

Persons of Spanish Surname

GENERAL

This report is based on the 1950 Censuses of Population and Housing and presents statistics on selected population and housing characteristics of the white population of Spanish surname in five Southwestern States--Texas, Colorado, New Mexico, Arizona, and California. These statistics were tabulated for the purpose of obtaining data on the Spanish-American and Mexican-American population in the designated States. The statistics on the persons of Spanish mother tongue in the 1940 Census and those on Mexicans in the 1930 Census were compiled for the same general purpose. Data on population characteristics such as age, nativity, marital status, education, employment status, major occupation group, and personal income are presented for persons of Spanish surname. Data on housing characteristics such as water supply, dwelling facilities, number of persons and rooms, monthly rental of dwelling units, and value of owner-occupied 1-dwelling-unit structures are presented for dwelling units occupied by persons of Spanish surname. Population statistics are presented for States, their urban-rural parts, urbanized areas, standard metropolitan areas, urban places of 10,000 or more, and counties. Housing statistics are presented here only for States and their urban-rural parts.

RELATED MATERIALS

The larger part of the population data tabulated from the 1950 Census on persons of Spanish surname is presented in this report. Detailed statistics on years of school completed and school enrollment by age are presented in the special report "Education" for persons of Spanish surname.

Information on selected population and housing characteristics for selected census tracts in tracted areas with 10,000 or more persons of Spanish surname in the five Southwestern States--Austin, Dallas, and Houston in Texas; Denver in Colorado; and Los Angeles, Sacramento, San Diego, San Francisco-Oakland, and San Jose in California--is presented in Volume III, Census Tract Statistics (Series P-D bulletins). Additional housing data on Spanish-surname households for selected standard metropolitan areas, urbanized areas, counties, and the urban and rural parts of counties in the five States are presented in the appropriate parts of Housing Volume I, General Characteristics. Statistics on the number of persons born in Mexico appear in Chapter B of the State parts of Volume II, General Characteristics, for a wide variety of areas, including counties and urban places. Statistics on persons whose parents were born in Mexico for all States and statistics on the characteristics of persons of Mexican birth and parentage for the South and West will appear in the special report "Nativity and Parentage" of Volume IV.

ACCURACY AND INTERNAL CONSISTENCY OF DATA

The figures presented here on years of school completed in table 3 may differ from those presented in table 6. 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 data 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 presented here or those from the 3 1/3-percent sample which appear in the special report "Education," a chapter of Volume IV.

ARRANGEMENT OF TABLES

Table 1 presents summary data, based on the complete count, on nativity, country of birth, and citizenship for the five Southwestern States. Tables 2 and 3 present summary data on age, marital status, and employment status, based on the complete count; and on years of school completed, based on the 20-percent sample for States, by urban and rural residence. Summary complete-count housing data for the same areas are presented in table 4. Statistics from the 20-percent sample for States and their urban and rural parts and for the various nativity and parentage classes are presented on age in table 5 and on marital status, education, employment status, occupation, and income, cross-classified by age, in table 6. Table 7 presents complete-count data on nativity, country of birth, and citizenship, for counties and places of 10,000 or more. Table 8 presents complete-count data on age, marital status, and employment status, and 20-percent data on years of school completed, for selected standard metropolitan areas, urbanized areas, and places of 10,000 or more. Table 9 presents similar data, including urban-rural residence, for selected counties.

AVAILABILITY OF UNPUBLISHED DATA

All of the population data tabulated on persons of Spanish surname from the 20-percent sample are presented in this report. Because of space limitations, the data from the complete count were not published for all the areas for which they were tabulated. The data presented in table 1 on nativity, country of birth, and citizenship were tabulated for each enumeration district in the five Southwestern States and are, therefore, available for areas of many types. The data on age, marital status, years of school completed, and employment status are available for all places of 2,500 or more and the rural-nonfarm and rural-farm balances of counties. Statistics on housing characteristics of dwelling units occupied by Spanish-surname households shown in this report and in Housing Volume I were tabulated

for many additional areas in the five States and in more detail than shown in this report. For a complete listing of tabulated but unpublished statistics for the areas, see U. S. Bureau of the Census, U. S. Censuses of Population and Housing: 1950, Key to Published and Tabulated Data for Small Areas, Washington, D. C., 1951. Address purchase orders to the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. (price 30 cents).

