

Accuracy of Data on Population Characteristics as Measured by Reinterviews

Introduction

This report presents information on the accuracy of selected population characteristics reported to the 1960 census interviewers, based on reinterviews conducted with a sample of persons originally enumerated in the census. The reinterview data were obtained in a survey established for this purpose—the Content Evaluation Study for Population Characteristics (referred to as the CES).

The method of reinterview is only one of a number of methods used to evaluate the content of the 1960 Census. Record checks—the comparison of data collected in the census with independent records showing the same data—and comparison of results obtained in the census with results obtained by more experienced interviewers in independent surveys, such as the Current Population Survey-Census match study, are two other methods of case by case comparisons utilized to evaluate the accuracy of population characteristics. In addition to these two methods, there are analytic methods of evaluating the census data. A comparison of census totals for specific characteristics with totals for the same characteristics produced from another source can be made—i.e., comparing the total school enrollment figures from the census with school enrollment figures produced by the Office of Education. Also, checks of internal consistency are made in evaluating census data.

The 1960 Census of Population provided data on the number of persons in the United States and the characteristics such as age, sex, color, school enrollment, labor force status, and income of these persons. Considerable geographic detail and cross-tabulations for these data are also presented, e.g., by States, standard metropolitan statistical areas, and cities.

Measurement errors in the Census of Population can arise from a number of different sources—the missing of people by enumerators will result in undercounts, personal characteristics may be erroneously reported, people fail to report some of the information requested of them and adjustments for these persons may introduce errors, and so forth.

This report is primarily devoted to the effect on the quality of the census of only one of these sources—errors arising from erroneous reporting of personal characteristics.

In this report, the quality of the census has been measured by selecting a sample of persons included in the census and comparing each census questionnaire for the sample with the result of a reinterview in the same household. Some of the reinterviews were conducted three months after the census, and some about six months later. In most cases, if there was a difference between information reported in the census and the reinterview, the difference was reconciled. During reconciliation, the interviewer told the respondent about the difference and asked

which answer was correct. The interviewer also made notes on the interview form explaining any reasons for the difference. Differences were not always due to the respondents giving a different answer in the reinterview from the answer given in the census. Errors also came about from the census interviewers making errors. For example, several of the differences in reporting sex were found to be caused by the census interviewers' assumption that certain names such as Jerry, Evelyn, Michael, were exclusively male or female. Errors in transcription by the census interviewers also occurred.

Some measures of the quality of a census or survey can be obtained by repeating the identical survey procedures in a reinterview program—for example, respondents' consistency in reporting provides a test of the accuracy of data. However, additional data can be derived by using improved methods, data that shed light on systematic errors in the survey arising from problems in questionnaire wording, interviewer attitude, and other such items. The latter approach was one of the principal methods selected for the evaluation of the content of the Census of Population. Procedures were developed for the CES which, as much as possible, avoided the limitations inherent in an operation as large as the census. (The principal differences between the CES and census procedures are described in the section "CES Survey Methods and Design.") Even though the CES was subject to non-trivial errors itself, it provides measures of reliability and bias of the census statistics.

Although there is considerable emphasis on geographic detail in the Census of Population, an evaluation program cannot provide a separate evaluation of each area for which census data are presented without incurring a cost many times that of the census itself. The analysis of the quality of the Population Census is therefore devoted to national statistics. The measures of error do not necessarily apply to individual States, cities, or other local areas. However, the evidence appears to indicate that the factors creating these measurement errors are fairly widespread and are more or less consistent in most areas of the country. This report, however, is not concerned with the effect of a tendency to make consistent errors by an interviewer (resulting in interviewer variance). For summary statistics for large areas, covered by many interviewers, this tendency does not have much influence on the quality of the data. For small areas, covered by only a few interviewers, (e.g., blocks, tracts, small towns, and for tabulation cells with small frequencies in them) the accuracy of the data may fluctuate severely from area to area, or cell to cell, depending on the quality of the interviewers in the areas involved.

Data Presented

Measures of the simple response variance and bias of the statistics of the 1960 Census of Population for the following characteristics are included in this report:

Age
 Mobility status (residence on April 1, 1955)
 Educational attainment (highest grade or year of school completed)
 School enrollment during the period February 1 to April 1, 1960
 Type of school in which enrolled
 Work status in 1959
 Number of children ever born (to women who were or had ever been married)
 Income in 1959

Tables 1-23 contain full cross-classifications of the same individuals' responses to the census and CES interviews for the CES and census data, using the categories for which census data have been published. The census classification is shown in the column heading and the corresponding CES classification in the stub. All data in these tables are shown in terms of the estimated total of persons identified as correctly counted in the census.

Ideally, in order to provide as accurate an evaluation of simple response variance as possible, matched CES and census data should have been obtained for all units in the CES sample. Practical problems of survey operations made this impossible. Failure to get matched data arose from persons who failed to report information for items studied in the CES. Consequently, the basic cross-classifications of census and CES data are restricted to persons who reported characteristics in both the CES and census.

To clarify the relationship between persons for whom cross-classifications are shown and the total number of persons identified as correctly counted in the census, both CES and census distributions are shown for the classes of persons not included in the cross-classifications. This is done by showing in separate lines and columns of tables 1-23 persons who fell into categories such as not reported in census or CES, age under 14 in one interview and age over 14 in the other, etc. The presentation of these data also provides partial information on the effect of other types of response errors in the census, for example, the effect of noninterviews. The lines and columns containing these data are distinguished by heavy dark lines from that part of the table showing the cross-classifications.

Table 24 shows indexes of response variance and bias for selected population characteristics. The measures are described below.

Indexes of Response Variance and Bias

The response errors of a particular census or sample survey result from the joint effects of response bias and response variance. Measures of these two items can therefore be used as indexes of the accuracy of the data. A brief description of response bias is that it represents systematic errors in reporting data, or the effect of types of errors that are consistent in direction and that would be consistent if it were possible to do independent repetitions of the survey under the same general conditions. Response variance, on the other hand, can be categorized as the effect of errors which tend to cancel out when a

large number of observations are made. The paragraphs which follow give a more complete description of these terms. For a fuller description, see the report Series ER 60 No. 1, *Evaluation and Research Program of the U. S. Censuses of Population and Housing, 1960: Background, Procedures, and Forms* and the references in the bibliography of that report.

Under certain fairly general survey conditions, matching information from two sources for identical persons can provide estimates of response variance, and to the extent that one of these sources is based on more adequate measurement methods and is acceptable as a standard, it can also provide estimates of bias. Various measures of response variance and bias can then be constructed from the results of this kind of match. The CES, compared with the census, gives two measurements for each person re-interviewed for selected items of information and roughly satisfies the conditions given above. A group of such measures, which appear to be useful for analytic purposes, have been computed for each characteristic studied and are shown in table 24.

Table A.--GENERAL REPRESENTATION OF RESULTS OF ORIGINAL AND REINTERVIEW SURVEYS OF IDENTICAL PERSONS

Results of the CES	Results of Census		
	1	0	Total
1	a	b	a+b
0	c	d	c+d
Total	a+c	b+d	n = a+b+c+d

Table A illustrates the results of the comparison of the census with the CES where the value 1 is assigned to a person classified as having some specified characteristic and the value 0 otherwise. (Persons who have no response in either interview for the characteristic being studied are excluded.) Table A shows that "a" of the persons were classified as having the specified characteristic in both the census and CES, "a+c" were classified as having the characteristic in the census, and "a+b" were classified as having the characteristic in the CES.

If x_i represents the result for a person in the census and y_i represents the result for that same person in the CES, the response difference, which is either 0, 1, or -1 for that particular person, is represented as $x_i - y_i = e_i$. The sum of the values of e_i over all persons included in both the census and the CES is the net difference between the surveys. In the notation of the diagram

$$\sum_{i=1}^n e_i = \sum_{i=1}^n (x_i - y_i) = \sum_{i=1}^n x_i - \sum_{i=1}^n y_i =$$

$$(a+c) - (a+b) = c-b$$

The gross difference can be represented by $b+c$. The values of a , b , c , d , the gross difference, and the net difference are the components of the indexes of response variance and bias.

In evaluating a census statistic, the mean square error (MSE) of that statistic is of particular interest. The components of the MSE are as follows:

$$MSE_{x_c} = \sigma_{x_c}^2 + B_{x_c}^2$$

where $\sigma_{x_c}^2$ is the variance of the census statistic and

$B_{x_c}^2$ is the square of the bias of the census statistic.

(Generally, the mean square error is defined as having the sampling variance as a third component. For a complete census, the sampling variance vanishes. Even though most of the items analyzed here were sample items in the census, the sample at the national level was so large, that the sampling variance is a trivial part of the MSE. For statistics for small cells or small areas, the sampling variance contribution may be important. The analysis in this report relates to national statistics.)

The expected value of the census result minus the expected value of the CES result is equal to the bias of the census statistic. The estimated variance of the individual

response difference is $s_e^2 = \sum_{i=1}^n \frac{(e_i - \bar{e})^2}{n-1}$ where e_i is

the response difference and $\bar{e} = \frac{\sum e_i}{n}$ represents the mean

of the response differences. Since $e_i = x_i - y_i$, $\sum_{i=1}^n e_i^2 =$

$\sum_{i=1}^n (x_i - y_i)^2$. Whenever the responses in the census and

CES are different, $e_i^2 = 1$, since $(x_i - y_i)^2 = (1)^2$, or $(-1)^2$.

