

Lifetime and Recent Migration

GENERAL

This report presents statistics for persons 5 years old and over on birthplace, cross-classified by residence in 1955 and in 1960, and by age, sex, color, nativity, and education. The focus is on the interstate migration of the native population. The age distribution is in terms of 5-year intervals, with a terminal age group 75 years old and over. Years of school completed is shown for the population 25 to 64 years old. All of the statistics are based on a 25-percent sample of the population.

RELATED REPORTS

1960 Census reports.--The PC(1)-C reports contain statistics on mobility status and year moved into present house for States, by urban-rural residence, standard metropolitan statistical areas (SMSA's), urbanized areas, urban places of 10,000 or more, and counties. The PC(1)-D reports present statistics on mobility status and region of origin by age, sex, and color, for States and for cities of 250,000 or more.

The United States Summary reports for these two series, PC(1)-1C and PC(1)-1D, give totals for the Nation and its regions and geographic divisions. Furthermore, PC(1)-1D shows region of residence in 1955 by region of residence in 1960 and the net gain or loss for each region by interregional migration.

Statistics on place of residence in 1955 are presented in the Census Tract reports, Series PHC(1). Movers living in each census tract are classified by 1955 residence as follows: (1) Central city of this SMSA, (2) other part of this SMSA, and (3) outside this SMSA. The last category is further subdivided into "North and West" and "South." Other 1960 Census reports on mobility are PC(2)-2A, State of Birth, PC(2)-2B, Mobility for States and State Economic Areas, and PC(2)-2C, Mobility for Metropolitan Areas. Additional statistics on the mobility of the population are included in some other PC(2) reports and in some PC(3) reports.

1950 Census reports.--The 1950 Census included four special reports on mobility, namely, Volume IV, Part 4A, State of Birth; Part 4B, Population Mobility--States and State Economic Areas; Part 4C, Population Mobility--Farm and Nonfarm Movers; and Part 4D, Population Mobility--Characteristics of Migrants. Additional data on mobility were presented in Volume IV Special Reports on other subjects. Mobility data for 1950 were based on a 1-year interval rather than a 5-year interval. The 1950 reports for States, Volume II, Characteristics of the Population, include statistics

on residence in 1949 for the State, for standard metropolitan statistical areas, urbanized areas, urban places with 10,000 or more population in 1950, and for counties. Data on mobility status were also presented for census tracts in Volume III of the 1950 reports.

1940 Census reports.--The 1940 Census, in which for the first time data were obtained on the mobility of the population during a fixed period of time, used a 5-year interval (1935 to 1940) and hence from this standpoint is comparable to the 1960 Census. Although the population schedule called for a report on all changes of usual residence, in the main tabulations, persons moving from one house to another within the same county, or quasi county, were not distinguished from those in the same house at both dates. All these persons, as well as children under 5 years old, were described as "nonmigrants" in the 1940 reports. Data were presented for the United States, regions, geographic divisions, States, urban and rural, and individual cities of 100,000 inhabitants or more. The statistics were published in four special reports of the Sixteenth Decennial Census, which were entitled Color and Sex of Migrants, Age of Migrants, Economic Characteristics of Migrants, and Social Characteristics of Migrants. Additional statistics on migration were contained in some of the special reports on other subjects.

Earlier censuses.--Statistics on State of birth have been published in the reports of every census beginning with that of 1850. The 1950 Census, however, was the first from which State of birth data were tabulated by age.

Current Population Survey.--Sample data on mobility during the preceding year have been collected annually since 1948 in the Current Population Survey and have been published mostly in Current Population Reports, Series P-20. Earlier surveys at irregular intervals covered other periods back to 1940.

Estimates of net migration.--Estimates of net migration including net immigration from abroad by States and counties have been computed for the decade 1950 to 1960. The State estimates are published in Current Population Reports, Series P-25, No. 247, and the county estimates in Series P-23, No. 7. The methods of computing net migration and net civilian migration by the so-called "residual method" are explained in this report. Similar estimates of net migration can also be computed by age, sex, and color; and such estimates have been published by a number of agencies.

