1, the 100-percent person page, the sample person pages, or the housing section); omitting household members from either the 100-percent person page or the sample pages; duplicating information for the same person in more than one person column or on more than one person page; and listing persons in a different order in the sample section than in the person columns, so the characteristics of

"Person 1" do not match between the sections.

2. Skip errors. All the questions on the census form are not necessarily appropriate for each respondent to complete. The form contains instructions to skip some questions, depending on the respondent's household situation. Respondents made two types of errors in attempting to answer all the appropriate questions. The first is skipped items, which results in missing data, with increased levels of allocation and imputation. The second is irrelevant responses, from people who should not be answering the question. This type of error is less problematic on the surface, since these answers can be edited out of the data. However, there may be indirect consequences; answering unnecessary questions results in increased burden, and when respondents get off into questions that don't apply to them, they may give up in frustration.

3. Errors due to misinterpretation of questions, response categories, or formats. Our previous research indicated a number of instances of these kinds of errors, which were the basis of many of our questionnaire revisions. These kinds of errors cannot be detected by review of completed questionnaires, except in some cases, through consistency with other responses on the form; our debriefing questions were designed to get some information about this type of error.

To try to eliminate these errors, the DC-1409 contained a number of different kinds of revisions, which fall into three general categories. A full description of the changes and the principles we followed in revising the form are available in DeMaio and Martin, 1987. These revisions are broadly summarized below:

1. Layout changes. We made a number of changes to the design and layout of the census form:

a. We tried to make the form self-contained and self-explanatory. We did not have an instruction guide, but incorporated information from the guide onto the questionnaire itself. In addition, we created a series of step instructions to clearly label the sequence of tasks that are involved in completing the long form. The step instructions, as well as other instructions such as directions to go to the back page of the form, served to direct respondents through the form from beginning to end. We also numbered the questions consecutively from the beginning through page 7 to increase the coherence of the document as a whole.

b. We tried to make the skip instructions consistent throughout the form. We made them explicit, consistent in format (signalled by italic typeface) and consistent in structure and phrasing.

c. We tried to use consistent, simple, and familiar formats for responding. We used a consistent format for listing names (last name, first name, middle initial), which is used throughout the questionnaire. In questions requiring respondents to write an address, form to use a more familiar order and format. We also revised the response categories so that "yes" precedes "no" for all yes/no questions.

2. Question wording changes. We made changes in question wording for several different reasons. In some cases this was done to reduce vagueness and ambiguity; in others we reworded or eliminated questions to reduce wordiness and redundancy. We also made changes in wording to refer to the same concept using the same terminology throughout the form.

3. Question sequence changes. We reordered some of the questions to group questions on the same topic together. In this way we hoped to increase the coherence of the question sequence. In other cases, questions were reordered to reduce perceived redundancy of the items, particularly for certain subgroups of respondents based on their answers to previous questions.

V. Results

As Table 1 shows, a total of 515 forms were completed during the classroom experiments--256 1986 forms and 259 revised forms. These resulted in data for 703 persons from the 1986 form and 743 persons from the revised form. The households enumerated in the two groups were of approximately equal size--the 1986 forms contained an average of 3.5 persons, while the revised forms contained an average of 3.7 persons. These figures were calculated by the number of people listed in Question 1, or the number of person columns filled in cases where Question 1 was blank.

Analysis of the data was broken into parts corresponding to the three major sections of the questionnaire, and a fourth part concerning the overall structure of the questionnaires. Results are presented here item-by-item in the order in which they appear on the 1986 form. For items in which response categories were not equivalent on the two forms, data on the revised form was recoded to match the categories on the 1986 form. In a few cases this was not possible because categories on the 1986 form were more detailed than the revised categories (e.g., highest grade completed on the revised form does not capture the distinction between church-related and non-church-related private institutions). In these cases, the 1986 data was recoded to conform to the revised form categories. A few items on the 1986 form were dropped completely from the revised form since they will not be on the 1990 census. These items are not discussed here.

For most items, analyses of interest were item nonresponse, differences in content of responses, and indications of errors in comprehension or recording. Item nonresponse is generally defined as the percent of persons eligible to answer a question for whom no response was obtained. In some cases where item nonresponse is calculated differently, a definition is included in the text. Response distributions are also calculated on the basis of all persons who are supposed to answer a question according to responses to previous items.

STRUCTURE

Previous research (see DeMaio and Martin, 1987; Holt and Lessler, 1987) suggested that many respondents had very basic problems understanding and following the census form. In several cases, people answered the example questions in the instruction guide before they even noticed the census form. In other cases, people repeated information about the same person more than once because they didn't realize that the same basic set of

questions was to be answered for each household member. In other words, it was clear that many respondents had difficulty in grasping the overall structure of the form and the response task. Through addition of the seven "steps" and other clarifying instructions, we hoped to minimize these ambiguities.

Table 1 contains information relevant to the overall structure of the forms. The table shows that at various stages of the process, revised forms were filled more completely. For example, our one-on-one observations had indicated that a number of persons did not know where to begin filling out the form and were skipping Question 1 (the listing of household members). In our revision of the form, we sought to clarify instructions and help respondents to begin the form. These efforts appear to have been successful. Only 6.6 percent of respondents to the revised form left the household listing blank, while 28.1 percent failed to complete this item on the 1986 form. This suggests that the simplified instructions on the front cover and revised instructions on the flap are responsible for this improvement in response. Removing the "How to Fill Out Your Census Form" section from the top of the page containing Question 1 no doubt increased the visibility of the item, and once it was seen, it was completed by respondents.

Other evidence of improved reporting appears on the next two lines of Table 1, which provide data concerning the extent to which the sample person sections were completed. Respondents to the revised form were significantly more likely to begin the sample person section, and also to finish the sample person section for all household members once they started it. Five percent of the 1986 forms contained no sample data, compared to less than two percent of the revised forms. In addition, 16.0 percent of the 1986 forms lacked sample data for any or all household members, compared to 8.9 percent of the revised forms. Although respondents to the 1986 form may have provided more complete data if they had been allowed unlimited time (rather than the allotted 55 minutes), it appears that the revised form was easier for respondents to complete fully in the 55 minutes.

The revisions to the 1986 form were expected to increase understanding of the general structure of the form, which would reduce several kinds of structural errors concerning filling information for each household member once and only once in the proper person columns and sample pages. As mentioned previously, it was hypothesized that the revisions would decrease the likelihood of respondents' leaving the person matrix completely blank, and also increase the reporting of the 100-percent information in the correct columns without duplicating or leaving blank any columns which should have been filled. We also intended that the revisions would decrease duplicate reporting in the sample person pages, and reduce the incidence of reordering persons between the 100-percent and sample person sections and reduce the incidence of leaving the sample person pages blank. The data to examine these hypotheses are presented in Table 1, but the results indicate that these types of errors occurred infrequently on either form. This suggests that the person column/person page format may not be as difficult as originally thought.

Another type of indicator of respondent burden is the time needed to complete the questionnaire. We kept track of the time elapsed from the

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moment respondents began the form until the time they completed it. As indicated in Table 2, respondents to the revised form on average completed the form in 39.3 minutes, compared to 41.5 minutes for the 1986 form. This difference is not statistically significant. This includes all respondents in the group sessions. However, in the sessions 55 minutes was allowed to complete the instrument, and not everyone completed the form in that time. A substantial percentage of respondents--16.1 percent on the 1986 form vs. 11.7 percent on the revised form--had not completed the form at the end of the allotted 55 minutes. However, the difference between these figures is not statistically significant.

Thus, there is some evidence that respondents to the revised form were able to provide more information (in terms of completeness of the person information) in the same amount of time as respondents to the 1986 form.

100-PERCENT POPULATION ITEMS

Several global changes were made to increase respondents' understanding of the 100-percent person section. Several step instructions were added, which describe the different tasks that are required on this page. (We also added a task here, for respondents to provide a FOSDIC-readable count of the number of persons in their households). In addition, we included within the response categories to each item for each person a reference to the person that the question is asking about (e.g., Person A is ..., Person B is ...). We thought this would help clarify for respondents the meaning of the matrix format.

Finally, we made some changes in the order of the 100-percent person questions. It seemed desirable to start the task of filling the matrix with the simplest question possible, to allow respondents to master the basic mechanics of filling in a FOSDIC circle. Gender presents no conceptual problems and it is obvious that only one circle should be filled in for each and every person. Therefore, questions in the revised form were reordered to start with sex. Marital status is also relatively simple, so it was placed second.

The other change in the ordering of the questions concerns the race and Hispanic origin items. In the revised form, the Hispanic origin item precedes the race question rather than the reverse. The purpose of this was to attempt to gain better data quality. The logic was that if respondents first answer the Hispanic origin question, then they should be less likely to (inappropriately) mark "other race" and write in "Hispanic" in the race item. In addition, if they have not already given information on Hispanic origin in the race question, they should be less likely to skip the Hispanic origin question. The hypotheses, then, were that the revisions would result in 1) fewer reports of "Hispanic" in the "other race" category, and 2) lower item nonresponse for the Hispanic origin item. A more detailed examination of these hypotheses may be found in Martin, DeMaio, and Campanelli, 1988.

Relationship (1986:2; Revised:6). As Figure 1 illustrates, the instruction following this item was expanded to instruct respondents to start with person B. In addition, the response format was changed to try to solve two problems. In the 1986 form, responses are divided into two groups with a separating line, confusing some respondents who think this question

requires two answers, one for each group of responses. The revised form omits the line and places responses in two columns with relatives on the left and nonrelatives on the right.

The second problem is that respondents may invert their answers to this question and incorrectly record the first person's relationship to the second rather than that of the second to the first, and so on. To keep respondents focused on relationship to the householder, the revised form precedes the list of relationships with the phrase, "Person X is Person A's --" for each person.

Small revisions were made in the response categories. Slashes ("/") were replaced with "or" for this and all other items on the page. Changes in the content of the response categories were made to be consistent with plans for 1990.

<p>2. How is this person related to PERSON 1?</p> <p><i>Fill ONE circle for each person.</i></p>	<p>If a RELATIVE of Person 1:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Husband/wife</td> <td><input type="checkbox"/> Brother/sister</td> </tr> <tr> <td><input type="checkbox"/> Natural or adopted son/daughter</td> <td><input type="checkbox"/> Father/mother</td> </tr> <tr> <td><input type="checkbox"/> Stepson/stepdaughter</td> <td><input type="checkbox"/> Grandchild</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Other relative</td> </tr> </table> <hr/> <p>If NOT RELATED to Person 1:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Roomer, boarder</td> <td><input type="checkbox"/> Partner, friend</td> </tr> <tr> <td><input type="checkbox"/> Housemate, roommate</td> <td><input type="checkbox"/> Paid employee</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Other nonrelative</td> </tr> </table>	<input type="checkbox"/> Husband/wife	<input type="checkbox"/> Brother/sister	<input type="checkbox"/> Natural or adopted son/daughter	<input type="checkbox"/> Father/mother	<input type="checkbox"/> Stepson/stepdaughter	<input type="checkbox"/> Grandchild		<input type="checkbox"/> Other relative	<input type="checkbox"/> Roomer, boarder	<input type="checkbox"/> Partner, friend	<input type="checkbox"/> Housemate, roommate	<input type="checkbox"/> Paid employee		<input type="checkbox"/> Other nonrelative
<input type="checkbox"/> Husband/wife	<input type="checkbox"/> Brother/sister														
<input type="checkbox"/> Natural or adopted son/daughter	<input type="checkbox"/> Father/mother														
<input type="checkbox"/> Stepson/stepdaughter	<input type="checkbox"/> Grandchild														
	<input type="checkbox"/> Other relative														
<input type="checkbox"/> Roomer, boarder	<input type="checkbox"/> Partner, friend														
<input type="checkbox"/> Housemate, roommate	<input type="checkbox"/> Paid employee														
	<input type="checkbox"/> Other nonrelative														

Figure 1a--1986 form

<p>6. How is this person related to person A?</p> <p>Fill in one circle for each person, starting with person B.</p>	<p>Person B is person A's --</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Husband or wife</td> <td><input type="checkbox"/> Roomer, boarder, foster child</td> </tr> <tr> <td><input type="checkbox"/> Natural or adopted son or daughter</td> <td><input type="checkbox"/> Roommate, housemate</td> </tr> <tr> <td><input type="checkbox"/> Stepchild</td> <td><input type="checkbox"/> Unmarried partner</td> </tr> <tr> <td><input type="checkbox"/> Grandchild</td> <td><input type="checkbox"/> Paid employee</td> </tr> <tr> <td><input type="checkbox"/> Brother or sister</td> <td><input type="checkbox"/> Other nonrelative</td> </tr> <tr> <td><input type="checkbox"/> Father or mother</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Other relative</td> <td></td> </tr> </table>	<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Roomer, boarder, foster child	<input type="checkbox"/> Natural or adopted son or daughter	<input type="checkbox"/> Roommate, housemate	<input type="checkbox"/> Stepchild	<input type="checkbox"/> Unmarried partner	<input type="checkbox"/> Grandchild	<input type="checkbox"/> Paid employee	<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Other nonrelative	<input type="checkbox"/> Father or mother		<input type="checkbox"/> Other relative	
<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Roomer, boarder, foster child														
<input type="checkbox"/> Natural or adopted son or daughter	<input type="checkbox"/> Roommate, housemate														
<input type="checkbox"/> Stepchild	<input type="checkbox"/> Unmarried partner														
<input type="checkbox"/> Grandchild	<input type="checkbox"/> Paid employee														
<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Other nonrelative														
<input type="checkbox"/> Father or mother															
<input type="checkbox"/> Other relative															

Figure 1b--revised form

Table 3 presents the findings for this item. The changes made resulted in a significant reduction in item nonresponse--from 6.7 percent on the 1986 form to 0.8 percent on the revised form. This may be the effect of moving the item to earlier in the sequence, or of simplifying the format of the question thereby encouraging response, or both.

Despite the reduction in nonresponse, however, the percentage of cases which had words written in the margins and elsewhere increased on the revised form. The increase was statistically significant, from 0.9 percent

on the 1986 form to 3.8 percent on the revised form. The distribution of responses over categories did not differ on the two forms.

Sex (1986:3; Revised:4). As Figure 2 confirms, the change made to this item was simply to place it into a question format. As discussed earlier, its placement in the series was also altered.

3. Sex Fill ONE circle for each person.	Male <input checked="" type="checkbox"/> Female
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Figure 2a--1986 form

Step 5. Answer questions 4--9 for each person. 4. What is this person's sex?	Person A is -- <input type="radio"/> Male <input checked="" type="radio"/> Female
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Figure 2b--revised form

As Table 4 shows, there were no significant differences in either the item nonresponse rate or the distribution of responses on the two forms. The phrasing of the item and its change in position apparently had no influence, either positive or negative, on these factors. This is consistent with our initial hypotheses.

Race (1986:4; Revised:9). The 1986 and revised forms of this item are presented in Figure 3. As discussed previously, the order of this item was changed from the third item in the 100-percent section to the last item. Instructions under the question were shortened and revised, and response formats for write-in entries were made consistent with other write-in entries. The response category for American Indian was reordered so that response categories and examples are identical to the 1987 test census.

As Table 5 shows, item nonresponse did not differ significantly on the two forms. Given the changes made to this item, we were interested in detecting any differences in errors made in responding to the question. The response quality codes captured errors in filling the FOSDIC circles (e.g., marking more than one circle, using checks or other marks rather than filling the circle completely), and errors in providing write-in entries (e.g., not providing an answer, putting the answer in the wrong place, providing an inappropriate response to the question).

The distribution of such response quality codes is presented in Table 5. Overall, the revised form had a higher percentage of completely correct and usable responses, though this difference was not statistically significant. In addition, the revised form had a significantly lower incidence of checks or other inappropriate marks used on the FOSDIC circle. The only other significant difference is in the percentage of responses in which a written entry was inconsistent with the FOSDIC marking or was inappropriate altogether. The revised form had a higher proportion of such cases.

The distribution of responses over response categories did not differ significantly by questionnaire type. It is reassuring to note that changing the format of the categories did not affect respondents' racial classification of household members.

<p>4. Race</p> <p>Fill ONE circle for each person.</p> <p style="text-align: center;">AND</p> <p>If "Indian (Amer.)," print enrolled or principal tribe.</p> <p>If "Other Asian or Pacific Islander," print one group.</p> <p>If "Other race," print race.</p> <p>Report the race the person considers him/herself to be.</p>	<p>White</p> <p>Black or Negro</p> <p>Indian (Amer.) - Print enrolled or principal tribe ↘</p> <hr/> <p>Eskimo Hawaiian</p> <p>Aleut Other Asian or Pacific Islander (Print one group, for example: Korean, Asian Indian, Laotian, Samoan, etc.) ↘</p> <p>Chinese <input checked="" type="checkbox"/></p> <p>Filipino</p> <p>Japanese</p> <p>Vietnamese</p> <hr/> <p>Other race - Print race ↘</p>
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Figure 3a -- 1986 form

<p>9. What is this person's race?</p> <p>Fill in one circle for the race each person considers himself or herself to be.</p>	<p>Person A is —</p> <p><input type="radio"/> White</p> <p><input type="radio"/> Black or Negro</p> <p><input type="radio"/> Eskimo <input checked="" type="checkbox"/></p> <p><input type="radio"/> Aleut</p> <p><input type="radio"/> Asian or Pacific Islander — What group? ↘</p> <hr/> <p>(For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.)</p> <p><input type="radio"/> Indian (American) — What tribe? ↘</p> <hr/> <p>(Enrolled or principal tribe)</p> <p><input type="radio"/> Other race — What race? ↘</p>
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Figure 3b--revised form

Age (1986:5a; Revised 8a). Since "age at last birthday" may be interpreted differently and is subject to errors in reading (respondents may misread "age at next birthday"), it was replaced by "exact age today" in the revised questionnaire. (Additional discussion of this issue may be found in DeMaio, Martin, and Sigman, 1987.)

The instructions for filling FOSDIC age circles were revised, and the circles were realigned so that each column of numbers plus circles is centered under the appropriate write-in box, instead of having the numbers lined up under the left edge of the box. This was hypothesized to decrease confusion and result in more accurate recording. Examples of the 1986 and revised age items are provided in Figure 4.

We developed a detailed coding scheme for the age and year-of-birth items to capture specific information about the kinds of errors that respondents made in completing these items. A copy of the coding scheme for these

5. Age and year of birth

a. Print age at last birthday and fill in the corresponding circle below each number.

b. Print year of birth and fill the corresponding circle below each number.

a. Age			b. Year of birth		
0	0	0	<input checked="" type="radio"/> 8	0	0
1	1	1	<input type="radio"/> 9	1	1
2	2	2	<input type="radio"/> 2	2	2
3	3	3	<input type="radio"/> 3	3	3
4	4	4	<input type="radio"/> 4	4	4
5	5	5	<input type="radio"/> 5	5	5
6	6	6	<input type="radio"/> 6	6	6
7	7	7	<input type="radio"/> 7	7	7
8	8	8	<input type="radio"/> 8	8	8
9	9	9	<input type="radio"/> 9	9	9

Figure 4a--1986 form

8a. What is this person's exact age today?
Write age in years in the boxes, then fill in the matching circle below each box.

b. What month was this person born?
Write numbers in the boxes, then fill in the matching circle below each box.

01 January 05 May 09 September
02 February 06 June 10 October
03 March 07 July 11 November
04 April 08 August 12 December

c. What year was this person born?
Write the last two digits of the year in the boxes. Fill in the matching circles.

a. Person A's age			b. Month born		c. Year born	
0	0	0	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
1	1	1	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 1
	2	2	<input type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> 2
	3	3	<input type="radio"/> 3	<input type="radio"/> 3	<input type="radio"/> 3	<input type="radio"/> 3
	4	4	<input type="radio"/> 4	<input type="radio"/> 4	<input type="radio"/> 4	<input type="radio"/> 4
	5	5	<input type="radio"/> 5	<input type="radio"/> 5	<input type="radio"/> 5	<input type="radio"/> 5
	6	6	<input type="radio"/> 6	<input type="radio"/> 6	<input type="radio"/> 6	<input type="radio"/> 6
<input checked="" type="radio"/>	7	7	<input type="radio"/> 7	<input type="radio"/> 7	<input type="radio"/> 7	<input type="radio"/> 7
	8	8	<input type="radio"/> 8	<input type="radio"/> 8	<input type="radio"/> 8	<input type="radio"/> 8
	9	9	<input type="radio"/> 9	<input type="radio"/> 9	<input type="radio"/> 9	<input type="radio"/> 9

Figure 4b--revised form

items is contained in Appendix B. This scheme captured errors in both the FOSDIC portion of the answer (e.g., leaving the FOSDIC circles blank, filling more than one circle in a column, left-justifying the FOSDIC circles) as well as errors in the write-in entries (e.g., leaving the write-in spaces blank, entering more than one number in an answer space, non-matching write-in and FOSDIC entries). Correct responses include FOSDIC entries with one circle per column marked and write-in entries containing one digit per answer space. To be correct, the write-in entries must match the FOSDIC entries when both are provided. In the discussion that follows, we have collapsed the more specific codes into general categories of correct entries, incorrect entries, and absence of entries.

As shown in Table 6, the revised form had a significantly greater portion of responses that were complete and correct--70.9 percent compared to 62.0 percent on the 1986 form. This includes cases where the write-in entry was complete, FOSDIC circles were filled correctly, and the information in both was consistent. Item nonresponse (that is, persons for whom there was neither a FOSDIC nor a write-in entry) did not differ by form. The incidence of other types of errors and inconsistencies differed significantly for only two types of errors. The revised form had

significantly lower proportions of cases with incorrect write-ins and no FOSDIC, and of cases with correct FOSDIC markings but no write-ins.

We compared the distribution of reported age by a difference of means rather than creating the distribution of age categories reported in census publications. The mean reported age was exactly the same on the two forms--33.6 years.

Year of birth (1986:5b; Revised:8b-c). The two versions of this item are shown in Figure 4. The revised form includes an added item for month of birth to improve the quality of the data (especially for cohort analysis and for Post-Enumeration Survey matching). The combination of two digits for month of birth plus two digits for year of birth is also a close variant of the most common format for reporting birthdates, and may therefore prove easier for respondents to comprehend. The 1986 form is further complicated by the printed "1" in the first column with the blackened FOSDIC circle below it. The purpose of this is not clear, but observation suggested that it was confusing to respondents. Therefore it was eliminated. While the two-digit birthyear format is hypothesized to be easier for respondents, it carries with it a sacrifice in data precision. Using the revised format, centenarians must be identified solely on the basis of the age item. Thus, information may be lost about centenarians. A final minor change is that "year of birth" was changed to "year born" in the response column to be consistent with the changed question wording.

Table 7 contains information about the quality of responses to the year-of-birth item. As with the age item, the percentage of responses in which the FOSDIC and write-in entries were both complete and correct was significantly higher for the revised form--73.9 percent compared to 60.9 percent for the 1986 form. This includes cases where the write-in entry was complete, the FOSDIC circles were filled correctly, and the information in both was consistent. Also as with the age item, item nonresponse (that is, persons for whom neither a write-in nor a FOSDIC entry was provided) did not differ significantly. There were some differences from the year-of-birth item, however, in the kinds of errors that occurred with different frequency on the two forms. Three categories of errors were made significantly less often on the revised form than on the 1986 form. These include 1) cases where the write-in entry for year of birth was done correctly but the FOSDIC entry was missing; 2) cases where the write-in entry was done correctly but the FOSDIC circles were filled improperly (i.e., some columns had more than one circle marked or were empty); and 3) cases where the write-in entry was missing but the FOSDIC marking was done correctly with one circle filled in each column.

An issue of concern was the extent to which reported age and year of birth matched. The percentage of cases for which both items had nonmissing data but the entries did not match is presented in Table 7. Cases defined as nonmatching are those that had a discrepancy of more than one year. More precise evaluation was not possible since data from the 1986 form do not include month of birth. The percentage of nonmatching cases is slightly lower for the revised form, but the difference is not statistically significant.

Marital status (1986:6; Revised:5). Other than changing the position of this item and rephrasing it into a question, only minor changes were made.

The first response category was changed from "now married" to "married now," and the "never married" option was expanded to make its meaning more definite and to specify that it includes annulled marriages. Examples of the two forms are provided in Figure 5.

<p>6. Marital status</p> <p>Fill ONE circle for each person.</p>	<table> <tr> <td>Now married</td> <td>Separated</td> </tr> <tr> <td>Widowed</td> <td>Never married</td> </tr> <tr> <td>Divorced</td> <td></td> </tr> </table>	Now married	Separated	Widowed	Never married	Divorced	
Now married	Separated						
Widowed	Never married						
Divorced							

Figure 5a--1986 form

<p>5. What is this person's marital status?</p> <p>Fill in one circle for each person.</p>	<p>Person A is —</p> <table> <tr> <td><input type="radio"/> Married now</td> <td><input type="radio"/> Separated</td> </tr> <tr> <td><input type="radio"/> Widowed</td> <td><input type="radio"/> Has never been married or marriage annulled</td> </tr> <tr> <td><input type="radio"/> Divorced</td> <td></td> </tr> </table>	<input type="radio"/> Married now	<input type="radio"/> Separated	<input type="radio"/> Widowed	<input type="radio"/> Has never been married or marriage annulled	<input type="radio"/> Divorced	
<input type="radio"/> Married now	<input type="radio"/> Separated						
<input type="radio"/> Widowed	<input type="radio"/> Has never been married or marriage annulled						
<input type="radio"/> Divorced							

Figure 5b--revised form

As shown in Table 8, the changes made on the revised form resulted in a significant decrease in item nonresponse. On the 1986 form, the item nonresponse rate was 6.5 percent. This dropped to 3.4 percent on the revised form.

Since the response categories are not necessarily mutually exclusive, there was concern about the percentage of responses that would include multiple FOSDIC marks. As Table 8 shows, the incidence of such cases was extremely low, and did not differ according to questionnaire type.

The distributions of responses were similar on the two forms. Roughly equal proportions of respondents fell into the five categories on the revised form and the 1986 form.

Hispanic Origin (1986:7; Revised:7). In addition to the change in sequence of this item, changes were made to the format and wording of the question. These modifications may be seen in Figure 6. The revised form includes an instruction to persons NOT of Spanish or Hispanic origin to fill in the circle for "No." This was done in an effort to correct the common tendency of non-Hispanics to skip this item. The response formats for write-in entries were made consistent with formats for write-in entries elsewhere in the questionnaire. The response categories and examples used in the revised form are those used in the 1987 test census, except that abbreviations are spelled out. Finally, the instruction "Print one group" was replaced by a question, "What group?" in boldface.

Table 9 presents the findings for the Hispanic origin item. Consistent with our efforts to decrease item nonresponse, the revised form of the question had a significantly lower percentage of cases with this item left blank--8.7 percent vs. 17.6 percent for the 1986 form. As with the race item, we were interested in the frequencies of various types of errors on the two forms when respondents did not leave the item blank. As may be seen in Table 9, of the persons for whom information on Hispanic origin was reported, the revised form had a significantly lower percentage of responses that were completely correct and usable. This difference results largely from the greater incidence on the revised form of cases containing

<p>7. Is this person of Spanish/Hispanic origin?</p> <p>Fill ONE circle for each person.</p> <p style="text-align: center;">AND</p> <p>If "Yes, other Spanish/Hispanic" print one group.</p>	<p>No (not Spanish/Hispanic)</p> <p>Yes, Mexican, Mex.-Am., Chicano</p> <p>Yes, Puerto Rican</p> <p>Yes, Cuban</p> <p>Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Costa Rican, Dominican, Spaniard, etc.)</p>
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Figure 6a--1986 form

<p>7. Is this person of Spanish or Hispanic origin?</p> <p>Fill in one circle for each person. If this person is NOT of Spanish or Hispanic origin, fill in the circle for "No."</p>	<p><input type="radio"/> Yes, Person A is of Spanish or Hispanic origin — What group? ↴</p> <hr/> <p>(For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.)</p> <p><input type="radio"/> No</p>
---	--

Figure 6b--revised form

correct FOSDIC markings, but missing write-ins--4.3 percent vs. 0.7 percent on the 1986 form. This may be due to a difference in the question used on the two forms--more cases required a write-in response on the revised form (due to the elimination of several printed response categories).

Since we spelled out the words "Mexican-American" in our list of examples rather than abbreviating it ("Mex.-Am.") as on the 1986 form, we coded whether respondents circled or otherwise marked the word "American" in responding to this item. In previous censuses (see Passel and Word, 1987; U.S. Bureau of the Census, 1982), respondents had marked this term because it was something that fit them, and reported themselves as Hispanic (Mexican-American) when in fact they were not. However, none of the respondents in our group sessions, either on the revised form or on the 1986 form, made any markings such as circles or underlining in the "Mexican-American" examples or response category.

Table 9 also presents the distribution of responses across response categories for this item collapsed to the categories available on the revised form. While the percentage reporting "Hispanic" is lower on the revised form, the difference is not statistically significant.

HOUSING ITEMS

In revising the housing section, several changes were made that affect more than one item. These changes are summarized below.

First of all, questions in this section were reordered to begin with questions about the building or structure and then follow with questions about the housing unit. This was intended to increase the coherence of the

section, improve the quality of the data, and make the response task easier.

Second, we tried to improve the format for entering dollar amounts, which we thought to be somewhat confusing. The ".00" printed on the 1986 form is intended to get respondents to round off to whole dollars. However, it contributes to the visual clutter on the form, and some respondents misinterpret it. They do not see the period, and think they are supposed to leave off the last two digits of the dollar amount (e.g., some respondents write "\$5" instead of "\$500). We eliminated the ".00" from the revised form to alleviate this problem.

Third, we changed the terminology that refers to the Census Bureau's concept of a housing unit. Our preliminary research (see DeMaio and Martin, 1987; Holt and Lessler, 1986) revealed that many respondents have difficulty grasping this concept. Because the range of possible dwelling places is extremely broad, the 1986 form (like most Census forms) uses the phrase "house or apartment" for the sake of brevity and simplicity. This phrasing raises some ambiguities. For example, people who live in an apartment in a house may answer differently depending on which they take as their point of reference. In addition, this phrase seems to exclude people who live in mobile homes, boats, tents, vans, or other less traditional structures. In revising the questionnaire, we tried to make the concept of the housing unit more inclusive by substituting the word "home." We thought this simple word would be relevant for all types of housing situations and would be easy for respondents to understand.

Consistent with plans for 1990, seven items on the 1986 form were dropped from the revised questionnaire and will not be discussed here.

Coverage (1986:H1; Revised:Step 1). As shown in Figure 7, this question was moved in the revised form from the beginning of the housing section to the flap of the questionnaire. It is more appropriate to place the question after the listing to which it refers, rather than requiring respondents to flip back to Page 1 once they have reached the housing section.

As shown in Table 10, however, this move was not successful, using item nonresponse as the criterion. On the 1986 form, only 8.2 percent of respondents left the item blank. On the revised form, this figure rose significantly to 27.0 percent. The distribution of responses, however, did not differ significantly. That is, respondents were no more likely to report difficulty in determining who to list on one form than the other.

H1. Did you have any trouble deciding whether or not to list a particular name(s) in Question 1?

Yes, please print the name(s). No

Figure 7a--1986 form

Step 2. Think again. It's very important that the census gets an accurate listing.

3. When you were making your list, did you have any trouble deciding whether or not to include a particular person; for example, an adult or child who has another home, or who is staying here for an indefinite time, or who lives here off and on?

Yes — What is (are) the name(s)? Why did you have trouble deciding whether to include the person(s)?

No

Figure 7b--revised form

Type of Structure (1986:H4; Revised:10 and 14). As may be seen in Figure 8, this item was divided into two questions on the revised form. This was done in an attempt to eliminate possible response problems. The layout of the categories makes it appear that two responses are expected: one in the first four options about type of structure, and one in the second section concerning number of units. By asking two questions in the revised questionnaire, we hoped to eliminate such multiple markings. We also intended to make it easier to classify some types of housing situations that are not covered under the single question.

We also made changes in question wording. Question 10 (type of structure) was reworded to create the proper frame of reference for the section. Specifically, the new wording was intended to make clear that the questions pertained to the place at this address, not some other house or apartment which the respondent may own, or where he/she might receive a census form. In Question 14 (number of units in structure), we introduced the term "dwelling unit" to encompass all types of housing units, including houses and apartments. The supplemental instructions were revised to remind respondents to include their own unit as well as all others in the building.