Whenever the responses are the same, $e_i^2 = 0$. Therefore,

$\sum_{i=1}^n e_i^2 = b+c$, the sum of all the differences in response

from the census and CES, or the gross difference. Now,

since $\sum_{i=1}^n e_i = c-b$, s_e^2 can be written as follows:

$$s_e^2 = \frac{b+c}{n-1} - \frac{(c-b)^2}{n(n-1)}$$

$$s_e^2 = \frac{b+c}{n-1} - \frac{(c-b)^2}{n(n-1)}$$

The gross difference can be expressed as

$$b+c = (n-1)s_e^2 + \frac{(c-b)^2}{n}$$

The gross difference rate is then

$$\frac{b+c}{n} = \frac{(n-1)}{n} s_e^2 + \frac{(c-b)^2}{n^2}$$

The indexes which are described more fully below are functions of the detail in classification of the characteristic. For example, the tables on age presented in this report are in terms of five-year age groups. If the detail were changed to one-year groups or ten-year groups, the indexes would change. Other characteristics would be affected in a similar way. At the present time some empirical studies are being conducted to discover the effect of the detail in classification.

$$1. \text{ Gross difference rate: } g = \frac{b+c}{n} = \frac{(n-1)s_e^2}{n} + \frac{(c-b)^2}{n^2}$$

When n is large, the first component of the gross difference rate is approximately equal to the simple response variance of the census statistic when the difference between the CES and the census is used as a measure of the bias. The second component is the square of the estimated bias of the census statistic. If the bias is small, the gross difference rate can be used as a measure of the simple response variance of the response differences.

It can be shown that if the census and a second survey were independently conducted under the same general conditions, the simple response variance of the response difference as developed above would be twice the simple response variance of the census (or of the second procedure). Therefore, under these conditions $g/2$ would be an approximate measure of the response variance of the census, and is in fact the measure used in this report. However, the CES was not conducted independently. As pointed out earlier differences between information reported in the census and the reinterview were reconciled. This would imply that the measurement $g/2$ tends to be an underestimate of the variance of the census.

$$2. \text{ Index of inconsistency: } \hat{I} = \frac{g}{2pq} = \frac{g}{p_1q_1 + p_2q_2}$$

This index shows the ratio of the simple response variance $g/2$, to pq where p is the average proportion in the census and CES having the specified characteristic. If the CES is viewed as being a repetition of

the census, then pq can be estimated by $\frac{p_1 q_1 + p_2 q_2}{2}$. $p_1 = \frac{(a+c)}{n}$ is the proportion of matched persons in the CES sample having a specified characteristic in the census, $p_2 = \frac{(a+b)}{n}$ is the proportion of matched persons in the CES sample having that same characteristic in the CES, $q_1 = 1 - p_1 = \frac{(b+d)}{n}$ and $q_2 = 1 - p_2 = \frac{(c+d)}{n}$. Therefore, \hat{I} is estimated in the following way:

$$\hat{I} = \frac{(b+c)/n}{\left(\frac{a+c}{n}\right) \left(\frac{b+d}{n}\right) + \left(\frac{a+b}{n}\right) \left(\frac{c+d}{n}\right)}$$

A simple interpretation of \hat{I} is as follows:

Assume that a sample of n elements is drawn with equal probability and with replacement. Also, assume that the between element covariance of response deviations is zero—that is, that the quality of response of one person is independent of the quality of response for any other person. Then, for a sample of one element, the total variance can be expressed as the binomial variance, pq . The total variance is, then, the sum of the simple response variance and the “pure” sampling variance. Therefore, the simple response variance is equal to or less than pq . As stated above, $g/2$ is an estimate of the simple response variance.

As the measurement of the specified characteristic becomes less reliable, but remains unbiased, the simple response variance increases and the sampling variance decreases. When the measurement process becomes equivalent to tossing the same coin for each element ($0 < p < 1$ and constant for all trials) the response variance is equal to the total variance. The index of inconsistency is useful in determining the consistency or reliability of a zero-one variate included in the census.

The estimated maximum value for the gross difference rate between the census and CES is $p_1 q_1 + p_2 q_2$. This maximum value is obtained on the assumption that the census and CES were conducted independently or that the results are positively correlated to the extent that they were not conducted independently. A second assumption is that the CES is a repetition of the census process and

¹ Under other conditions (for example, where there is knowledge that the reinterview survey is subject to much less response variability than the census and it is desired to compare the quality of two censuses) it would be more appropriate to use a different estimate of pq . In the example mentioned the comparison may be improved if the values of p and q are taken from the surveys responsible for most of the response variability. For

the sake of uniformity the same estimator $\left(\frac{p_1 q_1 + p_2 q_2}{2}\right)$ will be used in all of the basic reports in the ER 60 series. For some later analyses of the data, and comparisons of the 1960 Census with other censuses or surveys, a different estimate of pq may be used for some characteristics. For the vast majority of items, the various forms of the estimates produce almost identical data.

the expected value obtained in the CES is the same as the expected value obtained in the census. Under these assumptions, $p_1 q_1 + p_2 q_2$ is very nearly equal to $2pq$ where p is the average proportion in the census and CES having the specified characteristic.

The index of inconsistency lies between 0 and 1, if the assumptions given above hold. However, the estimator of the index can be greater than 1. Such items have been starred in table 24. In all cases, the closer the \hat{I} is to 1, the less reliable is the item.

$$3. \text{ Net difference rate: } \bar{e} = \sum_{i=1}^n \frac{e_i}{n} = \frac{c-b}{n}$$

This index gives an estimate of the amount of bias in the census statistic. If the sign is negative, there is an understatement in the census. For example, the net difference rate for the number of self-employed males with an income of \$2500-\$2999 is -0.16 percent. Upon looking at table 20 showing self-employment income for males, one can see that there were more males with an income in the \$2500-\$2999 range in the CES than in the census. The difference amounted to 0.16 percent of all males included in the cross-classification. On the other hand, the net difference rate for the number of self-employed males with an income in the \$3000-\$3499 range is 0.29 percent implying there were more self-employed males in this income range in census than in the CES.

$$4. \text{ Index of net shift relative to CES results: } \frac{\bar{e}}{p_2} = \frac{c-b}{a+b}$$

This index shows the ratio of the net difference to the number in the class reported in the CES. The net difference rate for the number of self-employed males with an income in the \$3000-\$3499 range is 0.29 percent. The index of net shift relative to the CES total for this characteristic is 49.73 percent. The net difference in this case represents the major portion of all cases in the CES total for the characteristic. The census estimate of this item was 49.73 percent greater than the CES estimate.

$$5. \text{ Percent of population units identically distributed relative to CES results: } r = \frac{a}{a+b}$$

Since the CES is taken as the standard, this index gives an indication of the stability of the response relative to the standard. This index has an interesting relationship to the index of inconsistency. When the proportion of persons with the specific characteristic in the CES is small, the two indexes are complementary. When the proportion of persons with the specific characteristic in the CES is large, the index of inconsistency provides a more reliable measure of the stability of response. However, “ r ” appears to be a useful index because its form is simpler than the index of inconsistency. Furthermore, its meaning and implication can be grasped more easily.

Summary of Results

Table B below presents, in summary form, information on the quality of each Population Census characteristic

Table C.--NUMBER OF CLASSES STUDIED, BY TYPE OF POPULATION CHARACTERISTIC AND NET DIFFERENCE RATE

Net difference rate ^{1/} (in percent)	Total classes	Population characteristic											
		Sex	Color	Age	Mobil- ity	School enroll- ment	School attain- ment	Type of school	Chil- dren ever born	Employ- ment in 1959	Total in- come	Self- employ- ment income	Other in- come
Total classes..	322	2	2	144	5	17	15	6	13	6	48	32	32
0.00 - 0.09...	132	-	-	78	-	6	3	2	6	-	13	15	9
0.10 - 0.49...	141	2	2	62	2	8	7	2	5	6	20	15	10
0.50 - 0.99...	33	-	-	4	2	3	5	2	2	-	6	2	7
1.00 - 1.99...	2	-	-	-	1	-	-	-	-	-	1	-	-
2.00 - 2.99...	3	-	-	-	-	-	-	-	-	-	3	-	-
3.00 - 3.99...	1	-	-	-	-	-	-	-	-	-	1	-	-
4.00 - 4.99...	3	-	-	-	-	-	-	-	-	-	2	-	1
5.00 or over...	7	-	-	-	-	-	-	-	-	-	2	-	5

^{1/} Positive and negative values of the net difference rate have been grouped together. For example, a net difference rate of -.39 is included in the group 0.10 to 0.49.

In the third sample, the CES interviewer conducted a completely independent interview. The census data were not available to him, and, therefore, no reconciliation was attempted.

This report presents the comparisons, for the first and second samples, of the final, reconciled CES results with the census data as transcribed from the census schedules. The results from the third sample will be presented in another report in the Evaluation and Research Program series.

In order to produce as accurate data as possible for the CES, procedures were used that differed from those of the census in several important respects:

1. Superior interviewers were selected and they were given more intensive training than was possible for the census interviewers.
2. The CES interviewers were paid hourly rates instead of the piece rates used in the census.
3. Information on CES characteristics for an adult were obtained from the person himself by direct interview. In the census, information for all members of a household were obtained either from a self-enumeration form or from any responsible member of the household who was home when the interviewer called.
4. The CES interviewers conducted an intensive interview. The interviewers probed much more deeply than did the regular census questionnaire in order to get as accurate information as possible on the characteristics being studied. Report ER 60 No. 1 contains a copy of the CES questionnaire.

A ratio estimation procedure at the regional level was utilized in weighting the sample results to produce the estimates shown in this report. The data were estimated by use of the following formula:
$$X' = \sum_{i=1}^4 \frac{x_i}{y_i} Y_i$$

where X' is the estimate shown in this report for the total United States.

x_i is the simple expansion estimate (i.e., multiplied by the reciprocal of the probability of selection) of persons correctly counted and having a specified characteristic in a region. For example, x_i could be the CES estimate of the number of persons in the northeast region in the age range 20-24.

y_i is the simple expansion estimate of the total number of persons correctly counted in the region, based on the CES sample. y_i could be the total number of correctly counted persons in the northeast region from the CES sample.

Y_i is the census count of persons in a specified region less an estimate of the number of erroneously enumerated persons in the region. For example, Y_i could be the number of persons correctly counted in the census in the northeast region.