AVAILABILITY OF UNPUBLISHED DATA

The statistics appearing in this report by geographic division of 1960 residence are also available for (1) States and their urban-rural parts, (2) SMSA's of 250,000 or more, subdivided into (a) central cities, and (b) outlying rings, with the latter subdivided into their urban-rural parts. It was necessary to limit some cross-classifications of published data to

divisions, but the data are available on tape by State for all three-time references. Inquiries concerning unpublished data should be transmitted to the Bureau as soon as possible because the tape files are not maintained indefinitely. Requests for unpublished data may be made by writing to the Chief, Population Division, Bureau of the Census, Washington 25, D.C., and giving a specific description of the figures desired.

DEFINITIONS AND EXPLANATIONS

Some of the definitions used in 1960 differ from those used in 1950. These changes were made after consultation with users of census data in order to improve the statistics, even though it was recognized that comparability would be affected. The definitions and explanations should be interpreted in the context of the 1960 Censuses, in which data were collected by a combination of self-enumeration, direct interview, and observation by the enumerator.

The definitions below are consistent with the instructions given to the enumerator. As in all surveys, there were some failures to execute the instructions exactly. Through the forms distributed to households, the respondents were given explanations of some of the questions more uniformly than would have been given in direct interviews. Nevertheless, it was not feasible to give the full instructions to the respondents, and some erroneous replies have undoubtedly gone undetected.

More complete discussions of the definitions of population items are given in 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary, and in each of the State parts.

STATE OF BIRTH AND RESIDENCE IN 1955

The present report combines data on State of birth with data on State of residence in 1955 and 1960. This cross-classification yields a three-point residence sequence with five major combinations: (1) Living in State of birth in 1955 and 1960; (2) living in State of birth in 1955, but not in 1960; (3) living in State of birth in 1960, but not in 1955; (4) living in same State in 1955 and 1960 but not in State of birth; (5) living in different States in 1955 and 1960 and both different from State of birth. There are also several residual categories involving persons born abroad or living abroad in 1955 and persons with incomplete reports on birthplace or 1955 residence. This classification is presented in table 1 for the United States by age, sex, color, and nativity, and in table 5 for the total population of the several States.

The maximum geographic detail is found in table 6, which combines the State of 1960 residence with the geographic division of 1955 residence and geographic division of birth. In this table the data are shown by age, sex, color, and nativity for each State. In the remaining tables (2, 3, 4, 7, and 8), the data are cross-classified by division of 1960 residence by division of 1955 residence by division of birth. The

characteristics shown include age, sex, color, nativity, and, in the last two tables, educational attainment.

Definitions

State of birth.--Information on State of birth was derived from answers to the question, "Where was this person born?" For persons born in the United States, the State of birth was requested; and for persons born outside the United States, the foreign country or outlying area of the United States. Presumably, the inquiry on State of birth relates to present State boundaries. No definite instructions to this effect, however, were given the enumerators. This uncertainty would have more effect on older persons and on the figures from earlier censuses. In 1950, for the first time, the enumerators were specifically instructed to record the State of the mother's usual residence in the case of an infant born in a hospital rather than the State in which the hospital was located. This instruction was repeated in 1960. It is likely that it was often ignored. Most of the differences in the usual place of residence of the mothers and the location of the hospitals are intrastate, and, therefore, do not affect the statistics.

Residence in 1955.--The data on residence in 1955 were derived from answers to the following questions on the Household Questionnaire:

P13. Did he live in this house on April 1, 1955?
(Answer 1, 2, or 3)

1. Born April 1955 or later.....
OR
2. Yes, this house.....
OR
3. No, different house.....

Where did he live on April 1, 1955?

a. City or town.....

b. If city or town—Did he live inside
the city limits?.... { Yes...
No...

c. County.....

AND
State, foreign
country, U.S.
possession, etc.....

