

Nativity and Parentage

GENERAL

This report is based on the 1950 Census of Population and presents statistics on the characteristics of the nativity and parentage classes within the white population--native of native parentage, native of foreign or mixed parentage, and foreign born. The characteristics for which statistics are presented are: Age, sex, marital status, years of school completed, employment status, occupation, and income. In addition, for the foreign-born white and the native white of foreign or mixed parentage, which together comprise the foreign-white stock, data on country of origin are presented, as well as information on the characteristics of selected country-of-origin groups.

Related materials.--The larger part of the data tabulated from the 1950 Census on nativity and parentage is presented in this report. In addition, information on the foreign-born white and their countries of birth appears in Volume II, Characteristics of the Population, for counties, standard metropolitan areas, urbanized areas, and places of 10,000 or more, and for selected smaller places; and similar data are presented for census tracts in tracted areas in Volume III, Census Tract Statistics. Statistics on the country of birth and other characteristics of the foreign-born nonwhite appear in the special report of Volume IV, "Nonwhite Population by Race." Detailed statistics on years of school completed and school attendance are presented for selected country-of-origin groups in the special report of Volume IV, "Education." Statistics on the age and other characteristics of the foreign-born white population appear in Chapter C of Volume II and also in the special report of Volume IV, "Employment and Personal Characteristics."

Internal consistency of data.--Some of the figures presented here on the same subjects are derived from different tabulations and, therefore, may not be in complete agreement at all points. These differences are caused by errors in the tabulation processes. These errors include machine failure, loss of punch cards, and other types. (The net effect is a tendency toward slightly smaller counts of the same item in successive tabulations.) Experience has shown that in mass operations two tabulations of a set of punch cards are not likely to yield precisely identical results. Therefore, tolerance limits allowing for insignificant variations were established in advance for each tabulation. If the differences between the results of two tabulations fell within these limits, nothing was done to bring them into exact agreement with each other. This procedure was adopted in order to provide a greater volume of data within the limits of time and resources available. In earlier censuses, however, the results of different tabulations were adjusted to bring them into exact agreement. In addition, the figures from the 20-percent sample presented here are subject to sampling variability and therefore are not expected to agree exactly with figures from the complete count or the 3 1/3-percent sample on corresponding subjects which appear elsewhere in the census reports.

Arrangement of tables.--Summary historical data, classified by nativity and parentage, appear in tables 1 to 3. Similarly classified data on age for various areas appear in tables 4 to 7, and on other characteristics in tables 8 to 11. The figures for the native of native parentage in table 10 represent the difference

between figures from 20-percent, and in the case of occupation, complete-count, tabulations for the total population and those from the 20-percent sample tabulations for the foreign stock.

Table 12 presents detailed statistics on the country of birth of the foreign-born white for States. In this table, the statistics are based in part on the complete count and in part on a 20-percent sample. In general, the figures for the larger countries are based on the complete count, and derived from the tabulation by country of birth for Volume II. In this tabulation a standard classification of 33 major categories was used in which separate categories were established for the countries of birth represented by relatively large numbers in the foreign-born white population, and countries with relatively small numbers combined in general and residual categories. For this report statistics for the individual smaller countries comprising these general and residual countries were tabulated on a 20-percent sample basis and presented in table 12. Since these latter figures are subject to sampling variability, the totals for the general categories derived from them will not agree exactly with the complete-count figures for the corresponding categories.

Table 13 presents, for the standard classification by country of birth, complete-count data on country of birth of the foreign-born white and 20-percent sample data from a special tabulation on the country of origin of the native white of foreign or mixed parentage for the United States, States, and selected cities.

Tables 14 to 22 present, for selected countries of origin, information on the characteristics of the foreign-born white and the native of foreign or mixed parentage. These characteristics are: Age, citizenship, and, cross-classified by age, marital status, years of school completed, employment status, major occupation group, and personal income. The areas covered are the United States, certain regions and divisions, and selected standard metropolitan areas.

Availability of unpublished data.--Although the larger part of the data tabulated on the nativity and parentage of the white population is presented in this report, considerations of space prevented the publication of all of them. The data on age by nativity and parentage for selected standard metropolitan areas were tabulated for all standard metropolitan areas and cities of 100,000 or more. Likewise, the data on characteristics of the foreign-born white and the native white of foreign or mixed parentage for selected countries of origin presented in tables 15, 16, 18, 19, 21, and 22 were tabulated for each of the 13 country-of-origin groups, and the residual other group for each of the urban and rural parts of the South and West, and of the New England, Middle Atlantic, East North Central, and West North Central Divisions, and for each standard metropolitan area with a foreign-white stock population of 500,000 or more.

These unpublished data can be made available for the cost of transcription or consolidation. Requests for such unpublished statistics, addressed to the Director, Bureau of the Census, Washington 25, D. C., will receive a prompt reply, which will include an estimate of the cost of preparing the data.