Limitations of Data

1. Since the figures in this report are based on sample data, they are subject to sampling variability. Table D indicates the approximate sampling variability of the CES estimates in this report, as a function of the size of the estimate. The estimates of sampling variability given in

this table are expressed as standard errors. (The chances are 2 out of 3 that the difference due to sampling variability between an estimate and the figure that would have been obtained from a complete enumeration is less than the standard error.)

The standard errors in table D apply to the estimates appearing in any cell of the cross-classifications in tables 1-23. The gross difference and net difference are of particular interest in any analysis. The standard error of these two items can be considered as approximately the same for any characteristic and may be obtained by using the standard error in table D for an estimate of the size of the gross difference. As an illustration of the use of table D, refer to table 17. This table shows that there was a total of 563,000 persons reporting a total income of between \$3500-3999 in the census and between \$4000-\$4499 in the CES. By linear interpolation in table D, it can be seen that the standard error of 563,000 is about 100,000. The gross difference for the income class \$3500-\$3999 is 3,718,000 and the net difference is -438,000. Table D shows that the standard error of an estimate of 3,718,000 is about 270,000, and this is therefore the standard error of both the gross difference of 3,718,000 units and of the net difference of -438,000 units.

Table D.--APPROXIMATE STANDARD ERRORS
OF CES ESTIMATES

Size of Estimate	Standard Error of Estimate
100,000	45,000
200,000	60,000
300,000	75,000
400,000	85,000
500,000	95,000
750,000	120,000
1,000,000	140,000
2,000,000	200,000
3,000,000	240,000
4,000,000	280,000
5,000,000	310,000
7,500,000	380,000
10,000,000	440,000
20,000,000	610,000
30,000,000	740,000
40,000,000	830,000
50,000,000	910,000
75,000,000	1,000,000
100,000,000	1,000,000

2. Errors in published census reports on population characteristics due to response errors by interviewers or respondents can arise in a number of different ways—from misclassification of these characteristics by the interviewer or respondent, by omission in the census of persons with the specified characteristics, or by duplicate enumeration of some persons. The tables in this report relate only to classification errors for those persons identified as correctly counted in the census. The effect on the statistics of persons erroneously enumerated or missed in the census is not included. Also, cross-classified information for persons who were noninterview in either the census or CES is not available.

3. Errors in classification may also have arisen during the transcription of the census information from the Advance Census Reports filled by the respondents to the census schedules and in transcription from the census schedules to the transcription sheets used in the reconciliation process. Also errors in classification may have been caused by enumerators misclassifying people.

4. The published census data on population characteristics had been through a mechanical editing process by the computer. Imputations for unknown and inconsistent entries were made as part of the computer edits of the original census records. There was also some manual editing of the census schedules. The CES data were matched with the unedited census data, the data before any coding or editing was done. Therefore the cross-classifications presented in this report may not fully reflect the published census data. It is planned for a later report to show the results of matching the CES data with the final edited census results. The data shown in this report have matched totals which are smaller than the published census totals because of "not reported" categories in the census. Within the matched cases there may be more differences because of inconsistencies which would have been resolved during census editing procedures.

5. An assumption necessary for a meaningful interpretation of the net error is that the CES schedule is the standard of accuracy. Though it seems reasonable to assume that the detailed probes elicited more accurate answers, the CES was still probably subject to some error.

6. As mentioned previously, the measures of quality shown here can only be approximately applied to statistics for local areas. For small areas, the correlations between response errors, caused by enumerators' patterns in making errors, is likely to dominate as a source of response variance. The effect of these correlations is not included in this report.

7. Approximately nine percent of the CES sample persons were not interviewed. Either they could not be contacted by the interviewer during numerous calls at the housing unit or they refused to be interviewed. If these noninterview cases were different from the interviewed population, the final cross-tabulations do not accurately represent the total U. S. population.

8. Within the interviewed sample cases the information on one or more characteristics was not reported for some persons in either the census or the CES or both. Table E below shows the nonresponse rates by population characteristic for both the census and the CES for the persons in the CES sample. For those items which concern a subset of the total population, the nonresponse rates are only for the subset of the population under consideration. For example, the 6.6% census nonresponse rate for school enrollment and type of school does not also reflect the nonresponse rate for age. The base is the total number of persons who reported that they were between 5 and 34. The total nonresponses in the census for specific characteristics are also shown in *U. S. Census of Population: 1960, Volume 1, Characteristics of the Population, U. S. Summary, PC-ID*. Those figures are more accurate than those shown for the census in table E, since they are based on all the census data.

Table E.--RESPONSE AND NONRESPONSE RATES
IN CENSUS AND CES BY CHARACTERISTIC
(In percent)

Characteristic	Characteristic reported on in both CES and census (1)	Characteristic not reported on in CES or census			
		Total (2)	Reported in CES but not in census (3)	Reported in census but not in CES (4)	Not reported in both census and CES (5)
Sex.....	99.5	0.5	0.2	0.3	-
Race.....	98.9	1.1	0.6	0.5	-
Marital status.....	99.7	0.3	-	-	0.3
Male age.....	99.1	0.9	0.4	0.5	-
Female age.....	98.9	1.1	0.4	0.6	0.1
White age.....	99.3	0.7	0.3	0.3	0.1
Nonwhite age.....	96.7	3.3	1.1	2.2	-
White male age.....	99.4	0.6	0.3	0.3	-
White female age.....	99.3	0.7	0.3	0.4	-
Nonwhite male age.....	97.4	2.6	1.0	1.6	-
Nonwhite female age.....	96.3	3.7	1.0	2.7	-
Residence five years prior to census.....	95.4	4.6	2.1	2.3	0.2
School enrollment and type of school.....	87.8	12.2	6.6	1.1	4.5
Educational attainment.....	96.6	3.4	2.0	1.4	-
Number of children ever born.....	90.5	9.5	5.5	2.5	1.5
Work status in 1959, total population.....	71.2	28.8	16.6	9.0	3.2
Work status in 1959, males.....	77.7	22.3	8.6	11.9	1.8
Work status in 1959, females.....	65.7	34.3	23.7	6.3	4.3
Total personal income, total population.....	98.1	1.9	0.9	0.8	0.2
Total personal income, males.....	97.9	2.1	1.0	1.0	0.1
Total personal income, females.....	98.4	1.6	0.8	0.6	0.2
Self-employment income, males.....	93.6	6.4	2.2	3.3	0.9
Self-employment income, females.....	97.1	2.9	1.3	1.2	0.4
Income from other sources, males.....	93.5	6.5	3.3	2.7	0.5
Income from other sources, females.....	94.3	5.7	3.4	2.0	0.3

Related Reports

The concepts used in determining the classification of the data in both the 1960 Census and the CES are described in U. S. Bureau of the Census, *U. S. Census of Population: 1960, Volume I, Characteristics of the Population*. The tables showing detailed population characteristics are available in the same volume. For a description of the census itself, see Bureau of the Census Working Paper No. 16, *Procedural Report on the 1960 Censuses of Population and Housing*.

Series ER 60 No. 1, *Evaluation and Research Program of the U. S. Censuses of Population and Housing, 1960: Background, Procedures, and Forms*, contains a description of the forms and procedures used in the CES. Additional reports in the ER 60 series provide data on other aspects of the accuracy of the censuses, e.g., response errors in the Census of Housing, coverage errors, and so forth.

For a discussion of some of the indexes of response variance and bias as related to the Current Population Survey, see Bureau of the Census Technical Paper No. 6, *The Current Population Survey Reinterview Program*. A more mathematical presentation of some of these indexes is contained in "The Estimation and Interpretation of Gross Differences and the Simple Response Variance" by Morris H. Hansen, William N. Hurwitz and Leon Pritzker, 1963, (to be published).

A number of other studies were conducted as part of the 1960 census evaluation and research program which give measures of the accuracy of census information on population characteristics. The Current Population Survey-Census match provides a check on the accuracy of labor force data, income data, social data and demographic data. These data will be presented in the ER 60 series of publications. The Employer Record Check was designed to

compare information on occupation information secured from employers with the occupation information collected in the census. The results of this study will also appear in the ER 60 series.

A study similar to the CES, the Post-Enumeration Survey, was used to evaluate the 1950 Censuses. Results of that study are available in Bureau of the Census Technical Paper No. 4, *The Post-Enumeration Survey: 1950*, as well as in unpublished memoranda, and in articles published by Census Bureau staff members. It is difficult

to determine whether the quality of enumeration in the 1960 Census is significantly different from the quality of the 1950 Census. Reported differences in quality may arise in part from improvement in procedures in the 1960 Evaluation Study, changes in accuracy between the 1950 and 1960 Censuses, or both. Any comparisons of the 1960 results with the 1950 data should be made only with appreciation of the above qualifications. Later reports will present as definitive analyses and comparisons as the data and available records will permit.