Residence on April 1, 1955, is the usual place of residence five years prior to enumeration. The category "same house as in 1960" includes all persons 5 years old and over who were reported as living in the same house on the date of enumeration in 1960 and five years prior to enumeration. Included in the group are persons who had never moved during the five years as well as those who had moved but by 1960 had returned to their 1955 residence. The category "different house in the U.S." includes persons who, on April 1, 1955, lived in the United States in a different house from the one they occupied on April 1, 1960. This category is subdivided into three groups according to their 1955 residence, viz., "different house, same county," "different county, same State," and "different State." The category "abroad" includes those with residence in a foreign country or an outlying area of the United States in 1955. (In the coding of this item, persons who lived in Alaska or Hawaii in 1955 but in other States in 1960 were classified as living in a different State in 1955.) Persons 5 years old and over who had indicated they had moved into their present residence after April 1, 1955, but for whom sufficiently complete and consistent information regarding residence on April 1, 1955, was not collected, are included in the group "moved, place of residence in 1955 not reported." (Missing information was supplied if data were available for other members of the family.) Also included in the category "moved, place of residence in 1955 not reported" are persons who gave no indication as to their movement since April 1, 1955, but who, on the basis of the final edited entry for year moved (for which all nonresponses were replaced by assigned entries), were classified as having moved into their present house since April 1, 1955. In the present report, nonmovers and intrastate movers are combined into the single category "same State." Interstate migrants, "different State", are classified in some tables according to their geographic division of residence in 1955.

Uses and Limitations of the Data

State of birth.--The statistics on State of birth are of value mainly for the information they provide on the historic movements of the native population from one State to another within the United States from the time of birth to the date of the census. Extreme care should be exercised in the use of the statistics as representing or measuring migration, however, since in this connection they indicate only the net result of migration during the widely differing periods of the life of the persons enumerated.

The census figures on State of birth take account, in the matter of migration, only of those persons who have moved from one State to another and are, on the date of the census, living in States other than those in which they were born. The statistics therefore afford no indication of the amount of migration within a given State from rural to urban communities or from one locality to another; nor do they take any account of intermediate moves between the time of a person's birth and the time of the census.

The statistics thus do not indicate the total number of persons who have moved from the State in

which they were born to other States, or to any specific State, during any given period of time. Some of those who had gone from one State to another have since died, others have returned to the State in which they were born, and others have gone to still other States or to places outside the United States.

Residence in 1955.--Although the statistics on residence in 1955 apply to a fixed rather than a variable period of time, their uses and limitations are similar in many respects to those on State of birth. The census statistics on mobility provide information on the number of movers, migrants, etc., and on immigration and out-migration for a given area. The census statistics, however, do not take into account all the different moves that were made in the five-year period; for example, those by persons who moved into or out of a given area but died during the period or returned to their 1955 place of residence. Regardless of the number of moves made, a person is counted only once as mover. Persons were not asked the number of miles they had moved. The census data, however, provide some indication of the relative distance involved in the moves. On the average, a person who moves within a State moves a shorter distance than one who moves to another State in the same division, and he in turn moves a shorter distance than one who moves to another division or region.

Comparison of the characteristics of interstate migrants with the characteristics of other persons gives some indications of the selectivity of interstate migration. It must be borne in mind, however, that the characteristics relate to the period after the move and that some do not necessarily relate to the period before the move.

Uses of the cross-classification.--Combining the two sets of data, as noted previously, gives a condensed lifetime residential history from which one can determine interstate movers between the time of birth and 1955 and between 1955 and 1960. These combinations enable the user to estimate such categories as return migrants and "progressive" migrants, i.e., those who migrated to a different State between birth and 1955 and to a third State between 1955 and 1960.

The terms "in-migrants" and "out-migrants" have been used with reference to migrants into or out of particular areas. In-migrants to an area are migrants who moved into that area from elsewhere in the United States between 1955 and 1960 and were still living there in 1960. Out-migrants from an area are migrants who were living in the area in 1955 and moved out to some other area in the United States where they were in 1960. In-migrants and out-migrants, for example, for a particular geographic division do not include migrants between its States. Thus the sum of the in-migrants to all States in any division will be greater than the number of in-migrants to that division.