DEFINITIONS AND EXPLANATIONS

The definitions of the pertinent concepts used in the 1950 Census are given below. Several of these definitions differ from those used in 1940. The 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 adversely affected. In many cases, the new definitions were tested in connection with the Current Population Survey; and, where feasible, measures of the impact of the changes on the statistics were developed.

For a discussion of the definitions of concepts used in the 1950 Census of Population, the quality of the data, and the problems of comparability with earlier census data, see Volume II, *Characteristics of the Population*, Part 1, U. S. Summary, or the Series P-B and Series P-C U. S. Summary bulletins. The 1950 Population Census schedule and the major part of the instructions to enumerators are also reproduced in Volume II, Part 1.

NATIVITY, PARENTAGE, AND COUNTRY OF ORIGIN

The data presented here on nativity, parentage, and country of origin are derived from the replies to two questions. The first of these questions, "What State (or foreign country) was he born in?" which was asked of the entire population, provides the basis for the classification of the population by nativity and the classification of the foreign-born population by country of birth. The second question, "What country were his father and mother born in?" which was asked of a 20-percent sample of the population, provides the information for the classification of the native population by the nativity of parents and by the country of birth of parents.

Definitions

Nativity.--A person born in the United States or any of its Territories or possessions is counted as native. Also included as native are the small group of persons who, although born in a foreign country or at sea, were American citizens at birth because their parents were American citizens. The small number of persons for whom place of birth was not reported was assumed to be native.

Parentage.--The nativity of parents was defined in the same way as it was for the individual. Since, however, the nativity of both parents is taken into consideration, a more elaborate classification is made. Persons with both parents born in a foreign country are classified as of "Foreign parentage," those with one foreign-born parent, as of "Mixed parentage," and those with both parents born in the United States, its Territories or possessions, as of "Native parentage." In table 15 the mixed parentage group is further subdivided into two categories, "Father foreign" and "Mother foreign."

Country of origin.--This term is used to cover on the one hand the country of birth of the foreign born and on the other, the country of birth of the parents of the native of foreign and mixed parentage.

The classification of the foreign born by country of birth is based on international boundaries as formally recognized by the United States in April 1950 and the classification by country of birth of parents is made on the same basis. Persons of foreign parentage are allocated to the country of birth of the father, and persons of mixed parentage to the country of birth of the foreign parent.

The classifications by country of origin appear in various degrees of detail in this report. The classification for which statistics are presented in table 12 represents the greatest detail and provides separate categories for nearly all of the areas assigned separate codes. The classification in table 13 represents the standard classification of 33 major categories which was used in Volume II. This consolidation was made in the interests of saving the relatively large amount of publication space required in presenting statistics for the large number of countries represented by extremely small numbers of persons of foreign birth or of foreign parentage in the population of the United States. In the remaining tables the presentation of statistics is limited to the countries which in 1940 were represented in the foreign-white stock by a population of 900,000 or more. They are as follows: England and Wales, Ireland (Eire), Norway, Sweden, Germany, Poland, Czechoslovakia, Austria, U.S.S.R., Italy, Canada--French, Canada--Other, and Mexico. This restriction was imposed in an effort to maintain all frequencies sufficiently large to make the detailed classifications by characteristics meaningful.

Quality of Data

Estimates of incompleteness in the 1950 Census counts of persons are presented on pages XIII and XIV of *Population*, Volume I, and in Part 1 of *Population*, Volume II. These estimates are based on the Post-Enumeration Survey of the 1950 Census. This was a sample reenumeration which entailed a direct check on a case-by-case basis of the actual enumeration. An account of the methods and results of the Post-Enumeration Survey will be published at a later date.

Nativity.--The Post-Enumeration Survey attempted to measure both the extent of incompleteness in the 1950 Census counts of persons and the extent of reporting error for persons who were properly counted in the census. With respect to nativity, the results on the incompleteness of enumeration indicate an estimated net underenumeration of the total native population of 1.4 percent. The net underenumeration of the total foreign-born population is estimated at 0.6 percent. The results on the extent of reporting error indicate that an estimated 0.6 percent of the persons properly counted in the census were reported differently with respect to nativity in the Post-Enumeration Survey and in the census. The differences in reporting tended to cancel, however, and have only a negligible effect on the native and foreign-born population according to the statistics based on the complete count.

Nativity of parents.--No attempt was made in the Post-Enumeration Survey to evaluate the accuracy of this classification by nativity. It seems probable, however, that since the information is based, in many instances, on the replies of children with respect to the nativity of their parents rather than on information obtained directly from the parents themselves, the classification by nativity of parentage is somewhat less accurate than the classification by nativity.

Country of origin.--on the basis of data from the Post-Enumeration Survey, it is estimated that the same country of birth was obtained in the census and the survey for approximately 90 percent of the foreign-born persons properly included in the 1950 Census.