Table 9.—INCIDENCE 5 YEARS PRIOR TO CENSUS OF PERSONS 5 YEARS OLD AND OVER
 Thousands of persons. Estimates for the United States of differences in reporting from the 1960 Content Evaluation Study for Population Characteristics
 Persons correctly included in census by census classification

Census classification	Age reported in census				Persons 5 years old and over, 1955 residence reported in census				Persons 5 years old and over, 1955 residence not reported			
	Total persons under 5 yrs.	Persons under 5 yrs. reported	Age not reported	Total persons under 5 yrs.	Total	Different county, same State	Different county, same State	Different county, same State	Total	Different county, same State	Different county, same State	Different county, same State
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Total persons.....	178,273	893	177,380	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626
Age not reported.....	1,168	131	1,037	18	1,019	56	963	513	282	108	42	18
Age reported.....	177,105	762	176,343	19,382	156,961	3,802	153,159	84,968	42,502	12,559	11,522	1,608
Persons under 5 years old.....	19,412	43	19,371	19,036	345	148	197	81	94	12,559	11,522	22
Persons 5 years old and over.....	157,693	721	156,972	336	156,616	3,654	152,962	84,887	42,408	12,559	11,522	1,586
1955 residence not reported.....	4,071	20	4,051	91	3,960	317	3,643	522	1,710	696	646	39
1955 residence reported.....	153,622	701	152,921	265	152,656	3,337	149,319	84,365	40,698	11,863	10,876	1,547
Same house.....	89,993	419	89,574	132	89,442	1,217	88,225	50,666	1,543	38	-	18
Different house, same county.....	42,122	226	41,896	133	41,763	1,540	40,223	2,699	36,527	321	217	39
Different county, same State.....	13,063	56	13,007	170	12,837	170	12,667	447	1,343	10,462	10,462	110
Different State.....	12,866	-	12,866	-	12,866	90	12,776	58	292	36	36	1,380
Abrond.....	1,876	-	1,876	-	1,876	90	1,786	58	292	36	36	1,380

Table 10.—YEAR OF SCHOOL IN WHICH ENROLLED OF PERSONS 5 TO 34 YEARS OLD
 Thousands of persons. Estimates for the United States of differences in reporting from the 1960 Content Evaluation Study for Population Characteristics
 Persons correctly included in census by census classification

Census classification	Age reported in census										Persons 5 to 34 years old, school enrollment reported in census																													
	Total persons under 5 yrs.	Persons under 5 yrs. reported	Age not reported	Total persons under 5 yrs.	Kind, or	Enrolled, year of school not reported	Net enrolled	Total	Kind, or	Enrolled, year of school reported	Total	Kind, or	Enrolled, year of school not reported	Net enrolled	Total	Kind, or	Enrolled, year of school reported	Total	Kind, or	Enrolled, year of school not reported	Net enrolled	Total	Kind, or	Enrolled, year of school reported	Total	Kind, or	Enrolled, year of school not reported	Net enrolled	Total	Kind, or	Enrolled, year of school reported	Total	Kind, or	Enrolled, year of school not reported	Net enrolled	Total				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
Total persons.....	178,273	893	177,380	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	
Age not reported.....	1,168	131	1,037	18	1,019	56	963	513	282	108	42	18	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	19,400	157,980	3,838	154,142	85,481	42,784	12,667	11,564	1,626	
Age reported.....	177,105	762	176,343	19,382	156,961	3,802	153,159	84,968	42,502	12,559	11,522	1,608	19,382	156,961	3,802	153,159	84,968	42,502	12,559	11,522	1,608	19,382	156,961	3,802	153,159	84,968	42,502	12,559	11,522	1,608	19,382	156,961	3,802	153,159	84,968	42,502	12,559	11,522	1,608	
Persons under 5 years old.....	19,412	43	19,371	19,036	345	148	197	81	94	12,559	11,522	22	19,412	19,036	345	148	197	81	94	12,559	11,522	22	19,412	19,036	345	148	197	81	94	12,559	11,522	22	19,412	19,036	345	148	197	81	94	
Persons 5 to 34 years old.....	157,693	721	156,972	336	156,616	3,654	152,962	84,887	42,408	12,559	11,522	1,586	157,693	156,972	336	156,616	84,887	42,408	12,559	11,522	1,586	157,693	156,972	336	156,616	84,887	42,408	12,559	11,522	1,586	157,693	156,972	336	156,616	84,887	42,408	12,559	11,522	1,586	
1955 residence not reported.....	4,071	20	4,051	91	3,960	317	3,643	522	1,710	696	646	39	4,071	3,960	317	3,643	522	1,710	696	646	39	4,071	3,960	317	3,643	522	1,710	696	646	39	4,071	3,960	317	3,643	522	1,710	696	646	39	
1955 residence reported.....	153,622	701	152,921	265	152,656	3,337	149,319	84,365	40,698	11,863	10,876	1,547	153,622	152,921	265	152,656	84,365	40,698	11,863	10,876	1,547	153,622	152,921	265	152,656	84,365	40,698	11,863	10,876	1,547	153,622	152,921	265	152,656	84,365	40,698	11,863	10,876	1,547	
Same house.....	89,993	419	89,574	132	89,442	1,217	88,225	50,666	1,543	38	-	18	89,993	89,442	132	89,310	50,666	1,543	38	-	18	89,993	89,442	132	89,310	50,666	1,543	38	-	18	89,993	89,442	132	89,310	50,666	1,543	38	-	18	
Different house, same county.....	42,122	226	41,896	133	41,763	1,540	40,223	2,699	36,527	321	217	39	42,122	41,763	133	41,630	2,699	36,527	321	217	39	42,122	41,763	133	41,630	2,699	36,527	321	217	39	42,122	41,763	133	41,630	2,699	36,527	321	217	39	
Different county, same State.....	13,063	56	13,007	170	12,837	170	12,667	447	1,343	10,462	10,462	110	13,063	12,837	170	12,667	447	1,343	10,462	10,462	110	13,063	12,837	170	12,667	447	1,343	10,462	10,462	110	13,063	12,837	170	12,667	447	1,343	10,462	10,462	110	
Different State.....	12,866	-	12,866	-	12,866	90	12,776	58	292	36	36	1,380	12,866	12,776	90	12,686	58	292	36	36	1,380	12,866	12,776	90	12,686	58	292	36	36	1,380	12,866	12,776	90	12,686	58	292	36	36	1,380	
Abrond.....	1,876	-	1,876	-	1,876	90	1,786	58	292	36	36	1,380	1,876	1,786	90	1,696	58	292	36	36	1,380	1,876	1,786	90	1,696	58	292	36	36	1,380	1,876	1,786	90	1,696	58	292	36	36	1,380	

These are counts of not reported in school enrollment and/or in type of school in which enrolled (public, private).

Table 11.—LEVEL AND TYPE OF SCHOOL IN WHICH ENROLLED OF PERSONS 5 TO 34 YEARS OLD
[Thousands of persons. Estimates for the United States of differences in reporting; from the 1940 Content Evaluation Study for Population Characteristics]

CES classification	Persons correctly included in census by census classification																					
	Persons 5 to 34 years old, school enrollment reported in census					Persons 5 to 34 years old, school enrollment not reported in census																
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Total persons.....	178,273	893	177,380	96,210	81,170	9,433	71,667	26,232	43,435	148	130	18	42,287	31,366	27,064	4,322	9,718	8,579	1,139	2,203	1,729	474
Age not reported.....	1,168	131	1,037	759	278	94	184	94	30	90	18	18	90	73	55	17	17	17	1,729	1,729	474	474
Age reported.....	177,105	762	176,343	95,451	80,892	9,339	71,503	26,138	43,345	148	130	18	42,197	31,293	27,009	4,285	9,701	8,562	1,139	2,203	1,729	474
Persons under 5 or over 34 years old.....	95,924	533	95,400	94,685	80,176	510	206	169	307	148	130	18	43,160	31,256	26,972	4,284	9,701	8,562	1,139	2,203	1,729	474
Persons 5 to 34 years old.....	81,171	299	80,942	94,666	80,176	8,679	71,297	27,969	43,308	148	130	18	43,160	31,256	26,972	4,284	9,701	8,562	1,139	2,203	1,729	474
School enrollment not reported.....	4,836	96	4,738	283	4,455	3,986	869	219	650	148	130	18	630	434	288	146	128	89	39	58	38	20
School enrollment reported.....	76,335	131	76,204	94,376	75,721	5,253	70,428	27,740	42,688	148	130	18	42,540	30,822	26,684	4,138	9,573	8,473	1,100	2,145	1,691	454
Not enrolled.....	31,616	75	31,541	294	31,247	4,044	27,203	26,776	42,661	148	130	18	42,113	30,690	26,592	4,138	9,592	8,469	1,083	2,031	1,595	436
Enrolled.....	44,719	56	44,663	189	44,474	1,209	43,225	43,225	42,661	148	130	18	42,113	30,690	26,592	4,138	9,592	8,469	1,083	2,031	1,595	436
Level not reported.....	395	-	395	-	395	-	395	395	377	53	53	53	395	395	377	186	120	120	-	18	18	18
Public.....	395	-	395	-	395	-	395	395	377	53	53	53	395	395	377	186	120	120	-	18	18	18
Private.....	44,224	56	44,168	189	44,079	1,209	42,830	42,830	41,884	95	77	77	41,789	30,334	26,366	4,138	9,272	8,189	1,083	2,015	1,577	436
Level and type reported.....	32,537	20	32,517	189	32,328	942	31,386	484	30,902	41	41	41	30,861	26,193	4,138	494	399	399	95	18	18	18
Kindergarten or elementary.....	29,051	20	29,031	189	28,842	780	27,062	442	26,620	41	41	41	26,579	22,162	25,889	3,865	3,999	3,999	95	18	18	18
Public.....	4,486	-	4,486	-	4,486	-	4,486	4,486	4,282	18	18	18	4,264	4,169	-	-	-	-	-	-	-	-
Private.....	9,828	18	9,808	189	9,828	334	9,593	334	9,259	36	36	36	9,223	173	173	173	173	173	988	332	281	51
High school.....	8,659	18	8,641	-	8,641	235	8,406	243	8,163	36	36	36	8,127	173	173	173	173	173	7,730	321	281	51
Public.....	1,187	-	1,187	-	1,187	-	1,187	91	1,096	-	-	-	1,096	-	-	-	-	-	94	291	281	51
Private.....	1,621	18	1,603	-	1,603	72	1,621	128	1,232	-	-	-	1,232	-	-	-	-	-	60	60	60	385
College.....	1,473	18	1,455	-	1,455	37	1,428	63	1,322	-	-	-	1,322	-	-	-	-	-	60	60	60	385
Private.....	1,473	18	1,455	-	1,455	37	1,428	63	1,322	-	-	-	1,322	-	-	-	-	-	60	60	60	385

*This figure contains a count of not reported in school enrollment and/or type of school in which enrolled (public, private).