These unpublished population and housing 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 United States Summary bulletins. The 1950 Population Census schedule and the major part of the instructions to enumerators are also reproduced in Volume II, Part 1. A detailed discussion of the concepts used in the 1950 Census of Housing, and a reproduction of the housing schedule and part of the instructions to the enumerators, are contained in Housing Volume I, General Characteristics, Part 1, United States Summary, or Series H-A, United States Summary bulletin.

PERSONS OF SPANISH SURNAME

The population of Spanish surname in the Southwest is heterogeneous in both its history and ethnic origin. First there was the Spanish-American, Spanish-Colonial, or Hispano group, as it is variously called, that settled in what is now the United States as early as the sixteenth century. The largest and earliest settlements were in New Mexico, but there were also others in the next century in California and Texas. This group thus lived in territory that came under the American flag by the annexation of Texas, the Treaty of Guadalupe Hidalgo, and the Gadsden Purchase. Subsequent immigration from what is now Mexico was relatively light until about 1910. The second major group consists of these recent immigrants from Mexico and their children. Direct immigrants from Spain, the West Indies, and Central and South America have been negligible in number.

Ethnically, the population of Spanish-American and Mexican descent ranges from Indians to those of unmixed Spanish ancestry, with many persons being of Spanish-Indian ancestry ("Mestizos"). "Mestizos" and Indians are particularly frequent among the recent immigrant generations, the Mexican-Americans. Such differences in dress, occupation, and education as do exist have little relationship to these variations in specific racial origin.

Special recognition of the interest in the Spanish-American and Mexican-American population of the United States was first given in the collection and publication of data on "Mexicans" in the Census of 1930. The interest which gave impetus to the collection of these statistics was, of course, that stimulated by the heavy immigration from Mexico during the decade of the twenties. In the 1930 Census, not only were persons of Mexican birth and parentage identified (as they had been in previous censuses), but also an attempt was made to identify as "Mexicans" persons of Spanish-Colonial descent and the small number of grandchildren of Mexican immigrants among native persons of native parentage, and to provide statistics on the entire Spanish-American and Mexican-American population. The category "Mexican" in this census was one of the categories of the racial classification. The enumerators were instructed to classify as "Mexican" all persons of Mexican origin who were not definitely white, Negro, Indian, or Japanese. There was some criticism of the classification of the whole Mestizo group as nonwhite.

In the Census of 1940, the question on mother tongue, or language other than English spoken in the home in earliest childhood, was asked of a 5-percent sample of the entire population, and the responses to this question made possible tabulations for persons of Spanish mother tongue in the three nativity and parentage classes--foreign born, native of foreign or mixed parentage, and native of native parentage. Although the statistics of persons of Spanish mother tongue could hardly be said to cover exactly the same segment of the population as covered by the 1930 statistics on "Mexicans," the two sets of statistics would seem, on an a priori basis, to do so to a considerable extent.

In the 1950 Census, data relating to persons of Spanish-American and Mexican-American origin were obtained by the identification of white persons of Spanish surname on the schedules as a part of the general coding operation. This procedure was limited to the five Southwestern States--Texas, Colorado, New Mexico, Arizona, and California--which in 1940 accounted for more than 80 percent of all persons of Spanish mother tongue. This method of identification proved to be a relatively efficient and economical means of obtaining the desired information. As a means of identifying persons of Spanish-American and Mexican-American antecedents, it suffered from the limitations that, as indicated below, Spanish surnames are not completely efficient indicators of Spanish-American descent; but, on the whole, judged in terms of the results, the classification appears to have been adequate. The detailed procedure is described below.

Identification of persons of Spanish surname.--The identification of Spanish surname was made by coding sections which had received special training in such identification. The training program was built around a list of some six thousand Spanish surnames compiled by the Immigration and Naturalization Service,¹ and involved instructions on the characteristics of Spanish surnames which differentiate them from other surnames in other Romance languages such as Portuguese, French, and Italian; an intensive study of lists of the most common Spanish surnames; practice exercises; and practice coding under close supervision.