This finding seems to be consistent with evidence derived from the examination of census to census variations in the classification by country of birth. An examination of these figures seems to indicate that a completely accurate count of the foreign stock from the countries whose boundaries were changed as the result of World War I has never been achieved. In coding country of birth in the 1950 Census, persons for whom "Austria-Hungary" was reported were allocated on the basis of surname to the various countries created out of the territory of the old empire after World War I. Even with this procedure, however, there appears to be some indication that Austria and Hungary are overreported at the expense of Yugoslavia and Czechoslovakia. In 1950 the situation was further complicated by the fact that, although there were extensive de facto boundary changes as a result of World War II, only a small number of these changes were officially recognized by the United States.

In the 1950 Census the general difficulty of classification, by country of origin, is also illustrated by the figures for Northern Ireland. In previous censuses the schedule itself carried a statement in the country-of-birth column instructing the enumerator to distinguish between Ireland (Eire) and Northern Ireland. This statement was not carried on the 1950 schedule however, and the name of the Irish Free State had been changed officially to Ireland. The net result of this situation was that, for the decade 1940 to 1950, the number of persons classified as having been born in Northern Ireland decreased by about 90 percent. This reduction occurred in spite of the fact that explicit and detailed instructions for this classification appeared in the *Enumerators' Reference Manual*. In summary, it appears that where there have been boundary changes or changes in the official name of the country, classification is far from accurate. However, in the case of countries which have maintained the same boundaries over a long period of time and the differentiations are clear cut, a reasonably adequate classification

is made. The classification by country of birth of parents is, of course, subject to the same limitations and may be presumed to be less adequate than the classification of the foreign born by country of birth.

URBAN, RURAL-NONFARM, AND RURAL-FARM POPULATION

Urban and rural residence.--According to the new definition that was adopted for use in the 1950 Census, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages, (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin, where "towns" are simply minor civil divisions of counties, (c) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more, and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe. The remaining population is classified as rural. According to the old definition, the urban population was limited to all persons living in incorporated places of 2,500 inhabitants or more and in areas (usually minor civil divisions) classified as urban under special rules relating to population size and density. In view of this change in definition, the statistics for 1940 by urban-rural residence are not comparable with those presented here for 1950.

Farm population--urban and rural.--The farm population for 1950, as for 1940 and 1930, includes all persons living on farms without regard to occupation. In determining farm and nonfarm residence in the 1950 Census, however, certain special groups were classified otherwise than in earlier censuses. In 1950, persons living on what might have been considered farm land were classified as nonfarm if they paid cash rent for their homes and yards only. A few persons in institutions, summer camps, "motels," and tourist camps were classified as farm residents in 1940, whereas in 1950 all such persons were classified as nonfarm. For the United States as a whole, there is evidence from the Current Population Survey that the farm population in 1950 would have been somewhat larger had the 1940 procedure been used. In this report data are presented for the rural-farm population only since virtually all of the farm population is located in rural areas.

Rural-nonfarm population.--The rural-nonfarm population includes all persons living outside of urban areas who do not live on farms. It comprises persons living in a variety of types of residences, such as isolated nonfarm homes in the open country, villages and hamlets of fewer than 2,500 inhabitants, and some of the fringe areas surrounding the smaller incorporated places.

STANDARD METROPOLITAN AREAS

Except in New England, a standard metropolitan area is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more. In addition to the county, or counties, containing such a city, or cities, contiguous counties are included in a standard metropolitan area if according to certain criteria they are essentially metropolitan in character and socially and economically integrated with the central city. In New England, the city and town are administratively more important than the county, and data are compiled locally for such minor civil divisions. Therefore, towns and cities, rather than counties, are the units used in defining standard metropolitan areas.

MEDIANS

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

RACE AND COLOR

The concept of race as it has been used by the Bureau of the Census is derived from that which is commonly accepted by the general public. It does not, therefore, reflect clear-cut definitions of biological stock, and several categories obviously refer to nationalities. The information on race is ordinarily not based on a reply to questions asked by the enumerator but rather obtained by observation. Enumerators were instructed to ask a question when they were in doubt.

Color.--The term "color" refers to the division of population into two groups, white and nonwhite. The group designated as "nonwhite" consists of Negroes, Indians, Japanese, Chinese, and other nonwhite races. Persons of Mexican birth or ancestry who were not definitely Indian or of other nonwhite race were classified as white in 1950 and 1940. In the 1930 publications, Mexicans were included in the group "Other races." The category "Mexican" as it was used in the 1930 racial classification was among those that did not represent a homogeneous biological stock.

Negro.--In addition to full-blooded Negroes, this classification includes persons of mixed white and Negro parentage and persons of mixed Indian and Negro parentage unless the Indian blood very definitely predominates or unless the individual is accepted in the community as an Indian.

Other races.--This category includes Indians, Japanese, Chinese, and other nonwhite races.

AGE

The age classification is based on the age of the person at his last birthday as of the date of enumeration, that is, the age of the person in completed years. The enumerator was instructed to obtain the age of each person as of the date of his visit rather than as of April 1, 1950.