Table 11 presents the findings for this item. Questions 10 and 14 on the revised form were collapsed to create categories comparable to those on the 1986 form. Item nonresponse did not differ significantly on the two forms. There was no significant difference in the percent of responses with more than one FOSDIC marking (though the pattern was in the expected direction--more multiple markings on the 1986 form). The distribution of responses, however, was significantly different by form. This difference appears to result primarily from the larger percentages of persons in apartment buildings with 5 to 9 apartments and in those with 50 plus apartments on the revised form.

Respondents to the revised form did not always answer questions 10 and 14 consistently. For example, 27 percent of the respondents who did not fill in the circle for "apartment building" in Question 10 indicated that there were two or more apartments in their building in Item 14. The type of structure is therefore ambiguous for these cases; it is uncertain whether to call them apartment buildings or not. This creates problems later in

H4. What best describes the building in which you live?
 Fill ONE circle. Include all apartments, flats, etc., even if vacant.

- Mobile home or trailer
- One-family detached house
- One-family house attached to one or more buildings
- A commercial building with 1 apartment

A building with:

- 2 apartments
- 3 apartments
- 4 apartments
- 5 to 9 apartments
- 10 to 19 apartments
- 20 to 49 apartments
- 50 or more apartments OR
- Boat, tent, van, etc.

Figure 8a--1986 form

10. Which type of building or structure do you live in at this address?

- Detached house (has space on all sides)
- Attached house (such as a townhouse or rowhouse)
- Apartment building
- Mobile home or trailer
- Boat, tent, van, or other type of building or structure

14. How many separate dwelling units are in this building? Count your own home and all other apartments (including vacant units) in the building.

- One (Fill this circle for a one-family house or a mobile home)
- 2 apartments
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10-19
- 20-49
- 50 or more apartments

Figure 8b--revised form

the housing section when the skip pattern is based on whether the respondent lives in an "apartment building."

Number of Rooms (1986:H5 Revised:27). Respondents may become confused answering this question because of the difficulty of defining "room." In the 1986 version, respondents are told what to exclude but not what to include. In the revised form, the instruction is modified and examples are provided of both inclusions and exclusions. Both forms of the item may be found in Figure 9.

H5. How many rooms do you have in your house or apartment? Do NOT count bathrooms, porches, balconies, foyers, halls, or half-rooms:

- 1 room
- 2 rooms
- 3 rooms
- 4 rooms
- 5 rooms
- 6 rooms
- 7 rooms
- 8 rooms
- 9 or more rooms

Figure 9a--1986 form

27. How many rooms do you have? Count whole rooms, such as living rooms, bedrooms, and full kitchens. Do not count bathrooms, porches, balconies, halls, unfinished basements, or storage areas.

- 1 room
- 2 rooms
- 3 rooms
- 4 rooms
- 5 rooms
- 6 rooms
- 7 rooms
- 8 rooms
- 9 or more rooms

Figure 9b--revised form

On the revised form, questions on bedrooms and bathrooms were moved to follow the question on total rooms, since it is easier to answer all questions which require room-counting at the same time. This was thought to perhaps eliminate the common problem that respondents interpret this question to mean the number of bedrooms.

The findings for this item are presented in Table 12. Item nonresponse did not differ by questionnaire type. As an indicator of errors, we examined the percentage of cases in which the total number of rooms was greater than, equal to, or less than the reported number of bedrooms. The revised form appears to have resulted in better data for this item, since it had significantly more "correct" responses--those in which the total number of rooms was greater than bedrooms, and significantly fewer instances in which the total number of rooms was reported to be less than the number of bedrooms.

Tenure (1986:H6; Revised:19). The tenure question was reworded to clearly include people who live in housing units other than houses or apartments. Changes in the first alternative and the addition of the second alternative were made to be consistent with plans for the 1990 census. In addition, the wording of the first alternative was changed slightly to delete the reference to household; "cash" in the third and fourth alternatives was changed to "money" so as not to confuse respondents who pay their rent by check. Examples of both forms of the question are provided in Figure 10.

H6. Is your house or apartment -- ■

- Owned or being bought by you or by someone else in this household?
- Rented for cash rent?
- Occupied without payment of cash rent?

Figure 10a--1986 form

19. Is your home -- ■

- Owned free and clear by you or someone who lives here? — Skip to 21
- Owned with a mortgage or loan to you or someone who lives here? — Skip to 21
- Rented for money?
- Occupied without paying money rent? — Skip to 25a

Figure 10b--revised form

As shown in Table 13, item nonresponse was significantly higher for the revised form of this item--15.1 percent for the revised form vs. 7.0 percent for the 1986 form. This is one of the few cases where the revised form did significantly worse than the 1986 form in terms of item nonresponse. We suspect that this may be related to the resequencing of the question. On the revised form, this item follows the condominium question; on the 1986 form it follows the question on number of rooms. We crosstabulated nonresponse to the tenure question by response to the condominium question. Eighty percent of the nonrespondents on the revised form did not live in condominiums, compared to only about 20 percent for the 1986 form who did not live in condominiums or cooperatives. This suggests that respondents to the revised form thought that the tenure question was only for condominium owners. This notion may be strengthened by the fact that Item 19 does not contain a full question in bold type (only the words "Is your home--"), and the blue shading that indicates questions does not extend across the full width of the column. This might create the impression that the tenure item is a subpart of the previous item.

After collapsing the "owned" categories of the revised form to be consistent with those of the 1986 form, there was no significant difference in the distribution of responses across categories.

Condominium or cooperative (1986:H7; Revised:18). Consistent with plans for the 1990 census, this item was changed to ask only about condominiums.

In addition, the question wording was simplified, and a definition of condominium was added. Examples of the two forms are provided in Figure 11.

H7. Is this apartment or house part of a condominium or a cooperative? A COOPERATIVE is a building or development owned by its occupants. Shares are purchased in a cooperative corporation which entitle each shareholder to occupy an individual apartment or house.

No
 Yes, a condominium
 Yes, a cooperative

Figure 11a--1986 form

18. Do you live in a condominium?
In a CONDOMINIUM, apartments are owned individually and common areas are owned jointly.

Yes
 No

Figure 11b--revised form

Item nonresponse did not differ significantly for the two forms of the question. Due to the change in asking only about condominiums, content comparisons for this item are not valid. (See Table 14.)

Property size (10+ acres) (1986:H8a; Revised:15). The wording and the structure of the skip instruction were changed for this item and for the commercial establishment item. Instead of excluding respondents who do not live in one-family houses, the revised form excludes persons who live in apartment buildings. As a result, these two items are asked of more people--namely, people who live in duplexes, etc., and in mobile homes. This change was made to eliminate the ambiguity of the term "one-family house" detected in our observations. Respondents who lived in apartments (which they considered to be their "house") with one family thought the questions applied to them as well. This change also made it possible to set up a single skip pattern to cover the farm operation and agricultural sales questions. The structure of the skip instruction was changed to be consistent with other skip instructions. The 1986 version provides no guidance for respondents who do not fit the criteria for answering the question. Figure 12 provides examples of these changes.

H8. If this is a ONE-FAMILY HOUSE --

a. Is the house on 10 or more acres?

No
 Yes

b. Is any part of the property used as a commercial establishment or medical office?

No
 Yes

Figure 12a--1986 form

If you live in an apartment building, skip to question 18.

15. Is your home on 10 or more acres?

Yes
 No

16. Is there a business (such as a store or barber shop) or a medical office on this property (your home and lot)?

Yes
 No

Figure 12b--revised form

The skip instruction on the revised form of the questionnaire reads as follows: "If you live in an apartment building, skip to question 18." As mentioned above, the revised form is plagued by ambiguity concerning the definition of an apartment building. This creates a problem for identifying eligible respondents who should answer these items. The issue is whether to define "apartment building" in a literal sense (that is, buildings that are composed solely of a number of apartments) or in a

broader sense to mean any structure that contains more than one unit, such as a house that contains a basement apartment or two apartments above a grocery store. (This latter definition is closest to the Census Bureau definition of "apartment building.")

To assess the impact of this definitional ambiguity in the wording of the skip instruction, the analyses of items 15 - 17 on the revised form were conducted using both the "literal" and "broad" definitions of apartment building. The aim was to exclude apartment dwellers from responding to these questions. Using the "literal" definition of apartment building, all persons who reported in Item 10 (type of structure) that they lived in an apartment building were excluded from the eligible universe for these items. Using the broad definition, all persons who reported in Item 14 (number of units in structure) that they lived in a structure with two or more apartments were omitted from the pool of eligible respondents.

As Table 15 shows, item nonresponse for the property size item was significantly higher on the revised form, whether using the literal or the broad definition of apartment building to determine the eligible universe. Only 1.3 percent of respondents left the item blank on the 1986 form. On the revised form, 17.5 percent did so when using the literal definition. This figure decreases markedly when using the broad definition of apartment building (thereby allowing more persons to correctly skip the item), but the 8.6 percent figure is still significantly higher than the 1.3 percent on the 1986 form.

The response distributions differed little on the two forms, using either the literal or the broad definition of apartment building in determining the eligible universe for the revised form.

Commercial Establishment (1986:H8b; Revised:16). In addition to the skip changes discussed above, this item was reworded to clarify its meaning--particularly, to eliminate the phrase "commercial establishment" which is vague, and to clarify what "this property" means. Examples of the two forms of the question are provided in Figure 12.

As Table 16 shows, item nonresponse did not differ on the two forms using either the literal or the broad definition of apartment building to determine the eligible universe. The distribution of responses was the same on both forms, regardless of the method used to determine the eligible universe for the revised form.

Property Value (1986:H9; Revised:21). Figure 13 illustrates the 1986 and revised forms of this item. The screening instruction for this item was omitted because it was extremely burdensome and difficult to follow. On the revised form, all persons who own or are buying their property were asked to respond.

Table 17 presents the findings for this item. Item nonresponse for the 1986 form was 3.1 percent, compared to 15.6 percent on the revised form. This difference, which is highly significant, is contrary to our expectations.

H9. If you live in a ONE-FAMILY HOUSE OR a CONDOMINIUM UNIT which you OWN OR ARE BUYING —

What is the value of this property, that is, how much do you think this property (house and lot or condominium unit) would sell for if it were for sale?

Do not answer this question if this is —

- a mobile home or trailer
- a house on 10 or more acres
- a one-family house with a commercial establishment or medical office on the property
- a cooperative

- | | |
|--|--|
| <input type="radio"/> Less than \$15,000 | <input type="radio"/> \$65,000 to \$69,999 |
| <input type="radio"/> \$15,000 to \$19,999 | <input type="radio"/> \$70,000 to \$74,999 |
| <input type="radio"/> \$20,000 to \$24,999 | <input type="radio"/> \$75,000 to \$79,999 |
| <input type="radio"/> \$25,000 to \$29,999 | <input type="radio"/> \$80,000 to \$89,999 |
| <input type="radio"/> \$30,000 to \$34,999 | <input type="radio"/> \$90,000 to \$99,999 |
| <input type="radio"/> \$35,000 to \$39,999 | <input type="radio"/> \$100,000 to \$124,999 |
| <input type="radio"/> \$40,000 to \$44,999 | <input type="radio"/> \$125,000 to \$149,999 |
| <input type="radio"/> \$45,000 to \$49,999 | <input type="radio"/> \$150,000 to \$199,999 |
| <input type="radio"/> \$50,000 to \$54,999 | <input type="radio"/> \$200,000 to \$249,999 |
| <input type="radio"/> \$55,000 to \$59,999 | <input type="radio"/> \$250,000 to \$299,999 |
| <input type="radio"/> \$60,000 to \$64,999 | <input type="radio"/> \$300,000 or more |

Figure 13a--1986 form

Answer 21—24 ONLY if you own or are buying your home.

21. What is the value of your property, that is, how much do you think your home and lot, condominium unit, or cooperative share would sell for if it were for sale?

- | | |
|--|--|
| <input type="radio"/> Less than \$15,000 | <input type="radio"/> \$65,000 to \$69,999 |
| <input type="radio"/> \$15,000 to \$19,999 | <input type="radio"/> \$70,000 to \$74,999 |
| <input type="radio"/> \$20,000 to \$24,999 | <input type="radio"/> \$75,000 to \$79,999 |
| <input type="radio"/> \$25,000 to \$29,999 | <input type="radio"/> \$80,000 to \$89,999 |
| <input type="radio"/> \$30,000 to \$34,999 | <input type="radio"/> \$90,000 to \$99,999 |
| <input type="radio"/> \$35,000 to \$39,999 | <input type="radio"/> \$100,000 to \$124,999 |
| <input type="radio"/> \$40,000 to \$44,999 | <input type="radio"/> \$125,000 to \$149,999 |
| <input type="radio"/> \$45,000 to \$49,999 | <input type="radio"/> \$150,000 to \$199,999 |
| <input type="radio"/> \$50,000 to \$54,999 | <input type="radio"/> \$200,000 to \$249,999 |
| <input type="radio"/> \$55,000 to \$59,999 | <input type="radio"/> \$250,000 to \$299,999 |
| <input type="radio"/> \$60,000 to \$64,999 | <input type="radio"/> \$300,000 or more |

Figure 13b--revised form

Monthly rent (1986:H10; Revised:20). In the revised form this item was moved to follow the tenure item, which is used to filter responses and set up a skip pattern for questions on rent and value. The skip instruction preceding the item was reworded to be more explicit, and the instruction to convert monthly rent was deleted. Figure 14 presents examples of the 1986 and revised forms.

As Table 18 shows, there were no significant differences in either the item nonresponse rates or the distribution of responses for this item.

H10. If you PAY RENT for your house or apartment — What is the monthly rent? If rent is NOT PAID BY THE MONTH, see the instruction guide on how to figure a monthly rent.

- | | |
|--------------------------------------|--------------------------------------|
| <input type="radio"/> Less than \$60 | <input type="radio"/> \$275 to \$299 |
| <input type="radio"/> \$60 to \$79 | <input type="radio"/> \$300 to \$349 |
| <input type="radio"/> \$80 to \$89 | <input type="radio"/> \$350 to \$399 |
| <input type="radio"/> \$90 to \$99 | <input type="radio"/> \$400 to \$449 |
| <input type="radio"/> \$100 to \$124 | <input type="radio"/> \$450 to \$499 |
| <input type="radio"/> \$125 to \$149 | <input type="radio"/> \$500 to \$549 |
| <input type="radio"/> \$150 to \$174 | <input type="radio"/> \$550 to \$599 |
| <input type="radio"/> \$175 to \$199 | <input type="radio"/> \$600 to \$649 |
| <input type="radio"/> \$200 to \$224 | <input type="radio"/> \$650 to \$699 |
| <input type="radio"/> \$225 to \$249 | <input type="radio"/> \$700 to \$749 |
| <input type="radio"/> \$250 to \$274 | <input type="radio"/> \$750 or more |

Figure 14a--1986 form

Answer ONLY if you pay rent for your home.

20. What is the monthly rent?

- | | |
|--------------------------------------|--------------------------------------|
| <input type="radio"/> Less than \$60 | <input type="radio"/> \$275 to \$299 |
| <input type="radio"/> \$60 to \$79 | <input type="radio"/> \$300 to \$349 |
| <input type="radio"/> \$80 to \$89 | <input type="radio"/> \$350 to \$399 |
| <input type="radio"/> \$90 to \$99 | <input type="radio"/> \$400 to \$449 |
| <input type="radio"/> \$100 to \$124 | <input type="radio"/> \$450 to \$499 |
| <input type="radio"/> \$125 to \$149 | <input type="radio"/> \$500 to \$549 |
| <input type="radio"/> \$150 to \$174 | <input type="radio"/> \$550 to \$599 |
| <input type="radio"/> \$175 to \$199 | <input type="radio"/> \$600 to \$649 |
| <input type="radio"/> \$200 to \$224 | <input type="radio"/> \$650 to \$699 |
| <input type="radio"/> \$225 to \$249 | <input type="radio"/> \$700 to \$749 |
| <input type="radio"/> \$250 to \$274 | <input type="radio"/> \$750 or more |

SKIP TO 25a

Figure 14b--revised form

The property size and farm operations screeners appear to be identifying different universes of people to answer the agricultural sales question. This is not surprising, given the differences in the content of the screeners. The number of people routed to the agricultural sales question is too small, however, to make anything of the differences. As shown in Table 19, the property value screener identified 39 respondents to the 1986 form (18.0 percent of the sample) who needed to answer the agricultural sales question, whereas the farm operations screener identified only 1 respondent to the revised form (0.7 percent). There was little difference, however, in the substantive information gathered from the two forms of the questionnaire. The majority of respondents (96.9 percent) who answered the agricultural sales question of the 1986 form indicated that they had no income from farm products. In the revised version, the one respondent eligible to answer the agricultural sales question also indicated that he/she did not have any farm sales during the last year.

The item nonresponse rates on the agricultural sales question differed significantly--from 18.0 percent on the 1986 form to 0.0 percent on the revised form. This comparison, however, is misleading due to the small number of respondents involved (n = 1 for the revised form). A better perspective on item nonresponse rates can be gleaned by comparing the combination of the two agricultural items (17a & b) in the revised version of the questionnaire to the one agricultural sales item (H11b) in the 1986 version. The percentage of eligible respondents with unusable data on either of the questions in the revised form was 11.5 percent under the strict definition and 4.3 percent under the broad definition of apartment building. (This question, too, is supposed to be skipped by respondents who live in an apartment building.) This is compared to 18.0 percent of the respondents on the 1986 version who did not have usable data on this question. Thus, the revised version of this item appears to perform better than the original version.

Year built (1986:H12; Revised:11). As can be seen in Figure 16, only minor wording changes were made in the revised version of this question. For example, the phrase "or structure" was added to the revised form so that this question would accommodate individuals in "nonbuildings." In addition, in the revised form the word "first" was used in place of the word "originally" and the instruction was deleted.

H12. About when was this building originally built?

Mark when the building was first constructed, not when it was remodeled, added to, or converted.

- | | |
|------------------------------------|---|
| <input type="radio"/> 1985 to 1987 | <input type="radio"/> 1960 to 1969 |
| <input type="radio"/> 1980 to 1984 | <input type="radio"/> 1950 to 1959 |
| <input type="radio"/> 1975 to 1979 | <input checked="" type="radio"/> 1940 to 1949 |
| <input type="radio"/> 1970 to 1974 | <input type="radio"/> 1939 or earlier |
| | <input type="radio"/> Don't know |

Figure 16a--1986 form

11. About when was this building or structure first built?

- | | |
|------------------------------------|---|
| <input type="radio"/> 1985 to 1987 | <input type="radio"/> 1960 to 1969 |
| <input type="radio"/> 1980 to 1984 | <input type="radio"/> 1950 to 1959 |
| <input type="radio"/> 1975 to 1979 | <input checked="" type="radio"/> 1940 to 1949 |
| <input type="radio"/> 1970 to 1974 | <input type="radio"/> 1939 or earlier |
| | <input type="radio"/> Don't know |

Figure 16b--revised form

As shown in Table 20, a significantly greater percentage of respondents left this item blank on the 1986 form than on the revised form (14.5

percent vs. 5.0 percent, respectively). A likely reason for this substantial difference in item nonresponse is the placement of the item in the revised housing sequence. On the revised form, this item is the second housing item, appearing on page 3. The item nonresponse rates for the questions immediately before and after it are in the 4-5 percent range. On the 1986 form, this item is on page 4, immediately following the agricultural products questions which have similarly high item nonresponse rates.

Almost 29 percent (28.9) of the respondents who answered the revised form indicated that they did not know the year in which their building was built, as opposed to only 26.0 percent of those who answered the 1986 form. This difference, however, did not reach significance.

Previous research (Bureau of the Census, 1986) suggests that underreporting in the older building categories is likely. Our minor wording changes appear to have had little effect on this problem. The distribution of substantive responses did not differ by form of the questionnaire.

With the current data, it was not possible to ascertain whether or not the addition of the phrase "or structure" made the revised form of the question more relevant for people in "nonbuildings." The percentage of individuals living in mobile homes, trailers or some other less traditional structure such as a boat, tent or van was 0.0 percent among those who received the 1986 form and only 2.0 percent among those who received the revised form.

Arrival in housing unit (1986:H13; Revised:39b). In the revised form, this item was moved to the section of sample population items because it is conceptually about persons, not housing. On the revised form (see Figure 17), the wording was also changed slightly from "this house or apartment" to "this dwelling (house, apartment, etc.)?" to accommodate individuals who did not live in either houses or apartments.

This question is to be answered about person 1/person A. Respondents may, however, answer about the wrong reference person. We hypothesized that this would be more likely to occur on the 1986 form where this question appears in the housing section than on the revised form, where it appears in the sample section for person A. A very rough indicator of whether the correct reference person is used may be gained by comparing the age of person 1/person A with the reported date of arrival in the housing unit. For example, if person 1 is only 20 years old, but the reported date of arrival is prior to 20 years ago, the respondent is obviously referring to the wrong person in answering the arrival question. Comparing the percentage of such inconsistent cases on the two forms indicated that this

H13. When did the person listed in column 1 move into this house or apartment?	
<input type="radio"/> 1985 to 1987	<input type="radio"/> 1960 to 1969
<input type="radio"/> 1980 to 1984	<input type="radio"/> 1950 to 1959
<input type="radio"/> 1975 to 1979	<input type="radio"/> 1949 or earlier
<input type="radio"/> 1970 to 1974	<input checked="" type="radio"/> Always lived here

Figure 17a--1986 form

39b. When did person A move into this dwelling (house, apartment, etc.)?	
<input type="radio"/> 1987	<input type="radio"/> 1960 to 1969
<input type="radio"/> 1985 to 1986	<input type="radio"/> 1950 to 1959
<input type="radio"/> 1980 to 1984	<input type="radio"/> 1949 or earlier
<input type="radio"/> 1975 to 1979	<input type="radio"/> At birth
<input type="radio"/> 1970 to 1974	

Figure 17b--revised form

was not a concern for either form. Additionally, since the arrive-in-housing-unit item allows for responses only in the form of five-year intervals, inconsistencies of less than five years could not be detected.

The item nonresponse rates for the two question forms did not differ significantly. (See Table 21.)

Plumbing facilities (1986:H14; Revised:25a & 25b). As shown in Figure 18, the 1986 form used response categories which were qualified "yes" and "no" responses, thereby complicating the respondent's task. In addition, these response categories were not mutually exclusive. It was unclear how an individual who had partial plumbing facilities that were used by another household should answer. The revised form of the questionnaire used two separate items to assess the concepts of partial plumbing facilities and exclusive use. In addition, there were small changes in question wording.

H14. Do you have complete plumbing facilities in your house or apartment, that is, hot and cold piped water, a flush toilet, and a bathtub or shower?

- Yes, for this household only
- Yes, but also used by another household
- No, have some but not all plumbing facilities
- No plumbing facilities in house or apartment

25a. Do you have COMPLETE plumbing facilities in your home?

That is, hot and cold piped water, a flush toilet, and a bathtub or shower.

- Yes
- Some but not all plumbing facilities
- No plumbing facilities — Skip to 26

b. Are the plumbing facilities —

- For your household only, or
- Also used by another household?

Figure 18a--1986 form

Figure 18b--revised form

By using two items instead of one, there is a greater potential for item nonresponse. As shown in Table 22, 4.7 percent of the respondents who answered the 1986 form left this item blank. In the revised form, 5.4 percent of the respondents left both the first and second questions blank. From this perspective, the item nonresponse rates for the two forms of the questionnaire did not differ significantly. An additional 9.3 percent of the respondents answering the revised form, however, did not answer the second question, resulting in 14.7 percent of responses which were not entirely usable. (There were no instances in which respondents skipped the first question and then answered the second question.)

To investigate the effect of question differences on substantive responses, the categories of the two revised plumbing facilities questions were collapsed to mirror the categories on the 1986 form. Respondents who indicated that they had partial facilities were grouped together regardless of whether or not they were used by only one household.

The data indicate that the two forms of the questions produced differences in the distribution of substantive responses. The main difference was between respondents who indicated that they had complete facilities for their household alone and respondents who indicated that they had complete facilities which they shared with other households.

Water source (1986:H15; Revised:12). In the revised questionnaire, the water source item is presented as a question rather than as an incomplete phrase, which should make the item clearer for self-enumeration. In addition, some of the extra descriptors in the response options were deleted. Examples are provided in Figure 19.

H15. Do you get water from —

- A public system (*city water department, etc.*) or private company?
- An individual drilled well?
- An individual dug well?
- Some other source (*a spring, creek, river, cistern, etc.*)?

Figure 19a--1986 form

12. What is the source of water for this building?

- Public system or private company
- Individual drilled well
- Individual dug well
- Some other source (such as spring, creek, cistern)

Figure 19b--revised form

Item nonresponse rates did not differ significantly between the two forms. In addition, differences in the content of respondents' answers between the two forms were negligible. On both forms almost all respondents (≥ 98.4 percent) chose the first category (public/private water) on the water source question (See Table 23).

Based on past research (Holt and Lessler, 1987), there was some concern that respondents may have more than one water source and thus want to pick more than one answer to this question. Contrary to this hypothesis, there were no instances of multiple responses on either form.

Sewage disposal (1986:H16; Revised:13). In the revised form of this item, several words were deleted from the first response category to simplify the response task for the respondent. No other changes were made. (See Figure 20).

H16. Is this building connected to a public sewer?

- Yes, connected to public sewer
- No, connected to septic tank or cesspool
- No, use other means

Figure 20a--1986 form

13. Is this building connected to a public sewer?

- Yes
- No, connected to septic tank or cesspool
- No, use other means

Figure 20b--revised form

Item nonresponse rates did not differ significantly on the two forms. In addition, the distributions of responses across categories were similar on the two questionnaires. Almost all respondents (≥ 93.4 percent) chose the first category (public sewer). (See Table 24.)

Heating Equipment (1986:H17; Revised:33). The order of the heating equipment and heating fuel questions was reversed on the basis of previous observations and research (DeMaio and Martin, 1987; Holt and Lessler, 1987). Type of fuel seems to be more salient in respondents' minds, and may therefore be a better subject for the first question on heating methods. As Figure 21 shows, the wording of the equipment item was changed to make the intent of the question clearer, and to eliminate the need for

the instruction. The response categories were reordered and reworded slightly. Consistent with the 1987 test census, Part b of this item (secondary heating equipment) was deleted from the revised questionnaire.

H17a. How is your house or apartment heated?
 Fill only ONE circle for the kind of equipment used MOST.

Steam or hot water system
 Central warm-air furnace
 with ducts to the individual rooms
 (Do not count electric heat pumps here)
 Electric heat pump
 Other built-in electric units *(permanently installed in wall, ceiling, or baseboard)*
 Floor, wall, or pipeless furnace
 Room heaters WITH flue or vent,
 burning gas, oil, or kerosene
 Room heaters WITHOUT flue or vent,
 burning gas, oil, or kerosene *(not portable)*
 Fireplaces or stoves
 Portable room heaters of any kind
 Solar equipment
 No heating equipment — Skip to H18c

b. If you use more than one kind of equipment to heat your house or apartment, what OTHER kind(s) do you use? Mark ALL that apply.

Steam or hot water system
 Central warm-air furnace
 with ducts to the individual rooms
 (Do not count electric heat pumps here)
 Electric heat pump
 Other built-in electric units *(permanently installed in wall, ceiling, or baseboard)*
 Floor, wall, or pipeless furnace
 Room heaters WITH flue or vent,
 burning gas, oil, or kerosene
 Room heaters WITHOUT flue or vent,
 burning gas, oil, or kerosene *(not portable)*
 Fireplaces or stoves
 Portable room heaters of any kind
 Solar equipment
 None

Figure 21a--1986 form

33. What kind of equipment is used most to heat your home?

Steam or hot water system (radiators)
 Electric heat pump
 Central warm-air furnace with ducts to rooms
 Built-in electric units installed in wall, ceiling, or baseboard
 Floor, wall, or pipeless furnace
 Any kind of PORTABLE space heater
 Space heaters which burn gas, oil, or kerosene —
 WITH flue or vent (not portable)
 Space heaters which burn gas, oil, or kerosene —
 WITHOUT flue or vent (not portable)
 Fireplaces or stoves
 Solar equipment
 No heating equipment

Figure 21b--revised form

As shown in Table 25, item nonresponse was approximately equal on the two forms of the questionnaire--roughly 7.5 percent on both forms. Neither did the percentage of responses with multiple marks differ according to questionnaire type. Finally, the distribution of responses across response categories was similar on the two forms. The changes made, therefore, seemed to have little effect on response or errors in responding.

Heating Fuel (1986:H18; Revised:32). As Figure 22 illustrates, the wording of this item was simplified slightly. The "etc." was deleted from the fourth response category because it was unclear how respondents would know

whether to mark "fuel oil, kerosene, etc." or "other fuel." Similar to the previous item, the question about secondary heating fuel was omitted, as on the 1987 test census.

As Table 26 shows, item nonresponse did not differ significantly on the two forms. Neither did the percentage of responses which had more than one FOSDIC circle marked. Again, the distribution of responses across categories was nearly the same for the two forms.

H18a. What FUEL is used most for heating this house or apartment? Fill ONE circle.

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Solar
- Other fuel
- No fuel used — Skip to H18c

b. What OTHER fuel is used for heating this house or apartment? Mark ALL that apply.

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Solar
- Other fuel
- None

32. Which fuel is used most to heat your home?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP (liquid petroleum)
- Electricity
- Fuel oil or kerosene
- Coal or coke
- Wood
- Solar
- Other fuel
- No fuel used

Figure 22a--1986 form

Figure 22b--revised form

One indication of errors in responding is when respondents give heating equipment and fuels which are incompatible (for example, reporting an electric heat pump fueled by gas, or portable room heaters fueled by piped gas, etc.). In light of the changes made to the heating method items, we calculated the percentage of responses that were inconsistent on each form. As Table 26 shows, inconsistencies were not significantly more or less common on the revised form than on the 1986 form.

Water Heating Fuel (1986:18c; Revised:34). As may be seen in Figure 23, only minor changes were made to this item in the revised form. The wording of the question was slightly simplified, "in your home" was added, and the list of response options was changed in the same manner as in the heating fuel item.

As Table 27 shows, there were no significant differences in item nonresponse, incidence of multiple FOSDIC markings, or distribution of responses across categories.

H18c. What FUEL is used most for heating the water in this house or apartment?

Fill ONE circle.

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Solar
- Other fuel
- No fuel used

Figure 23a-1986 form

34. Which fuel is used most to heat water in your home?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP (liquid petroleum)
- Electricity
- Fuel oil or kerosene
- Coal or coke
- Wood
- Solar
- Other fuel
- No fuel used

Figure 23b-revised form

Utility Costs (1986:H19; Revised:35). As Figure 24 illustrates, the utility cost items were modified only slightly. The reference period was clarified by specifying the reference period of the last twelve months, and the phrase "no charge" was deleted from each item since its purpose and necessity were not apparent. As mentioned previously, the ".00" in the space for response was also deleted, since our observations showed that some respondents mistook these numbers for the last two digits of their answer.

H19. What are the yearly costs of utilities and fuels for this house or apartment?

If you have lived here less than 1 year, estimate the yearly cost.

a. Electricity

\$ _____ .00
Yearly cost
OR

- Included in rent or in condominium fee
- No charge or electricity not used

b. Gas

\$ _____ .00
Yearly cost
OR

- Included in rent or in condominium fee
- No charge or gas not used

c. Water

\$ _____ .00
Yearly cost
OR

- Included in rent or in condominium fee
- No charge

d. Oil, coal, kerosene, wood, etc.