Figures on net migration for three periods are shown in table 4. More detailed figures of this type can be derived from some of the other tables. Differentials according to age, sex, color, and educational attainment can be studied by comparing absolute numbers and rates of interstate migration, in-migration, out-migration, and net migration. These differentials

should shed some light on the selectivity of interstate migration. Since migration rates vary so much with age, differentials in terms of such social and economic characteristics as education are most meaningful when examined within specific age groups or after standardization for age. The limitation of the statistics for educational attainment to those at least 25 years old means that most migrants in the 1955-1960 period had completed their formal education (at least in terms of the highest category shown here) before they moved. For moves between birth and 1955, however, it cannot be determined whether the completion of education antedated the move or not.

Somewhat similar considerations apply to the interpretation of age in 1960. In the case of the 1955-1960 period, it can be assumed that the migrants were roughly 2½ years younger at the time of move than in 1960, whereas the age at the time of migration cannot be determined if one knows merely that it occurred since birth.

MEDIAN

The median is presented in connection with the data on age, years of school completed, and income. It is the value which divides the distribution into two equal parts, one-half the cases falling below this value and one-half the cases exceeding this value.

A plus (+) or minus (-) sign after the median indicates that the median is above or below that number. For example, a median of 16+ for years of school completed indicates that the median fell in the interval "college: 4 years or more."

USUAL PLACE OF RESIDENCE

In accordance with census practice dating back to 1790, each person enumerated in the 1960 Census was counted as an inhabitant of his usual place of residence or usual place of abode, that is, the place where he lives and sleeps most of the time. This place is not necessarily the same as his legal residence, voting residence, or domicile, although, in the vast majority of cases, the use of these different bases of classification would produce identical results.

The questions on place of residence in 1955 were supposed to refer to usual residence also. The respondent was not, however, furnished all the rules that the enumerator was instructed to use in determining the respondent's usual residence in 1960. Hence, in some cases, another type of residence may have been reported.

AGE

The age classification is based on the age of the person in completed years as of April 1, 1960, as determined from the reply to a question on month and year of birth.

COLOR

The term "color" refers to the division of population into two groups, white and nonwhite. The color

group designated as "nonwhite" includes Negroes, American Indians, Japanese, Chinese, Filipinos, Koreans, Hawaiians, Asian Indians, Malaysians, Eskimos, Aleuts, etc. Persons of Mexican birth or ancestry who are not definitely of Indian or other nonwhite race are classified as white.

NATIVITY AND PARENTAGE

Native.--This category comprises persons born in the United States, the Commonwealth of Puerto Rico, or a possession of the United States; persons born in a foreign country or at sea who have at least one native American parent; and persons whose place of birth was not reported and whose census report contained no contradictory information, such as an entry of a language spoken prior to coming to the United States.

Foreign born.--This category includes all persons not classified as native.

YEARS OF SCHOOL COMPLETED

The data on years of school completed were derived from the answers to the two questions: (a) "What is the highest grade (or year) of regular school he has ever attended?" and (b) "Did he finish this grade (or year)?" Enumerators were instructed to obtain the approximate equivalent grade in the American school system for persons whose highest grade of attendance was in a foreign school system, whose highest level of attendance was in an ungraded school, whose highest level of schooling was measured by "readers," or whose training by a tutor was regarded as qualifying under the "regular" school definition. Persons were to answer "No" to the second question if they were attending school, had completed only part of a grade before they dropped out, or failed to pass the last grade attended.

The number in each category of highest grade of school completed represents the combination of (a) persons who reported that they had attended the indicated grade and finished it, and (b) those who had attended the next higher grade but had not finished it.

The questions on educational attainment applied only to progress in "regular" schools. Regular schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional degree. Schooling that was not obtained in a regular school and schooling from a tutor or through correspondence courses were counted only if the credits obtained were regarded as transferable to a school in the regular school system. Schooling which is generally regarded as not regular includes that which is given in nursery school, in specialized vocational, trade, or business schools; in on-the-job training; and through correspondence courses.