CITIZENSHIP

Statistics on citizenship are shown here only for the foreign-born white. This group is divided into citizens (that is, those who have been naturalized), aliens, and persons for whom citizenship was not reported. In this report the latter group is shown separately. The total citizen population comprises native persons, all of whom are assumed to be citizens, and the naturalized foreign born.

Of the foreign born properly counted in the census for whom citizenship was reported, there was a gross difference in classification in the citizenship categories between the Post-Enumeration Survey figures and the census figures of about 3 percent. There was some indication that the net effect of these differences was in the direction of overstating the number of naturalized foreign born and understating the number of aliens.

The Post-Enumeration Survey obtained information on citizenship for most of the foreign-born population. Contrary to the conventional assumption that the category, "Citizenship not reported," represents persons who, for the most part, are actually "aliens," the Post-Enumeration Survey results indicate a distribution of this group between "naturalized" and "alien" which is not essentially different from that found in the census figures on foreign-born persons for whom citizenship was reported.

MARITAL STATUS

In the 1950 Census, data on marital status are based on the replies to the question, "Is he now married, widowed, divorced, separated, or [has he] never [been] married?" The classification refers to the status at the time of enumeration. Persons classified as "married" comprise, therefore, both those who have been married only once and those who have remarried after having been widowed or divorced. Persons reported as separated or in

common-law marriages are classified as married. Those reported as never married or with annulled marriages are classified as single. Since it is probable that some divorced persons are reported as single, married, or widowed, the census returns doubtless understate somewhat the actual number of divorced persons who have not remarried.

Differences between the number of married men and the number of married women arise from spouses' having their usual residences in different areas, from variations in the completeness of enumeration of married men and women, and from response and processing errors.

YEARS OF SCHOOL COMPLETED

The data on years of school completed were derived from the combination of answers to two questions, (a) "What is the highest grade of school that he has attended?" and (b) "Did he finish this grade?" In the present report, these data are shown for the population 14 years old and over.

The questions on educational attainment applied only to progress in "regular" schools. Such schools are public, private, or parochial schools, colleges, universities, or professional schools, either day or night, full time or part time--that is, those schools where enrollment may lead to an elementary or high school diploma, or to a college, university, or professional school degree. Schooling obtained through a correspondence course was counted only if the course was given by a regular school, such as a university, and the person received credit thereby in the regular school system.

The question on highest grade of school attended called for the highest grade attended, regardless of "skipped" or "repeated" grades, rather than the number of full school years which the person had spent in school.

The question on completion of highest grade was to be answered "Yes" if the person had completed the full grade. If a person was still attending school in that grade, had completed only a half grade, or had dropped out of or failed to pass the last grade attended, the required answer was "No." In this report, persons who failed to report on completion of the grade were assumed to have finished.

The median number of school years completed is expressed in terms of a continuous series of numbers. For example, the fourth year of high school is indicated by 12 and the first year of college by 13. For the sake of comparability, the first year of high school is uniformly represented by 9, although there are some areas with only 7 years of elementary school.

EMPLOYMENT STATUS

The major concepts involved in the employment status classification are as follows:

Census week.--The 1950 data on employment status pertain to the calendar week preceding the enumerator's visit, which is defined as the "census week."

Employed.--Employed persons comprise all civilians 14 years old and over who, during the census week, were either (a) "at work"--those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or in a family business; or (b) "with a job but not at work"--those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, bad weather, or layoff with definite instructions to return to work within 30 days of layoff. Also included as "with a job" are persons who had new jobs to which they were scheduled to report within 30 days. In this report, these two categories are combined and shown as "employed."

Unemployed.--Persons 14 years old and over are classified as unemployed if they were not at work during the census week but

were either looking for work or would have been looking for work except that (a) they were temporarily ill, (b) they expected to return to a job from which they had been laid off for an indefinite period, or (c) they believed no work was available in their community, or in their line of work.

Labor force.--The labor force includes all persons classified as employed or unemployed, as described above, and also members of the Armed Forces (persons on active duty with the United States Army, Navy, Air Force, Marine Corps, or Coast Guard). The "civilian labor force" comprises the employed and unemployed components of the labor force.

Not in labor force.--Persons not in the labor force comprise all civilians 14 years of age and over who are not classified as employed or unemployed, including persons doing only incidental unpaid family work (less than 15 hours). Included in this group are persons primarily engaged in their own home housework, students, seasonal workers in an "off" season, the retired, persons unable to work, inmates of institutions, and persons not reporting on their employment status.

MAJOR OCCUPATION GROUP

The data on major occupation group of employed persons presented here refer to the job held during the census week and are based on answers to the question, "What kind of work was he doing?" If the person was employed at two or more jobs, the job at which he worked the greatest number of hours during the census week was reported.

The occupational classification system developed for the 1950 Census of Population consists of 469 items, 270 of which are specific occupation categories; the remainder are subgroupings (mainly on the basis of industry) of 13 of the occupation categories. The 469 detailed items are classified into 12 major occupation groups, which form the basis on which the occupation data are presented in this report. The 1950 major groups are generally comparable with the 1940 major groups, although there are a number of differences in title and content. For further information on comparability between 1950 and earlier census data on occupation, see Volume II, Characteristics of the Population, Part 1, U. S. Summary.