Although the validity and reliability of the classification were probably not so great as they would have been had the classification been made by a committee of experts, they appear, in terms of the empirical results, to have been reasonably adequate. It is recognized, of course, that surnames are only correlated with national origins and are not precise indicators of national origins; that certain surnames are common to a number of different languages and thus a complete dichotomy of Spanish or non-Spanish surnames is not possible; that surnames identified with other European nationalities such as, for example, the Irish are found among Latin Americans; and that there has been some Anglicization of initially Spanish surnames. It is believed, however, that the general adequacy of the classification is not invalidated by anecdotal evidence of the limitations listed. The adequacy of the classification depends finally on the degree to which the purposes for which the classification was made were met.

Adequacy of classification.--The objective of the separate identification of "Mexicans" in the 1930 Census, of the compilation of persons of Spanish mother tongue in 1940, and of the identification of persons of Spanish surname in 1950 was considerably more than the mere identification of persons of Mexican birth or parentage already available from the questions on birthplace of the respondent and of his parents. It involves a further attempt to identify the third and later generations of such immigrants as well as the descendants of Spanish-Colonial inhabitants of the Southwest.

¹ U. S. Immigration and Naturalization Service, Supplement to Manual of Immigration Spanish--Spanish Personal Names, selected by Inspector George Lockwood, New York, 1936.

Each of the indices used to identify the total group of persons suffers from certain limitations. The seemingly straight-forward approach of collecting and tabulating data on "Mexicans" encounters the difficulty that in areas in which the Spanish-Colonial population is concentrated neither respondents nor enumerators regard persons of this type as "Mexican," and thus in such areas there was a gross undercount of this colonial group, which is reflected in the figures for native persons.

This situation is most clearly illustrated in the figures for New Mexico, the State in which the great majority of Spanish-Americans are descendants of persons living in the territory prior to its acquisitions by the United States. In 1930 the number of foreign-born Mexicans was about 16,000; by 1940, it had decreased to about 8,000. In 1930, about 43,000 native persons classified as "Mexican" were enumerated, but, in 1940, about 214,000 native persons of Spanish mother tongue. Since there was no great influx of Spanish-speaking peoples into the State during the decade, it seems reasonable to assume that the figures refer to the same segment of the population, and since it is impossible that natural increase could account for a fivefold increase in number, it seems reasonable to conclude that the question on mother tongue provided a more complete count of the segment of the population under consideration than did identification of "Mexicans" (table A).

Likewise, although the question on mother tongue used in the 1940 Census made possible the classification of native persons of native parentage by mother tongue, it permitted the reporting of English as the language spoken in the home in earliest childhood in homes of persons whose language in their country of origin was in all probability a language other than English. For example, for the United States as a whole about 7 percent of the native population of Mexican parentage reported English as their mother tongue. Thus, for the second and later generations, statistics on mother tongue tend to understate the full extent of foreign origin. In New Mexico, where Spanish is established on an equal footing with English, this limitation is probably of no great significance. In 1950, the count of persons of Spanish surname in New Mexico, about 249,000, suggests, with some allowance for natural increase, about the same level of magnitude as that reflected in the 1940 figures on Spanish mother tongue.

There are reasons for believing that figures based on a count of Mexicans or of persons of Spanish mother tongue understate the size of the Spanish-American population. In this context, statistics based on surname might be regarded as an improvement, since, in general, as the figures in table A indicate, they represent larger numbers.

Some interest, however, attaches to the extent to which the population of Spanish surname is of Spanish-American and Mexican-American descent and conversely the extent to which the population of Spanish-American and Mexican-American descent is of Spanish surname. Evidence on this point is available only for the foreign stock, that is, the foreign born and the native of foreign or mixed parentage. This evidence is presented in table B which presents figures for the foreign stock of Mexican birth or

parentage (i.e., of Mexican origin) and of Spanish surname, for the foreign stock of Spanish surname but not of Mexican origin, and for the foreign stock of Mexican origin but not of Spanish surname.