Table 12.—EDUCATIONAL ATTAINMENT OF PERSONS 25 YEARS OLD AND OVER
[Thousands of persons. Estimates for the United States of differences in reporting; from the 1940 Content Evaluation Study for Population Characteristics]

CES classification	Persons correctly included in census by census classification																												
	Persons 25 years old and over, years of school completed reported in census					Persons 25 years old and over, years of school completed not reported in census																							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
Total persons.....	178,273	893	177,380	96,210	81,170	9,433	71,667	26,232	43,435	148	130	18	42,287	31,366	27,064	4,322	9,718	8,579	1,139	2,203	1,729	474	20	3,784	3,817	1,787	4,223	2,679	
Age not reported.....	1,168	131	1,037	759	278	94	184	94	30	90	18	18	90	73	55	17	17	17	1,729	1,729	474	474	20	3,784	3,817	1,787	4,223	2,679	
Age reported.....	177,105	762	176,343	95,451	80,892	9,339	71,503	26,138	43,345	148	130	18	42,197	31,293	27,009	4,285	9,701	8,562	1,139	2,203	1,729	474	20	3,784	3,817	1,787	4,223	2,679	
Persons under 25 years old.....	79,603	73	79,530	94,925	79,079	451	99	352	57	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Persons 25 years old and over.....	97,502	689	96,813	96,526	91,813	9,433	71,667	26,232	43,435	148	130	18	42,287	31,366	27,064	4,322	9,718	8,579	1,139	2,203	1,729	474	20	3,784	3,817	1,787	4,223	2,679	
Years of school completed not reported.....	1,501	99	1,402	18	1,384	16	1,368	76	592	-	-	-	54	95	150	77	216	513	-	-	-	-	-	-	-	-	-	-	-
Years of school completed reported.....	96,001	590	95,411	96,508	91,429	9,417	71,591	26,156	43,376	148	130	18	42,233	31,271	27,038	4,306	9,682	8,562	1,139	2,203	1,729	474	20	3,694	3,750	1,767	4,148	2,625	
No school.....	1,958	194	1,764	1,938	40	3,918	697	34,221	412	20,616	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669	669
Elementary, total.....	35,132	18	35,114	40	35,074	669	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405	34,405
Year not reported.....	1,236	18	1,218	-	1,218	-	1,218	-	1,218	-	-	-	1,218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-2 years.....	4,118	38	4,080	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	4,118	
3-4 years.....	7,171	38	7,133	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	7,171	
5-6 years.....	6,760	38	6,722	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	6,760	
7 years.....	15,140	62	15,078	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	15,140	
8 years.....	43,681	318	43,363	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	43,681	
High school, total.....	309	70	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	309	
Year not reported.....	6,072	70	6,002	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	6,072	
1 year.....	4,455	25	4,430	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	4,455	
2 years.....	25,711	225	25,486	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	25,711	
3 years.....	15,310	78	15,232	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	
College, total.....	15,310	78	15,232	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	15,310	
Year not reported.....	3,276	19	3,257	3,276	3,276																								

Accuracy of Data on Population Characteristics as Measured by Reinterviews

Table 14.—WORK STATUS IN 1959 OF PERSONS 14 YEARS OLD AND OVER

[Thousands of persons. Estimates for the United States of differences in reporting; from the 1960 Content Evaluation Study for Population Characteristics]

CES classification	Persons correctly included in census, by census classification								
	Total persons	Age not reported	Age reported in census				14 years and over, work status in 1959 reported in census		
			Total reporting	Under 14 years	14 years and over	14 years and over, work status not reported ¹	Total reporting	Worked in 1959	Did not work in 1959
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Total persons.....	178,273	893	177,380	54,245	123,135	24,591	98,544	69,931	28,613
Age not reported.....	1,168	131	1,037	91	946	220	726	480	246
Age reported.....	177,105	762	176,343	54,154	122,189	24,371	97,818	69,451	28,367
Persons under 14 years old.....	54,203	98	54,105	53,797	308	288	20	-	20
Persons 14 years old and over.....	122,902	664	122,238	37	121,881	24,083	97,798	69,451	28,347
Work status in 1959 not reported ¹	15,003	37	14,966	90	14,876	3,863	11,013	9,211	1,802
Work status in 1959 reported.....	107,899	627	107,272	267	107,005	20,220	86,785	60,240	26,545
Worked in 1959.....	64,987	477	64,510	76	64,434	4,286	60,148	57,043	3,105
Did not work in 1959.....	42,912	150	42,762	191	42,571	15,934	26,637	3,197	23,440

¹If the answer to P30 "Last year (1959) did this person work at all, even for a few days?" was left blank, the coder was instructed to look at P26 "When did he last work at all, even for a few days?" However, it seems unlikely that this instruction was always followed.

Table 15.—WORK STATUS IN 1959 OF MALES 14 YEARS OLD AND OVER

[Thousands of persons. Estimates for the United States of differences in reporting; from the 1960 Content Evaluation Study for Population Characteristics]

CES classification	Persons correctly included in census, by census classification												
	Total persons	Sex not reported	Sex reported in census				Males, age reported in census						
			Total re- porting sex	Females	Males	Males, age not reported	Total	Under 14 years	14 years and over	14 years and over, work status not reported ¹	14 yrs. and over, work status in 1959 reported in census		
											Total re- porting	Worked in 1959	Did not work in 1959
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Total persons.....	178,273	322	177,951	90,795	87,156	380	86,776	28,014	58,762	6,521	52,241	45,313	6,928
Sex not reported.....	572	17	555	259	296	17	279	75	204	55	149	149	-
Sex reported.....	177,701	305	177,396	90,536	86,860	363	86,497	27,939	58,558	6,466	52,092	45,164	6,928
Females.....	91,040	116	90,924	89,945	979	18	961	399	602	290	312	197	115
Males.....	86,661	189	86,472	591	85,881	345	85,536	27,580	57,956	6,176	51,780	44,967	6,813
Age not reported.....	433	-	433	20	413	19	394	73	321	39	282	208	74
Age reported.....	86,228	189	86,039	571	85,468	326	85,142	27,507	57,635	6,137	51,498	44,759	6,739
Under 14 years old.....	27,987	60	27,927	400	27,527	59	27,468	27,319	149	149	-	-	-
14 years old and over.....	58,241	129	58,112	171	57,941	267	57,674	188	57,486	5,988	51,498	44,759	6,739
Work status in 1959 not reported ¹	8,056	35	8,021	73	7,948	19	7,929	73	7,856	1,041	6,815	6,239	576
Work status in 1959 reported.....	50,185	24	50,091	98	49,993	248	49,745	115	49,630	4,947	44,683	38,520	6,163
Worked in 1959.....	40,928	94	40,834	80	40,754	229	40,525	39	40,486	2,142	38,344	37,232	1,112
Did not work in 1959.....	9,257	-	9,257	18	9,239	19	9,220	76	9,144	2,805	6,339	1,288	5,051

¹If the answer to P30 "Last year (1959) did this person work at all, even for a few days?" was left blank, the coder was instructed to look at P26 "When did this person work at all, even for a few days?" However, it seems unlikely that this instruction was always followed.

Table 16.—WORK STATUS IN 1959 OF FEMALES 14 YEARS OLD AND OVER

[Thousands of persons. Estimates for the United States of differences in reporting; from the 1960 Content Evaluation Study for Population Characteristics]

CES classification	Persons correctly included in census, by census classification												
	Total persons	Sex not reported	Sex reported in census				Females, age reported in census						
			Total re- porting sex	Males	Females	Females, age not reported	Total	Under 14 years	14 years and over	14 years and over, work status not reported ¹	14 yrs. and over, work status in 1959 reported in census		
											Total re- porting	Worked in 1959	Did not work in 1959
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Total persons.....	178,273	322	177,951	87,156	90,795	419	90,376	26,170	64,206	18,017	46,189	24,525	21,664
Sex not reported.....	572	17	555	296	259	-	259	113	146	17	129	129	-
Sex reported.....	177,701	305	177,396	86,860	90,536	419	90,117	26,057	64,060	18,000	46,060	24,396	21,664
Males.....	86,661	189	86,472	85,881	591	-	591	400	191	18	173	133	40
Females.....	91,040	116	90,924	979	89,945	419	89,526	25,657	63,869	17,982	45,887	24,263	21,624
Age not reported.....	642	-	642	-	642	95	547	18	529	166	363	212	151
Age reported.....	90,398	116	90,282	979	89,303	324	88,979	25,639	63,340	17,816	45,524	24,051	21,473
Under 14 years old.....	26,029	-	26,029	415	25,614	22	25,592	121	25,471	121	-	-	-
14 years old and over.....	64,369	116	64,253	564	63,689	302	63,387	168	63,219	17,695	45,524	24,051	21,473
Work status in 1959 not reported ¹	6,871	-	6,871	126	6,745	18	6,727	16	6,711	2,712	3,999	2,793	1,206
Work status in 1959 reported.....	57,498	116	57,382	438	56,944	284	56,660	152	56,508	14,983	41,525	21,258	20,267
Worked in 1959.....	23,861	77	23,784	166	23,618	173	23,445	37	23,408	2,106	21,302	19,349	1,953
Did not work in 1959.....	33,637	39	33,598	272	33,326	111	33,215	115	33,100	12,877	20,223	1,909	18,314

¹If the answer to P30 "Last year (1959) did this person work at all, even for a few days?" was left blank, the coder was instructed to look at P26 "When did he last work at all, even for a few days?" However, it seems unlikely that this instruction was always followed.