The composition of the 1950 major groups (except the "not reported" group) is indicated in the illustrative list shown below.

Professional, technical, and kindred workers.--Includes Accountants; Actors; Airplane pilots and navigators; Architects; Artists; Athletes; Auditors; Authors; Chemists; Chiropractors; Clergymen; College presidents, professors, and instructors; Conservationists; Dancers; Dentists; Designers; Dietitians; Draftsmen; Editors; Embalmers; Entertainers; Farm management advisors; Foresters; Funeral directors; Healers; Home management advisors; Judges; Lawyers; Librarians; Musicians; Natural scientists; Nutritionists; Optometrists; Osteopaths; Personnel workers; Pharmacists; Photographers; Physicians; Professional nurses; Radio operators; Recreation workers; Religious workers; Reporters; Social scientists; Social workers; Sports instructors and officials; Student professional nurses; Surgeons; Surveyors; Teachers; Technical engineers; Therapists; Veterinarians.

Farmers and farm managers.--Includes tenant farmers and sharecroppers.

Managers, officials, and proprietors, except farm.--Includes Buyers; Building superintendents; Credit men; Lodge officials; Postmasters; Public administration officials; Purchasing agents; Railroad conductors; Ship officers, pilots, pursers, and engineers; Shippers of farm products; Union officials.

Clerical and kindred workers.--Includes Bank tellers; Bill and account collectors; Bookkeepers; Cashiers; Dentist's office attendants; Express agents; Express messengers; Library assistants and attendants; Mail carriers; Messengers; Office boys;

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Office machine operators; Physician's office attendants; Railway mail clerks; Receiving clerks; Secretaries; Shipping clerks; Station agents; Stenographers; Telegraph messengers; Telegraph operators; Telephone operators; Ticket agents; Typists.

Sales workers.--Includes Advertising agents and salesmen; Auctioneers; Demonstrators; Hucksters; Insurance agents and brokers; Newsboys; Peddlers; Real estate agents and brokers; Stock and bond salesmen.

Craftsmen, foremen, and kindred workers.--Includes Annealers; Bakers; Blacksmiths; Boilermakers; Bookbinders; Brickmasons; Cabinetmakers; Carpenters; Cement finishers; Compositors; Concrete finishers; Coppermiths; Cranemen; Derricks; Die makers; Die setters; Electricians; Electrotypers; Engravers; Excavating machinery operators; Forgemen; Glaziers; Goldsmiths; Grading machinery operators; Heat treaters; Hoistmen; Lens grinders and polishers; Lithographers; Locomotive engineers; Locomotive firemen; Log and lumber scalers and graders; Loom fixers; Machinists; Mechanics; Metal molders; Metal rollers; Metal roll lands; Millers; Millwrights; Motion picture projectionists; Opticians; Organ tuners; Painters (construction and maintenance); Paperhangers; Photoengravers; Piano tuners; Pipe fitters; Plasterers; Plate printers; Plumbers; Power linemen and servicemen; Printing pressmen; Road machinery operators; Roofers; Sheet metal workers; Shoemakers, except in factories; Silversmiths; Slaters; Stationary engineers; Stereotypers; Stone carvers; Stone cutters; Stonemasons; Structural metal workers; Tailors; Telegraph and telephone linemen and servicemen; Tile setters; Tinsmiths; Tool makers; Typesetters; Upholsterers; Watchmakers; Window dressers.

Operatives and kindred workers.--Includes Apprentices; Asbestos workers; Auto service attendants; Blasters; Boatmen; Bus conductors and drivers; Canalmen; Chauffeurs; Deck hands; Deliverymen; Dressmakers; Dry cleaning operatives; Dyers; Fruit, nut, and vegetable graders and packers; Furnacemen; Insulation workers; Laundry operatives; Meat cutters; Metal filers, grinders, and polishers; Metal heaters; Milliners; Mine operatives and laborers; Motormen; Painters (except construction and maintenance); Parking lot attendants; Photographic process workers; Powdermen; Power station operators; Railroad brakemen and switchmen; Routemen; Sailors; Sawyers; Seamstresses; Smeltermen; Stationary firemen; Street railway conductors; Surveying chainmen, rodmen, and axmen; Taxicab drivers; Textile spinners; Textile weavers; Tractor drivers; Truck drivers; Welders.

Private household workers.--Includes housekeepers and laundresses in private households.

Service workers, except private household.--Includes Attendants and ushers in amusement places; Bailiffs; Barbers; Bartenders; Beauticians; Boarding house keepers; Bootblacks; Bridge tenders; Charwomen; Cooks, except in private households; Detectives; Doorkeepers; Elevator operators; Firemen (fire protection); Fountain workers; Guards; Hospital attendants; Janitors; Lodginghouse keepers; Manicurists; Marshals; Midwives; Policemen; Porters; Practical nurses; Sextons; Sheriffs; Stewards; Waiters; Watchmen.