Of the total of these three groups, about 85 per cent were persons of both Spanish surname and Mexican origin. Of the two remaining groups, the foreign stock of Mexican origin but not of Spanish surname was the larger. The existence of the two residual groups merely reflects the limitations of Spanish surname as an index of Spanish antecedents discussed above. In addition, however, since persons related to the head of a household were classified on the basis of his surname, a lack of correspondence between surname and origin is to be expected in the case of wives who have married outside of their country-of-origin group.

This analysis in terms of country of origin and Spanish surname is not possible for the native population of native parentage. For this segment of the population, however--the small number of Mexican-Americans of third and later generations and the descendants of Spanish-Colonial stock--it seems reasonable to infer that the correspondence between Spanish surname and Mexican or Spanish-Colonial descent is somewhat less than among the foreign

stock. These persons have had the opportunity to marry outside their initial origin groups for a longer period of time than the foreign stock, and, therefore, the gains and losses through intermarriage may be expected to be somewhat larger than among the foreign stock.

This problem, however, is implicit in any attempt to identify all persons of a given foreign descent, and it was the recognition of the distinct and endogamous character of the group in question which made the classification on the basis of Spanish surname seem feasible. Although the classification presents problems, it is not unique in this respect--even the simple question of the number of persons of Mexican birth in the United States is complicated by the presence of considerable numbers of illegal migrants from Mexico, which may have adversely affected both the completeness of enumeration and the classification by country of birth.

In terms of the available evidence, there appears to be no reason for assuming that the use of surname to identify the Spanish-American population is any less adequate than procedures previously used; and, in some respects, its use may lead to a genuine improvement in the quality of the statistics.

Table A.--SPANISH-AMERICAN AND MEXICAN-AMERICAN POPULATION OF FIVE SOUTHWESTERN STATES AS VARIOUSLY IDENTIFIED IN CENSUSES OF 1950, 1940, AND 1930

(Statistics for 1950 based on 20-percent sample; those for 1940 based on 5-percent sample)

State	All classes	Native			Foreign born
		Total	Native parentage	Foreign or mixed parentage	
Total, all States:					
Spanish surname, 1950.....	2,281,710	1,889,210	1,113,680	775,530	392,500
Spanish mother tongue, 1940.....	1,570,740	1,247,300	628,000	619,300	323,440
Mexicans, 1930.....	1,282,883	752,211	253,441	498,770	530,672
Arizona:					
Spanish surname, 1950.....	128,580	105,345	53,380	51,965	23,235
Spanish mother tongue, 1940.....	101,880	77,740	27,600	50,140	24,140
Mexicans, 1930.....	114,173	66,318	18,955	47,363	47,855
California:					
Spanish surname, 1950.....	758,400	591,540	266,835	324,705	166,860
Spanish mother tongue, 1940.....	416,140	279,440	63,700	215,740	136,700
Mexicans, 1930.....	368,013	176,667	29,138	147,529	191,346
Colorado:					
Spanish surname, 1950.....	118,715	113,750	98,750	15,000	4,965
Spanish mother tongue, 1940.....	92,540	85,900	71,800	14,100	6,640
Mexicans, 1930.....	57,676	44,860	32,956	11,904	12,816
New Mexico:					
Spanish surname, 1950.....	248,560	238,040	216,805	21,235	10,520
Spanish mother tongue, 1940.....	221,740	213,920	192,820	21,100	7,820
Mexicans, 1930.....	59,340	43,357	25,586	17,771	15,983
Texas:					
Spanish surname, 1950.....	1,027,455	840,535	477,910	362,625	186,920
Spanish mother tongue, 1940.....	738,440	590,300	272,080	318,220	148,140
Mexicans, 1930.....	683,681	421,009	146,806	274,203	262,672

Table B.--FOREIGN STOCK OF SPANISH SURNAME AND MEXICAN ORIGIN, OF SPANISH SURNAME ONLY, AND OF MEXICAN ORIGIN ONLY, FOR FIVE SOUTHWESTERN STATES: 1950

State	Total	Spanish surname and Mexican origin		Spanish surname only		Mexican origin only	
		Number	Percent of total	Number	Percent of total	Number	Percent of total
All States.....	424,726	365,878	86.1	26,482	6.2	32,366	7.6
Arizona.....	25,782	22,143	85.9	1,865	3.4	2,774	10.8
California.....	183,049	145,265	79.4	20,740	11.3	17,044	9.3
Colorado.....	5,953	4,396	73.8	678	11.4	879	14.8
New Mexico.....	10,381	9,011	86.8	715	6.9	655	6.3
Texas.....	199,561	185,063	92.7	3,484	1.7	11,014	5.5

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.