Table 21.—SELF-EMPLOYMENT INCOME OF FEMALES 14 YEARS OLD AND OVER

Persons correctly included in census by census classification	Females, age reported in census										Females, age reported in census										Females, age reported in census										
	Total persons not reported sex	Total males	Total females	14 years and over	Under 14 years	14 years and over, self-employment reported	Total		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income		With self-employment income				
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Total persons	178,272	222	177,951	87,156	90,795	419	90,776	26,170	64,206	1,147	63,059	61,409	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Sex not reported	17	17	555	296	259	419	259	113	146	1,147	146	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18				
Sex reported	177,701	305	177,396	86,860	90,536	419	90,517	26,097	64,060	1,147	62,913	61,313	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Males	86,662	189	86,472	85,821	591	419	89,526	25,697	63,829	1,147	62,722	61,122	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Females	91,040	116	90,924	89,945	591	419	89,526	25,697	63,829	1,147	62,722	61,122	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Age not reported	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642	642		
Age reported	90,398	116	90,282	89,303	324	324	88,579	25,639	63,340	1,107	62,231	60,631	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Under 14 years old	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028	26,028		
Under 14 years old and over	64,369	116	64,253	63,689	302	302	63,387	25,473	62,312	1,070	61,261	60,549	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
Self-employment income not reported	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899	899		
Self-employment income reported	63,370	116	63,254	62,708	302	302	62,406	25,173	61,842	217	61,625	60,908	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
With no self-employment income	62,230	96	62,134	61,588	302	302	61,286	25,120	60,660	893	60,767	59,874	1,600	467	371	159	133	174	174	79	53	73	36	36	17	17	20	18			
With self-employment income	1,140	20	1,126	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120	1,120		
\$1 to \$99 or less	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	337	
\$100 to \$499	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284	284
\$500 to \$999	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172
\$1,000 to \$4,999	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
\$5,000 to \$9,999	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
\$10,000 to \$24,999	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
\$25,000 to \$49,999	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
\$50,000 to \$99,999	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
\$100,000 to \$999,999	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
\$1,000,000 and over	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
\$10,000 and over	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

Table 22.—INCOME FROM OTHER SOURCES OF MALES 14 YEARS OLD AND OVER

Persons correctly included in census by census classification	Males, age reported in census										Males, age reported in census										Males, age reported in census											
	Total persons not reported sex	Total males	Total females	14 years and over	Under 14 years	14 yrs. and over, other income not reported	Total		With other income		With other income		With other income		With other income		With other income		With other income		With other income		With other income		With other income		With other income					
							(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Total persons	178,272	322	177,951	90,795	87,156	380	86,776	26,014	53,762	2,343	56,419	38,528	17,891	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	
Sex not reported	17	17	555	296	259	380	279	75	204	19	185	154	61	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	
Sex reported	177,701	305	177,396	86,860	86,897	363	86,497	27,939	53,558	2,324	56,234	38,374	17,870	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	
Males	91,040	116	90,924	89,945	591	363	89,526	27,939	53,558	2,324	56,234	38,374	17,870	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	
Females	86,662	189	86,472	85,821	591	363	85,945	27,939	53,558	2,324	56,234	38,374	17,870	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	
Age not reported	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433	433
Age reported	86,228	189	86,039	85,468	591	363	85,142	27,939	53,558	2,287	55,859	37,941	17,530	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	256
Under 14 years old	27,987	60	27,927	27,927	400	27,927	27,927	27,927	27,927	112	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815	27,815
Under 14 years old and over	58,241	129	58,112	57,541	188	188	57,456	25,712	51,631	2,175	55,311	37,481	17,530	7,873	3,758	2,248	1,072	954	580	224	256	256	256	256	256	256	256	256	256	256	256	256
Income from other sources not reported	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,914	
Income from other sources reported	56,287	129	56,198	55,596	152	152	55,444	25,560	51,672	1,912	53,732	37,023	16,707	7,463	3,473	2,138	978	913	562	228	266	266	266	266	266	266	266	266	266	266	266	
With no income from other sources	33,461	76	33,385	32,830	173	173	32,657	22,925	49,582	1,907	31,678	30,215	14,462	6,447	3,290	2,080	958	826	520	206	206	206	206	206	206	206	206	206	206	206	206	
With income from other sources	22,866	53	22,813	22,668	76	76	22,689	22,668	6,677	6,677																						

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Table 24.—1960 CES INDEXES OF RESPONSE VARIANCE AND BIAS, FOR THE UNITED STATES