\$ _____ .00
Yearly cost
OR

- Included in rent or in condominium fee
- No charge or these fuels not used

Figure 24a--1986 form

35. What were the costs of utilities and fuels for your home for the last year (since April 1, 1986)? Write in an amount, OR fill in a circle.

a. Electricity

\$ _____
(Cost for the last 12 months)

- Included in rent or condominium fee
- Electricity not used

b. Gas

\$ _____
(Cost for the last 12 months)

- Included in rent or condominium fee
- Gas not used

c. Water

\$ _____
(Cost for the last 12 months)

- Included in rent or condominium fee

d. Oil, coal, kerosene, wood, other fuels

\$ _____
(Cost for the last 12 months)

- Included in rent or condominium fee
- These fuels not used

Figure 24b--revised form

The findings for these items are presented in Table 28. For all four subparts, item nonresponse was higher on the revised form. For the electricity and water items, these differences were statistically significant. In addition, the revised forms of the items elicited higher levels of zero or "NA" responses, with significantly higher percentages for the gas, water, and oil items. The percentages of responses which were indecipherable were calculated but are not presented since all were less than one percent, and none resulted in significant differences. Similarly, the percentages of respondents who incorrectly provided monthly rather than annual amounts (and noted this on the form) were minute and resulted in no significant differences. As Table 28 also shows, the revised form had a higher incidence of cases in which respondents marked a FOSDIC circle and filled in the write-in blank, though none of these differences were statistically significant. In summary, although the changes made to the revised version of this question were slight, they seem to have resulted in significantly less usable information. Perhaps the placement of these items at the end of the housing section on the revised form also contributes to the lower response rates.

Table 28 also includes a breakdown of the content of responses--that is, the proportion of cases which reported a dollar amount vs. reporting that the utility cost is included in rent vs. reporting "no charge" or that the utility is not used. For the electricity item, this distribution results in a significant difference. Respondents to the revised form reported fewer dollar amounts and more cases of utility cost being included in the monthly rent or condo fee.

The mean dollar amounts reported for each item were calculated and are presented in Table 28. These means did not differ significantly for any of the four items.

Number of bedrooms (1986:H20; Revised:28). As Figure 25 illustrates, the question wording for this item is very slightly modified in the revised questionnaire. An instruction was added to the first response category in reference to efficiency apartments.

H20. How many bedrooms do you have, that is, how many bedrooms would you list if this house or apartment were on the market for sale or rent?

<input type="radio"/> No bedroom	<input type="radio"/> 3 bedrooms
<input type="radio"/> 1 bedroom	<input type="radio"/> 4 bedrooms
<input type="radio"/> 2 bedrooms	<input type="radio"/> 5 or more bedrooms

28. How many bedrooms do you have? That is, how many bedrooms would you list if this house or apartment were on the market for sale or rent?

- No bedroom (Fill in this circle for an efficiency apartment)
- 1 bedroom
- 2 bedrooms
- 3 bedrooms
- 4 bedrooms
- 5 or more bedrooms

Figure 25a--1986 form

Figure 25b--revised form

As the data in Table 29 show, the item nonresponse rates for this item were not significantly different on the two forms. Furthermore, the mean number of rooms reported was exactly the same on both forms. The distribution of responses, however, showed different patterns on the two forms. This seems primarily related to the fact that many more respondents reported living in three-bedroom units on the 1986 form--47.3 percent vs. 32.7 percent on the revised form.

Number of Motor Vehicles (1986:H21; Revised:36). Figure 26 demonstrates that this item was completely unchanged in the revised form. As Table 30 shows, there were no differences in item nonresponse rates or in the resulting distributions of responses by questionnaire type.

H21. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

Figure 26a--1986 form

36. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

Figure 26b--revised form

Amount of taxes, insurance (1986:H26-27; Revised:23-24). These items, as well as those on mortgages, were moved in the revised form to immediately follow the property value question, since they are all related to property ownership and the same respondents answer them. Because "last year" was thought to be vague, the revised form of the real estate taxes item refers to the last tax year and the insurance item is specified to refer to the calendar year. These changes reflect the intent of the items as presented by Housing Division. In addition, the FOSDIC circles for "none" were eliminated and replaced with an instruction, "If none, write '0'." Examples are provided in Figures 27 and 28.

INSTRUCTION:

Answer H26, H27, H28 and H29 if you live in a one-family house or condominium which you own or are buying.

Do NOT answer questions H26, H27, H28 and H29 if you -

- Live in a mobile home or trailer
- Live in a house on 10 or more acres
- Live in a one-family house with a commercial establishment or medical office on the property
- Live in a cooperative
- Rent your house or apartment

(IF ANY OF THESE, GO TO PAGE 6)

23. What were the real estate taxes on your home for the last tax year? If none, write "0."

\$ _____

H26. What were the real estate taxes on THIS property (house and lot or condominium) last year?

\$ _____ .00 OR None

Figure 27a--1986 form

24. What was the annual premium for fire, hazard, and flood insurance on your home for 1986? If none, write "0."

\$ _____

Figure 27b--revised form

H27. What is the annual premium for fire, hazard, and flood insurance on THIS property (house and lot or condominium)?

\$ _____ .00 OR None

Figure 28a--1986 form

Figure 28b--revised form

Tables 31 and 32 present the findings for these items. The level of item nonresponse was similar on the two forms for both items. Likewise, there were no significant differences in the percentages of responses that were either indecipherable or consisted of "NA" write-ins. Finally, the t-tests did not distinguish statistically significant differences in the mean amounts reported on the two forms for either of the items. Thus, the response format that worked poorly on the utilities items worked as well as the conventional format on these items.

Mortgage Items (1986:28; Revised:22). Examples of the 1986 and revised forms of these items are provided in Figure 29. In Part a, "contract to

H28 a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on THIS property (house and lot or condominium)?

Yes, mortgage, deed of trust, or similar debt / Yes, contract to purchase } Go to H28b

No - Skip to H29

b. Do you have a second or junior mortgage on THIS property (house and lot or condominium)?

Yes

No

c. How much is your total regular monthly mortgage payment to lenders? Include payments on first mortgage, contract to purchase, and second or junior mortgage(s) on this property (house and lot or condominium).

\$ _____ .00 OR

No regular payment required - Skip to H29

d. Does your regular monthly mortgage payment (amount entered in H28c) include payments for real estate taxes on THIS property (house and lot or condominium)?

Yes, taxes included in payment

No, taxes paid separately or taxes not required

e. Does your regular monthly mortgage payment (amount entered in H28c) include payments for fire, hazard, and flood insurance on THIS property (house and lot or condominium)?

Yes, insurance included in payment

No, insurance paid separately or no insurance

Figure 29a--1986 form

22a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on your home?

Yes

No - Skip to 23

b. Do you have a second mortgage on your home?

Yes

No

c. How much is your total regular monthly mortgage payment on your home? Include payments on first and second mortgages and contract to purchase on your home.

\$ _____

No regular payment required - Skip to 23

d. Does this amount include -

(1) Payments for real estate taxes?

Yes

No

(2) Payments for fire, hazard, and flood insurance?

Yes

No

Figure 29b--revised form

purchase" was thought to be potentially confusing for persons currently buying a house because they are supposed to answer in regard to the home in which they currently live, not the one to which they may have plans to move soon. Therefore, the two "yes" categories were combined on the revised form. The only changes made to Part b were slight wording simplifications. In Part c, the wording of the question and the follow-up instruction were slightly streamlined. The response format was changed to eliminate the ".00" printed on the form. The questions and response categories for Parts d and e were made shorter.

Analytical information relevant to these items is provided in Table 33. There were no significant differences in item nonresponse for any of the five parts of the question. The distributions of responses, too, were similar on the two forms for all items. For the amount of mortgage payment item (Part c), we also calculated the percentage of all responses which were indecipherable, as well as the mean amount reported. Neither of these resulted in significant differences between the 1986 and revised forms.

New Items (Revised 26, 29, 30, 31). Four new items were added to the revised questionnaire to be consistent with plans for the 1990 census. These are presented in Figure 30. The kitchen facilities item is one used from the 1980 census and modified only slightly. The number of bathrooms item is similar to the 1980 question, but the word "complete" as a descriptor for "bathroom" is deleted since it is unnecessary. In addition, the definition of "half bathroom" is changed from the 1980 version to be consistent with plans for the 1990 census. The telephone item is the same as the 1980 version except that it refers to "home" instead of "living quarters." The air conditioning item, too, is very similar to the 1980 census question, except that it includes a reference to "in your home."

26. Do you have COMPLETE kitchen facilities? That is, a sink with piped water, a range or cookstove, and a refrigerator.

- Yes
- No

Figure 30a--revised form

29. How many bathrooms do you have? A bathroom has a flush toilet, bathtub or shower, and wash basin with piped water. A HALF bathroom has a flush toilet and wash basin with piped water.

- No bathroom, or only a half-bathroom
- 1 bathroom
- 1 bathroom, plus half bath(s)
- 2 or more bathrooms

Figure 30b--revised form

30. Do you have a telephone in your home?

- Yes
- No

Figure 30c--revised form

31. Do you have air conditioning in your home?

- Yes, a central air conditioning system
- Yes, 1 individual room unit
- Yes, 2 or more individual room units
- No

Figure 30d--revised form

The responses to these questions are presented in Table 34. Overall, these items had relatively low levels of nonresponse in comparison to other housing items. Nearly all respondents live in homes equipped with kitchen facilities and telephone service (98.0 percent and 94.8 percent, respectively). Over half (56.4 percent) live in units with one bathroom, and most (71.9 percent) live in a structure with some type of air conditioning.

SAMPLE POPULATION ITEMS

Questions in this section were reordered on the revised form to be chronological, starting with birthplace. This was hypothesized to decrease respondent burden by aiding recall tasks. In addition, changes were made in question wordings, and the ordering of the labor force questions was modified to clarify skip patterns.

School Enrollment (1986:8; Revised:42). Figure 31 illustrates the changes made to this question. Wording changes included addition of the phrase "at any time" and replacement of the word "enrolled" with "attended." The reference to "regular" school was deleted since it carried no clear meaning and seemed unnecessary for comprehension of the question. Response categories were reorganized to appear simpler and to make it clear that there was one set of response categories rather than two. Consistent with plans for the 1990 census, categories identifying enrollment in church-related schools were deleted.

8. Since February 1, 1987 has this person been enrolled in regular school? *Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.*

- No, has not been enrolled since February 1
 - Yes, nursery school or kindergarten
- Yes, elementary or high school
- Public school
 - Private, church-related
 - Private, not church-related
 - Yes, college, university, or professional school

42. At any time since February 1, 1987 has person A attended school or college? *Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.*

- Yes —
- Nursery school or kindergarten
 - Public elementary or high school
 - Private elementary or high school
 - Public college, university, or professional school
 - Private college, university, or professional school
 - No

Figure 31a--1986 form

Figure 31b--revised form

The findings related to this question are summarized in Table 35. The revisions to the item did not result in significant differences in item nonresponse, although the percentage was slightly lower for the revised form. The distribution of responses over response categories was also similar on the two forms. In spite of movement of the "no" category from the beginning to the end of the list on the revised form, the percentage of responses falling into this category did not differ significantly. Thus, this change does not appear to have a detrimental effect on the data collected. The percentages of responses in the other categories of school enrollment were also very similar on the two forms.

It was suspected that the partitioning of the response categories into two sections on the 1986 form might encourage respondents to mark more than

one FOSDIC circle. Reformatting of the categories into a single list, however, resulted in only a small decrease in the percentage of cases with more than one FOSDIC circle marked, and on both forms the numbers were quite low. The 1986 format is perhaps not as problematic as anticipated.

Highest grade completed (1986:9; Revised 43). Figure 32 shows that the only changes made to this question were rewording of response categories. The changes were made in an attempt to simplify the language and to be consistent in reflecting levels of schooling completed.

As shown in Table 36, item nonresponse for the two forms did not differ significantly. Again, the percentage of cases containing more than one FOSDIC mark was lower in the revised form, but only slightly. The distribution of responses across categories did not differ significantly by form.

9. How much school has this person COMPLETED?

Fill ONE circle for highest level COMPLETED or highest degree RECEIVED.

- Never attended or less than 1st grade
- 1st, 2nd, 3rd, or 4th grade
- 5th, 6th, 7th, or 8th grade
- Some high school — 9th, 10th, or 11th grade.
NO high school diploma
- High school graduate — high school
DIPLOMA or the equivalent (GED)
- Some college but no degree
- Associate degree in an occupational program
- Associate degree in a general or
academic nonoccupational program
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example:
MA, MS, MEng, MEd, MSW, MBA)
- Professional school degree
(for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: Ph.D., Ed.D)

Figure 32a--1986 form

43. How much school has person A completed?

Fill ONE circle for highest level COMPLETED or highest degree RECEIVED.

- Less than 1st grade
- 1st, 2nd, 3rd, or 4th grade
- 5th, 6th, 7th, or 8th grade
- 9th, 10th, or 11th grade, NO high school diploma
- High school graduate — high school DIPLOMA
or GED
- One year or more of college, but no degree
- Associate degree in college — vocational program
- Associate degree in college — academic program
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng,
MEd, MSW, MBA)
- Professional school degree (for example: MD,
DDS, DVM, LLB, JD)
- Doctoral degree (for example: Ph.D., Ed.D)

Figure 32b--revised form

Ancestry (1986:10; Revised 40). The 1986 and revised forms of the ancestry question are presented in Figure 33. The question was shortened, since "ethnic origin" is a complex phrase and does not seem to add to respondents' comprehension. The long list of examples was reduced. Among others, "Armenian" was eliminated because it is easily confused with "American." The "Amer." abbreviation on the 1986 form was spelled out on the revised form, to increase respondents' comprehension of the term. The ancestry question was moved to follow country of birth in the hope that if

10. What is this person's ancestry or ethnic origin?

(See instruction guide for further information.)

(For example: German, Italian, Afro-Amer., Argentinean,
Armenian, Cajun, Cape Verdean, Dominican, Egyptian,
French Canadian, Irish, Jamaican, Korean, Mexican,
Nigerian, Norwegian, Polish, Slovak, Thai, Ukrainian, etc.)

Figure 33a--1986 form

40. What is person A's ancestry?

(For example: German, Italian, Afro-American, Cajun,
Irish, Jamaican, Korean, Mexican, Nigerian, Polish, Thai)

Figure 33b--revised form

respondents were first given the chance to say they were born in the United States, they would be less likely to give "American" as their ancestry.

Our hypothesis was that the long list of ancestry examples included on the 1986 form might be mistaken by respondents as the list of possible choices from which they were to choose. However, reducing the list of examples did not significantly decrease the percentage of cases reporting an ancestry listed in the examples. As shown in Table 37, the percentage of persons who reported an ancestry that was listed in the examples included on their form differed by only 1.3 percentage points. This suggests that regardless of the size of the list, respondents tend to restrict themselves to the examples given.

Item nonresponse for this question was lower on the revised form, but the difference was not significant. The percentage of persons reporting multiple ancestries did not differ by form. Inappropriate responses (White, Black, U.S., or "none") were roughly equal on the two forms. "Don't know" responses were also about equal. We intended to reduce the extent to which people reported their ancestry as "American." The data show that we were somewhat successful. The percentage of persons reporting "American" was lower on the revised form--3.7 percent vs. 7.4 percent on the 1986 form--but the difference is not statistically significant. In summary, the two forms performed about equally well in the frequency and quality of responses gathered.

Place of birth (1986:11; Revised:37). Changes to this item included addition of "U.S." to clarify the meaning of "State" and movement of the question to the first item of the section. This was hypothesized to increase response rates by eliminating confusion about whether the item was to be completed by all persons or only foreign-born ones. The two forms of the question are presented in Figure 34.

<p>11. In what State or foreign country was this person born?</p> <p>-----</p> <p><i>(Name of State or foreign country or Puerto Rico, Guam, etc.)</i></p>

Figure 34a--1986 form

<p>37. In what U.S. State or foreign country was person A born?</p> <p>-----</p> <p><i>(Name of U.S. State or foreign country, Puerto Rico, Guam, etc.)</i></p>
--

Figure 34b--revised form

The revised form did indeed result in smaller item nonresponse rates. Table 38 shows a difference of 8.7 percentage points between the two forms. Nonresponse to the place of birth question was also examined according to Hispanic origin. Concern had been expressed that moving this item to the beginning of the sample section might be detrimental for response by undocumented Hispanics. We could not identify undocumented Hispanics on the form, but for Hispanics as a whole there was no significant difference in item nonresponse for the two forms. A log-linear analysis on a three-way table classifying respondents simultaneously by item nonresponse to the place of birth question, Hispanic origin, and questionnaire type was conducted. A model using all three main effects and all three two-way interactions fit the data adequately. The goodness of fit statistic for this model was not statistically significant. Since this model excluding the three-way interaction term fits the data well, we conclude that there is no significant difference between forms in the interaction of Hispanic origin and response to the place of birth question.

Inappropriate responses (i.e., geographic area other than state or foreign country, don't know, NA, miscellaneous responses coded as "other") were only slightly more common among responses to the revised form. Substantive responses did not differ significantly--that is, the proportions of persons reporting birth in a U.S. State vs. foreign country vs. U.S. territory were roughly equal on the two forms.

Citizenship (1986:12; Revised:38). Figure 35 illustrates the modifications made to this question. The revised form eliminates the need for respondents to report both birth in a U.S. state and U.S. citizenship, since the first necessarily implies the second. Persons reporting birth in a U.S. State are therefore skipped out of the citizenship question. The item was moved to the second one of the section still following place of birth as in the 1986 form.

12. Is this person a CITIZEN of the United States?

- Yes, born in the United States — Skip to 14a
- Yes, born in Puerto Rico, Guam, or the U.S. Virgin Islands
- Yes, born abroad of American parent or parents
- Yes, U.S. citizen by naturalization
- No, not a citizen of the United States

If person A was born in the United States, skip to 39b.

38. Is person A a citizen of the United States?

- Yes, born in Puerto Rico, Guam, or U.S. Virgin Islands
- Yes, born abroad of American parent or parents
- Yes, U.S. citizen by naturalization
- No

Figure 35a--1986 form

Figure 35b--revised form

Item nonresponse was almost equal in spite of the relocation and changes made to this question (see Table 39). Skipping out U.S.-born persons, then, does not seem to increase the percentage of persons correctly responding to the citizenship question. In fact, the skip pattern encourages errors of a different sort--of cases for the revised form with complete information on the previous place of birth question, 7.5 percent failed to follow the skip pattern correctly and provided irrelevant responses, inappropriately answering the citizenship question. This is consistent with results from the 1980 census, when a similar skip pattern was used (Hansen, 1985).

The responses to the place-of-birth and citizenship questions on the revised form were collapsed to match the citizenship categories on the 1986 form. The distribution of responses did not differ significantly by questionnaire type.

Year of arrival in U.S. (1986:13; Revised:39a). The single change made to this question was to substitute the phrase "to live" for the previous "to stay" to clarify the meaning of the question. (See Figure 36.)

13. When did this person come to the United States to stay?

- 1986
- 1985
- 1984
- 1980 to 1983
- 1975 to 1979
- 1970 to 1974
- 1965 to 1969
- 1960 to 1964
- Before 1960

39a. When did person A come to the United States to live?

- 1986
- 1985
- 1984
- 1980 to 1983
- 1975 to 1979
- 1970 to 1974
- 1965 to 1969
- 1960 to 1964
- Before 1960

Figure 36a--1986 form

Figure 36b--revised form

Item nonresponse was higher on the revised form of the question, but this difference was not significant. The distributions of responses across response categories were very similar for both forms. (See Table 40.)

Language at home (1986:14; Revised:41). The only change made to this item was the elimination of the extra words following the "no" response category. This was done for two reasons: (1) to encompass persons who do not speak at all (e.g., babies); and 2) to eliminate words which may cause respondents to miss the corresponding skip instruction. Examples of the 1986 and revised questions are provided in Figure 37.

<p>14a. Does this person speak a language other than English at home?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No, speaks only English — <i>Skip to 15a</i></p>	
<p>b. What is this language?</p> <p>-----</p> <p>(For example, Chinese, Italian, Spanish, Vietnamese)</p>	
<p>c. How well does this person speak English?</p> <p><input type="radio"/> Very well <input type="radio"/> Not well</p> <p><input type="radio"/> Well <input checked="" type="radio"/> Not at all</p>	

Figure 37a--1986 form

<p>41a. Does person A speak a language other than English at home?</p> <p><input type="radio"/> Yes <input checked="" type="checkbox"/></p> <p><input type="radio"/> No — <i>Skip to 42</i></p>	
<p>b. What is this language?</p> <p>-----</p> <p>(For example: Chinese, Italian, Spanish, Vietnamese)</p>	
<p>c. How well does person A speak English?</p> <p><input type="radio"/> Very well <input type="radio"/> Not well</p> <p><input type="radio"/> Well <input type="radio"/> Not at all</p>	

Figure 37b--revised form

Item nonresponse was lower for the revised form, but this difference did not reach statistical significance. Approximately equal proportions of cases on the two forms had positive responses to the question. Thus, elimination of the excess words did not result in substantive differences in responses.

The wording and position of Part b were unchanged in the revised form. There was, however, a significantly lower level of nonresponse to this item in the revised form--2.9 percent in the revised form vs. 18.6 percent in the 1986 form. (See Table 41.) The percentage of responses which were "English" (indicating an error in understanding the question) was slightly higher in the revised form, but this difference was not statistically significant.

Part c was also unchanged in the revised form. Again, item nonresponse was lower, with only 2.9 percent nonresponding compared with 9.0 percent on the 1986 form. The distribution of responses over the response categories did not differ significantly by form.

Residence 5 years ago (1986:15a; Revised:44). This question was reworded to take into account persons who did not live in any house or apartment five years ago, and the supplementary instruction (which seems irrelevant from the respondent's point of view) was omitted. The response category for persons not yet born five years ago was thought to cause confusion for some respondents and was therefore reworded more simply. The revised form of the question incorporates the first part of what was previously question 15b: country of residence 5 years ago. Doing so allows a clear

skip out of the next question for persons not living in the U.S. 5 years ago. These changes are illustrated in Figure 38.

15 a. Did this person live in this house or apartment 5 years ago (March 16, 1982)? If in college or Armed Forces in March 1982, report place of residence there.

- Born March 16, 1982 or later -
Turn to next page for next person
- Yes, lived in this house or apartment — Skip to 16
- No, lived in different house or apartment

b. Where did this person live 5 years ago (March 16, 1982)?

(1) Outside the United States ↗

(Name of foreign country, Puerto Rico, Guam, etc.)

— Skip to 16

(2) State ↗

(3) County ↗

(4) Place ↗

(City, town, post office, etc.)

c. Did this person live inside the boundaries of that place, or outside the boundaries with the place as their mailing address?

- Inside the place
- Outside — place was the mailing address
- Don't know

44. Where did person A live 5 years ago (March 16, 1982)?

- Here in this dwelling (house, apartment, etc.) —
Skip to 46
- In a different dwelling, same State
- In a different State
- Outside the United States ↗

(Name of country, Puerto Rico, Guam, etc.)

} Skip to 46

- Person A was not yet born on March 16, 1982 —
Go to questions about next person on page 8.

45. What is the name of the town, county, and State where person A lived 5 years ago?

a. _____
(City or town)

b. _____
(County)

c. _____
(State)

d. Did person A live inside city or town limits?

- Yes
- No

Figure 38a--1986 form

Figure 38b--revised form

Item nonresponse to this question was significantly lower on the revised form. As presented in Table 42, the nonresponse rate for the 1986 form was 25.5 percent. This dropped to 18.0 percent for the revised version.

The distribution of responses also differed by form. The revised question resulted in a greater proportion in the "lived at same address" category and smaller percentages in the other two categories.

This item serves as a screening question to eliminate persons of less than 5 years of age from the rest of the sample population items. Therefore, an issue of concern was the consistency with which respondents reported a person not yet born 5 years ago in the place of residence question and an age less than five years on the 100-percent age item. As shown in Table 42, the revised form of the question resulted in significantly fewer inconsistencies. In the 1986 form, for 4.5 percent of the persons reported as having an age of less than 5 years, a response other than the "not born yet" category was marked in the place of residence 5 years ago question. In the revised form, this percentage was only 0.3

percent. This suggests that the revised wording of this response category was easier for respondents to understand. It may be noted that no respondent on either form made the opposite mistake--reporting "not born yet" when reported age was 5 years or more.

Place of residence 5 years ago (1986:16b; revised:45). As Figure 38 shows, the 1986 form of the question required the respondent to give the various parts of his/her address in backwards order from the normal everyday format. In an effort to decrease respondent burden and to elicit more accurate information, the revised form requests address information in the more familiar order. This does not sacrifice collection of data on major migration patterns, which is accomplished in the previous question of the revised form. In addition, the ambiguous and easily misinterpreted term "place" was replaced with the more specific "city or town."

Table 42 presents item nonresponse rates for the various portions of the "address 5 years ago" question. For all parts, the nonresponse rates are significantly lower for the revised form than for the 1986 form. This may indicate that asking for information in a way more familiar to respondents results in greater motivation and/or ability to respond.

The revisions made to the 1986 form were hypothesized to result in fewer inappropriate responses. Table 42 shows that this is indeed the case. The proportion of responses which were inappropriate (i.e., geographic area other than that requested, don't know, NA, other) is smaller on the revised form for all portions of the address. The largest percentage difference is in the place/city or town item, for which the revised form resulted in no inappropriate responses as compared to 8.5 percent in the 1986 form. This suggests that the use of "city or town" rather than "place" was easier for respondents to understand and resulted in better data quality.

The incidence of reporting correct information in the wrong space is also presented in Table 42. Again, the revised form had smaller proportions with errors, but these differences are very small and not statistically significant.

City limits 5 years ago (1986:15c; Revised:45d). This question was reworded to be simpler, using the more common "city or town limits" rather than the somewhat ambiguous references to "boundaries" and "place," and improving the awkward and ungrammatical phrasing of the question. (See Figure 38.)

Item nonresponse decreased significantly for this item in the revised form. (See Table 42.) In the 1986 form, item nonresponse was 13.8 percent. This dropped to 3.9 percent in the revised form. The content of responses, however, did not differ significantly--that is, nearly equal percentages of respondents lived inside city boundaries on each form. Incidentally, there were no instances on either form of respondents marking only this FOSDIC response and leaving all other parts of the address blank.

Fifteen year age screener (1986:16; Revised:46). On the 1986 form, it was suspected that respondents may view this question as redundant after already answering the year of birth item. In the revised version, therefore, the question was reformatted as an instruction. In addition, there was concern that the wording caused confusion by requiring

respondents to translate ages into years of birth, and to realize that persons born before March 1971 are older, and people born later are younger. The revised form therefore asks directly about age, with some slight loss of precision. Examples of the 1986 and revised questions are provided in Figure 39.

16. When was this person born?

Born before March 1972 — Go to questions 17—31
Born March 1972 or later —
Turn to next page for the next person

46. Fill in a circle for person A's age:

- 14 years of age or younger — Go to questions about next person on page 8.
 15 or older

Figure 39a--1986 form

Figure 39b--revised form

Since this question serves as an age screener for the remaining sample population questions, we were concerned about the consistency between responses to this question and reported age on the 100-percent item. The percentage of inconsistent responses was lower on the revised form, but the difference was not statistically significant. Item nonresponse, however, was significantly reduced in the revised version. As Table 43 shows, nonresponse dropped from 25.2 percent for the 1986 form to 18.4 percent for the revised form.

Military Service (1986:18; Revised:47). The 1986 and revised forms of this question are presented in Figure 40. Changes to this question included simplification of wording and elimination of instructions that apply to very few people. In addition, the distinction between active duty now vs. in the past was removed from Part a and placed in Part b, which is the question intended to ask about period of service.

Item nonresponse for Part a of the question decreased significantly on the revised form--a drop from 23.1 percent to 15.8 percent (see the top half of Table 44). The distribution of responses (collapsed into the three categories of the revised version) did not show significant differences.

Changes to Part b included revision of wording to emphasize that multiple answers were appropriate, and revision of the response categories to be fully chronological. This was done by adding three categories corresponding to the time periods missing in the 1986 form. A category for "now serving" was added, since this response option was deleted from Part a.

As the bottom section of Table 44 shows, item nonresponse to Part b was higher on the revised form, but not significantly so. It should be noted, however, that only 45 and 66 cases on the 1986 and revised forms, respectively, reported ever having been on active duty. The percent currently on active duty decreased slightly in the revised form. The revised form may underestimate current active duty status, but these results are inconclusive because the numbers are really too small to tell.

To compare the substantive responses to this item, recoding was required. The "now serving" category on the revised form was collapsed with the "September 1980-March 15, 1987" category; the other three new categories on the revised form were collapsed into a single category corresponding to the 1986 "any other time." Only the "first" mark of

18a. Has this person ever been on active-duty military service in the Armed Forces of the United States or ever been in the United States Military Reserves or the National Guard? (If service was in Reserves or National Guard only, or for the Red Cross, USO or War or Defense Department, see instruction guide.)

Yes, now on active duty
 Yes, on active duty in past, but not now
 Yes, service in Reserves or National Guard only — Skip to 19a
 No — Skip to 19a

18b. Was active-duty military service during -
Fill a circle for each period in which this person served.

September 1980 or later
 May 1975 to August 1980
 Vietnam era (August 1964—April 1975)
 February 1955—July 1964
 Korean conflict (June 1950—January 1955)
 World War II (September 1940—July 1947)
 World War I (April 1917—November 1918)
 Any other time

Figure 40a--1986 form

47a. Has person A ever served on active duty in the Armed Forces of the United States?

- Yes
 On active duty only while training for National Guard or Reserves — Skip to 48
 No — Skip to 48

47b. Fill a circle for every period during which person A served on active duty:

- Now serving
 September 1980 to March 15, 1987
 May 1975—August 1980
 Vietnam era (August 1964—April 1975)
 February 1955—July 1964
 Korean conflict (June 1950—January 1955)
 August 1947—May 1950
 World War II (September 1940—July 1947)
 December 1918—August 1940
 World War I (April 1917—November 1918)
 Before April 1917

Figure 40b--revised form

multiple responses was considered. Using this scheme, the distribution of responses did not differ significantly on the two forms.

Disability (1986:19; Revised:60-61). No real changes were made in these questions, except that they were moved to follow the labor force questions rather than precede them. This was done to reduce the incongruity of asking about employment to respondents who have just indicated that they have a disability which prevents them from working. In addition, the questions were renumbered to reduce the visual clutter. Illustrations are provided in Figure 41.

19a. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which —

(1) Limits the kind or amount of work this person can do at a job?
 Yes No

(2) Prevents this person from working at a job?
 Yes No

b. Does this person need the help of another person in order to —

(1) Shop, care for the house, or get around outside the home?
 Yes No

(2) Take care of personal needs such as bathing, dressing, or getting around inside the home?
 Yes No

Figure 41a--1986 form

60. Does person A have a physical, mental, or other health condition that has lasted for 6 or more months and which —

a. Limits the kind or amount of work person A can do at a job?
 Yes No

b. Prevents person A from working at a job?
 Yes No

61. Does person A need the help of another person in order to —

a. Shop, care for the house, or get around outside the home?
 Yes No

b. Take care of personal needs such as bathing, dressing, or getting around inside the home?
 Yes No

Figure 41b--revised form

Differences in nonresponse rates range from 1.7 to 3.3 percentage points lower on the revised form of the disability questions. (See Table 45). None of these differences are statistically significant. As Table 45 shows, differences in distributions of responses were also not significant.

Work last week (1986:20a; Revised:48). The question wording was revised to try to clarify at the outset of the employment series exactly what is meant by "work at any time last week." This eliminates the need for a long paragraph of explanation, which may be easily skipped by respondents. The wording changes were also intended to eliminate two conceptual problems. The first is the common misinterpretation that one is working if one had a job, regardless of whether one was actually performing their duties the previous week. The second is the ambiguity regarding housework and unpaid volunteer work. The 1986 form of the question implicitly defines these activities as "work," which causes problems of interpretation in later employment questions. The revised form consistently excludes housework and volunteer work for all employment questions. The 1986 and revised forms of the question are presented in Figure 42.

20a. Did this person work at any time LAST WEEK?

- Yes, worked full time or part time at a job, business, or farm. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count self-employment and active duty in the Armed Forces.)
- Yes, did only own housework or unpaid volunteer work --Skip to 24
- No -- Skip to 24

Figure 42a--1986 form

48. Last week, did person A spend any time -- even an hour -- working at a job for pay, in a business, or on a farm?

- Yes -- Skip to 52
- No

Figure 42b--revised form

Item nonresponse was reduced significantly in the revised version. As shown in Table 46, the nonresponse rate was 24.0 percent for the 1986 form and 17.0 percent for the revised form. The distribution of substantive responses to the work-last-week question did not differ significantly by form.