Elementary school, as defined here, includes grades 1 to 8, and high school includes grades 9 to 12. College includes junior or community colleges, regular 4-year colleges, and graduate or professional schools.

COLLECTION AND PROCESSING OF DATA

COLLECTION OF DATA

Several enumeration forms were used to collect the information for the 1960 Census of Population. A few days before the census date, the Post Office Department delivered an Advance Census Report (ACR) to households on postal delivery routes. This form contained questions which were to be answered for every person and every housing unit. Household members were requested to fill the ACR and have it ready for the enumerator. The census enumerator recorded this information on a form specially designed for electronic data processing by FOSDIC (Film Optical Sensing Device for Input to Computer). The information was either transcribed from the ACR to the complete-count FOSDIC schedule or entered on this schedule during direct interview.

In the densely populated areas, the enumerator left a Household Questionnaire to be completed by each household (or person) in the sample and mailed to the local census office. The population and housing information was transcribed from the Household Questionnaire to a sample FOSDIC schedule. When the Household Questionnaire was not returned or was returned without having been completed, the enumerator collected the missing information by personal visit or by telephone and entered it directly on the sample FOSDIC schedule. In the remaining areas, when the enumerator picked up the ACR, he obtained all the information by direct interview and recorded it directly on the sample FOSDIC schedule.

Soon after the enumerator started work, his schedules were examined in a formal field review. This operation was designed to assure at an early stage of the work that the enumerator was performing his duties properly and had corrected any errors he had made.

More detailed descriptions of the 1960 Census procedures in the collection and processing of the data are given in reports entitled United States Censuses of Population and Housing, 1960: Principal Data Collection Forms and Procedures, 1961; and Processing the Data, 1962, U.S. Government Printing Office, Washington 25, D.C.

MANUAL EDITING AND CODING

After the FOSDIC forms had been checked for completeness in the field, they were sent to a central processing office for manual editing and coding and for microfilming. Except where some special problems arose, there was no manual coding of the FOSDIC forms for complete-count data. On the sample forms, the manual operation was limited to those items where coding required the reading of written entries and therefore could not be done effectively by machine. The coding clerks converted the written entries to codes by marking the appropriate circles on the FOSDIC schedules and at the same time were able to correct obviously wrong entries and sometimes supply missing information.

ELECTRONIC PROCESSING

After the enumerators and coders recorded the information by marking the appropriate circles, the

schedules were microfilmed. The information on the microfilm was then read by FOSDIC, which converted the markings to signals on magnetic tape. The tape, in turn, was processed in an electronic computer, which was used extensively to edit and tabulate the data and to produce the publication tables.

EDITING

For a majority of items, nonresponses and inconsistencies were eliminated by using the computer to assign entries and correct inconsistencies. In general, few assignments or corrections were required, although the amount varied by subject and by enumerator.

The assignment of an acceptable entry by machine was based on related information reported for the person or on information reported for a similar person in the immediate neighborhood. For example, in the assignment of age in the complete-count tabulations, the computer stored reported ages of persons by sex, color or race, household relationship, and marital status; each stored age was retained in the computer only until a succeeding person having the same characteristics and having age reported was processed through the computer; this stored age was assigned to the next person whose age was unknown and who otherwise had the same characteristics. This procedure insured that the distribution of ages assigned by the computer for persons of a given set of characteristics would correspond closely to the reported age distribution of such persons as obtained in the current census.

The extent of the allocations for nonresponse or for inconsistency is shown for the United States and for States, places of 10,000 inhabitants or more, and other areas in appendix tables in chapters B, C, and D of 1960 Census of Population, Volume I, Characteristics of the Population.

Specific tolerances were established for the number of computer allocations acceptable for a given area. If the number was beyond tolerance, the data were rejected and the original schedules were reexamined to determine the source of the error. Correction and reprocessing were undertaken as necessary and feasible.