[In percent]											
CES classification	Gross difference rate	Index of inconsistency	Net difference rate ¹	Index of net shift relative to CES	Percent in CES class identically reported	CES classification	Gross difference rate	Index of inconsistency	Net difference rate ¹	Index of net shift relative to CES	Percent in CES class identically reported
	(1)	(2)	(3)	(4)	(5)		(1)	(2)	(3)	(4)	(5)
SEX						WHITE FEMALE, AGE					
Male.....	0.88	1.77	0.21	0.44	99.31	0 to 4 years.....	0.32	1.76	0.11	1.12	98.96
Female.....	0.88	1.77	-0.21	-0.42	98.92	5 to 9 years.....	0.50	2.80	0.02	0.17	97.55
COLOR						10 to 14 years.....	0.28	1.57	-0.08	-0.83	98.17
White.....	0.44	1.12	0.19	0.22	99.86	15 to 19 years.....	0.26	1.89	0.02	0.33	98.41
Nonwhite.....	0.44	1.12	-0.19	-1.71	97.18	20 to 24 years.....	0.32	3.17	-0.14	-2.55	95.77
MALE, AGE						25 to 29 years.....	0.32	3.09	0.04	0.77	97.46
0 to 4 years.....	0.42	2.10	-0.07	-0.59	97.85	30 to 34 years.....	0.42	3.49	0.00	-0.03	96.73
5 to 9 years.....	0.58	2.75	0.04	0.38	97.76	35 to 39 years.....	0.72	5.35	0.11	1.55	95.78
10 to 14 years.....	0.56	2.75	0.11	0.97	98.04	40 to 44 years.....	1.00	7.65	0.05	0.74	93.24
15 to 19 years.....	0.52	3.81	-0.15	-2.11	95.45	45 to 49 years.....	0.82	6.74	0.12	1.89	94.59
20 to 24 years.....	0.34	3.79	0.07	1.44	97.08	50 to 54 years.....	0.74	6.48	-0.02	-0.30	93.78
25 to 29 years.....	0.36	3.45	0.11	1.92	97.67	55 to 59 years.....	0.44	4.81	-0.05	-1.10	94.89
30 to 34 years.....	0.50	4.10	-0.06	-0.89	95.73	60 to 64 years.....	0.60	8.22	-0.06	-1.64	91.33
35 to 39 years.....	0.66	5.58	0.15	2.38	95.90	65 to 69 years.....	0.44	6.15	0.10	2.91	95.44
40 to 44 years.....	0.86	6.80	-0.07	-1.03	93.18	70 to 74 years.....	0.62	10.05	-0.08	-2.39	89.20
45 to 49 years.....	0.80	6.87	-0.23	-3.66	91.84	75 to 79 years.....	0.30	8.47	-0.04	-2.46	90.55
50 to 54 years.....	0.90	8.84	0.08	1.47	92.31	80 to 84 years.....	0.14	7.31	-0.06	-5.24	90.34
55 to 59 years.....	0.68	6.84	0.23	4.38	95.57	85 years and over.....	0.10	12.06	-0.05	-11.99	82.71
60 to 64 years.....	0.74	10.73	-0.13	-3.64	88.03	NONWHITE MALE, AGE					
65 to 69 years.....	0.56	9.37	0.08	2.57	92.03	0 to 4 years.....	1.26	4.71	-0.42	-2.61	94.79
70 to 74 years.....	0.36	7.62	-0.15	-5.85	89.86	5 to 9 years.....	1.68	6.61	-0.02	-0.12	94.32
75 to 79 years.....	0.04	1.64	0.00	-0.26	98.26	10 to 14 years.....	1.24	5.51	0.44	3.45	96.85
80 to 84 years.....	0.00	0.00	0.00	0.00	100.00	15 to 19 years.....	1.24	7.21	-0.44	-4.51	91.37
85 years and over.....	0.00	0.00	0.00	0.00	100.00	20 to 24 years.....	0.20	2.06	0.20	3.99	100.00
FEMALE, AGE						25 to 29 years.....	0.42	3.89	0.42	7.61	100.00
0 to 4 years.....	0.36	1.95	0.06	0.52	98.52	30 to 34 years.....	0.76	6.89	0.03	0.50	93.75
5 to 9 years.....	0.54	2.96	0.03	0.34	97.51	35 to 39 years.....	1.92	20.34	-0.45	-8.68	77.17
10 to 14 years.....	0.32	2.87	-0.03	-0.32	98.15	40 to 44 years.....	1.35	13.75	0.23	4.46	88.00
15 to 19 years.....	0.28	2.09	0.00	0.01	98.07	45 to 49 years.....	1.02	10.98	0.18	5.66	91.19
20 to 24 years.....	0.38	3.56	0.12	-2.20	95.58	50 to 54 years.....	0.64	7.12	0.64	14.54	100.00
25 to 29 years.....	0.36	3.39	0.06	1.18	97.37	55 to 59 years.....	1.40	28.23	-0.60	-20.98	64.90
30 to 34 years.....	0.50	4.15	-0.01	-0.15	96.05	60 to 64 years.....	0.62	12.23	0.18	7.20	91.27
35 to 39 years.....	0.82	6.11	0.08	0.08	94.88	65 to 69 years.....	0.82	20.83	-0.38	-17.32	72.70
40 to 44 years.....	1.12	8.68	0.11	1.55	92.64	70 to 74 years.....	0.00	0.00	0.00	0.00	100.00
45 to 49 years.....	0.86	6.96	0.03	0.39	93.68	75 to 79 years.....	0.00	0.00	0.00	0.00	100.00
50 to 54 years.....	0.76	6.87	-0.03	-0.54	93.28	80 to 84 years.....	0.00	0.00	0.00	0.00	100.00
55 to 59 years.....	0.50	5.73	-0.03	-0.75	94.18	85 years and over.....	0.00	0.00	0.00	0.00	100.00
60 to 64 years.....	0.60	8.48	-0.07	-2.01	90.90	NONWHITE FEMALE, AGE					
65 to 69 years.....	0.46	6.81	0.09	2.71	94.70	0 to 4 years.....	0.66	2.49	-0.22	-1.39	97.21
70 to 74 years.....	0.62	10.17	-0.05	-1.54	89.45	5 to 9 years.....	1.04	4.35	0.20	1.46	96.95
75 to 79 years.....	0.30	9.17	0.00	0.15	91.05	10 to 14 years.....	0.62	3.37	0.18	1.85	97.86
80 to 84 years.....	0.16	8.15	-0.07	-7.11	88.66	15 to 19 years.....	0.60	3.89	-0.20	-2.35	95.31
85 years and over.....	0.08	10.86	-0.05	-10.85	84.35	20 to 24 years.....	0.82	7.01	0.01	0.23	93.53
WHITE, AGE						25 to 29 years.....	0.62	6.43	0.25	5.17	96.32
0 to 4 years.....	0.32	1.76	0.06	0.55	98.69	30 to 34 years.....	1.24	10.06	-0.07	-1.14	90.09
5 to 9 years.....	0.46	2.45	0.01	0.09	97.85	35 to 39 years.....	1.82	13.36	-0.14	-1.94	86.77
10 to 14 years.....	0.36	1.93	0.01	0.07	98.31	40 to 44 years.....	2.22	19.04	0.59	9.90	86.21
15 to 19 years.....	0.34	2.55	-0.05	-0.65	97.32	45 to 49 years.....	1.20	9.32	-0.81	-10.98	86.32
20 to 24 years.....	0.26	3.66	-0.06	-1.15	95.98	50 to 54 years.....	1.00	15.13	-0.16	-4.50	83.46
25 to 29 years.....	0.36	3.34	0.07	1.21	97.43	55 to 59 years.....	1.04	20.63	0.12	4.95	81.87
30 to 34 years.....	0.46	3.73	-0.05	-0.69	96.18	60 to 64 years.....	0.62	12.41	-0.18	-6.82	84.91
35 to 39 years.....	0.64	4.92	0.18	2.59	96.66	65 to 69 years.....	0.78	21.39	0.02	0.96	79.38
40 to 44 years.....	0.90	6.93	0.00	0.00	93.55	70 to 74 years.....	0.60	13.44	0.20	9.16	90.84
45 to 49 years.....	0.80	6.65	-0.08	-1.30	93.14	75 to 79 years.....	0.40	24.07	0.40	62.68	100.00
50 to 54 years.....	0.82	7.37	-0.13	-0.49	92.83	80 to 84 years.....	0.20	31.44	-0.20	-47.71	52.29
55 to 59 years.....	0.52	5.24	0.13	2.57	96.26	85 years and over.....	0.00	0.00	0.00	0.00	100.00
60 to 64 years.....	0.68	9.36	-0.09	-2.48	89.87	1955 RESIDENCE					
65 to 69 years.....	0.48	7.24	0.12	3.32	94.65	Same house.....	3.56	7.21	1.41	2.57	98.06
70 to 74 years.....	0.52	9.35	-0.13	-4.42	88.91	Different house, same county.....	4.96	12.56	0.32	1.18	91.38
75 to 79 years.....	0.18	5.52	-0.02	-1.51	93.85	Different county, same State.....	1.58	10.41	-0.65	-7.61	87.01
80 to 84 years.....	0.08	3.95	-0.03	-2.87	94.71	Different State.....	1.44	10.12	-0.92	-11.19	85.59
85 years and over.....	0.06	6.96	-0.03	-7.10	89.76	Abroad.....	0.38	17.39	-0.16	-13.33	77.28
NONWHITE, AGE						SCHOOL ENROLLMENT					
0 to 4 years.....	0.94	3.50	-0.31	-1.94	96.12	Kindergarten or elementary 1....	1.44	5.96	-0.73	-5.06	92.48
5 to 9 years.....	1.44	5.75	-0.02	-0.12	95.03	2.....	2.54	16.31	-0.01	-0.09	85.03
10 to 14 years.....	1.02	4.97	0.41	3.65	97.34	3.....	2.52	15.98	0.20	2.38	86.42
15 to 19 years.....	0.90	5.63	-0.31	-3.50	93.21	4.....	2.74	18.21	0.05	0.58	83.53
20 to 24 years.....	0.50	4.75	0.11	1.91	96.43	5.....	2.26	14.16	-0.03	-0.34	86.94
25 to 29 years.....	0.50	5.09	0.33	6.45	91.93	6.....	2.06	13.61	-0.35	-4.15	85.70
30 to 34 years.....	0.98	8.42	-0.02	-0.36	83.11	7.....	2.58	15.54	0.06	0.61	86.14
35 to 39 years.....	1.84	15.90	-0.29	-4.63	87.45	8.....	2.36	16.36	0.00	-0.01	84.91
40 to 44 years.....	1.76	16.61	0.40	7.41	86.67	High school 1.....	2.52	22.49	0.23	3.87	80.38
45 to 49 years.....	1.20	10.86	-0.42	-6.91	92.68	2.....	2.62	22.78	-0.49	-7.68	75.60
50 to 54 years.....	0.92	11.74	0.34	8.90	72.90	3.....	2.34	20.34	0.69	11.93	85.74
55 to 59 years.....	1.20	24.38	-0.23	-8.76	88.86	4.....	1.78	23.87	-0.31	-7.64	74.11
60 to 64 years.....	0.60	11.46	0.00	0.00	75.76	College 1.....	1.24	39.23	0.51	37.40	72.91
65 to 69 years.....	0.78	21.09	-0.18	-8.96	89.44	2.....	0.48	24.98	0.23	26.33	85.17
70 to 74 years.....	0.38	10.98	0.01	0.49	100.00	3.....	0.38	24.73	-0.30	-32.56	63.18
75 to 79 years.....	0.28	19.17	0.29	46.97	77.18	4.....	0.42	37.38	0.02	3.29	63.86
80 to 84 years.....	0.10	12.93	-0.10	-22.82	100.00	5 or more.....	0.24	22.92	0.24	59.04	100.00
85 years and over.....	0.00	0.00	0.00	0.00	100.00	TYPE AND LEVEL OF SCHOOL IN WHICH ENROLLED					
WHITE MALE, AGE						Kindergarten or elementary, Public.....	2.80	6.02	-0.51	-0.80	97.40
0 to 4 years.....	0.32	1.69	-0.02	-0.23	98.37	Kindergarten or elementary, Private.....	1.60	8.89	-0.30	-2.97	90.64
5 to 9 years.....	0.42	2.08	0.03	0.23	98.27	High school, Public.....	2.50	7.95	0.15	0.77	93.96
10 to 14 years.....	0.46	2.29	0.10	0.87	98.40	High school, Private.....	0.66	13.07	-0.03	-1.21	86.74
15 to 19 years.....	0.44	3.31	-0.12	-1.73	96.08	College, Public.....	1.00	14.97	0.61	19.30	93.81
20 to 24 years.....	0.36	4.04	0.05	1.11	96.68	College, Private.....	0.26	13.35	0.08	8.71	90.57
25 to 29 years.....	0.36	3.43	0.07	1.26	97.38	EDUCATIONAL ATTAINMENT					
30 to 34 years.....	0.46	3.86	-0.07	-1.06	95.88	No school.....	0.94	23.66	-0.01	-0.68	76.56
35 to 39 years.....	0.52	4.30	0.23	3.49	97.66	Elementary 1-2 years.....	1.16	32.54	-0.42	-31.97	40.38
40 to 44 years.....	0.78	6.07	-0.08	-1.12	93.82	3-4 years.....	3.06	36.97	-0.06	-1.44	64.17
45 to 49 years.....	0.78	6.51	-0.28	-4.33	91.87	5-6 years.....	4.16	31.48	-0.83	-11.	

Accuracy of Data on Population Characteristics as Measured by Reinterviews

Table 24.—1960 CES INDEXES OF RESPONSE VARIANCE AND BIAS, FOR THE UNITED STATES--Continued

[In percent]