Item nonresponse rates were also broken down by substantive response to the four disability questions. (See Table 46.) This was done to test whether the work-last-week item is more vulnerable to nonresponse when it follows immediately after questions in which respondents may have already indicated that they have a disability which prevents them from working.

To test whether the relationship between response to the work-last-week item and substantive response to the disability items differs by questionnaire type (i.e., whether the ordering of the questions affects nonresponse), a log-linear model including all main effects and all two-way interactions was fit to the data. This model, excluding the three-way interaction term (disability x work last week x questionnaire form), fit the data adequately. This means that the relationship between substantive response to the disability questions and nonresponse to the work-last-week item is unaffected by the ordering of these questions.

The remaining labor force questions were reordered to clarify confusing skip patterns. Questions for people who did not work last week were moved

to immediately follow the filter question, thus eliminating the need for the skip instruction following questions about time of arrival at work (1986 Question 23b). This reordering of questions means that for currently employed people, all questions about work are in one continuous sequence, making it more likely that respondents will refer to the same job in answering them. We intended to eliminate the problems we saw in our observations, where respondents answered some questions about one job and some questions about a different job.

Hours worked last week (1986:20b; Revised:53). Only one change was made to this question in the revised form: addition of the phrase "at all jobs, in a business, or on a farm" to clarify the intent. Figure 43 presents both forms of the question.

<p>b. How many hours did this person work LAST WEEK (at all jobs)? Subtract any time off; add overtime or extra hours worked.</p> <p>_____ Hours</p>	<p><i>Answer questions 52—55 ONLY if person A worked last week:</i></p> <p>52. How many hours did person A work last week at all jobs, in a business, or on a farm? Subtract any time off; add overtime or extra hours worked.</p> <p>_____ Hours</p>
---	--

Figure 43a--1986 form

Figure 43b--revised form

The item nonresponse for the revised form was significantly lower than for the 1986 form: 5.0 percent vs. 15.7 percent, respectively. (See Table 46.) There was a significant difference in the mean number of hours reported on the two forms. The mean number of hours for the 1986 form was 40.0, compared to 36.9 hours for the revised form.

The purpose of this question is to ascertain the number of hours worked for the specific days of "last week." We were concerned that respondents might be interpreting the question to ask about either the number of hours worked in a "normal" or "average" week (rather than responding with regard to last week specifically) or the days for which they were paid, whether they were working or not. Though the small modification in wording was not expected to influence this process, we examined the percentage of cases with rounded figures to see if these were roughly equal on the two forms. Twenty and forty hours were thought to be figures that respondents might logically report if thinking of an "average" week. Since many persons did in actuality work 20 or 40 hours, this is not a true measure of misinterpretation, but by making the assumption that this proportion is equal in both groups, we can determine whether the percentage incorrectly reporting 20 or 40 hours differs grossly over the two forms. As Table 46 shows, this is not the case. The percentage of cases with rounded responses differs by only 3.2 percent.

Place of work (1986:21; Revised:53). The 1986 and revised forms of this question are presented in Figure 44. The format for reporting the address was simplified, and, like the place of residence 5 years ago item, the revised form elicits information from respondents in the order in which they are accustomed to giving it: street address, city, state, zip, rather than the reverse as in the 1986 form. In addition, the wording of the question itself was changed to clarify what is being asked.

Similar to the change made in the place-of-residence-5-years-ago question, the wording of the "boundaries" question was changed to clarify its intent and to specify "city or town limits."

Inherent in the place-of-work question is an ambiguity concerning persons who work in their homes. While some respondents reporting work in the home properly do so in reference to a business located there, others may mistakenly consider housework as working at home. In theory, these persons should be skipped out of the place-of-work items by the skip instruction in the work-last-week question. In practice, however, some respondents overlook this instruction and provide information in the place-of-work items. In cases where this information conflicts with that in the previous item, the coder must make a decision about which to accept. It is important, therefore, to make clear to the respondent in the beginning the distinction between a business located in the home and housework done in the home. The revised form eliminated the response category "Yes, did only own housework or unpaid volunteer work" in the work-last-week item, which seemed to indicate to respondents that this should be included as work. The revised form makes a clear distinction in the work-last-week item between "yes" and "no" in order to reduce this problem.

21. At what location did this person work LAST WEEK?

If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street) →

If exact address is not known, give description of the location such as the building name, shopping center, nearest street or intersection, etc.

b. Place (City, town, post office, etc.) →

c. Is the work location inside the boundaries of that place, or outside the boundaries with the place as its mailing address?

- Inside the place
- Outside — Place is the mailing address
- Don't know

d. County →

e. State → f. ZIP code →

53a. At what location did person A report to work last week? If person A worked in more than one place last week, describe where he or she worked MOST. If worked at home, write "home" and skip to 56.

a. _____
(Write number and street, or describe location — building name or intersection)

b. _____
(City, town, post office)

c. _____
(County)

d. _____ (State) _____ (ZIP Code)

e. Is the work location inside city or town limits?

- Yes
- No

Figure 44a--1986 form

Figure 44b--revised form

Another issue related to reports of work at home is the item in which this information is gathered. In the 1986 form, the person working at home is given no guidance about what to write in the place of work item. Is he/she to simply write in the various parts of his/her home address? It is not until the transportation to work item that the person working at home is given the opportunity to say so explicitly. Logically, this information belongs in the place of work item, not in the item concerning transportation. Therefore, the revised form of the questionnaire includes an instruction in the place-of-work item directing those working at home to simply write in "home" and skip the transportation to work item.

Table 47 presents item nonresponse rates for each part of the location. No clear trend is apparent, and the only significant difference is in the nonresponse rate for "state," for which the revised version had a lower rate. Inappropriate responses (i.e., geographic area other than that requested or miscellaneous responses that were coded as "other") were less frequent on the revised form. As Table 47 shows, there were large differences in the percentage of responses which were inappropriate types of "places" (39.0 percent vs. 7.1 percent). This large difference implies that a more simply phrased question, using the more familiar "city or town" rather than the ambiguous "place," results in better data quality. For the street address and county, too, the revised form had lower incidences of inappropriate responses.

We were interested in the extent to which the format of the question on the 1986 and revised forms elicited full and complete information for all subparts of the item. Table 47 presents the percentage of respondents who reported correct and complete information for all parts of the question. In this regard the revised question fared well, with 27.0 percent of the cases having complete and correct responses compared to 13.3 percent of cases in the 1986 form. This was a statistically significant increase in proper reporting.

Also found in Table 47 are the percentages of persons who reported working at home. For the 1986 form, this information is taken from the transportation-to-work item. For the revised form, it is from the place-of-work item. The percentage of persons reporting work at home was significantly higher on the revised form--5.0 percent compared to 1.4 percent on the 1986 form. A possible explanation for this difference is the fact that the "worked at home" response in the 1986 form is buried in the list of responses in the transportation item--an item in which respondents are probably not looking for such a response. Thus, it may be easily overlooked, resulting in a smaller percentage of persons reportedly working at home. It is possible, of course, that people who work at home may skip both items, and that both forms may underrepresent the extent to which this type of work occurs.

Item nonresponse to the place-of-work item decreased in the revised version, but not significantly. Nearly equal percentages of persons reported that they work inside the city limits on the two questionnaires. However, our observations of respondents with the 1986 form suggested that they misinterpreted "place" to mean a number of things other than the work location, so this content comparison may be somewhat muddled.

A point of interest was the extent to which respondents might leave the write-in components of the location of work blank and respond to only the FOSSIC subquestion about city limits. The percentages of such cases did not differ significantly on the two forms.

Transportation to work (1986:22; Revised:55). Examples of the two forms of these questions are provided in Figure 45. The word "usually" was deleted since it was confusing in reference specifically to "last week." Consistent with plans for the 1990 census, the question was changed to collect data on only one method of transportation rather than multiple methods. The write-in for "other" was also deleted to be consistent with plans for 1990. Besides moving the "at home" information to the previous

question, the only other change made to this question was rephrasing the "walked only" response category to read simply "walked." This was done to be consistent with the wording of the question which asks for reports of the method used for most of the distance.

22a. How did this person usually get to work LAST WEEK? *If this person usually used more than one method of transportation in their trip (for example, rode the bus and transferred to the subway), fill the circle of each method used.*

1 <input type="radio"/> Car, truck, or van	7 <input type="radio"/> Taxicab
2 <input type="radio"/> Bus or trolley bus	8 <input type="radio"/> Motorcycle
3 <input type="radio"/> Streetcar or trolley car	9 <input type="radio"/> Bicycle
4 <input type="radio"/> Subway or elevated	10 <input type="radio"/> Walked only
5 <input type="radio"/> Railroad	11 <input type="radio"/> Worked at home - Skip to 27
6 <input type="radio"/> Ferry boat <input checked="" type="checkbox"/>	12 <input type="radio"/> Other - Specify <i>7</i>

b. If this person usually used more than one method of transportation in the trip to work LAST WEEK, which method was used for most of the distance?

Write number of the method in question 22a (for example, if method used for most of the distance is bus, you write 2) If car, truck, or van is reported in 22a, go to 22c. Otherwise, skip to 23a.

c. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

<input type="radio"/> Drove alone	<input type="radio"/> 5 people
<input type="radio"/> 2 people <input checked="" type="checkbox"/>	<input type="radio"/> 6 people
<input type="radio"/> 3 people	<input type="radio"/> 7 to 9 people
<input type="radio"/> 4 people	<input type="radio"/> 10 or more people

Figure 45a--1986 form

55a. How did person A get to work last week? *Fill in one circle for the method usually used for most of the distance.*

<input type="radio"/> Car, truck or van	<input type="radio"/> Taxicab
<input type="radio"/> Bus or trolley bus	<input type="radio"/> Motorcycle
<input type="radio"/> Streetcar or trolley car	<input type="radio"/> Bicycle
<input type="radio"/> Subway or elevated	<input type="radio"/> Walked
<input type="radio"/> Railroad	<input type="radio"/> Other
<input type="radio"/> Ferry boat <input checked="" type="checkbox"/>	

b. Answer ONLY if car, truck, or van was the usual method:

How many people, including person A, usually rode to work in the car, truck, or van last week?

<input type="radio"/> Drove alone	<input type="radio"/> 5 people
<input type="radio"/> 2 people	<input type="radio"/> 6 people
<input type="radio"/> 3 people	<input type="radio"/> 7 to 9 people
<input type="radio"/> 4 people	<input type="radio"/> 10 or more people

Figure 45b--revised form

The results for this item are presented in Table 48. Item nonresponse was minimally higher for the revised version. The distribution of responses shows no differences by questionnaire type.

Although the formatting of the questions is quite different, it was desirable to gather some sort of estimate of the errors in marking that were likely to occur on each form. For the 1986 form, an error was considered to be a case in which one of the following three things occurred: 1) only one method was listed in Part a and yet an entry was made in the write-in for Part b; 2) no FOSDIC circle was marked in Part a but there was an entry in Part b; or 3) two methods were listed in Part a and yet a third one was referenced in Part b. Since the revised form asks only for the method most used, an indication of error on the revised form is the incidence of multiple FOSDIC markings. As Table 48 shows, errors were much more frequent on the 1986 form--62.0 percent vs. only 0.3 percent on the revised form. Of the 36 cases with errors on the 1986 form, 30 (83.3 percent) were incidences of simple redundancy; that is, only one method of transportation was listed in Part a and the same method was entered in Part b. These cases prove less problematic for coding than those in which the methods are different. Nonetheless, even with redundant

cases omitted, the 1986 form fared much worse, with over 10 percent of cases having errors.

The only change made to Part c (Part b on the revised form) was to add a skip instruction for persons not traveling to work by car, van, or truck. This instruction was buried with other instructions in Part b of the 1986 form, which was dropped from the revised form.

As Table 48 shows, item nonresponse decreased significantly on the revised form--from 4.9 percent to 0.9 percent. The content of responses did not differ by form; that is, the mean number of persons in the car was nearly the same among respondents to both forms.

Travel time to work (1986:23; Revised:54). As Figure 46 confirms, these questions were unchanged in the revised form.

23a. What time did this person usually leave for work
LAST WEEK?

a.m.
 p.m.

b. What time did this person usually arrive at work
LAST WEEK?

a.m.
 p.m.

After answering 23b, please skip to 27.

Figure 46a--1986 form

54a. What time did person A usually leave for work
last week?

a.m.
 p.m.

b. What time did person A usually arrive at work
last week?

a.m.
 p.m.

Figure 46b--revised form

There were no significant differences in item nonresponse on the two forms. (See Table 49.) There was concern that careless respondents answering these questions may read the first question correctly (time of leaving for work) and then "read" the next question as asking about time of arrival at home following work. To examine the magnitude of this problem, we calculated the percentage of respondents who reported leaving and arrival times which differed by more than two hours (assuming that even the longest commutes to work were significantly less than two hours). As Table 49 shows, this percentage did not differ on the two forms.

Temporarily absent from work (1986:24; Revised:49). The question was week and those who do not have a job at all. In order to do so, the question was broken into parts: the first asks if the person had a job last week; the second then asks why they did not work last week. To be more consistent with CPS definitions, an instruction was added to include new jobs which have not yet started. (See Figure 47 for examples.)

Item nonresponse was lower on the revised version of the questionnaire, although the difference was not statistically significant. The content comparison revealed significant differences in the distribution of responses to this item. Respondents to the 1986 form were slightly more likely to report being laid off while those responding to the revised version were more likely to report being on vacation. Research on the Current Population Survey (Rothgeb, 1982) has shown that respondents misinterpret the term "layoff" to include things such as being indefinitely let go from a job. Since the 1986 version of the question contains the phrase "on layoff from a job or business," the difference in distributions could result from different levels of misinterpretation of the term

24. Was this person temporarily absent or on layoff from a job or business LAST WEEK?

- Yes, on layoff
- Yes, on vacation, temporary illness, labor dispute, etc.
- No

Figure 47a--1986 form

Answer questions 49a--51 ONLY if person A did not work last week:

49a. Does person A have a job or business?
Include new jobs which have not started.

- Yes
- No — Skip to 50a

b. Why was person A away from work last week?

- On layoff
- On vacation, out sick, labor dispute, or other reason
- New job has not started yet — Skip to 51

Figure 47b--revised form

"layoff." (Incidentally, there were no reports of "new job has not started yet" on the revised form.)

Looking for work (1986:25a; Revised:50a). This question was unchanged in the revised questionnaire except for a new placement in the reordered series of questions. Examples are provided in Figure 48.

As Table 51 shows, item nonresponse to this question was higher for the revised questionnaire, but not significantly so. The content of substantive responses was about the same for both forms. On the 1986 form, 17.8 percent reported looking for work in the last 4 weeks, while 16.4 percent did so on the revised form.

25a. Has this person been looking for work during the last 4 weeks?

- Yes
- No — Skip to 26

b. Could this person have taken a job LAST WEEK?

- No, already has a job
- No, temporarily ill
- No, other reasons (in school, etc.)
- Yes, could have taken a job

Figure 48a--1986 form

50a. Has person A been looking for work during the last 4 weeks?

- Yes
- No — Skip to 51

b. Could person A have taken a job last week if one had been offered?

- Yes
- No, because person A expects to be recalled to work
- No, temporarily sick
- No, in school or other reason

Figure 48b--revised form

Availability for work (1986:25b; Revised:50b). The question was reworded to be identical to the comparable CPS question. The response category "No, already has a job" was clarified to be consistent with CPS definitions, and small wording changes were made to two other categories. Figure 48 includes samples of both forms.

As Table 51 shows, the distribution of responses across categories differed somewhat on the two forms. Respondents to the revised form were more likely to respond that they could have taken a job last week if one had been offered, while respondents to the 1986 form were more likely to respond negatively for "other reasons." The reader is cautioned, however, because the number of eligible cases (persons 16 years and older who

reported no work last week, reported looking for work in the last 4 weeks, and who provided information in response to this item) was only 21 for each form.

When last worked (1986:26; Revised:51). This wording was changed in the revised form of the questionnaire to include a specification of what is included as "work." In addition, this item was repositioned as the order of the labor force questions was modified. See Figure 49 for examples.

A similar percentage of respondents left this question blank on both forms of the questionnaire. For the 1986 form, the nonresponse rate was 14.3 percent. For the revised form, it was 21.1 percent. This difference was not statistically significant.

26. When did this person last work, even for a few days?

<input type="radio"/> 1986 or 1987	<input type="radio"/> 1976 to 1980	} Skip to 31
<input type="radio"/> 1985	<input type="radio"/> 1975 or earlier	
<input type="radio"/> 1984	<input type="radio"/> Never worked	
<input type="radio"/> 1981 to 1983		

Figure 49a--1986 form

51. When did person A last work at a job, business, or farm, even for a few days?

<input type="radio"/> 1987	} Skip to 56
<input type="radio"/> 1986	
<input type="radio"/> 1985	
<input type="radio"/> 1984	
<input type="radio"/> 1981 to 1983	
<input type="radio"/> 1976 to 1980	} Skip to 60
<input type="radio"/> 1975 or earlier	
<input type="radio"/> Never worked	

Figure 49b--revised form

The distributions of responses over response categories for the two forms are also presented in Table 52. Although the differences are not statistically significant, there are substantial percentage differences in the 1986-87 and 1981-83 categories, with respondents to the 1986 form reporting more recent work experiences.

Industry (1986:27; Revised:56). In the revised form, the instructions for these questions were given more appropriate placement immediately preceding the items rather than at the bottom of the previous column. The "industry" heading was thought to confuse respondents because it suggested "heavy industry" and caused respondents to leave the question blank. Therefore it was removed. In Part a, the instruction for persons in the armed forces seemed misplaced and confusing, so it was eliminated and "branch of Armed Forces" was added to the list of example write-ins. In Parts a and b the write-in blanks were expanded from one to two lines to encourage fuller answers. Part c was reworded to be more clear and direct. Examples of the 1986 and revised questions are provided in Figure 50.

As Table 53 shows, the revised form had a significantly lower level of item nonresponse for Parts a and b. Part c also showed an improvement, but it was not statistically significant. Inappropriate responses (that is, write-in entries that did not indicate a company name or a type of business or industry), however, were slightly more common on the revised form.

As anticipated, increasing the available space for write-ins was associated with more words written on the industry items. For Part b, this difference was significant: from 1.82 words on average to 2.11 words. While more

27-29 CURRENT OR MOST RECENT JOB ACTIVITY Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for last job or business since 1981.

27. Industry

a. **For whom did this person work?**
 If now on active duty in the Armed Forces fill circle and print the branch of the Armed Forces and skip to question 28.

 (Name of company, business, or other employer)

b. **What kind of business or industry was this?**
 Describe the activity at location where employed.

 (For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. **Is this mainly — (Fill ONE circle)**

<input type="radio"/> Manufacturing	<input type="radio"/> Other (agriculture, construction, service, government, etc.)
<input type="radio"/> Wholesale trade	
<input type="radio"/> Retail trade	

Figure 50a--1986 form

words do not necessarily mean better quality responses, it seems logical that in cases where interpretation of a response is difficult, the more information written, the more the coder has to work with in quantifying these open-ended items.

The effect of removing the FOSDIC marking for persons currently on active duty in the Armed Forces was examined in two ways. First, the percentage of write-in responses that corresponded to some branch of the armed services was calculated. As shown in Table 53, these percentages were nearly equal on both questionnaires. This, however, does not take into account that a person's "most recent" employer may have been a branch of the armed services without his or her being on current active duty. He/she may have retired and may no longer work at all, or he/she may be employed as a civilian by a branch of the armed services. Therefore, we compared the percentage reporting current active duty in the period-of-service question on the revised form to the percentage marking the FOSDIC circle on the industry question on the 1986 form. The percentages are once again too small to be conclusive, but there appears to be no real difference in the

56. CURRENT OR MOST RECENT JOB ACTIVITY
 In questions 56a — 58, describe person A's job or business last week.
 If person A worked more than one job last week, describe the one at which he or she worked the most hours.
 If person A did not work any hours last week, describe the most recent job or business since 1982.

56a. For whom did person A work?

(Name of company, business, branch of Armed Forces, or other employer)

56b. What kind of business or industry was this?
 Describe the activity where person A worked.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. **What is the organization's main activity where person A works?**

<input type="radio"/> Manufacturing	<input type="radio"/> Other (agriculture, construction, service, government)
<input type="radio"/> Wholesale trade	
<input type="radio"/> Retail trade	

Figure 50b--revised form

figures for the two forms. It is interesting to note that for the 1986 form, the military service item identified a higher level of current active duty service than the FOSDIC circle in the industry item did.

In regard to Part c, the distribution of responses across categories was the same for both questionnaire types. Of concern was the degree to which respondents would perceive the parts of the question as redundant or would be reluctant to expend the necessary effort to answer open-ended questions. Therefore, we tabulated the percentage of respondents who left the preceding items (industry and kind of business) blank, but responded to the FOSDIC item in Part c. As Table 53 shows, this percentage did not differ significantly on the two forms.

Occupation (1986:28; Revised:57). The only changes made to these items were the elimination of the "occupation" heading and expansion of write-in blanks to two lines each. (See Figure 51.)

As Table 54 shows, the item nonresponse rates were roughly equal for both parts of the question. The level of inappropriate responses was virtually identical on the two questionnaire types. The number of words written, however, differed significantly for both parts of the question with revised form respondents giving longer answers. Again, the revised form seems to elicit more information to be used in coding the occupation data.

28. Occupation

a. What kind of work was this person doing?

 (For example: Registered nurse, personnel manager,
 supervisor of order department, gasoline
 engine assembler, grinder operator)

b. What were this person's most important activities or duties?

 (For example: Patient care, directing hiring policies,
 supervising order clerks, assembling engines,
 operating grinding mill)

Figure 51a--1986 form

57a. What kind of work was person A doing?

 (For example: Registered nurse, personnel
 manager, supervisor of order department,
 gasoline engine assembler, grinder operator)

b. What were person A's most important activities or duties?

 (For example: Patient care, directing hiring
 policies, supervising order clerks, assembling
 engines, operating grinding mill)

Figure 51b--revised form

Class of worker (1986:29; Revised:58). The phrasing of this question was changed to eliminate the need to repeat "employee" in every response category. The instruction to "fill one circle" was omitted. The subheading "self-employed" was thought to create the impression that there were two completely separate sets of categories, and since it seemed unnecessary, it was eliminated. Observation had suggested that the distinction between a profit company and a not-for-profit company caused confusion as well as extra verbiage in the question. It was therefore deleted. Examples of the 1986 and revised forms of the question are provided in Figure 52.

Item nonresponse was roughly equal for the two forms. (See Table 55.) As anticipated, however, the percentage of responses with more than one FOSDIC circle filled decreased significantly (to zero) on the revised form. Thus,

29. Was this person — Fill ONE circle

- Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions
 - Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
 - Local GOVERNMENT employee (city, county, etc.)
 - State GOVERNMENT employee
 - Federal GOVERNMENT employee
 - International or foreign GOVERNMENT employee
- SELF-EMPLOYED in own business, professional practice, or farm
- Own business not incorporated
 - Own business incorporated
 - Working WITHOUT PAY in family business or farm

Figure 52a--1986 form

58. Was person A working for —

- A PRIVATE company, business, or individual, for wages, salary, or commissions
- Local GOVERNMENT (city, county, etc.)
- State GOVERNMENT
- Federal GOVERNMENT
- SELF-EMPLOYED in own business, professional practice, or farm — NOT incorporated
- SELF-EMPLOYED in own incorporated business, professional practice, or farm
- Working WITHOUT PAY in family business or farm

Figure 52b--revised form

it seems that the revised format was successful in decreasing this particular error in marking.

Work last year (1986:30; Revised:59). We felt that the original form of this question was unnecessary because it gathered the same information collected in the work-last-week and when-last-worked questions. Because it was redundant, we thought it confused respondents, who would report some job other than what they already described in previous questions. The revised form, therefore, combines parts a and b in a single item. The wording of the question was revised slightly to refer to "all jobs." The write-in entry was omitted in favor of response categories. Creation of such categories allowed the inclusion of a "none" category to skip out persons who did not work last year. In addition, an instruction was added to "count even an hour as a week worked." Examples of the two forms are provided in Figure 53.

30a. Last year (1986), did this person work, even for a few days, at a paid job or in a business or farm?

- Yes
- No — Skip to 31

b. How many weeks did this person work in 1986? Count paid vacation, paid sick leave, and military service.

----- Weeks

c. During the weeks WORKED in 1986, how many hours did this person usually work each week?

----- Hours

Figure 53a--1986 form

59a. During 1986, how many weeks did person A work at all jobs, in a business, or on a farm?

Count paid vacation, paid sick leave, and military service. Count even an hour as a week worked.

- None — Skip to 60
- Up to 10 weeks
- 11—20 weeks
- 21—30 weeks
- 31—40 weeks
- 41—50 weeks
- 51—52 weeks

b. During the weeks WORKED in 1986, how many hours did person A usually work each week?

----- Hours

Figure 53b--revised form

Item nonresponse for the 1986 form was calculated by collapsing response to parts a and b to make it equivalent to the revised version. The collapsed nonresponse rate includes nonresponse to part a as well as responses of "yes" to part a and nonresponse to part b. As Table 56 shows, calculated this way, item nonresponse on the revised form was slightly lower than that on the 1986 form--28.8 percent vs. 34.9 percent for the revised form.

The distribution of responses differed tremendously on the two questionnaires. The percentage of persons reporting work last year was 71.8 percent on the 1986 form, but 93.7 percent on the revised form. The reasons for this difference are not readily apparent. Perhaps inclusion of the phrase "count even an hour as a week worked" prompted persons to report work which otherwise would have seemed too insignificant to include. However, as will be seen below, the revised form does not include a much larger proportion in the "up to 10 weeks" category, which would be expected if this explanation were valid. Another possibility has to do with the difference in the format of the response categories. Perhaps respondents who did not work during 1986 overlooked the "none" response category on the revised form and simply left the question blank. This would be consistent with the observed difference in item nonresponse on the two forms noted above.

For comparison purposes, the write-in entries for Part b of the 1986 form were collapsed into categories corresponding to those of the revised form. As may be seen in Table 56, there were no significant differences in these distributions.

Part c (Part b on the revised form) was unchanged in the revised questionnaire. In spite of this fact, the nonresponse rate was significantly lower--7.4 percent for the 1986 form vs. 2.3 percent for the revised form. The mean number of hours reported also differed significantly, with persons on the revised form reporting an average of 2.5 less hours per week. Again, the reasons for this difference are unclear, but perhaps it results from the new instruction in the previous question which instructs respondents to include even small amounts of work.

Income (1986:31; Revised:62). The heading and wording of the question were revised to emphasize that personal income, not household income is to be reported. The revised form omits the yes/no FOSDIC marks, and instead instructs respondents to write in "0" if there was no income of that particular type. The rationale for this change was that if respondents are asked to write in an amount for each sub-part, they would be more likely to read them all. Since interest income tends to be omitted, this sub-part was moved to second in the list. In addition, the revised form includes a sub-part for total income--as planned for the 1990 census. All of these modifications are shown in Figure 54.

The item nonresponse rates for the income questions are shown in Table 57. These are indicators of complete response to the income items--for the 1986 form, they include persons for whom both the FOSDIC and the write-in portions of the response were blank, and persons for whom the "Yes" circle was filled but no write-in entry was obtained. For the revised form, they include persons for whom no write-in entry was obtained. Clearly, nonresponse is a bigger problem on the revised form than on the 1986 form. Differences in nonresponse range from 2.7 percent to 25.6 percent, and in

31. **Income in 1986** — Fill the "Yes" circles below for each income source received by this person during 1986. Otherwise, fill the "No" circle.

If "Yes" enter the total amount received by this person during 1986. For income received jointly by two or more persons, see instruction guide.

If exact amount is not known, please give best estimate. If net income in b, c, or d was a loss, write "Loss" above the dollar amount.

a. **Wages, salary, commissions, bonuses, or tips from all jobs** — Report amount before deductions for taxes, bonds, dues, or other items.

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

b. **Self-employment income from own nonfarm business, including proprietorships and partnerships** — Report net income after business expenses.

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

c. **Farm self-employment income** — Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

d. **Interest, dividends, net rental income, or royalties** — Report even small amounts credited to an account

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

e. **Social Security or Railroad Retirement**

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

f. **Retirement, survivor, or disability pensions** — (Exclude Social Security)

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

g. **Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.**

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

h. **Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other source of income received regularly.** (Exclude lump sum payments such as money from an inheritance or the sale of a home)

Yes → \$ _____ .00
 No _____

(Annual amount — Dollars)

Figure 54a--1986 form

62. **What was person A's income before taxes in 1986 from all sources?**

If an income source was received jointly by household members—

- if possible, give each person's share separately, OR
- report the whole amount for one person and write "0" for the others.

If net income was a loss, write "loss" above the dollar amount.

If exact amount is not known, give best estimate.

Enter annual amount from each source (if none, write "0")

a. **Wages, salary, commissions, bonuses, and tips from all jobs** — Report amount before deductions for taxes, bonds, dues, or other items. \$ _____

b. **Interest, dividends, net rental income, and royalties** — Report even small amounts credited to an account. \$ _____

c. **Self-employment income from own nonfarm business, professional practice, or partnership** — Report net income after business expenses. \$ _____

d. **Farm self-employment income** — Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper. \$ _____

e. **Social Security or Railroad Retirement** \$ _____

f. **Retirement, survivor, or disability pensions** — Exclude Social Security. \$ _____

g. **Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.** \$ _____

h. **Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other regular income** — Exclude lump sum payments such as money from an inheritance or the sale of a home. \$ _____

i. **Total income in 1986** — Add entries a through h; subtract any losses. If total amount was a loss, write "Loss" above amount. \$ _____

Figure 54b--revised form

every case, the revised form has the higher nonresponse. This pattern strongly suggests that elimination of the "no" FOSDIC circle had a detrimental effect.

Further evidence of this is provided in the second page of Table 57, which is limited to persons for whom income information (either "Yes" or "No" responses) was reported. The table contains the percentage of reports that were "valid" income amounts--that is, they were not reports of "no" income, and they were neither indecipherable amounts, "don't know" responses, nor identified as monthly rather than annual amounts. When looked at this way, the revised form shows higher reporting of valid income amounts, and in three cases (self-employment, interest, and social security income) the differences were statistically significant. It appears that the revised form of the income items results in much larger item nonresponse rates, yet elicits better reporting of monetary amounts among those who do respond. This may be due to the fact that the increased item nonresponse for the revised form is concentrated among respondents who did not write-in a "none" or "\$0" entry.

Also included in Table 57 are the mean income quantities for each income item, among reported recipients of each income type. There were no significant differences according to questionnaire version. Despite the increased reporting of amounts among respondents to the revised form, the amounts reported do not differ.

The percentages of responses that were inappropriate (monthly amount, don't know, NA) were calculated for each item. The percentages were extremely small (all less than 1.5 percent) and there were no significant differences. Similarly, we examined the percentage of all responses which were indecipherable on the two forms. All figures were less than 1 percent, and there were no significant differences between questionnaires.

By moving the disability items to immediately precede the income items, we aroused some concern that item nonresponse to the income section might be affected. Concern was expressed that respondents who have just reported a condition which prevents work might feel that the income items were redundant and leave them blank. To explore this possibility, a log-linear model was fit to each subset of items (each disability item crossed with each income item by form type), and the goodness-of-fit statistic tested for significance. These models included all main effects and two-way interaction terms, omitting the three-way interaction variable. The cross-tabulation tables for these items are presented in Appendix C. The goodness-of-fit statistics for all 32 models failed to reach statistical significance, meaning that the model excluding the variable of concern (the three-way interaction term) fits the data sufficiently. We conclude, therefore, that questionnaire type does not affect the interaction of the disability items and response to the income questions. More specifically, the placement of the disability items does not influence the rates of nonresponse which result on the income items.

VI. Conclusion

The classroom tests represent the results of our first attempt to redesign the census long form. In most respects, results are favorable for the

revised form. Most of the significant differences in item nonresponse result from improved response on the revised form. Many other items had lower nonresponse rates on the revised form as well, but the differences did not reach statistical significance. Some of the more pronounced improvements on the revised form include the reduction of item nonresponse on Question 1, on the relationship item, and the less-than-five-years-of-age screener and the place-of-residence-5-years-ago item in the sample person section.