ACCURACY OF THE DATA

Human and mechanical errors occur in any mass statistical operation such as a decennial census. Such errors include failure to obtain required information from respondents, obtaining inconsistent information, recording information in the wrong place or incorrectly, or otherwise producing inconsistencies between entries on interrelated items on the field documents. Sampling biases occur because some of the enumerators fail to follow the sampling instructions. Clerical coding and editing errors occur, as well as errors in the electronic processing operation.

Careful efforts are made in every census to keep the errors in each step at an acceptably low level. Review of the enumerator's work, verification of manual coding and editing, checking of tabulated figures, and

ratio estimation of sample data to control totals from the complete count reduce the effects of the errors in the census data.

Very minor differences between tables in this report or between corresponding data in this report and chapters C and D of Volume I, Characteristics of the Population, result from imperfections in the electronic equipment. No attempt has been made to reconcile these minor discrepancies.

Some innovations in the 1960 Censuses reduced errors in processing and others produced a more consistent quality of editing. The elimination of the card-punching operation removed one important source of error. The extensive use of electronic equipment

insured a more uniform and more flexible edit than could have been accomplished manually or by less intricate mechanical equipment. It is believed that the use of electronic equipment in the 1960 Censuses has improved the quality of the editing compared with that of earlier censuses but, at the same time, it has introduced an element of difference in the statistics.

A group of reports designated "Evaluation and Research Series" will deal with the methods, results, and interpretation of a group of evaluation and research studies of the 1960 Censuses of Population and Housing. A report entitled The Post-Enumeration Survey: 1950, Technical Paper No. 4, presents evaluative material on the 1950 Census.

SAMPLE DESIGN AND SAMPLING VARIABILITY

SAMPLE DESIGN

For persons in housing units at the time of the 1960 Census, the sampling unit was the housing unit and all its occupants; for persons in group quarters, it was the person. On the first visit to an address, the enumerator assigned a sample key letter (A, B, C, or D) to each housing unit sequentially in the order in which he first visited the units, whether or not he completed an interview. Each enumerator was given a random key letter to start his assignment, and the order of canvassing was indicated in advance, although these instructions allowed some latitude in the order of visiting addresses. Each housing unit which was assigned the key letter "A" was designated as a sample unit and all persons enumerated in the unit were included in the sample. In every group quarters, the sample consisted of every fourth person in the order listed.

Although the sampling procedure did not automatically insure an exact 25-percent sample of persons or housing units in each locality, the sample design was unbiased if carried through according to instructions; and, generally, for large areas the deviation from 25 percent was found to be quite small. Biases may have arisen, however, when the enumerator failed to follow his listing and sampling instructions exactly.

RATIO ESTIMATION

The statistics based on the sample of the 1960 Census returns are estimates that have been developed through the use of a ratio estimation procedure. This procedure was carried out for each of 44 groups of persons in each of the smallest areas for which sample data are published.¹ (For a more complete discussion of the ratio estimation procedure, see 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary.)

These ratio estimates reduce the component of sampling error arising from the variation in the size of household and achieve some of the gains of stratification² in the selection of the sample, with the strata being the groups for which separate ratio estimates are computed. The net effect is a reduction in the sampling error and bias of most statistics below

what would be obtained by weighting the results of the 25-percent sample by a uniform factor of four. The reduction in sampling error is trivial for some items and substantial for others. A by-product of this estimation procedure, in general, is that estimates for this sample are consistent with the complete count with respect to the total population and for the subdivisions used as groups in the estimation procedure.