CES classification	Gross difference rate (1)	Index of inconsistency (2)	Net difference rate ¹ (3)	Index of net shift relative to CES (4)	Percent in CES class identically reported (5)	CES classification	Gross difference rate (1)	Index of inconsistency (2)	Net difference rate ¹ (3)	Index of net shift relative to CES (4)	Percent in CES class identically reported (5)
EDUCATIONAL ATTAINMENT--con.						TOTAL PERSONAL INCOME, FEMALE--con.					
High school, 1 year.....	4.92	39.52	0.43	6.58	65.20	\$2,500 to \$2,999.....	3.90	54.98	-0.37	-9.68	44.77
2 years.....	5.06	37.74	-0.19	-2.65	64.12	\$3,000 to \$3,499.....	2.84	43.54	-0.18	-5.43	56.36
3 years.....	4.34	46.29	0.44	9.35	58.61	\$3,500 to \$3,999.....	2.06	51.03	-0.34	-15.61	46.11
4 years.....	7.26	18.51	-0.53	-1.95	85.61	\$4,000 to \$4,499.....	1.62	37.07	-0.01	-0.55	63.57
College, 1 year.....	2.52	34.90	0.40	11.41	70.20	\$4,500 to \$4,999.....	1.12	50.51	-0.23	-19.03	45.30
2 years.....	2.44	33.61	0.51	14.57	72.60	\$5,000 to \$5,999.....	0.98	28.67	-0.08	-4.95	70.05
3 years.....	1.40	36.00	0.10	5.38	64.40	\$6,000 to \$6,999.....	0.56	33.86	0.10	13.52	70.81
4 years.....	1.74	19.99	-0.07	-1.59	80.27	\$7,000 to \$9,999.....	0.26	33.98	-0.21	-41.29	52.57
5 years or more.....	1.39	42.02	-0.30	-11.56	78.57	\$10,000 or more.....	0.20	37.02	0.08	35.14	74.17
NUMBER OF CHILDREN EVER BORN						SELF-EMPLOYMENT INCOME, MALE					
No children.....	1.92	7.48	0.46	3.04	95.09	No income.....	6.18	26.12	-0.85	-0.98	95.94
1.....	2.52	8.50	0.61	3.42	94.63	With income.....	6.18	26.12	0.85	6.41	79.95
2.....	3.40	8.95	0.04	0.17	93.40	\$1 to \$499 or loss.....	2.22	64.95	0.23	14.53	38.81
3.....	2.66	8.97	-0.56	-3.05	91.25	\$500 to \$999.....	1.86	56.73	0.14	8.82	46.15
4.....	2.14	12.06	-0.43	-4.23	87.25	\$1,000 to \$1,499.....	1.48	55.26	-0.17	-12.22	42.71
5.....	1.50	16.12	0.41	8.66	88.33	\$1,500 to \$1,999.....	0.92	61.35	0.23	37.64	46.48
6.....	0.80	15.01	-0.10	-10.52	80.90	\$2,000 to \$2,499.....	1.18	77.99	-0.17	-20.75	20.26
7.....	0.48	11.36	-0.38	-7.75	85.45	\$2,500 to \$2,999.....	0.72	68.10	-0.16	-26.87	27.92
8.....	0.24	12.80	0.01	0.66	87.61	\$3,000 to \$3,499.....	1.10	76.95	0.29	49.73	29.50
9.....	0.24	11.76	0.07	7.28	91.57	\$3,500 to \$3,999.....	1.12	62.84	-0.02	-2.19	37.20
10.....	0.04	3.89	-0.04	-7.46	92.54	\$4,000 to \$4,499.....	0.76	54.44	0.37	70.91	62.37
11.....	0.12	12.26	-0.04	-8.43	84.10	\$4,500 to \$4,999.....	0.66	83.37	-0.13	-28.88	14.50
12 or more.....	0.20	21.27	-0.04	-8.99	75.29	\$5,000 to \$5,999.....	1.40	78.32	0.18	22.38	24.91
WORKED IN 1959, TOTAL POPULATION						SELF-EMPLOYMENT INCOME, FEMALE					
Worked in 1959.....	7.26	17.09	0.11	0.15	94.84	No income.....	2.20	54.30	-0.49	-0.50	98.62
Did not work in 1959.....	7.26	17.09	-0.11	-0.35	88.00	With income.....	2.20	54.30	0.49	27.41	53.30
WORKED IN 1959, MALE						\$1 to \$499 or loss.....					
Worked in 1959.....	5.38	22.32	0.39	0.46	97.10	\$500 to \$999.....	0.52	53.69	0.02	6.26	48.03
Did not work in 1959.....	5.38	22.32	-0.39	-2.78	79.68	\$1,000 to \$1,499.....	0.34	63.33	-0.02	-7.60	35.43
WORKED IN 1959, FEMALE						\$1,500 to \$1,999.....					
Worked in 1959.....	9.30	18.62	-0.11	-0.21	90.83	\$2,000 to \$2,499.....	0.16	60.06	0.00	0.00	40.02
Did not work in 1959.....	9.30	18.62	0.11	0.22	90.56	\$2,500 to \$2,999.....	0.28	*100.19	0.16	271.50	00.00
TOTAL PERSONAL INCOME, TOTAL POPULATION						\$3,000 to \$3,499.....					
No income.....	11.06	26.31	4.63	16.60	88.47	\$3,500 to \$3,999.....	0.10	*100.10	0.00	8.09	00.00
With income.....	11.06	26.31	-4.63	-6.44	89.10	\$4,000 to \$4,499.....	0.02	29.88	0.00	0.00	100.00
\$1 to \$499 or loss.....	8.74	48.19	-2.01	-18.16	51.57	\$4,500 to \$4,999.....	0.02	29.88	0.00	0.00	100.00
\$500 to \$999.....	6.28	43.68	-0.71	-8.73	57.12	\$5,000 to \$5,999.....	0.12	*100.08	-0.06	-171.84	00.00
\$1,000 to \$1,499.....	4.84	51.05	-0.29	-8.09	50.00	\$6,000 to \$6,999.....	0.02	*100.02	-0.02	-100.00	00.00
\$1,500 to \$1,999.....	3.96	47.91	-0.26	-8.09	51.98	\$7,000 to \$9,999.....	0.06	*100.03	0.00	-0.12	00.00
\$2,000 to \$2,499.....	4.70	54.49	-0.03	-0.84	42.30	\$10,000 or more.....	0.04	*100.02	0.00	9.75	00.00
\$2,500 to \$2,999.....	4.28	56.25	-0.67	-15.94	42.30	INCOME FROM OTHER SOURCES, MALE					
\$3,000 to \$3,499.....	3.86	50.99	-0.67	-15.94	51.59	No income.....	15.38	33.74	9.95	16.88	95.38
\$3,500 to \$3,999.....	3.46	52.81	-0.45	-12.47	45.93	With income.....	15.38	33.74	-9.95	-24.24	69.13
\$4,000 to \$4,499.....	3.52	45.22	0.07	1.74	57.10	\$1 to \$499 or loss.....	14.52	51.00	-6.98	-33.46	48.47
\$4,500 to \$4,999.....	2.96	45.68	0.01	0.44	55.97	\$500 to \$999.....	4.92	39.14	-0.55	-7.90	60.98
\$5,000 to \$5,999.....	4.22	33.92	-0.08	-1.32	67.88	\$1,000 to \$1,499.....	3.66	45.38	-0.50	-11.31	53.34
\$6,000 to \$6,999.....	3.14	38.07	-0.04	-1.11	63.21	\$1,500 to \$1,999.....	2.44	55.81	-0.86	-32.28	38.14
\$7,000 to \$9,999.....	2.16	22.92	-0.21	-4.19	76.57	\$2,000 to \$2,499.....	2.14	55.26	-0.55	-24.70	40.18
\$10,000 or over.....	1.20	18.70	0.09	2.97	83.13	\$2,500 to \$2,999.....	1.40	58.24	-0.35	-25.45	37.07
TOTAL PERSONAL INCOME, MALE						\$3,000 to \$3,499.....					
No income.....	8.12	36.82	2.92	27.99	75.09	\$3,500 to \$3,999.....	0.50	*100.30	0.22	159.69	00.00
With income.....	8.12	36.82	-2.92	-3.27	92.82	\$4,000 to \$4,499.....	0.26	58.50	0.06	33.72	48.66
\$1 to \$499 or loss.....	5.50	45.24	-0.83	-12.03	54.23	\$4,500 to \$4,999.....	0.15	53.42	-0.04	-22.51	41.41
\$500 to \$999.....	4.88	48.33	0.07	1.42	54.63	\$5,000 to \$5,999.....	0.40	73.91	0.27	187.96	51.09
\$1,000 to \$1,499.....	5.04	53.49	-0.70	-13.29	45.90	\$6,000 to \$6,999.....	0.32	82.56	0.20	-66.11	11.81
\$1,500 to \$1,999.....	4.42	53.89	-0.25	-8.01	46.99	\$7,000 to \$9,999.....	0.18	36.94	0.12	63.32	83.16
\$2,000 to \$2,499.....	5.44	63.54	0.02	0.49	39.39	\$10,000 or more.....	0.32	49.72	-0.26	-55.72	36.41
\$2,500 to \$2,999.....	4.32	57.39	-0.98	-21.49	40.16	INCOME FROM OTHER SOURCES, FEMALE					
\$3,000 to \$3,499.....	4.98	58.00	0.39	9.16	46.66	No income.....	13.12	35.35	7.44	10.42	96.01
\$3,500 to \$3,999.....	5.04	53.99	-0.60	-11.61	45.84	With income.....	13.12	35.35	-7.44	-25.99	64.08
\$4,000 to \$4,499.....	5.72	49.53	0.16	2.69	54.23	\$1 to \$499 or loss.....	10.62	54.77	-4.20	-32.22	45.15
\$4,500 to \$4,999.....	4.94	45.55	0.39	7.10	59.10	\$500 to \$999.....	5.66	40.09	-0.92	-11.36	59.41
\$5,000 to \$5,999.....	7.80	36.80	-0.18	-1.53	67.11	\$1,000 to \$1,499.....	2.78	52.40	-0.62	-20.40	44.04
\$6,000 to \$6,999.....	6.04	40.21	-0.19	-2.29	62.35	\$1,500 to \$1,999.....	1.72	57.95	-0.91	-46.58	32.98
\$7,000 to \$9,999.....	4.28	23.76	-0.21	-2.14	77.77	\$2,000 to \$2,499.....	1.18	87.29	-0.34	-40.31	10.65
\$10,000 or more.....	2.32	18.53	0.11	1.68	83.41	\$2,500 to \$2,999.....	0.58	69.53	-0.20	-39.77	24.72
TOTAL PERSONAL INCOME, FEMALE						\$3,000 to \$3,499.....					
No income.....	13.76	27.73	6.22	14.19	91.39	\$3,500 to \$3,999.....	0.18	61.01	-0.13	-59.96	58.78
With income.....	13.76	27.73	-6.22	-11.07	82.21	\$4,000 to \$4,499.....	0.06	*100.03	0.00	-3.07	00.00
\$1 to \$499 or loss.....	11.66	50.57	-3.12	-20.96	50.36	\$4,500 to \$4,999.....	0.12	*100.08	-0.06	-62.47	00.00
\$500 to \$999.....	7.56	41.96	-1.42	-3.21	58.14	\$5,000 to \$5,999.....	0.08	56.93	0.09	263.77	100.00
\$1,000 to \$1,499.....	4.58	48.05	0.09	1.82	54.86	\$6,000 to \$6,999.....	0.02	*100.03	-0.03	-100.00	00.00
\$1,500 to \$1,999.....	3.46	42.28	-0.36	-8.17	57.09	\$7,000 to \$9,999.....	0.06	50.01	0.00	0.00	50.01
\$2,000 to \$2,499.....	4.04	46.34	-0.12	-2.78	54.99	\$10,000 or more.....	0.02	9.28	-0.03	-16.96	83.03

¹These values of the Index of inconsistency of over 100 percent occur when the assumptions underlying the estimator are not met.

A negative net difference rate means there were fewer persons included in the census than in the CES in a given category; a positive net difference rate means there were more persons in the census than in the CES in a given category.