It is also reassuring to note that the revisions seldom resulted in significant differences in the distribution of responses. Thus, the reordering of "yes" and "no" responses did not appear to have a detrimental effect on the data; nor did the minor rewording of response categories.

Along with noting some of the improvements in the revised form, we also note a few instances in which the revised form in the classroom test failed to serve its intended purpose. In the housing section, one such instance is the change in referring to the housing unit as "home" rather than the 1986 version's "house or apartment." Contrary to our expectation, this modification did not seem to result in better understanding or decreased item nonresponse.

A second weak point of the revised form concerns the elimination of the FOSDIC circles in the income items. As this report has shown, the revised method resulted in significantly higher levels of nonresponse.

Another unresolved issue concerns the use of the phrase "apartment building" to determine the skip pattern in the housing section. This phrase was intended to replace the confusing "one-family house," but clearly, the new method is plagued with a new set of ambiguities. This issue needs further research and testing in order to determine the best way to convey to the respondent what is desired.

The Questionnaire Design Project is an iterative program of research. The next stage of this project is the 1988 National Census Test, which uses mailout/mailback methods with a large national sample of households to test four alternative census long forms. These results from the classroom experiments provided input into the development of the questionnaires for this test. In addition to incorporating beneficial changes from the revised classroom form, the 1988 forms address some of the weaknesses noted above.

The classroom tests were not conducted with randomly selected respondents. In addition, the number of respondents is relatively small. The results, therefore, while providing valuable information, should be considered exploratory in nature, and not as conclusive and unquestionable proof of hypotheses. A more stringent examination of many of the issues will be provided by the 1988 census test data which are currently undergoing analysis. This random national sample of households will provide a more sound basis for conclusions.

VII. References

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Table 1

Summary of Information Relating to
Understanding and Following the Structure of the Form

	1986 Form	Revised Form
Number of Forms	256	259

Number of persons	703	743

Average household size	3.5	3.7

Percent of forms with:		
Question 1 blank ¹	28.1%	6.6%
No 100% data	0	1.2
No sample data ²	5.1	1.5
Incomplete sample data ³	16.0	8.9
Reordering of persons between 100% and sample person sections	3.9	3.5

Number of forms with persons:		
Listed more than once in 100% data	6	6
Listed more than once in sample pages	1	3

1 $\chi^2 = 9.00$ d.f. = 1 prob < .001

2 $\chi^2 = 2.86$ d.f. = 1 prob < .01

3 $\chi^2 = 1.59$ d.f. = 1 prob < .05

Table 2

Time Needed to Complete the Form

	1986 Form	Revised Form
Percent not completing the form in the allotted 55 minutes Base N	16.1% (254)	11.7% (256)

Mean number of minutes elapsed between start and finish Base N	41.5 (254)	39.3 (256)

Table 3

Summary of Information
for the Relationship Item

	1986 Form	Revised Form
Item nonresponse rate ¹	6.7%	0.8%
Base N	(447)	(484)

Percent with information written in margins and elsewhere ²	0.9	3.8
Base N	(423)	(495)

Distribution of responses:		
Spouse	26.6	25.8
Child	49.2	46.9
Stepchild	2.9	1.7
Sibling	5.0	5.6
Parent	3.6	4.2
Grandchild	2.2	2.3
Other relative	5.3	4.4
Roomer	0.7	2.5
Housemate	2.4	3.3
Partner	2.2	1.3
Employee	0	0.4
Nonrelative	0	1.7
Base N	(417)	(480)

1 $\chi^2 = 4.49$ d.f. = 1 prob < .001

2 $\chi^2 = 1.87$ d.f. = 1 prob < .05

Table 4

Summary of Information
for the Sex Item

		1986 Form	Revised Form
Item nonresponse rate		2.4%	1.2%
	Base N	(703)	(743)

Distribution of responses:			
Male		45.9	46.5
Female		54.0	53.5
	Base N	(686)	(734)

Table 5

Summary of Information
for the Race Item

		1986 Form	Revised Form
Item nonresponse rate		2.7%	3.8%
	Base N	(703)	(743)

Distribution of response quality codes
for item responders:

Correct FOSDIC, correct write-in	76.5%	82.4%
Checks or other marks on FOSDIC circle ¹	11.7	5.3
Correct FOSDIC, unnecessary write-in	1.2	0.7
No FOSDIC, codable written entry	9.5	6.7
Correct FOSDIC, written entry missing	0.0	0.6
Written entry inconsistent with FOSDIC ²	0.4	2.4
Multiple races indicated	0.7	2.0
	Base N	(684)
		(715)

Distribution of responses:

White	52.8%	53.1%
Black	29.9	30.8
Asian or Pacific Islander	3.2	2.2
American Indian	0.1	2.7
Other Race	14.0	11.2
	Base N	(684)
		(715)

1 $\chi^2 = 2.95$ d.f. = 1 prob < .01

2 $\chi^2 = 1.86$ d.f. = 1 prob < .05

Table 6

Summary of Information
for the Age Item

	1986 Form	Revised Form
Mean reported age	33.6	33.6
N	(661)	(702)

Distribution of response quality codes:		
Correct write-in, correct FOSDIC ¹	62.0%	70.9%
Correct write-in, incorrect FOSDIC	2.4	4.0
Correct write-in, no FOSDIC	3.8	4.0
Incorrect write-in, correct FOSDIC	4.8	4.0
Incorrect write-in, incorrect FOSDIC	4.5	4.0
Incorrect write-in, no FOSDIC ²	11.7	5.7
No write-in, correct FOSDIC ³	4.4	1.3
No write-in, incorrect FOSDIC	0.7	0.5
No write-in, no FOSDIC (item nonresponse)	5.5	5.4
Base N	(703)	(743)

1 $\chi^2_J = 1.83$ d.f. = 1 prob < .05

2 $\chi^2_J = 2.51$ d.f. = 1 prob < .001

3 $\chi^2_J = 2.14$ d.f. = 1 prob < .05

Table 7

Summary of Information
for the Year of Birth Item

	1986 Form	Revised Form
Distribution of response quality codes:		
Correct write-in, correct FOSDIC ¹	60.9%	73.9%
Correct write-in, incorrect FOSDIC ²	4.4	2.2
Correct write-in, no FOSDIC ³	11.2	5.9
Incorrect write-in, correct FOSDIC	0.7	0.9
Incorrect write-in, incorrect FOSDIC	2.3	1.7
Incorrect write-in, no FOSDIC	4.5	4.7
No write-in, correct FOSDIC ⁴	4.0	0.7
No write-in, incorrect FOSDIC	1.4	0.3
No write-in, no FOSDIC (item nonresponse)	10.5	9.7
Base N	(703)	(743)

Percent of responses which were inconsistent with reported age	9.2	7.3
Base N	(620)	(661)

1 $\chi^2 = 3.64$ d.f. = 1 prob < .001

2 $\chi^2 = 1.73$ d.f. = 1 prob < .05

3 $\chi^2 = 1.90$ d.f. = 1 prob < .05

4 $\chi^2 = 3.05$ d.f. = 1 prob < .001

Table 8

Summary of Information
for the Marital Status Item

	1986 Form	Revised Form
Item nonresponse rate ¹	6.5%	3.4%
Base N	(703)	(743)

Percent of responses with more than one FOSDIC circle marked	0.1	0
Base N	(657)	(720)

Distribution of responses:		
Married	38.4	38.3
Widowed	4.9	4.3
Divorced	5.5	5.3
Separated	4.6	3.1
Never married	46.7	49.0
Base N	(657)	(718)

1 $\chi^2 = 1.10$ d.f. = 1 prob < .05

Table 9

Summary of Information
for the Hispanic Origin Item

	1986 Form	Revised Form
Item nonresponse rate ¹	17.6%	8.7%
Base N	(703)	(743)

Distribution of response quality codes for item responders:		
Correct FOSDIC, correct write-in ²	91.4%	82.6%
Checks or other marks on FOSDIC circle	5.0	7.1
Correct FOSDIC, unnecessary write-in	0.2	0.3
No FOSDIC, codable written entry	2.3	4.9
Correct FOSDIC, written entry missing ³	0.7	4.3
Written entry inconsistent with FOSDIC	0.5	0.9
Base N	(579)	(678)

Distribution of responses:		
Hispanic	22.8%	19.2%
Non-Hispanic	77.2	80.8
Base N	(579)	(678)

1 $\chi^2 = 2.78$ d.f. = 1 prob < .01

2 $\chi^2 = 1.89$ d.f. = 1 prob < .05

3 $\chi^2 = 1.68$ d.f. = 1 prob < .05

Table 10

Summary of Information
for the Coverage Item

	1986 Form	Revised Form
Item nonresponse rate ¹	8.2%	27.0%
Base N	(256)	(259)

Distribution of responses:		
Yes	3.4	6.3
No	96.6	93.7
Base N	(235)	(189)

1 $\chi^2 = 7.04$ d.f. = 1 prob < .001

Table 11

Summary of Information
for the Type of Structure Item

	1986 Form	Revised Form
Item nonresponse rate	6.3%	8.1%
Base N	(256)	(259)

Percent of responses with more than one FOSDIC mark	5.1	0.0
Base N	(241)	(248)

Distribution of responses: ¹		
Mobile home or trailer	0.0	0.8
One-family detached house	47.5	33.6
One-family attached house	16.7	13.4
Commercial building with apt.	2.5	0.0
Building with 2 apartments	7.5	10.5
Building with 3 apartments	5.0	6.3
Building with 4 apartments	2.1	3.8
Building with 5-9 apartments	4.6	11.3
Building with 10-19 apartments	3.3	3.8
Building with 20-49 apartments	5.0	5.5
Building with 50+ apartments	5.8	10.1
Boat, tent, van, etc.	0.0	0.8
Base N	(240)	(238)

¹ $\chi^2 = 3.81$ d.f. = 11 prob < .001

Table 12

Summary of Information
for the Number of Rooms Item

	1986 Form	Revised Form
Item nonresponse rate	5.9%	3.5%
Base N	(256)	(259)

Percent of responses with total number of rooms:		
Greater than number of bedrooms ¹	83.9	91.6
Equal to number of bedrooms	5.1	7.6
Less than number of bedrooms ²	11.0	0.8
Base N	(236)	(249)

1 $\chi^2 = 2.48$ d.f. = 1 prob < .01

2 $\chi^2 = 5.58$ d.f. = 1 prob < .001

Table 13

Summary of Information
for the Tenure Item

	1986 Form	Revised Form
Item nonresponse rate ¹	7.0%	15.1%
Base N	(256)	(259)

Distribution of responses:		
Owned or being bought	55.0	61.4
Rented	42.9	36.4
Occupied without payment	2.1	2.3
Base N	(238)	(220)

1 $\chi^2_J = 2.03$ d.f. = 1 prob < .05

Table 14

Summary of Information
for the Condominium/Cooperative Item

	1986 Form	Revised Form
Item nonresponse rate	10.2%	6.6%
Base N	(256)	(259)

Table 15

Summary of Information
for the Property Size Item

	1986 Form	Revised Form
Item nonresponse rates:		
Using literal definition of apartment building ¹	1.3%	17.5%
Base N	(154)	(166)
Using broad definition of apartment building ²	1.3	8.6
Base N	(154)	(116)

Distribution of Responses:		
Using literal definition of apartment building:		
No	89.5	95.6
Yes	10.5	4.4
Base N	(152)	(137)
Using broad definition of apartment building:		
No	89.5	95.3
Yes	10.5	4.7
Base N	(152)	(106)

1 $\chi^2 = 7.92$ d.f. = 1 prob < .001

2 $\chi^2 = 2.93$ d.f. = 1 prob < .01

Table 16
Summary of Information
for the Commercial Establishment Item

	1986 Form	Revised Form
Item nonresponse rates:		
Using literal definition of apartment building	12.3%	12.7%
Base N	(154)	(166)
Using broad definition of apartment building	12.3	12.7
Base N	(154)	(134)

Distribution of responses:		
Using literal definition of apartment building:		
Yes	3.0	3.5
No	97.0	96.5
Base N	(135)	(145)
Using broad definition of apartment building:		
Yes	3.0	4.3
No	97.0	95.7
Base N	(135)	(117)

Table 17

Summary of Information
for the Property Value Item

	1986 Form	Revised Form
Item nonresponse rate ¹	3.1%	15.6%
Base N	(97)	(135)

1 $\chi^2 = 4.25$ d.f. = 1 prob < .001

Table 18

Summary of Information
for the Monthly Rent Item

	1986 Form	Revised Form
Item nonresponse rate	2.9%	3.7%
Base N	(102)	(30)

Distribution of responses:		
Less than \$60	2.0	1.3
\$60 to \$79	0.0	0.0
\$80 to \$89	0.0	0.0
\$90 to \$99	1.0	0.0
\$100 to \$124	1.0	1.3
\$125 to \$149	3.0	5.2
\$150 to \$174	1.0	5.2
\$175 to \$199	1.0	2.6
\$200 to \$224	3.0	9.1
\$225 to \$249	4.0	2.6
\$250 to \$274	5.1	3.9
\$275 to \$299	4.0	6.5
\$300 to \$349	14.1	10.4
\$350 to \$399	21.2	19.5
\$400 to \$449	7.1	7.8
\$450 to \$499	14.1	9.1
\$500 to \$549	5.1	6.5
\$550 to \$599	4.0	2.6
\$600 to \$649	4.0	1.3
\$650 to \$699	1.0	2.6
\$700 to \$749	1.0	2.6
\$750 or more	3.0	3.9
Base N	(99)	(77)

Table 19

Summary of Information
for the Farm Operations Screener and Agricultural Sales Items

Part A: Farm Operations Screener

	1986 Form	Revised Form
Item nonresponse rates:		
Using literal definition of apartment building	15.2%	11.5%
Base N	(256)	(166)
Using broad definition of apartment building ¹	15.2	4.3
Base N	(256)	(116)

Content of responses:²

Should answer Part b	18.0	0.7
Should skip Part b	82.0	99.3
Base N	(217)	(147)

Part B: Agricultural Sales

	1986 Form	Revised Form
Item nonresponse rate		
	18.0%	0.0%
Base N	(39)	(1)
Content of responses:		
None	96.9	100.0
Dollar amount marked	3.1	0.0
Base N	(32)	(1)

1 $\chi^2_J = 4.27$ d.f. = 1 prob < .001

2 $\chi^2_J = 12.74$ d.f. = 1 prob < .001

Table 20

Summary of Information
for the Year Built Item

	1986 Form	Revised Form
Item nonresponse rate ¹	14.5%	5.0%
Base N	(256)	(259)

Percent of responses which were "Don't Know"	26.0	28.9
Base N	(219)	(246)

Distribution of responses:		
1985 to 1987	4.3	7.4
1980 to 1984	8.0	7.4
1975 to 1979	8.6	6.9
1970 to 1974	11.1	8.0
1960 to 1969	19.1	16.6
1950 to 1959	18.5	13.1
1940 to 1949	8.0	14.9
1939 or earlier	22.2	25.7
Base N	(162)	(175)

1 $\chi^2 = 4.04$ d.f. = 1 prob < .001

Table 21

Summary of Information
for the Arrival in Housing Unit Item

	1986 Form	Revised Form
Item nonresponse rate	8.2%	11.6%
Base N	(256)	(259)

Table 22

Summary of Information
for the Plumbing Facilities Item

1986 Form Revised Form

Item nonresponse rates:

Cases with both parts blank (revised form)		4.7%	5.4%
	Base N	(256)	(259)

Cases with Part B blank revised form)		4.7%	14.7%
	Base N	(256)	(259)

Distribution of responses:²

Yes, for this household only	96.3	88.2
Yes, shared with another household	2.9	10.9
No, have some but not all facilities	0.4	0.9
No plumbing facilities	0.4	0.0
	Base N	(244) (221)

1 $\chi^2 = 4.66$ d.f. = 1 prob < .001

2 $\chi^2 = 3.47$ d.f. = 1 prob = .001

Table 23

Summary of Information
for the Water Source Item

		1986 Form	Revised Form
Item nonresponse rate		5.9%	5.4%
	Base N	(256)	(259)

Distribution of responses:

Public system or private company		99.2	98.4
Individual drilled well		0.4	0.8
Individual dug well		0.0	0.4
Other source		0.4	0.4
	Base N	(241)	(245)

Table 24

Summary of Information
for the Public Sewer Item

		1986 Form	Revised Form
Item nonresponse rate		9.8%	6.6%
	Base N	(256)	(259)

Distribution of responses:

Yes, connected to public sewer		95.7	93.4
No, septic tank or cesspool		3.0	5.8
No, use other means		1.3	0.8
	Base N	(231)	(242)

Table 25

Summary of Information
for the Heating Equipment item

	1986 Form	Revised Form
Item nonresponse rate	7.4%	7.7%
Base N	(256)	(259)

Percent of responses with multiple marks	1.3	1.3
Base N	(238)	(239)

Distribution of responses:		
Steam or hot water	25.7	30.1
Central air	50.6	42.7
Electric heat pump	4.2	4.2
Other built-in electric units	3.4	9.6
Floor, wall, or pipeless furnace	3.8	2.5
Room heaters with vents	6.3	4.6
Room heaters without vents	4.6	2.5
Fireplaces or stoves	0.0	0.4
Portable room heaters	0.8	2.5
Solar equipment	0.4	0.0
No heating equipment	0.0	0.8
Base N	(238)	(239)

Table 26

Summary of Information
for the Heating Fuel Item

	1986 Form	Revised Form
Item nonresponse rate	7.8%	6.6%
Base N	(256)	(259)

Percent of responses with more than one FOSDIC mark	1.3	2.5
Base N	(237)	(245)

Percent of responses which were inconsistent with heating equipment	6.1	8.1
Base N	(229)	(233)

Distribution of responses:		
Gas from pipes	59.3	60.3
Gas: bottled, tank, LP	3.8	4.1
Electricity	17.8	23.5
Fuel oil, kerosene, etc.	17.4	10.7
Coal or coke	0.4	0.4
Wood	0.0	0.4
Solar	0.0	0.4
Other fuel	0.9	0.0
No fuel used	0.4	0.0
Base N	(236)	(242)

Table 27

Summary of Information
for the Water Heating Fuel Item

	1986 Form	Revised Form
Item nonresponse rate	9.7%	8.9%
Base N	(256)	(259)

Percent of responses with more than one FOSDIC circle marked	0.4	0.4
Base N	(231)	(236)

Distribution of responses:		
Gas from pipes	65.4	65.3
Gas: bottled, tank, LP	4.3	6.4
Electricity	18.6	21.6
Fuel oil, kerosene, etc.	10.8	5.5
Coal or coke	0.4	0.0
Wood	0.0	0.0
Solar	0.0	0.0
Other fuel	0.0	0.4
No fuel used	0.4	0.9
Base N	(231)	(236)

Table 28

Summary of Information
for the Utility Costs Items

		1986 Form	Revised Form
Item nonresponse rates:			
Electricity ¹	Base N	22.7% (256)	30.9% (259)
Gas	Base N	26.9 (256)	32.1 (259)
Water ²	Base N	24.6 (256)	33.2 (259)
Oil	Base N	37.5 (256)	42.3 (259)

Percent of responses which were
"0" or "NA":

Electricity	Base N	0.0 (198)	1.1 (179)
Gas ³	Base N	2.1 (187)	7.4 (176)
Water ⁴	Base N	1.0 (193)	6.9 (173)
Oil ⁵	Base N	4.4 (160)	12.1 (149)

- 1 $\chi^2_J = 2.61$ d.f. = 1 prob < .01
 2 $\chi^2_J = 2.06$ d.f. = 1 prob < .05
 3 $\chi^2_J = 2.07$ d.f. = 1 prob < .05
 4 $\chi^2_J = 3.32$ d.f. = 1 prob = .001
 5 $\chi^2_J = 3.02$ d.f. = 1 prob < .01

Table 28 (continued)

1986 Form Revised Form

Percent of responses with FOSDIC
mark AND write-in

Electricity		0.0	0.5
	Base N	(206)	(199)
Gas		1.1	0.5
	Base N	(189)	(195)
Water		0.5	0.5
	Base N	(197)	(191)
Oil		0.6	1.8
	Base N	(164)	(163)

Content of responses:

Electricity ⁶			
Dollar amount		90.9	83.8
Included in rent or condo fee		6.6	15.0
No charge or electricity not used		2.5	1.2
	Base N	(197)	(173)
Gas			
Dollar amount		71.3	65.7
Included in rent or condo fee		13.0	16.0
No charge or gas not used		15.7	18.3
	Base N	(185)	(169)
Water ^a			
Dollar amount		62.3	55.1
Included in rent or condo fee		24.6	44.3
No charge		13.1	0.6
	Base N	(191)	(167)
Oil			
Dollar amount		25.5	23.5
Included in rent or condo fee		8.9	13.1
No charge or fuel not used		65.6	63.5
	Base N	(157)	(145)

^a χ^2 test not valid because response categories are different.

⁶ $\chi^2 = 2.65$ d.f. = 1 prob < .01

Table 23 (continued)

		1986 Form	Revised Form
Mean amounts reported among utility users:			
Electricity	N	\$852 (179)	\$807 (143)
Gas	N	872 (129)	356 (101)
Water	N	393 (119)	492 (85)
Oil	N	688 (35)	706 (20)

Table 29

Summary of Information
for the Number of Bedrooms Item

		1986 Form	Revised Form
Item nonresponse rate	Base N	4.3% (256)	3.1% (259)

Mean number of bedrooms	N	2.6 (245)	2.6 (251)

Distribution of responses: ¹			
None		1.2	6.0
One		16.3	14.3
Two		20.0	25.1
Three		47.3	32.7
Four		11.8	15.5
Five or more		3.3	6.4
	Base N	(245)	(251)

1 $\chi^2_J = 3.51$ d.f. = 5 prob < .001

Table 30
Summary of Information
for the Number of Motor Vehicles Item

		1986 Form	Revised Form
Item nonresponse rate		4.3%	6.2%
	Base N	(256)	(259)

Distribution of responses:			
None		16.7	16.1
One		34.3	37.9
Two		33.1	32.9
Three		10.6	10.3
Four		2.9	2.9
Five		1.6	0.0
Six or more		0.8	0.0
	Base N	(245)	(243)

Table 31

Summary of Information
for the Real Estate Tax Item

		1986 Form	Revised Form
Item nonresponse rate		25.8%	28.1%
	Base N	(97)	(135)

Percent of responses which were indecipherable		1.5	0.0
	Base N	(67)	(82)

Percent of responses which were "NA"		0.0	2.4
	Base N	(67)	(82)

Mean amount reported		\$1200	\$1137
	N	(65)	(63)

Table 32

Summary of Information
for the Insurance Premium Item

		1986 Form	Revised Form
Item nonresponse rate		32.0%	31.9%
	Base N	(97)	(135)

Percent of responses which were indecipherable		0.0	1.4
	Base N	(56)	(73)

Percent of responses which were "NA"		1.8	2.7
	Base N	(56)	(73)

Mean amount reported		\$637	\$725
	Base N	(52)	(49)

Table 33

Summary of Information
for the Mortgage Items

Part A: Mortgage

		1986 Form	Revised Form
Item nonresponse rate		16.5%	15.6%
	Base N	(97)	(135)

Distribution of responses:

Yes		77.8	66.7
No		22.2	33.3
	Base N	(81)	(114)

Part B: Second Mortgage

		1986 Form	Revised Form
Item nonresponse rate		6.3%	3.9%
	Base N	(63)	(76)

Distribution of responses:

Yes		10.2	6.9
No		89.8	93.1
	Base N	(59)	(73)

Table 33 (continued)

Part C: Mortgage Payment

		1986 Form	Revised Form
Item nonresponse rate		7.9%	14.5%
	Base N	(63)	(76)

Percent of responses which were indecipherable		1.7	0.0
	Base N	(59)	(65)

Mean amount reported		\$506	\$460
	N	(58)	(61)

Part D: Taxes Included

		1986 Form	Revised Form
Item nonresponse rate		5.0%	1.6%
	Base N	(60)	(63)

Distribution of responses:			
Yes		71.9	72.6
No		28.1	27.4
	Base N	(57)	(62)

Part E: Insurance Included

		1986 Form	Revised Form
Item nonresponse rate		1.7%	4.8%
	Base N	(60)	(63)

Distribution of responses:			
Yes		50.9	51.7
No		49.1	48.3
	Base N	(59)	(60)

Table 34

Summary of Information
for New Items On Revised Form

Kitchen Facilities

Item nonresponse rate 4.6%
Base N (259)

Distribution of responses:

Yes 98.0%
No 2.0%
Base N (247)

Number of bathrooms

Item nonresponse rate 3.5%
Base N (259)

Distribution of responses:

No bathroom or only half-bath 0.8%
One bathroom 56.4%
One bathroom, plus half bath(s) 13.2%
Two or more bathrooms 29.6%
Base N (250)

Telephone

Item nonresponse rate 4.3%
Base N (259)

Distribution of responses:

Yes 94.8%
No 5.2%
Base N (248)

Air Conditioning

Item nonresponse rate 2.7%
Base N (259)

Distribution of responses:

Yes, central air conditioning 41.3%
Yes, 1 individual room unit 17.1%
Yes, 2 or more individual room units 13.5%
No 28.2%
Base N (252)

Table 35

Summary of Information
for the School Enrollment Item

	1986 Form	Revised Form
Item nonresponse rate	21.9%	17.4%
Base N	(703)	(743)

Percent of responses with more than one FOSDIC circle marked	1.1	0.8
Base N	(552)	(617)

Distribution of responses:		
No	63.2	60.7
Nursery/kindergarten	5.1	2.4
Public elementary or high school	9.1	10.8
Private elementary or high school	3.6	5.2
College	18.9	20.1
Base N	(549)	(614)

Table 36

Summary of Information
for the Highest Grade Completed Item

	1986 Form	Revised Form
Item nonresponse rate	19.9%	15.2%
Base N	(703)	(743)

Percent of responses with more than one FOSDIC circle marked	3.0	1.9
Base N	(565)	(630)

Distribution of responses:		
Less than 1st grade	6.9	5.4
Grades 1-4	4.3	5.2
Grades 5-8	6.0	7.1
Some high school	10.8	11.3
High school graduate	17.4	20.2
Some college	16.3	17.8
Associate degree in an occupational program	3.2	2.1
Associate degree in a general/academic program	1.4	2.2
Bachelor's degree	18.1	17.3
Master's degree	11.9	8.3
Professional school degree	1.6	1.4
Doctorate degree	1.9	1.7
Base N	(563)	(630)

Table 37

Summary of Information
for the Ancestry Item

	1986 Form	Revised Form
Item nonresponse rate	25.2%	20.2%
Base N	(703)	(743)

Percent of valid ancestries which were listed in examples	29.1	30.4
Base N	(461)	(542)

Percent of responses containing multiple ancestries	27.4	25.3
Base N	(525)	(589)
Percent of responses which were "American"	7.4	3.7
Base N	(526)	(593)
Percent of responses which were "Don't know"	0.2	0.5
Base N	(526)	(593)
Percent of responses which were inappropriate	4.6	3.4
Base N	(526)	(593)

Table 38

Summary of Information
for the Place of Birth Item

	1986 Form	Revised Form
Item nonresponse rate ¹	25.2%	16.5%
Base N	(703)	(743)

Item nonresponse by Hispanic origin		
Hispanic origin	33.1	26.9
Base N	(133)	(134)
Not Hispanic origin	16.6	11.4
Base N	(446)	(543)

Percent giving inappropriate responses	6.1	7.4
Base N	(528)	(625)

Distribution of responses:		
U.S. State or District of Columbia	83.7	84.1
Foreign country	11.3	12.6
Puerto Rico, Guam, Virgin Islands	5.0	3.3
Base N	(496)	(579)

1 $\chi^2 = 2.01$ d.f. = 1 prob < .05

Table 39

Summary of Information
for the Citizenship Item

	1986 Form	Revised Form
Item nonresponse rate	19.2%	18.7%
Base N	(703)	(743)

Distribution of responses:		
Born in the U.S.	84.7	84.7
Born in Puerto Rico, Guam, Virgin Is.	4.7	3.5
Born abroad of American parents	0.7	0.8
Naturalized citizen	3.2	4.7
Not a citizen	6.7	6.2
Base N	(568)	(596)

Table 40

Summary of Information
for the Year of Arrival Item

		1986 Form	Revised Form
Item nonresponse rate		3.5%	8.8%
	Base N	(87)	(91)

Distribution of responses:

1986-1987		9.5	5.6
1985		1.2	4.4
1984		7.1	5.6
1980-1983		15.5	13.3
1975-1979		14.3	17.8
1970-1974		14.3	14.4
1965-1969		9.5	12.2
1960-1964		10.7	12.2
Before 1960		17.9	14.4
	Base N	(84)	(90)

Table 41

Summary of Information
for the Language Item

Part A: Language spoken at home

		1986 Form	Revised Form
Item nonresponse rate		21.8%	16.8%
	Base N	(703)	(743)

Distribution of responses:

Yes		26.4	22.6
No		73.6	77.4
	Base N	(550)	(618)

Part B: Name of other language

		1986 Form	Revised Form
Item nonresponse rate ¹		18.6%	2.9%
	Base N	(145)	(140)

Content of responses:

Language other than English		99.1	98.5
English		0.9	1.5
	Base N	(118)	(136)

¹ $\chi^2 = 4.18$ d.f. = 1 prob < .001

Table 41 (continued)

Part C: English-speaking ability

		1986 Form	Revised Form
Item nonresponse rate		9.0%	2.9%
	Base N	(145)	(140)

Distribution of responses:			
Very well		61.4	47.1
Well		24.2	27.9
Not well		10.6	20.6
Not at all		3.8	4.4
	Base N	(132)	(136)

Table 42

Summary of Information
for the Place of Residence 5 Years Ago Item

Part A: FOSDIC marking (same or different address five years ago)

	1986 Form	Revised Form
Item nonresponse rate ¹	25.5%	18.0%
Base N	(703)	(743)

Percent of responses which were inconsistent with reported age ²	4.5	0.3
Base N	(506)	(592)

Distribution of responses: ³		
Born after 3/16/82	5.7	2.6
Lived at same address	51.9	58.6
Lived elsewhere	42.4	38.8
Base N	(524)	(609)

Part B: Address Components

	1986 Form	Revised Form
Item nonresponse rates:		
State ⁴	13.8%	6.3%
Base N	(196)	(206)
County ⁵	27.5	18.9
Base N	(196)	(206)
Place ⁶	19.9	4.4
Base N	(196)	(206)

1 $\chi^2 = 1.41$ d.f. = 1 prob < .05

2 $\chi^2 = 9.38$ d.f. = 1 prob < .001

3 $\chi^2 = 1.55$ d.f. = 2 prob < .05

4 $\chi^2 = 1.67$ d.f. = 1 prob < .05

5 $\chi^2 = 1.71$ d.f. = 1 prob < .05

6 $\chi^2 = 4.69$ d.f. = 1 prob < .001

Table 42 (continued)

		1986 Form	Revised Form
Percent of responses which were inappropriate:			
State		3.4	2.5
	Base N	(177)	(200)
County		10.0	6.3
	Base N	(150)	(174)
Place ⁷		8.5	0
	Base N	(164)	(205)

Percent giving correct information in wrong space:

State		2.2	1.0
	Base N	(180)	(203)
County		0	0
	Base N	(151)	(174)
Place		1.2	0
	Base N	(168)	(205)

Part C: City limits

		1986 Form	Revised Form
Item nonresponse rate ⁸		13.8%	3.9%
	Base N	(196)	(206)

Distribution of responses:

Inside city limits		95.6	92.3
Outside city limits		4.4	7.7
	Base N	(228)	(353)

7 $\chi^2 = 5.41$ d.f. = 1 prob < .001

8 $\chi^2 = 2.92$ d.f. = 1 prob < .01

Table 43

Summary of Information
for the 15 Year Age Screener

	1986 Form	Revised Form
Item nonresponse rate	25.2%	18.4%
Base N	(646)	(707)

Percent of responses which were inconsistent with reported age	1.9	1.3
Base N	(465)	(561)

Distribution of responses:		
Under 15 years	13.0	13.0
15 or older	87.0	87.0
Base N	(483)	(577)

Table 44

Summary of Information
for the Military Service Item

Part A: Active Duty

	1986 Form	Revised Form
Item nonresponse rate ¹	23.1%	15.8%
Base N	(562)	(600)

Distribution of responses:

Yes	10.4	13.1
Only in training	2.1	1.2
No	87.5	85.7
Base N	(432)	(505)

Part B: Period of service

	1986 Form	Revised Form
Item nonresponse rate	4.4%	15.1%
Base N	(45)	(66)

Percent currently on active duty ^a	2.2	0
Base N	(45)	(66)

Distribution of responses:

September 1980 or later	14.0	7.1
May 1975-August 1980	2.3	5.4
Vietnam era	25.6	12.5
February 1955-July 1964	11.6	16.1
Korean conflict	20.9	21.4
World War II	23.3	37.5
World War I	0	0
Any other time	2.3	0
Base	(43)	(56)

^a Data for the 1986 form come directly from the active duty question. Data for the revised form are based on response to active duty and period of service items.