URBANIZED AREAS

As indicated in the definition above, one of the components of urban territory under the new definition of urban-rural residence is the urban fringe. Areas of this type in combination with the cities which they surround have been defined in the 1950 Census as urbanized areas.

Each urbanized area contains at least one city with 50,000 inhabitants or more in 1940 or according to a special census taken since 1940. Each urbanized area also includes the surrounding closely settled incorporated places and unincorporated areas that comprise its urban fringe. The boundaries of these fringe areas were established to conform as nearly as possible to the actual boundaries of thickly settled territory, usually characterized by a closely spaced street pattern.

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, personal income, number of persons in the dwelling unit, and rent or value of the dwelling unit 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.

In the presentation of housing statistics, occupied dwelling units are classified according to the race and color of the head of the household.

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.

Mixed parentage.--Persons of mixed parentage are classified according to the race of the nonwhite parent and mixtures of nonwhite races are generally classified according to the race of the father.

NATIVITY

The classification of the population into the two basic groups, native and foreign born, is based on replies to the question, "What State (or foreign country) was he born in?" A person born in the United States or any of its Territories or possessions is counted as native. Also included as native is the small group of persons who, although born in a foreign country or at sea, were American citizens by birth because their parents were American citizens. The small number of persons for whom place of birth was not reported were assumed to be native.

PARENTAGE

The classification of the native population into persons of native parentage and persons of foreign or mixed parentage is made on the basis of replies to the question, "What country were his father and mother born in?" Native persons with both parents born in the United States, its Territories or possessions, are counted as of native parentage, those with both parents born in a foreign country are classified as of foreign parentage, and those with one foreign-born parent are classified as of mixed parentage.

COUNTRY OF ORIGIN

The questions on place of birth and country of birth of parents permit the classification of the foreign born and the native of foreign or mixed parentage by country of origin. 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.

CITIZENSHIP

Statistics on citizenship are shown here only for the foreign-born white. This group is divided into citizens (that is, those who are 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.

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.

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 (1) "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 (2) "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 (1) they were temporarily ill, (2) they expected to return to a job from which they had been laid off for an indefinite period, or (3) 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, United States 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 share croppers.

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; 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; Boiler-makers; Bookbinders; Brickmasons; Cabinetmakers; Carpenters; Cement finishers; Compositors; Concrete finishers; Coppersmiths; Cranemen; Derrickmen; 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 hands; 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; Silver-smiths; 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; Dyer; 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.

HOUSING CHARACTERISTICS

Dwelling unit.--In general, a dwelling unit is a group of rooms or a single room occupied or intended for occupancy as separate living quarters by a family or other group of persons living together or by a person living alone.

Specifically, a group of rooms, occupied or intended for occupancy as separate living quarters, is a dwelling unit if it has separate cooking equipment or a separate entrance. A single room, occupied or intended for occupancy, as separate living quarters, is a dwelling unit if it has separate cooking equipment or if it constitutes the only living quarters in the structure. Each apartment in a regular apartment house is a dwelling unit even though it may not have separate cooking equipment. Excluded from the dwelling-unit count are living quarters with five or more lodgers, institutions, dormitories, and transient accommodations. Trailers, boats, tents, and railroad cars, when occupied as living quarters, are included in the dwelling unit inventory.

Water supply.--A dwelling unit has "piped running water" if water is piped to it from a pressure or gravity system. "No piped running water" includes water from a hand pump or from a well or stream or no piped running water available.

A dwelling unit is counted as having hot piped running water whether it is available the year round or only part of the time. For example, hot running water may be available only during the heating season or at various times during the week.

Toilet facilities.--A dwelling unit is reported as having a flush toilet if the toilet is inside the structure and is operated by means of water piped to it. A flush toilet for exclusive use is differentiated from one that is shared.