Farm laborers and foremen.--Includes both paid and unpaid family farm laborers, and self-employed farm service laborers.

Laborers, except farm and mine.--Includes Car washers; Fishermen; Garage laborers; Groundskeepers; Longshoremen; Oystermen; Raftsmen; Stevedores; Teamsters; Woodchoppers.

INCOME

Income, as defined in the 1950 Census, is the sum of the money received, less losses, from the following sources: Wages or salary; net income (or loss) from the operation of a farm, ranch, business, or profession; net income (or loss) from rents, or receipts from roomers or boarders; royalties; interest, dividends, and periodic income from estates and trust funds; pensions; veterans' payments, Armed-Forces allotments for dependents, and other governmental payments or assistance; and other income such as contributions for support from persons who are not members of the household; alimony, and periodic receipts from insurance policies or annuities. The figures in this report represent the amount of income received before deductions for personal income taxes, social security, bond purchases, union dues, etc.

Receipts from the following sources were not included as income: Money received from the sale of property, unless the recipient was engaged in the business of selling such property; the value of income "in kind," such as food produced and consumed in the home, free living quarters; withdrawals of bank deposits; money borrowed; tax refunds; gifts; and lump-sum inheritances or insurance payments.

RELIABILITY OF SAMPLE DATA

SAMPLE DESIGN

Most of the 1950 data in this report are based on a representative sample of approximately 20 percent of the population. Statistics not based on the 20-percent sample are indicated in headnotes on the tables in which they appear, and are either based on complete counts, or were obtained by subtracting 20-percent sample data from complete counts.

On the schedules used in the 1950 Census of Population a separate line was filled out for each person enumerated, with every fifth line designated as a sample line. Within each enumeration district, the schedules were divided approximately equally among five versions. On each version the sample constituted a different set of lines so that each line on the schedule was in the sample on one of the five versions.¹ The sample data shown in this report are based on the persons enumerated on these sample lines.

Estimates for 1950 of the number of persons with specified characteristics based on sample data have in all cases been obtained by multiplying the number of persons in the sample con-

¹ In 19 counties of Michigan and Ohio, the sample consisted basically of every fifth household and all persons in these households were considered in the sample. Such a household sample was used as an experiment to determine the feasibility of this type of sample in future censuses of population.

taining these characteristics by five. Estimates of percentages have been obtained in each case by using the values in this report for both the numerator and denominator.

Although the sampling plan used did not automatically insure an exact 20 percent of the population, due to the presence of blank or voided lines, special entries, etc., it was unbiased and the deviation from 20 percent was expected to be quite small. Small biases arose, however, when the enumerator failed to follow his instructions exactly. These were usually in the direction of a slight underrepresentation of adult males. In the United States as a whole, the estimate of the total population from the 20-percent sample was 0.25 percent short. The shortage was 0.30 percent in the Northeast Region, 0.35 percent in the North Central States, 0.15 percent in the South, and 0.20 percent in the West. Among States the shortage in the estimate of total population ranged from 0.70 percent to 0.00 percent. For the United States there was a shortage of 1.45 percent in the sample estimate of males 25 years and over. Errors of processing as noted in the section "Accuracy and internal consistency of data" resulted in a further reduction in sample size.

Table A presents comparisons of complete counts and 20-percent estimates in this report for the white population by nativity for the United States and by region, and for the foreign-born white population by country of birth. It may be seen that the national and regional estimates of native whites, who constitute the bulk of the total population, exhibit shortages quite

close to those for the total population. The differences shown in this table reflect, among other things, enumerators' errors in selecting the sample, and errors of processing. Although these slight biases result in the estimate of total white population being slightly below the complete census counts, they have relatively little effect on the distributions shown. Volume I of the 1950 Census of Population is the source of the complete count data.

The comparable data for 1940 shown in tables 1, 2, and 3 are based, in part, on a 5-percent sample of the population enumerated in the 1940 Census. Headnotes to these tables indicate which figures are based on samples and which are based on complete counts. For a description of the sample, see the reports of the 1940 Census of Population entitled Nativity and Parentage of the White Population. All of the data prior to 1940 are based on complete counts.