¹ $\chi^2_J = 2.02$ d.f. = 1 prob < .05

Table 45
 Summary of Information
 for the Disability Items

	1986 Form	Revised Form
Item nonresponse rates:		
"Limits work" item	24.0%	21.5%
Base N	(562)	(600)
"Prevents work" item	28.1	24.8
Base N	(562)	(600)
"Help with household chores" item	21.5	19.3
Base N	(562)	(600)
"Help with personal care" item	24.6	21.3
Base N	(562)	(600)

Distribution of responses:		
Percent reporting that they:		
Have a work limitation		
Yes	5.9	7.0
No	94.1	93.0
Base N	(427)	(471)
Are prevented from working		
Yes	4.0	4.9
No	96.0	95.1
Base N	(404)	(451)
Need help with household chores		
Yes	1.8	3.3
No	98.2	96.7
Base N	(441)	(484)
Need help with personal care		
Yes	1.7	1.7
No	98.3	98.3
Base N	(424)	(472)

Table 46

Summary of Information
for the Work Last Week Item

Part A: Work status last week

		1986 Form	Revised Form
Item nonresponse rate		24.0%	17.0%
	Base N	(562)	(600)

Distribution of responses:			
Yes		68.9	67.7
No		31.1	32.3
	Base N	(427)	(498)

Item nonresponse rates by response to work disability questions:			
Persons reporting that they:			
Have a work limitation		Item nonresponse rate to work last week item	
Yes		0	3.0
	Base N	(25)	(33)
No		5.7	3.9
	Base N	(402)	(438)
Are prevented from working		Item nonresponse rate to work last week item	
Yes		0	0
	Base N	(16)	(22)
No		4.4	3.5
	Base N	(388)	(429)
Need help with household chores		Item nonresponse rate to work last week item	
Yes		0	6.3
	Base N	(8)	(16)
No		5.1	4.3
	Base N	(433)	(468)
Need help with personal care		Item nonresponse rate to work last week item	
Yes		0	0
	Base N	(7)	(8)
No		4.1	3.9
	Base N	(417)	(464)

Table 46 (continued)

Part B: Hours worked last week

	1986 Form	Revised Form
Item nonresponse rate ¹	15.7%	5.0%
Base N	(294)	(337)

Percent of all responses which were rounded figures	57.4	54.2
Base N	(258)	(330)

Mean number of hours reported ²	40.0	36.9
N	(248)	(319)

1 $\chi^2 = 3.28$ d.f. = 1 prob < .001

2 $t = 2.90$ d.f. = 565 prob < .01

Table 47

Summary of Information
for the Place of Work Last Week Item

Parts A-B, D-F: Address components

Item nonresponse rates:		1986 Form	Revised Form
Address		10.2%	12.2%
	Base N	(294)	(337)
Place		11.9	13.9
	Base N	(294)	(337)
County		35.4	28.5
	Base N	(294)	(337)
State ¹		24.6	14.8
	Base N	(294)	(337)
Zip		50.3	45.7
	Base N	(294)	(337)

Percent of all responses which
were inappropriate

Address ²		21.6	3.4
	Base N	(264)	(296)
Place ³		39.0	7.1
	Base N	(259)	(290)
County		6.8	2.5
	Base N	(190)	(241)
State		0	0
	Base N	(221)	(287)

1 $\chi^2_J = 2.15$ d.f. = 1 prob < .05
 2 $\chi^2_J = 7.23$ d.f. = 1 prob < .001
 3 $\chi^2_J = 9.82$ d.f. = 1 prob < .001

Table 47 (continued)

	1986 Form	Revised Form
Percent with full and proper address in correct spaces ³	13.3%	27.0%
Base N	(294)	(337)

Percent reporting work at home ⁴	1.4	5.0
Base N	(292)	(301)

Part C: Inside/Outside City Limits

	1986 Form	Revised Form
Item nonresponse rate	12.9%	8.6%
Base N	(294)	(337)

Distribution of responses:

Yes	95.4	93.5
No	4.6	6.5
Base N	(240)	(308)

Percent answering Part C only	1.0	2.1
Base N	(294)	(337)

3 $\chi^2 = 3.71$ d.f. = 1 prob $< .001$

4 $\chi^2 = 2.65$ d.f. = 1 prob $< .01$

Table 48

Summary of Information
for the Transportation to Work Items

Part A: Method of Transportation

	1986 Form	Revised Form
Item nonresponse rate	0.7%	2.5%
Base N	(294)	(322)

Percent of responses which had errors in marking ¹	62.0	0.3
Base N	(59)	(318)

Distribution of responses:		
Car, truck, van	78.8	72.6
Bus, trolley bus	10.4	11.1
Streetcar, trolley car	0	1.3
Subway, elevated	4.2	6.4
Railroad	1.4	1.9
Ferry boat	0	0
Taxicab	0	0
Motorcycle	0	0.6
Bicycle	1.0	1.0
Walked only	4.2	4.5
Other	0	0.6
Base N	(288)	(314)

1 $\chi^2 = 12.94$ d.f. = 1 prob < .001

Table 48 (continued)

Part B: Number of people in car

	1986 Form	Revised Form
Item nonresponse rate ¹	4.9%	0.9%
Base N	(227)	(228)
Mean number of people in car	1.38	1.43
N	(216)	(227)

1 $\chi^2_J = 3.16$ d.f. = 1 prob < .001

Table 49

Summary of Information
for the Leave/Arrival Time Item

Part A: Leaving Time

	1986 Form	Revised Form
Item nonresponse rates:		
Write-in	8.2%	9.3%
FOSDIC am/pm marker	4.8	4.7
Base N	(294)	(322)

Part B: Arrival Time

	1986 Form	Revised Form
Item nonresponse rates:		
Write-in	9.5%	10.6%
FOSDIC am/pm marker	5.8	6.5
Base N	(294)	(322)

Percent of responses with greater than 2 hours between leave and arrive times	6.1	11.2
Base N	(263)	(286)

Table 50

Summary of Information
for the Absent from Work Item

	1986 Form	Revised Form
Item nonresponse rate	18.1%	11.8%
Base N	(133)	(161)

Distribution of responses: ¹		
Yes, on layoff	3.7	0
Vacation, illness, etc.	0	2.8
No	96.3	97.2
Base N	(109)	(107)

1 $\chi^2 = 6.18$ d.f. = 2 prob < .001

Table 51

Summary of Information
for the Looking for Work Item

Part A: Looking for Work in Last 4 Weeks

	1986 Form	Revised Form
Item nonresponse rate	11.3%	17.4%
Base N	(133)	(155)

Distribution of responses:

Yes	17.8	16.4
No	82.2	83.6
Base N	(118)	(128)

Part B: Availability Last Week

	1986 Form	Revised Form
Distribution of responses:		
No, already has a job	0	0
No, temporarily ill	0	4.8
No, other reasons	57.1	23.8
Yes	42.9	71.4
Base N	(21)	(21)

Table 52
Summary of Information
for the Year Last Worked Item

		1986 Form	Revised Form
Item nonresponse rate		14.3%	21.1%
	Base N	(133)	(161)

Distribution of responses			
1986-1987		39.5	29.5
1985		14.0	7.7
1984		3.5	2.3
1981-1983		2.6	9.3
1976-1980		8.8	11.6
1975 or earlier		11.4	16.3
Never worked		20.2	23.3
	Base N	(114)	(129)

Table 53

Summary of Information
for the Industry Items

Part A: For Whom Worked

		1986 Form	Revised Form
Item nonresponse rate ¹		45.2%	32.4%
	Base N	(509)	(534)

Percent of responses which were inappropriate		2.1	5.0
	Base N	(279)	(361)

Mean number of words		2.94	3.12
	N	(277)	(361)

Percent reporting current active duty ^a		0.7	0
	Base N	(279)	(361)

Percent writing in a branch of the armed services as current or most recent employer		0.7	0.6
	Base N	(273)	(343)

a 1986 form respondents marking the appropriate FOSDIC circle on the industry question. Revised form respondents reporting "now serving" in the period of service question.

1 $\chi^2 = 3.39$ d.f. = 1 prob < .001

Table 53 (continued)

Part B: Kind of Business

	1986 Form	Revised Form
Item nonresponse rate ² Base N	40.0% (507)	31.1% (534)

Percent of responses which were inappropriate Base N	4.3 (304)	6.0 (367)

Mean number of words ³ Base N	1.82 (304)	2.11 (367)

Part C: Organization's Main Activity

	1986 Form	Revised Form
Item nonresponse rate Base N	40.0% (507)	33.1% (534)

Distribution of responses:		
Manufacturing	8.9	9.5
Wholesale trade	2.0	1.7
Retail trade	8.9	10.6
Other	80.3	78.1
Base N	(304)	(357)

Percentage of cases with no write-in for industry or kind of business but FOSDIC circle marked on main activity Base N	8.5 (199)	5.4 (165)

2 $\chi^2 = 1.98$ d.f. = 1 prob < .05

3 $t = -3.45$ d.f. = 669 prob < .001

Table 54

Summary of Information
for the Occupation Items

Part A: Job Title

		1986 Form	Revised Form
Item nonresponse rate		32.2%	30.7%
	Base N	(509)	(534)

Percent of responses which were inappropriate		1.7	1.9
	Base N	(345)	(370)

Mean number of words ¹		1.71	2.03
	N	(345)	(370)

Part B: Most Important Activities

		1986 Form	Revised Form
Item nonresponse rate		38.5%	38.6%
	Base N	(509)	(534)

Percent of responses which were inappropriate		1.9	3.1
	Base N	(312)	(328)

Mean number of words ²		2.22	2.73
	N	(312)	(328)

1 t = -4.45 d.f. = 713 prob < .001

2 t = -4.15 d.f. = 638 prob < .001

Table 55

Summary of Information
for the Class of Worker Item

	1986 Form	Revised Form
Item nonresponse rate	32.0%	29.5%
Base N	(512)	(535)

Percent of responses with more than one FOSDIC circle marked ¹	1.7	0
Base N	(346)	(377)

Distribution of responses:		
Private company	68.8	63.9
Local government	16.2	16.7
State government	4.6	4.8
Federal government	6.4	7.4
Self-employed, unincorporated	2.6	4.2
Self-employed, incorporated	0.6	2.1
Working without pay	0.9	0.8
Base N	(346)	(377)

1 $\chi^2 = 4.09$ d.f. = 1 prob < .001

Table 56

Summary of Information
for the Work Last Year Item

Parts A and B: Worked Last Year and Weeks Worked Last Year

	1986 Form	Revised Form ^a
Item nonresponse rate	34.9% ^b	28.8%
Base N	(513)	(534)

Percent of responses which were inconsistent with reported year of last work	3.2	2.1
Base N	(62)	(47)

Distribution of responses to the worked-last-year item: ¹		
Yes	71.8	93.7
No	28.2	6.3
Base N	(358)	(380)

Distribution of responses to the weeks-worked-last-year item:		
Up to 10 weeks	4.0	5.3
11-20 weeks	4.1	4.8
21-30 weeks	6.2	7.6
31-40 weeks	8.4	9.8
41-50 weeks	21.8	26.7
51-52 weeks	54.7	45.8
Base N	(225)	(356)

a Percentages in this column were derived by collapsing reports of weeks worked into yes/no format for work last year.

b This figure is obtained by combining nonresponse to parts a and b. It includes nonresponse to part a, and "Yes" to part a and nonresponse to part b.

1 $\chi^2_J = 7.49$ d.f. = 1 prob < .001

2 $\chi^2_J = 9.01$ d.f. = 1 prob < .001

Table 56 (continued)

Part C: Hours Worked Last Year

		1986 Form	Revised Form
Item nonresponse rate ³		7.4%	2.3%
	Base N	(257)	(356)

Mean number of hours ⁴		39.8	37.3
	N	(240)	(346)

3 $\chi^2 = 2.93$ d.f. = 1 prob < .01

4 $t = 2.16$ d.f. = 584 prob < .05

Table 57

Summary of Information
for the Income Items

		1986 Form	Revised Form
Item nonresponse rates:			
Wages		40.0%	42.7%
	Base N	(562)	(600)
Self-employment ¹		43.6	65.2
	Base N	(562)	(600)
Farm ²		45.2	68.0
	Base N	(562)	(600)
Interest ³		44.7	58.3
	Base N	(562)	(600)
Social Security ⁴		45.0	65.0
	Base N	(562)	(600)
Retirement ⁵		43.1	66.8
	Base N	(562)	(600)
Public Assistance ⁶		42.4	67.5
	Base N	(562)	(600)
Veterans ⁷		42.7	68.2
	Base N	(562)	(600)

1 $\chi^2 = 4.90$ d.f. = 1 prob $< .001$

2 $\chi^2 = 5.92$ d.f. = 1 prob $< .001$

3 $\chi^2 = 3.09$ d.f. = 1 prob $< .01$

4 $\chi^2 = 4.66$ d.f. = 1 prob $< .001$

5 $\chi^2 = 5.84$ d.f. = 1 prob $< .001$

6 $\chi^2 = 6.48$ d.f. = 1 prob $< .001$

7 $\chi^2 = 6.11$ d.f. = 1 prob $< .001$

Table 57 (continued)

		1986 Form	Revised Form
Percent giving an amount among respondents to the item:			
Wages		79.1%	82.3%
	Base N	(335)	(339)
Self-employment ⁸		3.2	10.5
	Base N	(315)	(209)
Farm		0	0.5
	Base N	(307)	(192)
Interest ⁹		30.7	49.0
	Base N	(310)	(249)
Social Security ¹⁰		6.8	14.5
	Base N	(308)	(207)
Retirement		5.6	9.1
	Base N	(320)	(199)
Public Assistance		3.1	3.6
	Base N	(322)	(194)
Veterans		3.1	3.2
	Base N	(322)	(190)

8 $\chi^2 = 2.55$ d.f. = 1 prob < .01

9 $\chi^2 = 3.76$ d.f. = 1 prob < .001

10 $\chi^2 = 2.27$ d.f. = 1 prob < .01

Table 57 (continued)

		1986 Form	Revised Form
Mean amount reported among reported recipients:			
Wages	N	\$ 21674 (265)	\$ 19543 (279)
Self-employment	N	31670 (10)	17645 (22)
Farm	N	0 -	9000 (1)
Interest	N	3089 (95)	2024 (122)
Social Security	N	3603 (21)	3936 (30)
Retirement	N	6484 (18)	8254 (18)
Public Assistance	N	2641 (10)	4164 (7)
Veterans	N	3395 (10)	998 (6)

If the address shown below has the wrong apartment identification, please write the correct number or location below.

CO	ID								
CBNA		BLK		F	L				

Please fill out this official Census form and mail it back on **Census Day, March 16, 1986**
Your answers are confidential

By law (Title 13, U.S. Code), census employees are subject to fine and/or imprisonment for any disclosure of your answers. The same law requires that you answer the questions to the best of your knowledge.

Para personas de habla hispana

(For Spanish - speaking persons):
 SI USTED DESEA UN CUESTIONARIO DEL CENSO EN ESPAÑOL llame a la oficina del censo. El número de teléfono se encuentra en el encasillado de la dirección.
 O, si prefiere, marque esta casilla y devuelva el cuestionario por correo en el sobre que se le incluye.

U.S. DEPARTMENT OF COMMERCE
 BUREAU OF THE CENSUS

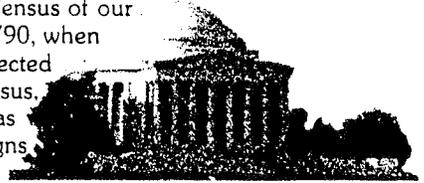
FORM **DC-2-U(F)** (11-18-85) OMB No. 0607-0491:
 Approval Expires December 31, 1986

• U.S.G.P.O.-1986-496-696

1986 Census of Central Los Angeles County

A message from the Director Bureau of the Census

We at the Census Bureau are planning the 21st Decennial Census of our Nation. Starting in 1790, when Thomas Jefferson directed the first decennial census, the Census Bureau has monitored the vital signs of our great country.



To preserve this legacy and do our job well, we need your help as we conduct a test census in your community this year.

The census is more than just a count of the population. It is a chance for us to take stock of ourselves as a people and successfully meet future local and national challenges. The 1990 census will be your personal and national bridge to the 21st Century, and I thank you in advance for helping in its design. The census in central Los Angeles County is part of a program for planning the next national census, and I hope we can count on you to participate now as well.

Perhaps you may be worried that by participating, your name and information will be shared with others. That is not the case. In fact, the law under which the census is taken protects the confidentiality of your responses. No one sees your answers except Census Bureau workers, who are sworn to hold them in confidence and can be fined and/or imprisoned for disclosing information. By law, no other government agency, person, or business can see your completed census form. Your answers combined with those from other people provide anonymous statistical totals. These summary figures are used by members of public and private groups - including community organizations - and by businesses and industries, as well as local, state, and Federal governments.

The census is vitally important, so do your part by filling out this form accurately and completely. Kindly return the form on Census Day, March 16, 1986, or as close to that date as possible. Please do mail it back. If you do so promptly in the enclosed envelope, it will save the expense and inconvenience of a personal visit from a census taker.

Your Census Bureau is grateful for your help and the cooperation of the central Los Angeles County community.

PLEASE ANSWER HOUSING QUESTIONS ON PAGE 3 →

Please fill one column → for each person listed in Question 1 on page 1.	PERSON 1		PERSON 2																																																																																																																																													
	Last name		Last name																																																																																																																																													
	First name	Middle initial	First name	Middle initial																																																																																																																																												
2. How is this person related to PERSON 1? Fill ONE circle for each person.	START in this column with the household member (or one of the members) in whose name the home is owned or rented. If there is no such person, start in this column with any adult household member.		If a RELATIVE of Person 1: <input type="checkbox"/> Husband/wife Brother/sister <input type="checkbox"/> Natural or adopted son/daughter Father/mother <input type="checkbox"/> Stepson/stepdaughter Grandchild <input type="checkbox"/> Other relative <hr/> If NOT RELATED to Person 1: <input type="checkbox"/> Roomer, boarder Partner, friend <input type="checkbox"/> Housemate, roommate Paid employee <input type="checkbox"/> Other nonrelative																																																																																																																																													
3. Sex Fill ONE circle for each person.	<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female		<input type="checkbox"/> Male <input checked="" type="checkbox"/> Female																																																																																																																																													
4. Race Fill ONE circle for each person. AND If "Indian (Amer.)," print enrolled or principal tribe. If "Other Asian or Pacific Islander," print one group. If "Other race," print race. Report the race the person considers him/herself to be.	White Black or Negro Indian (Amer.) - Print enrolled or principal tribe Eskimo Hawaiian Aleut Other Asian or Pacific Islander (Print one group, for example: Korean, Asian Indian, Laotian, Samoan, etc.) <input checked="" type="checkbox"/> Filipino Japanese Asian Indian, Laotian, Samoan, etc.) Vietnamese Samoan, etc.) Other race - Print race		White Black or Negro Indian (Amer.) - Print enrolled or principal tribe Eskimo Hawaiian Aleut Other Asian or Pacific Islander (Print one group, for example: Korean, Asian Indian, Laotian, Samoan, etc.) <input checked="" type="checkbox"/> Filipino Japanese Asian Indian, Laotian, Samoan, etc.) Vietnamese Samoan, etc.) Other race - Print race																																																																																																																																													
5. Age and year of birth a. Print age at last birthday and fill in the corresponding circle below each number. b. Print year of birth and fill the corresponding circle below each number.	a. Age b. Year of birth <table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>8</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>9</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td></tr> </table>		0	0	0	8	0	0	0	1	1	1	9	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9	a. Age b. Year of birth <table border="1"> <tr><td>0</td><td>0</td><td>0</td><td>8</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>9</td><td>1</td><td>1</td><td>1</td></tr> <tr><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr> <tr><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr> <tr><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td><td>4</td></tr> <tr><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td><td>5</td></tr> <tr><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td><td>6</td></tr> <tr><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td><td>7</td></tr> <tr><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td><td>8</td></tr> <tr><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td><td>9</td></tr> </table>		0	0	0	8	0	0	0	1	1	1	9	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	8	8	8	8	8	8	8	9	9	9	9	9	9	9
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6. Marital status Fill ONE circle for each person.	<input type="checkbox"/> Now married <input type="checkbox"/> Separated <input type="checkbox"/> Widowed <input type="checkbox"/> Never married <input type="checkbox"/> Divorced		<input type="checkbox"/> Now married <input type="checkbox"/> Separated <input type="checkbox"/> Widowed <input type="checkbox"/> Never married <input type="checkbox"/> Divorced																																																																																																																																													
7. Is this person of Spanish/Hispanic origin? Fill ONE circle for each person. AND If "Yes, other Spanish/Hispanic" print one group.	<input type="checkbox"/> No (not Spanish/Hispanic) <input type="checkbox"/> Yes, Mexican, Mex.-Am., Chicano <input type="checkbox"/> Yes, Puerto Rican <input checked="" type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Costa Rican, Dominican, Spaniard, etc.)		<input type="checkbox"/> No (not Spanish/Hispanic) <input type="checkbox"/> Yes, Mexican, Mex.-Am., Chicano <input type="checkbox"/> Yes, Puerto Rican <input checked="" type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, other Spanish/Hispanic (Print one group, for example: Argentinean, Colombian, Costa Rican, Dominican, Spaniard, etc.)																																																																																																																																													
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QUESTIONS FOR YOUR HOUSEHOLD

H20. How many bedrooms do you have, that is, how many bedrooms would you list if this house or apartment were on the market for sale or rent?

No bedroom	3 bedrooms
1 bedroom	4 bedrooms
2 bedrooms	5 or more bedrooms

H21. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

None	4	<input checked="" type="checkbox"/>
1	5	
2	6 or more	
3		

H22a. Did anyone in this household get food stamps at any time during 1985?

Yes

No — Skip to H23

b. What was the total value of the food stamps received during 1985?

\$ _____ .00

Annual amount

H23. During 1985, was anyone in this household covered by —

a. MEDICARE (the national program for disabled persons and persons 65 years and over)?

Yes

No

b. MEDICAID (the State program for persons with low income)?

Yes

No

H24. If you rent your apartment or house —

a. Is this apartment or house in a public housing project; that is, is it owned by a State or local housing authority or other local public agency?

Yes

No

b. Are you paying a reduced rent because the Federal, State, or local government is paying part of the cost?

Yes

No

H25. Some housing is limited to the older population, military personnel, students, low-income persons, or some other group. Is the occupancy of this house or apartment limited? Mark ALL that apply.

No

Yes, limited to households below certain incomes

Yes, limited to the older population

Yes, limited to military personnel

Yes, limited to students

Yes, limited to some other group

INSTRUCTION: Answer H26, H27, H28 and H29 if you live in a one-family house or condominium which you own or are buying.

Do NOT answer questions H26, H27, H28 and H29 if you —

- Live in a mobile home or trailer
- Live in a house on 10 or more acres
- Live in a one-family house with a commercial establishment or medical office on the property
- Live in a cooperative
- Rent your house or apartment

(IF ANY OF THESE, GO TO PAGE 6)

H26. What were the real estate taxes on THIS property (house and lot or condominium) last year?

\$ _____ .00 OR None

H27. What is the annual premium for fire, hazard, and flood insurance on THIS property (house and lot or condominium)?

\$ _____ .00 OR None

H28 a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on THIS property (house and lot or condominium)?

Yes, mortgage, deed of trust, or similar debt Go to H28b

Yes, contract to purchase

No — Skip to H29

b. Do you have a second or junior mortgage on THIS property (house and lot or condominium)?

Yes

No

c. How much is your total regular monthly mortgage payment to lenders? Include payments on first mortgage, contract to purchase, and second or junior mortgage(s) on this property (house and lot or condominium).

\$ _____ .00 OR

No regular payment required — Skip to H29

d. Does your regular monthly mortgage payment (amount entered in H28c) include payments for real estate taxes on THIS property (house and lot or condominium)?

Yes, taxes included in payment

No, taxes paid separately or taxes not required

e. Does your regular monthly mortgage payment (amount entered in H28c) include payments for fire, hazard, and flood insurance on THIS property (house and lot or condominium)?

Yes, insurance included in payment

No, insurance paid separately or no insurance

H29. Answer ONLY if this is a condominium — What is the monthly condominium fee?

\$ _____ .00

Please turn the page and answer questions for Person 1 on page 6 →

FOR CENSUS USE

H22b.	H26.	H27.	H28c.	H29.
<input checked="" type="checkbox"/>				

PERSON 1			14 a. Does this person speak a language other than English at home?		18b. Was active-duty military service during -	
Last name _____ First name _____ Middle initial _____			Yes _____ No, speaks only English — Skip to 15a _____		Fill a circle for each period in which this person served. September 1980 or later _____ May 1975 to August 1980 _____ Vietnam era (August 1964—April 1975) _____ February 1955—July 1964 _____ Korean conflict (June 1950—January 1955) _____ World War II (September 1940—July 1947) _____ World War I (April 1917—November 1918) _____ Any other time _____	
8. Since February 1, 1986 has this person been enrolled in regular school? Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree. No, has not been enrolled since February 1 _____ Yes, nursery school or kindergarten _____ Yes, elementary or high school _____ Public school _____ Private, church-related <input checked="" type="checkbox"/> _____ Private, not church-related _____ Yes, college, university, or professional school _____			b. What is this language? _____ (For example, Chinese, Italian, Spanish, Vietnamese)		19a. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which — (1) Limits the kind or amount of work this person can do at a job? Yes _____ No _____ (2) Prevents this person from working at a job? Yes _____ No _____	
9. How much school has this person COMPLETED? Fill ONE circle for highest level COMPLETED or highest degree RECEIVED. Never attended or less than 1st grade _____ 1st, 2nd, 3rd, or 4th grade _____ 5th, 6th, 7th, or 8th grade _____ Some high school — 9th, 10th, or 11th grade, NO high school diploma _____ High school graduate — high school DIPLOMA or the equivalent (GED) <input checked="" type="checkbox"/> _____ Some college but no degree _____ Associate degree in an occupational program _____ Associate degree in a general or academic nonoccupational program _____ Bachelor's degree (for example: BA, AB, BS) _____ Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA) _____ Professional school degree _____ (for example: MD, DDS, DVM, LLB, JD) _____ Doctorate degree (for example: Ph.D, Ed.D) _____			15 a. Did this person live in this house or apartment 5 years ago (March 16, 1981)? If in college or Armed Forces in March 1981, report place of residence there. Born March 16, 1981 or later — Turn to next page for next person _____ Yes, lived in this house or apartment — Skip to 16 _____ No, lived in different house or apartment _____		20a. Did this person work at any time LAST WEEK? Yes, worked full time or part time at a job, business, or farm. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count self-employment and active duty in the Armed Forces.) _____ Yes, did only own housework or unpaid volunteer work. — Skip to 24 _____ No — Skip to 24 _____ b. How many hours did this person work LAST WEEK (at all jobs)? Subtract any time off; add overtime or extra hours worked. _____ Hours	
10. What is this person's ancestry or ethnic origin? (See instruction guide for further information.) _____ (For example: German, Italian, Afro-Amer., Argentinean, Armenian, Cajun, Cape Verdean, Dominican, Egyptian, French Canadian, Insh, Jamaican, Korean, Mexican, Nigerian, Norwegian, Polish, Slovak, Thai, Ukrainian, etc.)			b. Where did this person live 5 years ago (March 16, 1981)? (1) Outside the United States <input checked="" type="checkbox"/> _____ (Name of foreign country, Puerto Rico, Guam, etc.) — Skip to 16 _____ (2) State <input checked="" type="checkbox"/> _____ _____ (3) County <input checked="" type="checkbox"/> _____ _____ (4) Place <input checked="" type="checkbox"/> _____ _____ (City, town, post office, etc.)		21. At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week. a. Address (Number and street) <input checked="" type="checkbox"/> _____ _____ If exact address is not known, give description of the location such as the building name, shopping center, nearest street or intersection, etc. b. Place (City, town, post office, etc.) <input checked="" type="checkbox"/> _____ _____	
11. In what State or foreign country was this person born? _____ (Name of State or foreign country or Puerto Rico, Guam, etc.)			c. Did this person live inside the boundaries of that place, or outside the boundaries with the place as their mailing address? Inside the place _____ Outside — place was the mailing address <input checked="" type="checkbox"/> _____ Don't know _____		c. Is the work location inside the boundaries of that place, or outside the boundaries with the place as its mailing address? Inside the place _____ Outside — Place is the mailing address _____ Don't know _____	
12. Is this person a CITIZEN of the United States? Yes, born in the United States — Skip to 14a _____ Yes, born in Puerto Rico, Guam, or the U.S. Virgin Islands _____ Yes, born abroad of American parent or parents _____ Yes, U.S. citizen by naturalization _____ No, not a citizen of the United States _____			16. When was this person born? Born before March 1971 — Go to questions 17—31 _____ Born March 1971 or later — Turn to next page for the next person _____		d. County <input checked="" type="checkbox"/> _____ e. State <input checked="" type="checkbox"/> _____ f. ZIP code <input checked="" type="checkbox"/> _____	
13. When did this person come to the United States to stay? _____ 1986 1980 to 1983 1965 to 1969 1985 1975 to 1979 1960 to 1964 1984 1970 to 1974 Before 1960			17. In March 1981 (5 years ago) was this person — a. On active duty in the Armed Forces? Yes _____ No _____ b. Attending college? Yes <input checked="" type="checkbox"/> _____ No _____		18a. Has this person ever been on active-duty military service in the Armed Forces of the United States or ever been in the United States Military Reserves or the National Guard? (If service was in Reserves or National Guard only, or for the Red Cross, USO or War or Defense Department, see instruction guide.) Yes, now on active duty _____ Yes, on active duty in past, but not now _____ Yes, service in Reserves or National Guard only — Skip to 19a _____ No — Skip to 19a _____	

OR PERSON 1 ON PAGE 2

22a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation in their trip (for example, rode the bus and transferred to the subway), fill the circle of each method used.

- | | | | |
|---|--------------------------|----|---|
| 1 | Car, truck, or van | 7 | Taxicab |
| 2 | Bus or trolley bus | 8 | Motorcycle |
| 3 | Streetcar or trolley car | 9 | Bicycle |
| 4 | Subway or elevated | 10 | Walked only |
| 5 | Railroad | 11 | Worked at home - Skip to 27 |
| 6 | Ferry boat | 12 | Other - Specify <input checked="" type="checkbox"/> 7 |

b. If this person usually used more than one method of transportation in the trip to work LAST WEEK, which method was used for most of the distance?

Write number of the method in question 22a (for example, if method used for most of the distance is bus, you write 2). If car, truck, or van is reported in 22a, go to 22c. Otherwise, skip to 23a.

c. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- | | |
|-------------|-------------------|
| Drove alone | 5 people |
| 2 people | 6 people |
| 3 people | 7 to 9 people |
| 4 people | 10 or more people |

23a. What time did this person usually leave for work LAST WEEK?

a.m.
p.m.

b. What time did this person usually arrive at work LAST WEEK?

a.m.
p.m.

After answering 23b, please skip to 27.

24. Was this person temporarily absent or on layoff from a job or business LAST WEEK?

- Yes, on layoff
Yes, on vacation, temporary illness, labor dispute, etc.
No

25a. Has this person been looking for work during the last 4 weeks?

- Yes
No - Skip to 26

b. Could this person have taken a job LAST WEEK?