Facilities are for exclusive use when the occupants of only one dwelling unit use them. If there are lodgers in the dwelling unit who also use the facilities, the facilities are still reported as for the exclusive use of occupants of the dwelling unit, provided that they are not used by occupants of another dwelling unit. Facilities are shared when occupants of two or more dwelling units use the same facilities. Also, facilities are shared if they would be used by the occupants of a unit now vacant, if that unit were occupied.

Facilities or equipment are considered "inside the structure" if they are located within the dwelling unit or elsewhere in the structure, such as in a common hallway, or in a room used by several dwelling units. Facilities or equipment on an open porch are considered to be outside the structure. Those located in an enclosed porch are considered to be inside the structure, even though it may be necessary to go outside the structure to reach them.

Condition and plumbing facilities.--A dwelling unit was reported as dilapidated when it had serious deficiencies, was rundown or neglected, or was of inadequate original construction, so that it did not provide adequate shelter or protection against the elements or endangered the safety of the occupants. A dwelling unit was reported as dilapidated if, because of either deterioration or inadequate original construction, it was below the generally accepted minimum standard for housing and should be torn down or extensively repaired or rebuilt.

The category "With private toilet and bath" includes those dwelling units with both a flush toilet and a bathtub or shower inside the structure for the exclusive use of the occupants of the unit. "With running water, lacking private toilet or bath" includes those dwelling units having running water in the structure, but lacking a private flush toilet or lacking a private bathtub or shower. "No running water" includes units with only piped running water outside the structure or with only other sources of water supply, such as a hand pump.

Number of persons in dwelling unit.--All persons enumerated in the population census as members of the household were counted in determining the number of persons who live in the dwelling unit. Lodgers, foster children, wards, and resident employees who share the living quarters of the household head are included in the household in addition to family members. In the computation of the median, a continuous distribution is assumed. For example, when the median is in the 3-person group, the lower and upper limits of the group were assumed to be 2.5 and 3.5, respectively.

Persons per room.--The number of persons per room has been computed for each occupied dwelling unit by dividing the number of persons by the number of rooms in the dwelling unit. The number of rooms in the dwelling unit includes all rooms suitable for living quarters. Not counted as rooms were bathrooms, closets, pantries, halls, screened porches, and unfinished rooms in the basement or attic.

Tenure.--A dwelling unit is "owner-occupied" if the owner was one of the persons living in the unit even if the dwelling unit was not fully paid for or had a mortgage on it.

All occupied dwelling units that are not "owner-occupied" were classified as "renter-occupied" whether or not any money rent was paid for the living quarters. Rent-free units and units received in payment for services performed are thus included with the renter-occupied units.

Contract monthly rent.--Contract monthly rent is the rent at the time of enumeration contracted for by the renter, regardless of whether it includes furniture, heating fuel, electricity, cooking fuel, water, or other services sometimes supplied. Data are limited to nonfarm units. Dwelling units which are occupied "rent-free" are not included with the units reporting a rental figure. Rents were reported to the nearest dollar; and, in computing the medians, the limits of the class intervals were assumed to stand at the midpoint of the one-dollar interval between the end of one of the rent groups as shown in the table and the beginning of the next. For example, the limits of the interval designated as \$10 to \$14 were assumed to be \$9.50 and \$14.50. The median rent was based on a more detailed distribution than that shown in the tables.

Gross monthly rent.--The computed rental termed "gross rent" eliminates rent differentials which result from varying practices with respect to the inclusion of heat, utilities, and furniture as part of the contract rent. Gross monthly rent is contract monthly rent plus the reported average monthly cost of utilities such as water, electricity, gas and fuels, such as wood, coal, and oil, if these items were paid for by the renter in addition to contract monthly rent. If furniture is included in the contract rent, the reported estimated rent of the dwelling unit without furniture was used in the computation rather than the contract rent. Gross monthly rent data were computed for renter-occupied nonfarm units only. Median gross monthly rent was computed in the same manner as median contract monthly rent.