Table A.--COMPARISON OF COMPLETE COUNT AND 20-PERCENT SAMPLE DATA ON THE NATIVITY OF THE WHITE POPULATION, BY REGIONS, AND ON THE COUNTRY OF BIRTH OF THE FOREIGN-BORN WHITE POPULATION, FOR THE UNITED STATES: 1950

Item	Complete count	20-percent sample	Percent distribution		Ratio of complete count to 20-percent sample	Item	Complete count	20-percent sample	Percent distribution		Ratio of complete count to 20-percent sample
			Complete count	20-percent sample					Complete count	20-percent sample	
NATIVITY OF WHITE POPULATION						COUNTRY OF BIRTH OF FOREIGN-BORN WHITE POPULATION					
United States.....	134,942,028	134,478,365	100.0	100.0	1.003	All countries.....	10,161,168	10,093,425	100.0	100.0	1.007
Native.....	124,780,860	124,382,950	92.5	92.5	1.003	England and Wales.....	584,615	584,960	5.8	5.8	0.999
Foreign born.....	10,161,168	10,095,415	7.5	7.5	1.007	Ireland (Eire).....	504,961	505,500	5.0	5.0	0.999
Northeast.....	37,398,684	37,262,980	100.0	100.0	1.004	Norway.....	202,294	201,905	2.0	2.0	1.002
Native.....	32,204,834	32,078,905	86.1	86.1	1.004	Sweden.....	324,944	325,570	3.2	3.2	0.998
Foreign born.....	5,193,850	5,184,075	13.9	13.9	1.002	Germany.....	984,331	982,745	9.7	9.7	1.002
North Central.....	42,119,384	41,948,005	100.0	100.0	1.004	Poland.....	861,184	860,225	8.5	8.5	1.001
Native.....	39,407,638	39,264,830	93.6	93.6	1.004	Czechoslovakia.....	278,268	278,200	2.7	2.8	1.000
Foreign born.....	2,711,746	2,683,175	6.4	6.4	1.011	Austria.....	408,785	409,795	4.0	4.1	0.998
South.....	36,849,529	36,741,995	100.0	100.0	1.003	Italy.....	1,427,145	1,419,035	14.0	14.1	1.006
Native.....	36,092,010	36,002,845	97.9	98.0	1.002	Canada--French.....	238,409	237,920	2.3	2.4	1.002
Foreign born.....	757,519	739,150	2.1	2.0	1.025	Canada--Other.....	756,153	752,165	7.4	7.5	1.005
West.....	18,574,431	18,525,385	100.0	100.0	1.003	Mexico.....	450,562	451,490	4.4	4.5	0.998
Native.....	17,076,378	17,036,370	91.9	92.0	1.002	Other countries.....	3,139,517	3,083,915	30.9	30.6	1.018
Foreign born.....	1,498,053	1,489,015	8.1	8.0	1.006						

SAMPLING VARIABILITY

The data in this report based on the 20-percent sample are subject to sampling variability which can be determined approximately from the standard errors shown in tables B and C. These tables do not reflect the effects of the biases mentioned above. Table B presents the approximate standard errors of sample estimates of selected sizes. Table C shows the approximate standard errors of percentages when computed by using sample data for both numerator and denominator. For most statistics linear interpolation will provide reasonably accurate results.²

The standard error is a measure of sampling variability. 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 amount by which the standard error must be multiplied to obtain other odds deemed more appropriate can be found in most statistical textbooks. For example, the chances are about 19 out of 20 that the difference is less than twice the standard error, and 99 out of 100 that it is less than 2½ times the standard error.

A rough approximation to the standard errors of the 1940 data can be obtained by using twice the standard errors shown in tables B and C.

Illustration: Table 4 shows that in April 1950 there were an estimated 18,905 foreign-born, rural-farm, white males 40 to 44 years of age in the United States (6.1 percent of the 311,505 foreign-born, rural-farm, white males). The rural population of the United States in April 1950 was 54,229,675. From linear interpolation between values in table B it is found that the

² A closer approximation of a standard error from table B may be obtained by using $2.1(x) \sqrt{\frac{1}{x} - \frac{p}{T}}$ where x is the size of the estimate and T is the total population of the area; in table C the approximation is $2.1 \sqrt{\frac{P(1-P)}{y}}$ where P is the percentage being estimated and y the size of the base. For example, the approximation provided by the above formula of the standard error of an estimate of 500,000 (x) in an area with a total population of 1,500,000 (T) is 1,240; linear interpolation would yield about 1,110.

standard error of an estimate of 18,905 in an area with total population of 54,229,675 is about 230. Consequently, the chances are about 2 out of 3 that the figure which would have been obtained from a complete count of foreign-born, rural-farm, white males 40 to 44 years of age would have differed by less than 230 from the sample estimate. It also follows that there is only about 1 chance in 100 that a complete census count would have differed as much as 700, that is, by about 2½ times the standard error. Table C indicates, also by linear interpolation, that the standard error of the 6.1 percent on a base of 311,505 is about 0.1 percent.

In order to use table B, knowledge is required of the total population of the various areas of the country, for which data are shown in this report. The total population of the areas considered in this report may be found in Volume II of the 1950 Census of Population. For most estimates, the use of the white population of an area instead of the total population will make only a slight difference in the estimate of the standard error. However, if the estimate represents a substantial portion of the white population (e.g., total native white or native parentage) this approximation will understate the standard error considerably.