- No, already has a job
No, temporarily ill
No, other reasons (in school, etc.)
Yes, could have taken a job

26. When did this person last work, even for a few days?

- | | | |
|--------------|-----------------|--------------|
| 1986 | 1976 to 1980 | } Skip to 31 |
| 1985 | 1975 or earlier | |
| 1984 | Never worked | |
| 1981 to 1983 | | |

27-29 CURRENT OR MOST RECENT JOB ACTIVITY

Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for last job or business since 1981.

27. Industry

a. For whom did this person work?

If now on active duty in the Armed Forces fill circle and print the branch of the Armed Forces and skip to question 28.

(Name of company, business, or other employer)

b. What kind of business or industry was this? Describe the activity at location where employed.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. Is this mainly - (Fill ONE circle)

- | | |
|-----------------|--|
| Manufacturing | Other (agriculture, construction, service, government, etc.) |
| Wholesale trade | |
| Retail trade | |

28. Occupation

a. What kind of work was this person doing?

(For example: Registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, grinder operator)

b. What were this person's most important activities or duties?

(For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

29. Was this person - Fill ONE circle

Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions

Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization

Local GOVERNMENT employee (city, county, etc.)
State GOVERNMENT employee
Federal GOVERNMENT employee
International or foreign GOVERNMENT employee

SELF-EMPLOYED in own business, professional practice, or farm

Own business not incorporated
Own business incorporated
Working WITHOUT PAY in family business or farm

30a. Last year (1985), did this person work, even for a few days, at a paid job or in a business or farm?

- Yes
No - Skip to 31

b. How many weeks did this person work in 1985? Count paid vacation, paid sick leave, and military service.

Weeks

c. During the weeks WORKED in 1985, how many hours did this person usually work each week?

Hours

31. Income in 1985 - Fill the "Yes" circles below for each income source received by this person during 1985. Otherwise, fill the "No" circle.

If "Yes" enter the total amount received by this person during 1985. For income received jointly by two or more persons, see instruction guide. If exact amount is not known, please give best estimate. If net income in b, c, or d was a loss, write "Loss" above the dollar amount.

a. Wages, salary, commissions, bonuses, or tips from all jobs - Report amount before deductions for taxes, bonds, dues, or other items.

Yes \$ _____ 00
No

(Annual amount - Dollars)

b. Self-employment income from own nonfarm business, including proprietorships and partnerships - Report net income after business expenses.

Yes \$ _____ 00
No

(Annual amount - Dollars)

c. Farm self-employment income -

Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.

Yes \$ _____ 00
No

(Annual amount - Dollars)

d. Interest, dividends, net rental income, or royalties - Report even small amounts credited to an account

Yes \$ _____ 00
No

(Annual amount - Dollars)

e. Social Security or Railroad Retirement

Yes \$ _____ 00
No

(Annual amount - Dollars)

f. Retirement, survivor, or disability pensions - (Exclude Social Security)

Yes \$ _____ 00
No

(Annual amount - Dollars)

g. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.

Yes \$ _____ 00
No

(Annual amount - Dollars)

h. Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other source of income received regularly.

(Exclude lump sum payments such as money from an inheritance or the sale of a home)

Yes \$ _____ 00
No

(Annual amount - Dollars)

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Please turn to the next page and answer the questions for Person 2 on page 2

PERSON 2

Last name First name Middle initial

8. Since February 1, 1986 has this person been enrolled in regular school? *Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.*

No, has not been enrolled since February 1
 Yes, nursery school or kindergarten

Yes, elementary or high school
 Public school
 Private, church-related
 Private, not church-related
 Yes, college, university, or professional school

9. How much school has this person COMPLETED? *Fill ONE circle for highest level COMPLETED or highest degree RECEIVED.*

Never attended or less than 1st grade
 1st, 2nd, 3rd, or 4th grade
 5th, 6th, 7th, or 8th grade
 Some high school — 9th, 10th, or 11th grade.
 NO high school diploma
 High school graduate — high school DIPLOMA or the equivalent (GED)
 Some college but no degree
 Associate degree in an occupational program
 Associate degree in a general or academic nonoccupational program
 Bachelor's degree *(for example: BA, AB, BS)*
 Master's degree *(for examples: MA, MS, MEng, MEd, MSW, MBA)*
 Professional school degree
(for example: MD, DDS, DVM, LL.B., JD)
 Doctorate degree *(for example: Ph.D., Ed.D)*

10. What is this person's ancestry or ethnic origin? *(See instruction guide for further information.)*

(For example: German, Italian, Afro-Amer., Argentinean, Armenian, Cajun, Cape Verdean, Dominican, Egyptian, French Canadian, Irish, Jamaican, Korean, Mexican, Nigerian, Norwegian, Polish, Slovak, Thai, Ukrainian, etc.)

11. In what State or foreign country was this person born?

(Name of State or foreign country or Puerto Rico, Guam, etc.)

12. Is this person a CITIZEN of the United States?

Yes, born in the United States — Skip to 14a
 Yes, born in Puerto Rico, Guam, or the U.S. Virgin Islands
 Yes, born abroad of American parent or parents
 Yes, U.S. citizen by naturalization
 No, not a citizen of the United States

13. When did this person come to the United States to stay?

<input checked="" type="checkbox"/>		
1986	1980 to 1983	1965 to 1969
1985	1975 to 1979	1960 to 1964
1984	1970 to 1974	Before 1960

14 a. Does this person speak a language other than English at home?

Yes
 No, speaks only English — Skip to 15a

b. What is this language?

(For example, Chinese, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

Very well Not well
 Well Not at all

15 a. Did this person live in this house or apartment 5 years ago (March 16, 1981)? *If in college or Armed Forces in March 1981, report place of residence there.*

Born March 16, 1981 or later — Turn to next page for next person
 Yes, lived in this house or apartment — Skip to 16
 No, lived in different house or apartment

b. Where did this person live 5 years ago (March 16, 1981)?

(1) Outside the United States ↗

(Name of foreign country, Puerto Rico, Guam, etc.)
 — Skip to 16

(2) State ↗

(3) County ↗

(4) Place ↗

(City, town, post office, etc.)

c. Did this person live inside the boundaries of that place, or outside the boundaries with the place as their mailing address?

Inside the place
 Outside — place was the mailing address
 Don't know

16. When was this person born?

Born before March 1971 — Go to questions 17—31
 Born March 1971 or later — Turn to next page for the next person

17. In March 1981 (5 years ago) was this person —

a. On active duty in the Armed Forces?
 Yes
 No

b. Attending college?
 Yes
 No

18 a. Has this person ever been on active-duty military service in the Armed Forces of the United States or ever been in the United States Military Reserves or the National Guard? *(If service was in Reserves or National Guard only, or for the Red Cross, USO or War or Defense Department, see instruction guide.)*

Yes, now on active duty
 Yes, on active duty in past, but not now
 Yes, service in Reserves or National Guard only — Skip to 19a
 No — Skip to 19a

18b. Was active-duty military service during - *Fill a circle for each period in which this person served.*

September 1980 or later
 May 1975 to August 1980
 Vietnam era (August 1964—April 1975)
 February 1955—July 1964
 Korean conflict (June 1950—January 1955)
 World War II (September 1940—July 1947)
 World War I (April 1917—November 1918)
 Any other time

19 a. Does this person have a physical, mental, or other health condition that has lasted for 6 or more months and which —

(1) Limits the kind or amount of work this person can do at a job?
 Yes No

(2) Prevents this person from working at a job?
 Yes No

b. Does this person need the help of another person in order to —

(1) Shop, care for the house, or get around outside the home?
 Yes No

(2) Take care of personal needs such as bathing, dressing, or getting around inside the home?
 Yes No

20 a. Did this person work at any time LAST WEEK? *Yes, worked full time or part time at a job, business, or farm. (Count part-time work such as delivering papers, or helping without pay in a family business or farm. Also count self-employment and active duty in the Armed Forces.)*

Yes, did only own housework or unpaid volunteer work. — Skip to 24
 No — Skip to 24

b. How many hours did this person work LAST WEEK (at all jobs)? *Subtract any time off; add overtime or extra hours worked.*

_____ Hours

21. At what location did this person work LAST WEEK? *If this person worked at more than one location, print where he or she worked most last week.*

a. Address (Number and street) ↗

If exact address is not known, give description of the location such as the building name, shopping center, nearest street or intersection, etc.

b. Place (City, town, post office, etc.) ↗

c. Is the work location inside the boundaries of that place, or outside the boundaries with the place as its mailing address?

Inside the place
 Outside — Place is the mailing address
 Don't know

d. Country ↗

e. State ↗ f. ZIP code ↗

22a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation in their trip (for example, rode the bus and transferred to the subway), fill the circle of each method used.

- 1 Car, truck, or van
2 Bus or trolley bus
3 Streetcar or trolley car
4 Subway or elevated
5 Railroad
6 Ferry boat
7 Taxicab
8 Motorcycle
9 Bicycle
10 Walked only
11 Worked at home - Skip to 27
12 Other - Specify

b. If this person usually used more than one method of transportation in the trip to work LAST WEEK, which method was used for most of the distance?

Write number of the method in question 22a (for example, if method used for most of the distance is bus, you write 2) If car, truck, or van is reported in 22a, go to 22c. Otherwise, skip to 23a.

c. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
2 people
3 people
4 people
5 people
6 people
7 to 9 people
10 or more people

23a. What time did this person usually leave for work LAST WEEK?

a.m.
p.m.

b. What time did this person usually arrive at work LAST WEEK?

a.m.
p.m.

After answering 23b, please skip to 27.

24. Was this person temporarily absent or on layoff from a job or business LAST WEEK?

- Yes, on layoff
Yes, on vacation, temporary illness, labor dispute, etc.
No

25a. Has this person been looking for work during the last 4 weeks?

- Yes
No - Skip to 26

b. Could this person have taken a job LAST WEEK?

- No, already has a job
No, temporarily ill
No, other reasons (in school, etc.)
Yes, could have taken a job

26. When did this person last work, even for a few days?

- 1986
1985
1984
1981 to 1983
1976 to 1980
1975 or earlier
Never worked

27-29 CURRENT OR MOST RECENT JOB ACTIVITY Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for last job or business since 1981.

27. Industry

a. For whom did this person work?

If now on active duty in the Armed Forces fill circle and print the branch of the Armed Forces and skip to question 28.

(Name of company, business, or other employer)

b. What kind of business or industry was this? Describe the activity at location where employed.

(For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. Is this mainly - (Fill ONE circle)

- Manufacturing
Wholesale trade
Retail trade
Other (agriculture, construction, service, government, etc.)

28. Occupation

a. What kind of work was this person doing?

(For example: Registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, grinder operator)

b. What were this person's most important activities or duties?

(For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

29. Was this person - Fill ONE circle

- Employee of a PRIVATE FOR PROFIT company or business or of an individual, for wages, salary, or commissions
Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
Local GOVERNMENT employee (city, county, etc.)
State GOVERNMENT employee
Federal GOVERNMENT employee
International or foreign GOVERNMENT employee

SELF-EMPLOYED in own business, professional practice, or farm

- Own business not incorporated
Own business incorporated
Working WITHOUT PAY in family business or farm

30a. Last year (1985), did this person work, even for a few days, at a paid job or in a business or farm?

- Yes
No - Skip to 31

b. How many weeks did this person work in 1985? Count paid vacation, paid sick leave, and military service.

Weeks

c. During the weeks WORKED in 1985, how many hours did this person usually work each week?

Hours

31. Income in 1985 - Fill the "Yes" circles below for each income source received by this person during 1985. Otherwise, fill the "No" circle.

If "Yes" enter the total amount received by this person during 1985. For income received jointly by two or more persons, see instruction guide. If exact amount is not known, please give best estimate. If net income in b, c, or d was a loss, write "Loss" above the dollar amount.

a. Wages, salary, commissions, bonuses, or tips from all jobs - Report amount before deductions for taxes, bonds, dues, or other items.

Yes - \$ 00
No

(Annual amount - Dollars)

b. Self-employment income from own nonfarm business, including proprietorships and partnerships - Report net income after business expenses.

Yes - \$ 00
No

(Annual amount - Dollars)

c. Farm self-employment income - Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper.

Yes - \$ 00
No

(Annual amount - Dollars)

d. Interest, dividends, net rental income, or royalties - Report even small amounts credited to an account

Yes - \$ 00
No

(Annual amount - Dollars)

e. Social Security or Railroad Retirement

Yes - \$ 00
No

(Annual amount - Dollars)

f. Retirement, survivor, or disability pensions - (Exclude Social Security)

Yes - \$ 00
No

(Annual amount - Dollars)

g. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.

Yes - \$ 00
No

(Annual amount - Dollars)

h. Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other source of income received regularly.

(Exclude lump sum payments such as money from an inheritance or the sale of a home)

Yes - \$ 00
No

(Annual amount - Dollars)

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IF QUESTION H2 ON PAGE 3 IS MARKED "YES,"
PLEASE COMPLETE ITEMS A AND B BELOW.

A. Address of other residence

If you answered "Yes" in Question H2 —

1. Does everyone listed in Question 1 regularly live at this other residence for 30 or more days during the year?

- No — Return to Question H3 on page 3
- Yes

2. Print the address of the other residence below →

a. House number and street or road (rural route/box or P.O. box)	Apartment No. or location
b. Place (city, town, village, etc.)	
c. County	
d. State	e. ZIP Code
f. Foreign country or Puerto Rico, Guam, etc.	

3. Is this address on an American Indian Reservation?

- No
- Yes — Print name of the reservation →

Name of reservation

B. Address of usual home

Which residence do you consider to be the usual home?

- The address on the label of this questionnaire
- The address listed above in item A2

Return to Question H3 on page 3.

Please make sure you have . . .

1. FILLED this form completely.

2. CHECKED to be certain you have —

- Answered Question 1 on page 1.
- Answered Questions 2 through 7 for each person you listed in Question 1.
- Answered Questions H1 through H29 on pages 3, 4 and 5.
- Answered the questions on pages 6 through 19 for each person you listed in Question 1.

3. PRINT here the name of the household member who filled the form, the date the form was completed, and the telephone number on which the people in this household can be called.

Name

Date

Telephone number (Include area code)

Then . . .

4. FOLD the form the way it was sent to you.

5. MAIL it back on **March 16**, or as soon afterward as you can in the enclosed envelope; no stamp is needed. The address of the U.S. Census Office appears on the front of the envelope. Make sure before you seal the envelope that the bar code shows through the window.

NOTE — If you have listed more than 7 persons in Question 1, please make sure that you have filled the form for the first 7 people. Then mail back this form. A census taker will call to obtain the information for the other people.

Thank you very much.



Census of the United States

Please fill out this official U.S. Census form
and mail it back on Census Day.

- What is the census?** The census is the federal government's official count of all people living in the United States, and an inventory of our country's housing conditions. The constitution requires a census every 10 years to decide how many representatives each state will send to Congress. Facts gathered in the census will be used to decide where and how to spend your tax dollars, where to build new schools and hospitals, which areas are distressed and need help, and so on.
- Do I have to answer?** The census must be complete and accurate so that government can make fair decisions. By law (Title 13, U.S. Code) you must honestly answer all questions to the best of your knowledge.
- Who sees my answers?** No one sees your answers except census workers who are sworn to secrecy. By law, no other government agency, person, or business can see your completed census form for the next 72 years. Anyone who violates this law can be fined or sent to prison.
- Who should fill it out?** This form should be filled out by an adult who lives at this address.
- What if no one lives here?** This form may have reached an address where no one lives, such as a vacation home. See the back of the form for what you should do.
- Who should be included?** The census counts people where they live. Everyone--citizens and noncitizens, relatives and nonrelatives--who lives in your household at this address should be included on this form.
- About the form . . .** The form contains questions about the people who live in your household and about the place where you live.
Start by turning the page and following the step-by-step directions. Please use a dark pencil to print your answers or fill in a circle (like this ●). Read everything carefully.
- If I have problems . . .** If you need help, see the back of the form. If information given there does not answer your question, please call your local Census Office at the telephone number shown on the back page.
If a roomer or someone else in the household does not want to give you all the information for the form, write in the person's name and answer questions 2 and 3 on page 2. A census taker will call to get the other information directly from the person.
- When I finish . . .** When you finish filling out the census form, please sign it on the back page and use the enclosed envelope to mail it back. No stamp is needed. Return the form on March 16 or as soon afterward as you can.

Para personas de habla hispana (for Spanish-speaking persons)

Es muy importante contar todos los habitantes de los Estados Unidos. El censo es confidencial. Si usted necesita un cuestionario en español, llame a la oficina del censo. El número de teléfono se encuentra en el encasillado de la dirección.

Step 1. Make a list of the people who live here.

1. What is the name of each person who was living here on Monday, March 16, including all persons who were staying here and had no other home? If no one here on March 16 lives here permanently, then list the name of each person who is staying here temporarily.

Include:

- Everyone who usually lives here, such as family members, housemates and roommates, roomers, boarders, and live-in employees
- Persons who are temporarily away on a business trip, on vacation, or in a general hospital
- Persons in the Armed Forces who live here
- Newborn babies still in the hospital
- Children in boarding schools below the college level
- College students who stay here while attending college
- Persons who stay here most of the week while working but have a home somewhere else
- Persons with no other home who are staying here on March 16

Do NOT include:

- Persons who usually live somewhere else and are visiting people who live here
- Persons who are away in an institution such as a prison, mental hospital, or home for the aged
- Persons in the Armed Forces who are stationed somewhere else
- College students who live somewhere else while attending college
- Persons who stay somewhere else most of the week while working, but have a home here

Begin with the household member (or one of the household members) in whose name the home is owned or rented. Enter last name, first name, and middle initial for each person.

A _____

B _____

C _____

D _____

E _____

F _____

G _____

H _____

I _____

J _____

K _____

2. If all of the people listed above are staying here temporarily, please fill in this circle and write the permanent address of each person next to their name.

Step 2. Think again. It's very important that the census gets an accurate listing.

3. When you were making your list, did you have any trouble deciding whether or not to include a particular person; for example, an adult or child who has another home, or who is staying here for an indefinite time, or who lives here off and on?

Yes — What is (are) the name(s)? Why did you have trouble deciding whether to include the person(s)?

No

Open the flap to page 2 and continue with Step 3.

PERSON C's name			PERSON D's name			PERSON E's name			PERSON F's name		
Last name	First name	Middle initial	Last name	First name	Middle initial	Last name	First name	Middle initial	Last name	First name	Middle initial
Person C is — <input type="radio"/> Male <input checked="" type="checkbox"/> <input type="radio"/> Female			Person D is — <input type="radio"/> Male <input checked="" type="checkbox"/> <input type="radio"/> Female			Person E is — <input type="radio"/> Male <input checked="" type="checkbox"/> <input type="radio"/> Female			Person F is — <input type="radio"/> Male <input checked="" type="checkbox"/> <input type="radio"/> Female		
Person C is — <input type="radio"/> Married now <input type="radio"/> Widowed <input type="radio"/> Divorced <input type="radio"/> Separated <input type="radio"/> Has never been married or marriage annulled			Person D is — <input type="radio"/> Married now <input type="radio"/> Widowed <input type="radio"/> Divorced <input type="radio"/> Separated <input type="radio"/> Has never been married or marriage annulled			Person E is — <input type="radio"/> Married now <input type="radio"/> Widowed <input type="radio"/> Divorced <input type="radio"/> Separated <input type="radio"/> Has never been married or marriage annulled			Person F is — <input type="radio"/> Married now <input type="radio"/> Widowed <input type="radio"/> Divorced <input type="radio"/> Separated <input type="radio"/> Has never been married or marriage annulled		
Person C is person A's — <input type="radio"/> Husband or wife <input type="radio"/> Natural or adopted son or daughter <input type="radio"/> Stepchild <input type="radio"/> Grandchild <input type="radio"/> Brother or sister <input type="radio"/> Father or mother <input type="radio"/> Other relative <input type="radio"/> Roomer, boarder, foster child <input type="radio"/> Roommate, housemate <input type="radio"/> Unmarried partner <input type="radio"/> Paid employee <input type="radio"/> Other nonrelative			Person D is person A's — <input type="radio"/> Husband or wife <input type="radio"/> Natural or adopted son or daughter <input type="radio"/> Stepchild <input type="radio"/> Grandchild <input type="radio"/> Brother or sister <input type="radio"/> Father or mother <input type="radio"/> Other relative <input type="radio"/> Roomer, boarder, foster child <input type="radio"/> Roommate, housemate <input type="radio"/> Unmarried partner <input type="radio"/> Paid employee <input type="radio"/> Other nonrelative			Person E is person A's — <input type="radio"/> Husband or wife <input type="radio"/> Natural or adopted son or daughter <input type="radio"/> Stepchild <input type="radio"/> Grandchild <input type="radio"/> Brother or sister <input type="radio"/> Father or mother <input type="radio"/> Other relative <input type="radio"/> Roomer, boarder, foster child <input type="radio"/> Roommate, housemate <input type="radio"/> Unmarried partner <input type="radio"/> Paid employee <input type="radio"/> Other nonrelative			Person F is person A's — <input type="radio"/> Husband or wife <input type="radio"/> Natural or adopted son or daughter <input type="radio"/> Stepchild <input type="radio"/> Grandchild <input type="radio"/> Brother or sister <input type="radio"/> Father or mother <input type="radio"/> Other relative <input type="radio"/> Roomer, boarder, foster child <input type="radio"/> Roommate, housemate <input type="radio"/> Unmarried partner <input type="radio"/> Paid employee <input type="radio"/> Other nonrelative		
<input type="radio"/> Yes, Person C is of Spanish or Hispanic origin — What group? <input type="checkbox"/> (For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.) <input type="radio"/> No <input checked="" type="checkbox"/>			<input type="radio"/> Yes, Person D is of Spanish or Hispanic origin — What group? <input type="checkbox"/> (For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.) <input type="radio"/> No <input checked="" type="checkbox"/>			<input type="radio"/> Yes, Person E is of Spanish or Hispanic origin — What group? <input type="checkbox"/> (For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.) <input type="radio"/> No <input checked="" type="checkbox"/>			<input type="radio"/> Yes, Person F is of Spanish or Hispanic origin — What group? <input type="checkbox"/> (For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.) <input type="radio"/> No <input checked="" type="checkbox"/>		
a. Person C's age	b. Month born	c. Year born	a. Person D's age	b. Month born	c. Year born	a. Person E's age	b. Month born	c. Year born	a. Person F's age	b. Month born	c. Year born
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input checked="" type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input checked="" type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7 <input type="radio"/> 8 <input type="radio"/> 9
Person C is — <input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Eskimo <input type="radio"/> Aleut <input type="radio"/> Asian or Pacific Islander — What group? <input type="checkbox"/> (For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.) <input type="radio"/> Indian (American) — What tribe? <input type="checkbox"/> (Enrolled or principal tribe) <input type="radio"/> Other race — What race? <input type="checkbox"/>			Person D is — <input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Eskimo <input type="radio"/> Aleut <input type="radio"/> Asian or Pacific Islander — What group? <input type="checkbox"/> (For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.) <input type="radio"/> Indian (American) — What tribe? <input type="checkbox"/> (Enrolled or principal tribe) <input type="radio"/> Other race — What race? <input type="checkbox"/>			Person E is — <input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Eskimo <input type="radio"/> Aleut <input type="radio"/> Asian or Pacific Islander — What group? <input type="checkbox"/> (For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.) <input type="radio"/> Indian (American) — What tribe? <input type="checkbox"/> (Enrolled or principal tribe) <input type="radio"/> Other race — What race? <input type="checkbox"/>			Person F is — <input type="radio"/> White <input type="radio"/> Black or Negro <input type="radio"/> Eskimo <input type="radio"/> Aleut <input type="radio"/> Asian or Pacific Islander — What group? <input type="checkbox"/> (For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.) <input type="radio"/> Indian (American) — What tribe? <input type="checkbox"/> (Enrolled or principal tribe) <input type="radio"/> Other race — What race? <input type="checkbox"/>		

PERSON G's name

Last name First name Middle initial

Person G is —
 Male Female

Person G is —
 Married now Separated
 Widowed Has never been married or marriage annulled
 Divorced

Person G is person A's —
 Husband or wife Roomer, boarder, foster child
 Natural or adopted son or daughter Roommate, housemate
 Stepchild Unmarried partner
 Grandchild Paid employee
 Brother or sister Other nonrelative
 Father or mother
 Other relative

Yes, Person G is of Spanish or Hispanic origin — What group? →
 (For example: Mexican, Mexican-American, Puerto Rican, Cuban, Argentine, Dominican, Spaniard, etc.)
 No

a. Person G's age	b. Month born	c. Year born
1 <input type="radio"/> 1 <input type="radio"/> 0 <input type="radio"/> 0 <input type="radio"/>	1 <input type="radio"/> 0 <input type="radio"/> 0 <input type="radio"/>	0 <input type="radio"/> 0 <input type="radio"/> 0 <input type="radio"/>
2 <input type="radio"/> 0 <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/>	2 <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/>	1 <input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/>
2 <input type="radio"/> 0 <input type="radio"/> 2 <input type="radio"/> 0 <input type="radio"/>	2 <input type="radio"/> 0 <input type="radio"/> 2 <input type="radio"/> 0 <input type="radio"/>	2 <input type="radio"/> 0 <input type="radio"/> 2 <input type="radio"/> 0 <input type="radio"/>
3 <input type="radio"/> 0 <input type="radio"/> 3 <input type="radio"/> 0 <input type="radio"/>	3 <input type="radio"/> 0 <input type="radio"/> 3 <input type="radio"/> 0 <input type="radio"/>	3 <input type="radio"/> 0 <input type="radio"/> 3 <input type="radio"/> 0 <input type="radio"/>
4 <input type="radio"/> 0 <input type="radio"/> 4 <input type="radio"/> 0 <input type="radio"/>	4 <input type="radio"/> 0 <input type="radio"/> 4 <input type="radio"/> 0 <input type="radio"/>	4 <input type="radio"/> 0 <input type="radio"/> 4 <input type="radio"/> 0 <input type="radio"/>
5 <input type="radio"/> 0 <input type="radio"/> 5 <input type="radio"/> 0 <input type="radio"/>	5 <input type="radio"/> 0 <input type="radio"/> 5 <input type="radio"/> 0 <input type="radio"/>	5 <input type="radio"/> 0 <input type="radio"/> 5 <input type="radio"/> 0 <input type="radio"/>
6 <input type="radio"/> 0 <input type="radio"/> 6 <input type="radio"/> 0 <input type="radio"/>	6 <input type="radio"/> 0 <input type="radio"/> 6 <input type="radio"/> 0 <input type="radio"/>	6 <input type="radio"/> 0 <input type="radio"/> 6 <input type="radio"/> 0 <input type="radio"/>
7 <input type="radio"/> 0 <input type="radio"/> 7 <input type="radio"/> 0 <input type="radio"/>	7 <input type="radio"/> 0 <input type="radio"/> 7 <input type="radio"/> 0 <input type="radio"/>	7 <input type="radio"/> 0 <input type="radio"/> 7 <input type="radio"/> 0 <input type="radio"/>
8 <input type="radio"/> 0 <input type="radio"/> 8 <input type="radio"/> 0 <input type="radio"/>	8 <input type="radio"/> 0 <input type="radio"/> 8 <input type="radio"/> 0 <input type="radio"/>	8 <input type="radio"/> 0 <input type="radio"/> 8 <input type="radio"/> 0 <input type="radio"/>
9 <input type="radio"/> 0 <input type="radio"/> 9 <input type="radio"/> 0 <input type="radio"/>	9 <input type="radio"/> 0 <input type="radio"/> 9 <input type="radio"/> 0 <input type="radio"/>	9 <input type="radio"/> 0 <input type="radio"/> 9 <input type="radio"/> 0 <input type="radio"/>

Person G is —
 White
 Black or Negro
 Eskimo
 Aleut
 Asian or Pacific Islander — What group? →
 (For example: Chinese, Asian Indian, Hawaiian, Laotian, Vietnamese, etc.)
 Indian (American) — What tribe? →
 (Enrolled or principal tribe)
 Other race — What race? →

Step 6. Describe where you live.

10. Which type of building or structure do you live in at this address?
 Detached house (has space on all sides)
 Attached house (such as a townhouse or rowhouse)
 Apartment building
 Mobile home or trailer
 Boat, tent, van, or other type of building or structure

11. About when was this building or structure first built?
 1985 to 1987
 1980 to 1984
 1975 to 1979
 1970 to 1974
 1960 to 1969
 1950 to 1959
 1940 to 1949
 1939 or earlier
 Don't know

12. What is the source of water for this building?
 Public system or private company
 Individual drilled well
 Individual dug well
 Some other source (such as spring, creek, cistern)

13. Is this building connected to a public sewer?
 Yes
 No, connected to septic tank or cesspool
 No, use other means

14. How many separate dwelling units are in this building? Count your own home and all other apartments (including vacant units) in the building.
 One (Fill this circle for a one-family house or a mobile home)
 2 apartments
 3
 4
 5
 6
 7
 8
 9
 10-19
 20-49
 50 or more apartments

If you live in an apartment building, skip to question 18.

15. Is your home on 10 or more acres?
 Yes
 No

16. Is there a business (such as a store or barber shop) or a medical office on this property (your home and lot)?
 Yes
 No

17a. In 1986, did members of this household grow crops, raise livestock, or have other agricultural products with a total worth of \$1,000 or more? Include all agricultural products from this property and from other land. For example —
 Poultry
 Horses, cattle
 Animal products
 Hay
 Tobacco
 Nursery or greenhouse products
 Vegetables
 Fruits and berries
 Do not include produce grown for home use.
 Yes No — Skip to 18

b. In 1986, what were the actual sales of all agricultural products from this property only? Include sales from land you owned or leased from others. Do not include sales from land leased to others.
 \$0
 \$1 to \$999
 \$1,000 to \$2,499
 \$2,500 to \$4,999
 \$5,000 to \$9,999
 \$10,000 or more

18. Do you live in a condominium? In a CONDOMINIUM, apartments are owned individually and common areas are owned jointly.
 Yes
 No

19. Is your home —
 Owned free and clear by you or someone who lives here? — Skip to 21
 Owned with a mortgage or loan to you or someone who lives here? — Skip to 21
 Rented for money?
 Occupied without paying money rent? — Skip to 25a

Answer ONLY if you pay rent for your home.

20. What is the monthly rent?
 Less than \$60
 \$60 to \$79
 \$80 to \$89
 \$90 to 99
 \$100 to \$124
 \$125 to \$149
 \$150 to \$174
 \$175 to \$199
 \$200 to \$224
 \$225 to \$249
 \$250 to \$274
 \$275 to \$299
 \$300 to \$349
 \$350 to \$399
 \$400 to \$449
 \$450 to \$499
 \$500 to \$549
 \$550 to \$599
 \$600 to \$649
 \$650 to \$699
 \$700 to \$749
 \$750 or more

SKIP TO 25a

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C. Type of unit	D1. Vacancy status	E. Months vacant	F. PV Pop/F T G.P.	G. R/C	H. Enum.
Occupied <input type="radio"/> First form <input type="radio"/> Cont'n	For rent <input type="radio"/> For sale only <input type="radio"/> Rented or sold not occupied <input type="radio"/> For seas/rec/occ <input type="radio"/> For mig workers <input type="radio"/> Other vacant	Less than 1 <input type="radio"/> 1 up to 2 <input type="radio"/> 2 up to 6 <input type="radio"/> 6 up to 12 <input type="radio"/> 12 up to 24 <input type="radio"/> 24 or more	<input type="radio"/> PV <input type="radio"/> Pop/F <input type="radio"/> T <input type="radio"/> G.P.	<input type="radio"/> N <input type="radio"/> MI <input type="radio"/> PD <input type="radio"/> OR <input type="radio"/> MR	
Vacant <input type="radio"/> Regular <input type="radio"/> Usual home elsewhere	D2. Is this unit boarded up? <input type="radio"/> Yes <input type="radio"/> No				

Answer 21—24 ONLY if you own or are buying your home.

21. What is the value of your property, that is, how much do you think your home and lot, condominium unit, or cooperative share would sell for if it were for sale?