Value of 1-dwelling-unit structures.--Value represents the amount for which the owner-occupant estimates that the property, including the structure and its land, would sell under ordinary conditions and not at forced sale. Data are limited to those nonfarm units in 1-dwelling-unit structures without business and with only one dwelling unit included in the property. Value was tabulated to the nearest \$100; and in the computation of the median, the upper and lower limits of the interval were assumed to stand at \$50 below the beginning and end of the value groups as shown in the tables. For example, the limits of the interval designated \$2,000 to \$2,999 were assumed to be \$1,950 and \$2,950. The median values were based on a more detailed distribution than that shown in the tables.

RELIABILITY OF SAMPLE DATA

SAMPLE DESIGN

Some of the data in the tables which follow are indicated by asterisks or by headnotes as being based on a representative sample of approximately 20 percent of the population. On the population schedules, 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. The sample data shown in this report are based on the persons enumerated on these sample lines. Estimates of the number of persons with specified characteristics based on these sample lines have in all cases been obtained by multiplying the number of persons in the sample containing these characteristics by five.

Although, owing to the presence of blank or voided lines, special entries, etc., the sampling plan used did not automatically insure an exact 20-percent sample of white persons of Spanish surname, the sampling was unbiased and in large areas the deviation from 20 percent was expected to be quite small. The proportion of white persons of Spanish surname enumerated on sample lines was 20.04 percent in Arizona, 19.95 percent in California, 20.10 percent in Colorado, 19.97 percent in New Mexico, and 19.88 percent in Texas.

SAMPLING VARIABILITY

The data based on the 20-percent sample are subject to sampling variability which can be determined approximately from the standard errors in tables C and D. Table C presents the approximate standard error of sample estimates of selected sizes. Table D shows the approximate standard errors of percentages when the percentages are computed by using sample data from this report for both numerator and denominator. Linear interpolation can be used for estimates not shown in the tables.

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 $2\frac{1}{2}$ times the standard error.

Illustration: Table 6 shows that in California in April 1950 there were an estimated 30,630 white males of Spanish surname, 14 years of age or over, who had completed four years of high school (11.7 percent of the estimated 262,660 white males of Spanish surname who were 14 years of age or over). From linear interpolation between values in table C it is found that the standard error of an estimate of 30,630 is about 360. Consequently, the chances are about 2 out of 3 that the figure which would have been obtained from a complete count of the number of white males in California in

April 1950 of Spanish surname, 14 years of age or over, who had completed four years of high school would have differed by less than 360 from the sample estimate. It also follows that there is only about 1 chance in 100 that a complete census result would have differed by as much as 900, that is, by about $2\frac{1}{2}$ times the standard error. It may be estimated from table D, also by linear interpolation, that the standard error of the 11.7 percent on an estimated base of 262,660 is about 0.2 percent.

The standard errors shown in tables C and D are not directly applicable to differences between figures shown in this report. The standard error of the difference between an estimate and a number obtained from the complete count is identical with the variability of the estimate. The standard error of the difference between two estimates is approximately the square root of the sum of the squares of the standard error of each estimate considered separately. This formula is a good approximation for the difference between estimates of the same characteristic in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. However, if there is a high positive correlation between the two characteristics, it will over-estimate the true standard error.

Tables C and D are not directly applicable to estimates of medians computed from the sample data. The sampling variability of estimates of medians depends on the distributions upon which the medians are based.²

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

² The standard error of a median based on 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 $\frac{N}{2} \pm 2.5\sqrt{N}$.

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. Counts for many of the broader classes for which sample data are shown may be found in other tables in this report. 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.

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 C to that shown for the corresponding percentage in table D. Estimates of these types are not being pub-

lished 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 C.--STANDARD ERROR OF ESTIMATED NUMBER
(Range of 2 chances out of 3)

Estimated number	Approximate standard error	Estimated number	Approximate standard error
50.....	10	15,000.....	250
100.....	20	25,000.....	330
250.....	30	50,000.....	460
500.....	50	100,000....	650
1,000.....	70	250,000....	1,020
2,500.....	100	500,000....	1,430
5,000.....	150	1,000,000..	1,980
10,000.....	210		

Table D.--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	1,000,000
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	0.1
25 or 75.....	4.0	2.8	1.8	0.9	0.6	0.3	0.1	0.1
50.....	4.6	3.3	2.1	1.0	0.7	0.3	0.1	0.1