SAMPLING VARIABILITY

The figures from the 25-percent sample tabulations are subject to sampling variability, which can be estimated roughly from the standard errors shown in tables A and B. Somewhat more precise estimates of sampling error may be obtained by using the factors shown in table C in conjunction with table B for percentages and table A for absolute numbers. These tables² do not reflect the effect of response variance, processing variance, or bias arising in the collection, processing, and estimation steps. Estimates of the magnitude of some of these factors in the total error are being evaluated and will be published at a later date. The chances are about 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 count of the population is less than the standard error. The chances are about 19 out of 20 that the difference is less than twice the standard error and about 99 out of 100 that it is less than 2½

¹ Estimates of characteristics from the sample for a given area are produced using the formula:

$$x' = \sum_{i=1}^{44} \frac{x_i}{y_i} Y_i$$

where x' is the estimate of the characteristic for the area obtained through the use of the ratio estimation procedure, x_i is the count of sample persons with the characteristic for the area in one (i) of the 44 groups, y_i is the count of all sample persons for the area in the same one of the 44 groups, and Y_i is the count of persons in the complete count for the area in the same one of the 44 groups.

² These estimates of sampling variability are based on partial information on variances calculated from a sample of the 1960 Census results. Further estimates are being calculated and will be made available at a later date.

times the standard error. The amount by which the estimated standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical text books.

Table A.--ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED NUMBER
(Range of 2 chances out of 3)

Estimated number	Standard error	Estimated number	Standard error
50.....	15	5,000.....	110
100.....	20	10,000.....	160
250.....	30	15,000.....	190
500.....	40	25,000.....	250
1,000.....	50	50,000.....	350
2,500.....	80		

Table B.--ROUGH APPROXIMATION TO STANDARD ERROR OF ESTIMATED PERCENTAGE
(Range of 2 chances out of 3)

Estimated percentage	Base of percentage					
	500	1,000	2,500	10,000	25,000	100,000
2 or 98.....	1.3	0.9	0.5	0.3	0.1	0.1
5 or 95.....	2.0	1.4	0.9	0.4	0.2	0.1
10 or 90.....	2.8	2.0	1.2	0.6	0.3	0.2
25 or 75.....	3.8	2.7	1.5	0.7	0.4	0.2
50.....	4.4	3.1	1.6	0.8	0.5	0.3

Table A shows rough approximations to standard errors of estimated numbers up to 50,000. The relative sampling errors of larger estimated numbers are somewhat smaller than for 50,000. For estimated numbers above 50,000, however, the nonsampling errors, e.g., response errors and processing errors, may have an increasingly important effect on the total error. Table B shows rough standard errors of data in the form of percentages. Linear interpolation in tables A and B will provide approximate results that are satisfactory for most purposes.

For a discussion of the sampling variability of medians and means and of the method for obtaining standard errors of differences between two estimates,

see 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary.

Table C provides a factor by which the standard errors shown in table A or B should be multiplied to adjust for the combined effect of the sample design and the estimation procedure. To estimate a somewhat more precise standard error for a given characteristic, locate in table C the factor applying to the characteristic. Multiply the standard error given for the size of the estimate as shown in table A by this factor from table C. The result of this multiplication is the approximate standard error. Similarly, to obtain a somewhat more precise estimate of the standard error of a percentage, multiply the standard error as shown in table B by the factor from table C.

Illustration: Table 1 shows that there were 26,942 native persons 75 years old and over who lived in their State of birth in 1960, but not in 1955. For data shown as the cross-classification of place of birth by place of residence in 1955 and 1960, table C shows that the factor to be applied to the standard error is 1.4. Table A shows that for an estimate of 26,942, the approximate standard error is 258. This number, multiplied by the factor of 1.4 from table C, gives 361, which means that the chances are approximately 2 out of 3 that the results of a complete count would not differ by more than 361 from this estimated 26,942. It also follows that there is only about one chance in 100 that a complete census result would differ by as much as 902, that is, by about 2½ times the number estimated from tables A and C.

Table C.--FACTOR TO BE APPLIED TO STANDARD ERRORS

Characteristic	Factor
Place of residence:	
In 1960.....	0.8
By place of birth.....	1.0
By place of residence in 1955.....	1.2
By years of school completed.....	1.0
In 1955.....	1.6
By place of birth.....	1.4
Migration (by color).....	1.6
Years of school completed.....	1.0
Place of birth, nativity.....	1.2
By place of residence in 1955 and 1960.....	1.4