<input type="radio"/> Less than \$15,000	<input type="radio"/> \$65,000 to \$69,999
<input type="radio"/> \$15,000 to \$19,999	<input type="radio"/> \$70,000 to \$74,999
<input type="radio"/> \$20,000 to \$24,999	<input type="radio"/> \$75,000 to \$79,999
<input type="radio"/> \$25,000 to \$29,999	<input type="radio"/> \$80,000 to \$89,999
<input type="radio"/> \$30,000 to \$34,999	<input type="radio"/> \$90,000 to \$99,999
<input type="radio"/> \$35,000 to \$39,999	<input type="radio"/> \$100,000 to \$124,999
<input type="radio"/> \$40,000 to \$44,999	<input type="radio"/> \$125,000 to \$149,999
<input type="radio"/> \$45,000 to \$49,999	<input type="radio"/> \$150,000 to \$199,999
<input type="radio"/> \$50,000 to \$54,999	<input type="radio"/> \$200,000 to \$249,999
<input type="radio"/> \$55,000 to \$59,999	<input type="radio"/> \$250,000 to \$299,999
<input type="radio"/> \$60,000 to \$64,999	<input type="radio"/> \$300,000 or more

22a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on your home?

Yes

No — Skip to 23

b. Do you have a second mortgage on your home?

Yes

No

c. How much is your total regular monthly mortgage payment on your home? Include payments on first and second mortgages and contract to purchase on your home.

\$ _____

No regular payment required — Skip to 23

d. Does this amount include —

(1) Payments for real estate taxes?

Yes

No

(2) Payments for fire, hazard, and flood insurance?

Yes

No

23. What were the real estate taxes on your home for the last tax year? If none, write "0."

\$ _____

24. What was the annual premium for fire, hazard, and flood insurance on your home for 1986? If none, write "0."

\$ _____

25a. Do you have COMPLETE plumbing facilities in your home? That is, hot and cold piped water, a flush toilet, and a bathtub or shower.

Yes

Some but not all plumbing facilities

No plumbing facilities — Skip to 26

b. Are the plumbing facilities —

For your household only, or

Also used by another household?

26. Do you have COMPLETE kitchen facilities? That is, a sink with piped water, a range or cookstove, and a refrigerator.

Yes

No

27. How many rooms do you have? Count whole rooms, such as living rooms, bedrooms, and full kitchens. Do not count bathrooms, porches, balconies, halls, unfinished basements, or storage areas.

1 room

2 rooms

3 rooms

4 rooms

5 rooms

6 rooms

7 rooms

8 rooms

9 or more rooms

28. How many bedrooms do you have? That is, how many bedrooms would you list if this house or apartment were on the market for sale or rent?

No bedroom (Fill in this circle for an efficiency apartment)

1 bedroom

2 bedrooms

3 bedrooms

4 bedrooms

5 or more bedrooms

29. How many bathrooms do you have? A bathroom has a flush toilet, bathtub or shower, and wash basin with piped water. A HALF bathroom has a flush toilet and wash basin with piped water.

No bathroom, or only a half-bathroom

1 bathroom

1 bathroom, plus half bath(s)

2 or more bathrooms

30. Do you have a telephone in your home?

Yes

No

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<p>22c.</p> <p>1986</p> <p>1987</p> <p>1988</p> <p>1989</p> <p>1990</p> <p>1991</p> <p>1992</p> <p>1993</p> <p>1994</p> <p>1995</p> <p>1996</p> <p>1997</p> <p>1998</p> <p>1999</p> <p>2000</p> <p>2001</p> <p>2002</p> <p>2003</p> <p>2004</p> <p>2005</p> <p>2006</p> <p>2007</p> <p>2008</p> <p>2009</p> <p>2010</p> <p>2011</p> <p>2012</p> <p>2013</p> <p>2014</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>2018</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p>	<p>23.</p> <p>1986</p> <p>1987</p> <p>1988</p> <p>1989</p> <p>1990</p> <p>1991</p> <p>1992</p> <p>1993</p> <p>1994</p> <p>1995</p> <p>1996</p> <p>1997</p> <p>1998</p> <p>1999</p> <p>2000</p> <p>2001</p> <p>2002</p> <p>2003</p> <p>2004</p> <p>2005</p> <p>2006</p> <p>2007</p> <p>2008</p> <p>2009</p> <p>2010</p> <p>2011</p> <p>2012</p> <p>2013</p> <p>2014</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>2018</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p>	<p>24.</p> <p>1986</p> <p>1987</p> <p>1988</p> <p>1989</p> <p>1990</p> <p>1991</p> <p>1992</p> <p>1993</p> <p>1994</p> <p>1995</p> <p>1996</p> <p>1997</p> <p>1998</p> <p>1999</p> <p>2000</p> <p>2001</p> <p>2002</p> <p>2003</p> <p>2004</p> <p>2005</p> <p>2006</p> <p>2007</p> <p>2008</p> <p>2009</p> <p>2010</p> <p>2011</p> <p>2012</p> <p>2013</p> <p>2014</p> <p>2015</p> <p>2016</p> <p>2017</p> <p>2018</p> <p>2019</p> <p>2020</p> <p>2021</p> <p>2022</p> <p>2023</p> <p>2024</p> <p>2025</p> <p>2026</p> <p>2027</p> <p>2028</p> <p>2029</p> <p>2030</p>	<p>25a.</p> <p>25b.</p> <p>26.</p> <p>27.</p> <p>28.</p> <p>29.</p> <p>30.</p>
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31. Do you have air conditioning in your home?

Yes, a central air conditioning system

Yes, 1 individual room unit

Yes, 2 or more individual room units

No

32. Which fuel is used most to heat your home?

Gas: from underground pipes serving the neighborhood

Gas: bottled, tank, or LP (liquid petroleum)

Electricity

Fuel oil or kerosene

Coal or coke

Wood

Solar

Other fuel

No fuel used

33. What kind of equipment is used most to heat your home?

Steam or hot water system (radiators)

Electric heat pump

Central warm-air furnace with ducts to rooms

Built-in electric units installed in wall, ceiling, or baseboard

Floor, wall, or pipeless furnace

Any kind of PORTABLE space heater

Space heaters which burn gas, oil, or kerosene — WITH flue or vent (not portable)

Space heaters which burn gas, oil, or kerosene — WITHOUT flue or vent (not portable)

Fireplaces or stoves

Solar equipment

No heating equipment

34. Which fuel is used most to heat water in your home?

Gas: from underground pipes serving the neighborhood

Gas: bottled, tank, or LP (liquid petroleum)

Electricity

Fuel oil or kerosene

Coal or coke

Wood

Solar

Other fuel

No fuel used

35. What were the costs of utilities and fuels for your home for the last year (since April 1, 1986)? Write in an amount, OR fill in a circle.

a. Electricity

\$ _____
(Cost for the last 12 months)

Included in rent or condominium fee

Electricity not used

b. Gas

\$ _____
(Cost for the last 12 months)

Included in rent or condominium fee

Gas not used

c. Water

\$ _____
(Cost for the last 12 months)

Included in rent or condominium fee

d. Oil, coal, kerosene, wood, other fuels

\$ _____
(Cost for the last 12 months)

Included in rent or condominium fee

These fuels not used

36. How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

None

1

2

3

4

5

6 or more

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	35a.	35b.	35c.	35d.
	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1
	2 2 2 2	2 2 2 2	2 2 2 2	2 2 2 2
	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3
	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4
	5 5 5 5	5 5 5 5	5 5 5 5	5 5 5 5
	6 6 6 6	6 6 6 6	6 6 6 6	6 6 6 6
	7 7 7 7	7 7 7 7	7 7 7 7	7 7 7 7
	8 8 8 8	8 8 8 8	8 8 8 8	8 8 8 8
	9 9 9 9	9 9 9 9	9 9 9 9	9 9 9 9

Step 7. Give facts about each person, starting with Person A.

PERSON A's name (from page 2)

Last name	First name	Middle initial
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37. In what U.S. State or foreign country was person A born?

(Name of U.S. State or foreign country, Puerto Rico, Guam, etc.)

If person A was born in the United States, skip to 39b.

38. Is person A a citizen of the United States?

- Yes, born in Puerto Rico, Guam, or U.S. Virgin Islands
- Yes, born abroad of American parent or parents
- Yes, U.S. citizen by naturalization
- No

39a. When did person A come to the United States to live?

- 1986
- 1985
- 1984
- 1980 to 1983
- 1975 to 1979
- 1970 to 1974
- 1965 to 1969
- 1960 to 1964
- Before 1960

39b. When did person A move into this dwelling (house, apartment, etc.)?

- 1987
- 1985 to 1986
- 1980 to 1984
- 1975 to 1979
- 1970 to 1974
- 1960 to 1969
- 1950 to 1959
- 1949 or earlier
- At birth

40. What is person A's ancestry?

(For example: German, Italian, Afro-American, Cajun, Irish, Jamaican, Korean, Mexican, Nigerian, Polish, Thai)

41a. Does person A speak a language other than English at home?

- Yes
- No — Skip to 42

b. What is this language?

(For example: Chinese, Italian, Spanish, Vietnamese)

c. How well does person A speak English?

- Very well
- Well
- Not well
- Not at all

42. At any time since February 1, 1987 has person A attended school or college? Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.

Yes —

- Nursery school or kindergarten
- Public elementary or high school
- Private elementary or high school
- Public college, university, or professional school
- Private college, university, or professional school
- No

43. How much school has person A completed? Fill ONE circle for highest level COMPLETED or highest degree RECEIVED.

- Less than 1st grade
- 1st, 2nd, 3rd, or 4th grade
- 5th, 6th, 7th, or 8th grade
- 9th, 10th, or 11th grade, NO high school diploma
- High school graduate — high school DIPLOMA or GED
- One year or more of college, but no degree
- Associate degree in college — vocational program
- Associate degree in college — academic program
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional school degree (for example: MD, DDS, DVM, LLB, JD)
- Doctoral degree (for example: Ph.D., Ed.D)

44. Where did person A live 5 years ago (March 16, 1982)?

- Here in this dwelling (house, apartment, etc.) — Skip to 46
- In a different dwelling, same State
- In a different State
- Outside the United States

(Name of country, Puerto Rico, Guam, etc.)

- Person A was not yet born on March 16, 1982 — Go to questions about next person on page 8.

45. What is the name of the town, county, and State where person A lived 5 years ago?

a. _____ (City or town)

b. _____ (County)

c. _____ (State)

d. Did person A live inside city or town limits?

- Yes
- No

46. Fill in a circle for person A's age:

- 14 years of age or younger — Go to questions about next person on page 8.
- 15 or older

47a. Has person A ever served on active duty in the Armed Forces of the United States?

- Yes
- On active duty only while training for National Guard or Reserves — Skip to 48
- No — Skip to 48

47b. Fill a circle for every period during which person A served on active duty:

- Now serving
- September 1980 to March 15, 1987
- May 1975—August 1980
- Vietnam era (August 1964—April 1975)
- February 1955—July 1964
- Korean conflict (June 1950—January 1955)
- August 1947—May 1950
- World War II (September 1940—July 1947)
- December 1918—August 1940
- World War I (April 1917—November 1918)
- Before April 1917

48. Last week, did person A spend any time — even an hour — working at a job for pay, in a business, or on a farm?

- Yes — Skip to 52
- No

Answer questions 49a—51 ONLY if person A did not work last week:

49a. Does person A have a job or business? Include new jobs which have not started.

- Yes
- No — Skip to 50a

b. Why was person A away from work last week?

- On layoff
- On vacation, out sick, labor dispute, or other reason
- New job has not started yet — Skip to 51

50a. Has person A been looking for work during the last 4 weeks?

- Yes
- No — Skip to 51

b. Could person A have taken a job last week if one had been offered?

- Yes
- No, because person A expects to be recalled to work
- No, temporarily sick
- No, in school or other reason

51. When did person A last work at a job, business, or farm, even for a few days?

- 1987
- 1986
- 1985
- 1984
- 1981 to 1983
- 1976 to 1980
- 1975 or earlier
- Never worked

Answer questions 52—55 ONLY if person A worked last week:

52. How many hours did person A work last week at all jobs, in a business, or on a farm? Subtract any time off; add overtime or extra hours worked.

_____ Hours

53a. At what location did person A report to work last week? If person A worked in more than one place last week, describe where he or she worked MOST. If worked at home, write "home" and skip to 56.

a. _____
(Write number and street, or describe location — building name or intersection)

b. _____
(City, town, post office)

c. _____
(County)

d. _____ (State) _____ (ZIP Code)

e. Is the work location inside city or town limits?
 Yes No

54a. What time did person A usually leave for work last week?
 _____ a.m. p.m.

b. What time did person A usually arrive at work last week?
 _____ a.m. p.m.

55a. How did person A get to work last week? Fill in one circle for the method usually used for most of the distance.

Car, truck or van Taxicab
 Bus or trolley bus Motorcycle
 Streetcar or trolley car Bicycle
 Subway or elevated Walked
 Railroad Other
 Ferry boat

b. Answer ONLY if car, truck, or van was the usual method:
 How many people, including person A, usually rode to work in the car, truck, or van last week?

Drove alone 5 people
 2 people 6 people
 3 people 7 to 9 people
 4 people 10 or more people

56. CURRENT OR MOST RECENT JOB ACTIVITY
 In questions 56a — 58, describe person A's job or business last week.
 If person A worked more than one job last week, describe the one at which he or she worked the most hours.
 If person A did not work any hours last week, describe the most recent job or business since 1982.

56a. For whom did person A work?

 (Name of company, business, branch of Armed Forces, or other employer)

56b. What kind of business or industry was this? Describe the activity where person A worked.

 (For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. What is the organization's main activity where person A works?

Manufacturing Other (agriculture, construction, service, government)
 Wholesale trade
 Retail trade

57a. What kind of work was person A doing?

 (For example: Registered nurse, personnel manager, supervisor of order department, gasoline engine assembler, grinder operator)

b. What were person A's most important activities or duties?

 (For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

58. Was person A working for —

A PRIVATE company, business, or individual, for wages, salary, or commissions
 Local GOVERNMENT (city, county, etc.)
 State GOVERNMENT
 Federal GOVERNMENT
 SELF-EMPLOYED in own business, professional practice, or farm — NOT incorporated
 SELF-EMPLOYED in own incorporated business, professional practice, or farm
 Working WITHOUT PAY in family business or farm

59a. During 1986, how many weeks did person A work at all jobs, in a business, or on a farm? Count paid vacation, paid sick leave, and military service. Count even an hour as a week worked.

None — Skip to 60 31—40 weeks
 Up to 10 weeks 41—50 weeks
 11—20 weeks 51—52 weeks
 21—30 weeks

b. During the weeks WORKED in 1986, how many hours did person A usually work each week?
 _____ Hours

60. Does person A have a physical, mental, or other health condition that has lasted for 6 or more months and which —

a. Limits the kind or amount of work person A can do at a job?
 Yes No

b. Prevents person A from working at a job?
 Yes No

61. Does person A need the help of another person in order to —

a. Shop, care for the house, or get around outside the home?
 Yes No

b. Take care of personal needs such as bathing, dressing, or getting around inside the home?
 Yes No

62. What was person A's income before taxes in 1986 from all sources?
 If an income source was received jointly by household members —
 • if possible, give each person's share separately, OR
 • report the whole amount for one person and write "0" for the others.
 If net income was a loss, write "loss" above the dollar amount.
 If exact amount is not known, give best estimate.

a. Wages, salary, commissions, bonuses, and tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items. \$ _____

b. Interest, dividends, net rental income, and royalties — Report even small amounts credited to an account. \$ _____

c. Self-employment income from own nonfarm business, professional practice, or partnership — Report net income after business expenses. \$ _____

d. Farm self-employment income — Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper. \$ _____

e. Social Security or Railroad Retirement \$ _____

f. Retirement, survivor, or disability pensions — Exclude Social Security. \$ _____

g. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments. \$ _____

h. Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other regular income — Exclude lump sum payments such as money from an inheritance or the sale of a home. \$ _____

i. Total income in 1986 — Add entries a through h; subtract any losses. If total amount was a loss, write "Loss" above amount. \$ _____

Step 7 — Continued. Give facts about Person B. If Person A is the only person listed on page 2, go to the back of the form.

PERSON B's name (from page 2)

Last name First name Middle initial

37. In what U.S. State or foreign country was person B born?

(Name of U.S. State or foreign country, Puerto Rico, Guam, etc.)

If person B was born in the United States, skip to 40.

38. Is person B a citizen of the United States?

- Yes, born in Puerto Rico, Guam, or U.S. Virgin Islands
- Yes, born abroad of American parent or parents
- Yes, U.S. citizen by naturalization
- No

39. When did person B come to the United States to live?

- 1986
- 1985
- 1984
- 1980 to 1983
- 1975 to 1979
- 1970 to 1974
- 1965 to 1969
- 1960 to 1964
- Before 1960

40. What is person B's ancestry?

(For example: German, Italian, Afro-American, Cajun, Irish, Jamaican, Korean, Mexican, Nigerian, Polish, Thai)

41a. Does person B speak a language other than English at home?

- Yes
- No — Skip to 42

b. What is this language?

(For example: Chinese, Italian, Spanish, Vietnamese)

c. How well does person B speak English?

- Very well
- Well
- Not well
- Not at all

42. At any time since February 1, 1987 has person B attended school or college? Include nursery school, kindergarten, elementary school, and schooling which leads to a high school diploma or college degree.

- Yes —
- Nursery school or kindergarten
- Public elementary or high school
- Private elementary or high school
- Public college, university, or professional school
- Private college, university, or professional school
- No

43. How much school has person B completed? Fill ONE circle for highest level COMPLETED or highest degree RECEIVED.

- Less than 1st grade
- 1st, 2nd, 3rd, or 4th grade
- 5th, 6th, 7th, or 8th grade
- 9th, 10th, or 11th grade, NO high school diploma
- High school graduate — high school DIPLOMA or GED
- One year or more of college, but no degree
- Associate degree in college — vocational program
- Associate degree in college — academic program
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional school degree (for example: MD, DDS, DVM, LLB, JD)
- Doctoral degree (for example: Ph.D., Ed.D)

44. Where did person B live 5 years ago (March 16, 1982)?

- Here in this dwelling (house, apartment, etc.) — Skip to 46
- In a different dwelling, same State
- In a different State
- Outside the United States

(Name of country, Puerto Rico, Guam, etc.) } Skip to 46

- Person B was not yet born on March 16, 1982 — Go to questions about next person on page 10. If person B is the last person listed on page 2, go to the back of the form.

45. What is the name of the town, county, and State where person B lived 5 years ago?

a. _____ (City or town)

b. _____ (County)

c. _____ (State)

d. Did person B live inside city or town limits?

- Yes
- No

46. Fill in a circle for person B's age:

- 14 years of age or younger — Go to questions about next person on page 10. If person B is the last person listed on page 2, go to the back of the form.
- 15 or older

47a. Has person B ever served on active duty in the Armed Forces of the United States?

- Yes
- On active duty only while training for National Guard or Reserves — Skip to 48
- No — Skip to 48

47b. Fill a circle for every period during which person B served on active duty:

- Now serving
- September 1980 to March 15, 1987
- May 1975—August 1980
- Vietnam era (August 1964—April 1975)
- February 1955—July 1964
- Korean conflict (June 1950—January 1955)
- August 1947—May 1950
- World War II (September 1940—July 1947)
- December 1918—August 1940
- World War I (April 1917—November 1918)
- Before April 1917

48. Last week, did person B spend any time — even an hour — working at a job for pay, in a business, or on a farm?

- Yes — Skip to 52
- No

Answer questions 49a—51 ONLY if person B did not work last week:

49a. Does person B have a job or business? Include new jobs which have not started.

- Yes
- No — Skip to 50a

b. Why was person B away from work last week?

- On layoff
- On vacation, out sick, labor dispute, or other reason
- New job has not started yet — Skip to 51

50a. Has person B been looking for work during the last 4 weeks?

- Yes
- No — Skip to 51

b. Could person B have taken a job last week if one had been offered?

- Yes
- No, because person B expects to be recalled to work
- No, temporarily sick
- No, in school or other reason

51. When did person B last work at a job, business, or farm, even for a few days?

- 1987
- 1986
- 1985
- 1984
- 1981 to 1983
- 1976 to 1980
- 1975 or earlier
- Never worked

} Skip to 56

} Skip to 60

Answer questions 52—55 ONLY if person B worked last week:

52. How many hours did person B work last week at all jobs, in a business, or on a farm? Subtract any time off; add overtime or extra hours worked.

_____ Hours

53a. At what location did person B report to work last week? If person B worked in more than one place last week, describe where he or she worked MOST. If worked at home, write "home" and skip to 56.

a. _____
(Write number and street, or describe location — building name or intersection)

b. _____
(City, town, post office)

c. _____
(County)

d. _____ (State) _____ (ZIP Code)

e. Is the work location inside city or town limits?
 Yes No

54a. What time did person B usually leave for work last week?
 a.m.
 p.m.

b. What time did person B usually arrive at work last week?
 a.m.
 p.m.

55a. How did person B get to work last week? Fill in one circle for the method usually used for most of the distance.

Car, truck or van Taxicab
 Bus or trolley bus Motorcycle
 Streetcar or trolley car Bicycle
 Subway or elevated Walked
 Railroad Other
 Ferry boat

b. Answer ONLY if car, truck, or van was the usual method:
 How many people, including person B, usually rode to work in the car, truck, or van last week?
 Drove alone 5 people
 2 people 6 people
 3 people 7 to 9 people
 4 people 10 or more people

56. CURRENT OR MOST RECENT JOB ACTIVITY
 In questions 56a — 58, describe person B's job or business last week.
 If person B worked more than one job last week, describe the one at which he or she worked the most hours.
 If person B did not work any hours last week, describe the most recent job or business since 1982.

56a. For whom did person B work?

 (Name of company, business, branch of Armed Forces, or other employer)

56b. What kind of business or industry was this? Describe the activity where person B worked.

 (For example: Hospital, newspaper publishing, mail order house, auto engine manufacturing, breakfast cereal manufacturing)

c. What is the organization's main activity where person B works?
 Manufacturing Other (agriculture, construction, service, government)
 Wholesale trade
 Retail trade

57a. What kind of work was person B doing?

 (For example: Registered nurse, personnel manager, supervising order clerk, assembling engines, operating grinding mill)

b. What were person B's most important activities or duties?

 (For example: Patient care, directing hiring policies, supervising order clerks, assembling engines, operating grinding mill)

58. Was person B working for —
 A PRIVATE company, business, or individual, for wages, salary, or commissions
 Local GOVERNMENT (city, county, etc.)
 State GOVERNMENT
 Federal GOVERNMENT
 SELF-EMPLOYED in own business, professional practice, or farm — NOT incorporated
 SELF-EMPLOYED in own incorporated business, professional practice, or farm
 Working WITHOUT PAY in family business or farm

59a. During 1986, how many weeks did person B work at all jobs, in a business, or on a farm? Count paid vacation, paid sick leave, and military service. Count even an hour as a week worked.
 None — Skip to 60 31—40 weeks
 Up to 10 weeks 41—50 weeks
 11—20 weeks 51—52 weeks
 21—30 weeks

b. During the weeks WORKED in 1986, how many hours did person B usually work each week?
 _____ Hours

60. Does person B have a physical, mental, or other health condition that has lasted for 6 or more months and which —

a. Limits the kind or amount of work person B can do at a job?
 Yes No

b. Prevents person B from working at a job?
 Yes No

61. Does person B need the help of another person in order to —

a. Shop, care for the house, or get around outside the home?
 Yes No

b. Take care of personal needs such as bathing, dressing, or getting around inside the home?
 Yes No

62. What was person B's income before taxes in 1986 from all sources?
 If an income source was received jointly by household members—
 • If possible, give each person's share separately, OR
 • report the whole amount for one person and write "0" for the others.
 If net income was a loss, write "loss" above the dollar amount.
 If exact amount is not known, give best estimate.

Enter annual amount from each source (if none, write "0")

a. Wages, salary, commissions, bonuses, and tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items. \$ _____

b. Interest, dividends, net rental income, and royalties — Report even small amounts credited to an account. \$ _____

c. Self-employment income from own nonfarm business, professional practice, or partnership — Report net income after business expenses. \$ _____

d. Farm self-employment income — Report net income after operating expenses. Include earnings as a tenant farmer or sharecropper. \$ _____

e. Social Security or Railroad Retirement \$ _____

f. Retirement, survivor, or disability pensions — Exclude Social Security. \$ _____

g. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments. \$ _____

h. Veterans Administration (VA) payments, unemployment compensation, child support or alimony, or any other regular income — Exclude lump sum payments such as money from an inheritance or the sale of a home. \$ _____

i. Total income in 1986 — Add entries a through h; subtract any losses. If total amount was a loss, write "Loss" above amount. \$ _____

CO	ID	CBNA	BLK	F	I				

What to do if . . .

No one lives at this address. The census generally counts people where they live. But some addresses — such as vacation homes — are not lived in all the time. If this form has reached you at an address where nobody lives, please do the following:

- complete this form, including everyone who is staying here now;
- provide home addresses for each of these people on page 1.

You don't know the answer to a question. There might be a question you cannot answer exactly. For example, you might not know the age of an elderly person or the price for which your house would sell. Ask someone else in your household; if no one knows, give your best estimate.

If you have other questions, the telephone number of your local Census Office is on the label above.

Step 8. Give your name and look over the form.

- **PRINT here the name** of the household member who filled the form, the date the form was completed, and the telephone number on which the people in this household can be called.

(Name)	

(Date)	
_____	_____
(Area code)	(Telephone number)

- **CHECK the address label** at the left. If any of the information is wrong, write the correct information on the label.

- **CHECK to make sure you have —**
 Answered Question 1 at Step 1.
 Copied the names from your list at Step 4.
 Answered Questions 4 through 9 for each person at Step 5.
 Described the place where you live at Step 6.
 Given facts about each person at Step 7.

- **FOLD the form the way it was sent to you.**

- **PUT the form in the enclosed pre-paid envelope** so the bar code shows through the window.

- **MAIL it back on March 16,** or as soon afterward as you can.

Thank you very much.

APPENDIX B

Response Quality Codes Used for the Age & Year-of-birth Items

Code: 2 digits -- See codes below:

First Digit (FOSDIC circles):

- 0 = No FOSDIC
- 1 = Correct FOSDIC, one circle filled per column
- 2 = More than one FOSDIC circle filled in a column
- 3 = Incomplete FOSDIC (some columns not marked)
- 4 = Checks or other marks
- 5 = Other
- 6 = FOSDIC circles filled in wrong column (left-justified)

Second Digit (Written entry):

- 0 = No write-in
- 1 = Correct write-in (one digit per answer space, matches FOSDIC when circles are filled)
- 2 = More than one digit per answer space
- 3 = Left justified (empty spaces on right)
- 4 = Incomplete write-in
- 5 = Write-in doesn't match FOSDIC (one digit per answer space)
- 6 = Inappropriate write-in
- 7 = Don't know, DK
- 8 = Not applicable, N/A
- 9 = Other

Appendix C

Nonresponse to Income Items by Disability Items by Form Type

		Nonresponse rate for the Wages Income Item	
		1986 Form	Revised Form
Persons reporting that they:			
Have a work limitation			
Yes		48.0%	54.5%
	Base N	(25)	(33)
No		21.6	27.4
	Base N	(402)	(438)
Are prevented from working			
Yes		37.5	68.2
	Base N	(16)	(22)
No		20.6	25.6
	Base N	(388)	(429)
Need help with household chores			
Yes		25.0	56.3
	Base N	(8)	(16)
No		24.7	28.4
	Base N	(433)	(468)
Need help with personal care			
Yes		28.6	37.5
	Base N	(7)	(8)
No		23.3	28.2
	Base N	(417)	(464)

Appendix C (continued)

Nonresponse rate for the
Self-employment Income Item

1986 Form Revised Form

Persons reporting that they:

Have a work limitation

Yes		40.0%	57.6%
	Base N	(25)	(33)
No		26.6	56.9
	Base N	(402)	(438)

Are prevented from working

Yes		37.5	77.3
	Base N	(16)	(22)
No		25.5	54.6
	Base N	(388)	(429)

Need help with household chores

Yes		37.5	56.3
	Base N	(8)	(16)
No		29.1	56.8
	Base N	(433)	(468)

Need help with personal care

Yes		42.9	50.0
	Base N	(7)	(8)
No		28.1	56.0
	Base N	(417)	(464)

Appendix C (continued)

		Nonresponse rate for the Farm Income Item	
		1986 Form	Revised Form
Persons reporting that they:			
Have a work limitation			
Yes		40.0%	63.7%
	Base N	(25)	(33)
No		28.6	60.3
	Base N	(402)	(438)
Are prevented from working			
Yes		37.5	77.3
	Base N	(16)	(22)
No		27.6	58.3
	Base N	(388)	(429)
Need help with household chores			
Yes		37.5	56.3
	Base N	(8)	(16)
No		31.0	60.5
	Base N	(433)	(468)
Need help with personal care			
Yes		42.9	50.0
	Base N	(7)	(8)
No		30.0	59.7
	Base N	(417)	(464)

Appendix C (continued)

		Nonresponse rate for the Interest Income Item	
		1986 Form	Revised Form
Persons reporting that they:			
Have a work limitation			
Yes		44.0%	60.6%
	Base N	(25)	(33)
No		27.9	48.4
	Base N	(402)	(438)
Are prevented from working			
Yes		37.5	72.7
	Base N	(16)	(22)
No		25.8	46.4
	Base N	(388)	(429)
Need help with household chores			
Yes		37.5	56.3
	Base N	(8)	(16)
No		30.0	58.5
	Base N	(433)	(468)
Need help with personal care			
Yes		14.3	37.5
	Base N	(7)	(8)
No		29.3	48.3
	Base N	(417)	(464)

Appendix C (continued)

Nonresponse rate for the
Social Security Income Item

1986 Form Revised Form

Persons reporting that they:

Have a work limitation

Yes		44.0%	51.5%
	Base N	(25)	(33)
No		29.1	58.2
	Base N	(402)	(438)

Are prevented from working

Yes		37.5	63.6
	Base N	(16)	(22)
No		27.3	56.6
	Base N	(388)	(429)

Need help with household chores

Yes		37.5	50.0
	Base N	(8)	(16)
No		31.2	57.5
	Base N	(433)	(468)

Need help with personal care

Yes		14.3	37.5
	Base N	(7)	(8)
No		29.7	57.3
	Base N	(417)	(464)

Appendix C (continued)

		Nonresponse rate for the Retirement Income Item	
		1986 Form	Revised Form
Persons reporting that they:			
Have a work limitation			
Yes		44.0%	60.8%
	Base N	(25)	(33)
No		26.6	59.8
	Base N	(402)	(438)
Are prevented from working			
Yes		31.3	77.3
	Base N	(16)	(22)
No		25.0	57.3
	Base N	(388)	(429)
Need help with household chores			
Yes		25.0	62.5
	Base N	(8)	(16)
No		29.1	59.0
	Base N	(433)	(468)
Need help with personal care			
Yes		28.6	50.0
	Base N	(7)	(8)
No		27.8	58.4
	Base N	(417)	(464)

Appendix C (continued)

Nonresponse rate for the
Public Assistance Income Item

		1986 Form	Revised Form
Persons reporting that they:			
Have a work limitation			
Yes		36.0%	67.6%
	Base N	(25)	(33)
No		26.1	59.6
	Base N	(402)	(438)
Are prevented from working			
Yes		25.0	81.8
	Base N	(16)	(22)
No		24.6	54.6
	Base N	(388)	(429)
Need help with household chores			
Yes		25.0	68.7
	Base N	(8)	(16)
No		28.2	59.4
	Base N	(433)	(468)
Need help with personal care			
Yes		42.9	50.0
	Base N	(7)	(8)
No		26.6	59.1
	Base N	(417)	(464)

Appendix C (continued)

Nonresponse rate for the
Veterans Income Item

1986 Form Revised Form

Persons reporting that they:

Have a work limitation

Yes		40.0%	63.6%
	Base N	(25)	(33)
No		25.9	60.5
	Base N	(402)	(438)

Are prevented from working

Yes		31.3	77.3
	Base N	(16)	(22)
No		24.2	58.5
	Base N	(388)	(429)

Need help with household chores

Yes		37.5	68.7
	Base N	(8)	(15)
No		28.2	60.3
	Base N	(433)	(468)

Need help with personal care

Yes		42.9	50.0
	Base N	(7)	(8)
No		26.6	59.9
	Base N	(417)	(464)