The standard errors shown in tables B and C are not directly applicable to differences between two estimates. The standard error of the difference between an estimate and a number obtained from a complete count (e.g., arising from comparisons between 1950 data and complete-count figures for 1940 or earlier years or from 1950 estimates derived by subtracting sample estimates from complete-count figures) is identical with the standard error of the estimate based on the sample. The standard error of the difference between two estimates, based on samples, is approximately the square root of the sum of the squares of the standard error of each estimate considered separately. This formula will represent the actual standard error quite accurately for the difference between separate and uncorrelated characteristics. It can also be used to approximate the standard error of the difference between estimates of the same characteristic in 1950 and 1940. In other cases, however, if there is a high positive correlation between the two characteristics, it will overestimate the true standard error.

Some of the tables present estimates of the median number of persons as well as the corresponding distributions. The sampling

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variability of estimates of medians depends on the distributions upon which the medians are based.³

The smaller figures and small differences between figures should be used with particular care because they are subject to larger relative error arising from processing and enumeration bias and larger relative sampling variability. These smaller figures have been included in the tables to permit analysis of broader groups with smaller relative bias and sampling variability.

RATIO ESTIMATES

It is possible to make an improved estimate of an absolute number (improved in the sense that the standard error is smaller) whenever the class in question forms a part of a larger group for which both a sample estimate and a complete count are available. This alternative estimate is particularly useful when the characteristic being estimated is a substantial part of the larger group; when the proportion is small, the improvement will be relatively minor. The improved estimate (usually referred to as a "ratio estimate") may be obtained by multiplying a percentage based on sample data by the figure which represents the complete count of the base of the percentage. An alternative method is to multiply the estimate shown in this report by the ratios of the complete count to the sample estimate of the larger group. The last column of table A contains such ratios and can be used to derive ratio estimates for many of the characteristics in the report.

³ The standard error of a median based on 20-percent sample data may be estimated as follows: If the estimated total number reporting the characteristic is N, compute the number $\frac{N}{2} - \sqrt{N}$. Cumulate the frequencies in the table until the class interval which contains this number is located. By linear interpolation, obtain the value below which $\frac{N}{2} - \sqrt{N}$ cases lie. In a similar manner, obtain the value below which $\frac{N}{2} + \sqrt{N}$ cases lie. If information on the characteristic had been obtained from the total population, the chances are about 2 out of 3 that the median would lie between these two values. The chances will be about 19 out of 20 that the median will be in the interval computed similarly but using $\frac{N}{2} \pm 2\sqrt{N}$ and about 99 in 100 that it will be in the interval obtained by using $\frac{N}{2} \pm 2.5\sqrt{N}$.

The effect of using ratio estimates of this type is, in general, to reduce the relative sampling variability from that shown for an estimate of a given size in table B to that shown for the corresponding percentage in table C. Estimates of these types are not being published by the Bureau of the Census because of the much higher cost necessary for their preparation than for the estimates derived by multiplying the sample result by five.

Table B.--STANDARD ERROR OF ESTIMATED NUMBER
(Range of 2 chances out of 3)

Estimated number	Total population of area ¹						
	100,000	500,000	1,000,000	5,000,000	10,000,000	25,000,000	150,000,000
100.....	20	20	20	20	20	20	20
500.....	50	50	50	50	50	50	50
1,000.....	70	70	70	70	70	70	70
2,500.....	100	100	100	100	100	100	100
5,000.....	140	150	150	150	150	150	150
10,000.....	200	200	210	210	210	210	210
25,000.....	290	320	320	330	330	330	330
50,000.....	340	440	450	460	460	460	460
75,000.....	310	530	550	560	560	560	560
100,000.....	180	590	620	650	650	650	650
250,000.....	...	760	910	1,010	1,020	1,030	1,030
500,000.....	...	410	1,070	1,390	1,430	1,450	1,460
1,000,000.....	...	...	570	1,870	1,970	2,030	2,060
2,500,000.....	...	...	...	2,400	2,870	3,110	3,240
5,000,000.....	...	...	...	1,280	3,390	4,170	4,550
10,000,000.....	...	...	...	...	1,810	5,190	6,330
15,000,000.....	...	...	...	...	...	5,370	7,630
25,000,000.....	...	...	...	...	...	2,830	9,510
50,000,000.....	...	...	...	...	...	...	12,170
150,000,000.....	...	...	...	...	...	...	7,070

¹ An area is the smallest complete geographic unit to which the estimate under consideration pertains. Thus the area may be the United States, a region, division, State, standard metropolitan area, or the urban or rural portion of one of these areas. The rural-farm or rural-nonfarm population, white population, native population, etc., do not represent geographic areas. The total population of the areas considered in this report may be found in Volume I of the 1950 Census of Population.

Table C.--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	500,000	5,000,000
2 or 98.....	1.3	0.9	0.6	0.3	0.2	0.1	...	...
5 or 95.....	2.0	1.4	0.9	0.5	0.3	0.1	0.1	...
10 or 90.....	2.8	2.0	1.2	0.6	0.4	0.2	0.1	...
25 or 75.....	4.0	2.8	1.8	0.9	0.6	0.3	0.1	...
50.....	4.6	3.3	2.1	1.0	0.7	0.3	0.1	...