## Asian and Pacific Islander Population by State: 1980

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## 1980

# Asian and Pacific Islander Population by State: 1980 

## SUPPLEMENTARY REPORT

PC80-S1-12

U.S. Department of Commerce

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Number of Asian and Pacific Islander Persons by State: 1980


## Introduction

## GENERAL

This report presents 1980 census data on the geographic distribution of Asians and Pacific Islanders in the United States. Information on the total Asian and Pacific Islander population is shown for the United States, regions, divisions, and States. Data for the same areas are also presented for the Chinese, Filipino, Japanese, Asian Indian, Vietnamese, Korean, Hawaiian, Guamanian, Samoan, and "Other Asian and Pacific Islander" populations. In addition, the report identifies and presents figures for the groups comprising "Other Asian and Pacific Islander." This is the first census to identify the total Asian and Pacific Islander population and its subgroups.

The statistics in this report differ from those published in 1980 Census of Population, Characteristics of the Population, General Population Characteristics, PC80-1-B and Supplementary Reports, "Race of the Population by States: 1980," PC80-S1-3. These earlier publications provided information based on 100 percent tabulations for the nine Asian and Pacific Islander groups listed in the race item on the 1980 census questionnaire. The 1980 data presented in the tables of this report are for the total Asian and Pacific Islander population and all its subgroups based on sample tabulations. (See appendix A for a discussion of the sampling.) Information for the Asian and Pacific Islander population was derived from answers to the 1980 census race item. (See facsimile of race item in the section "Definitions and Explanations. ${ }^{11}$ ) The concept of race as used by the Census Bureau reflects self-identifica-

[^0]tion by respondents; it does not denote any clear-cut scientific definition of biological stock. Furthermore, it is recognized that the categories of the race item included both racial and national origin or sociocultural groups. In the census, data on race were collected separately from ethnicity (ancestry) and country of birth. Since Asians and Pacific Islanders may be of any ethnic group or from any country, the information derived from the race item may differ from data collected on ancestry or country of birth which are presented in other 1980 census reports.
Table 1 shows the 1980 census distribution of the Asian and Pacific Islander population and its subgroups for the United States, and each region, division, and State. The percent distribution, based on the data in table 1 , is shown in table 2. Table 3 provides the 1980 and 1970 distributions and population ranks by State of the total Asian and Pacific Islander population. In table 4, 1980 figures on the Asian population and the component groups are shown for selected States. Comparable statistics for the Pacific Islander population are presented in table 5 for States with 400 or more Pacific Islanders.

## DISTRIBUTION OF THE TOTAL ASIAN AND PACIFIC ISLANDER POPULATION

The Asian and Pacific Islander population numbered more than 3.7 million in 1980 showing a considerable increase over the 1970 figure of 1.5 million. Factors accounting for most of this increase are immigration of groups from Asia and the Islands of the Pacific during the last decade and changes in the census definition to include new groups immigrating to this country. As a consequence, the Asian and Pacific Islander population emerged as one of the
fastest growing groups during the 1970's.

During the decade, the Asian and Pacific Islander population increased their proportion of the total population from 0.8 percent in 1970 to 1.6 percent in 1980. Regionally, in 1980, Asians and Pacific Islanders constituted 5 percent of the total population in the West, 1 percent in the Northeast, and less than 1 percent in both the South and North Central regions.

Seven States had 100,000 or more Asian and Pacific Islander persons in 1980. California, as in the 1970 census, ranked first in the number of Asians and Pacific Islanders ( 1.3 million) followed by Hawaii with nearly 600,000 and New York with over 330,000. Illinois, Texas, Washington, and New Jersey followed in rank order (tables A and 3).

Approximately 60 percent of the Asian and Pacific Islander population in the United States lived in three States: California, Hawaii, and New York. More than 35 percent lived in California, approximately 16 percent in Hawaii, and about 9 percent in New York. Other States with high proportions were Illinois ( 5 percent), Texas ( 4 percent), and Washington and New Jersey (each 3 percent).

The Asian and Pacific Islander population was the largest racial group in one State-Hawaii-where they comprised 61 percent of the total population. California with 6 percent was the only other State where Asian and Pacific Islander persons constituted more than 3 percent of the total population.

## COMPOSITION AND DISTRIBU. TION OF THE ASIAN POPULATION

## Composition

In 1980, the Asian population numbered $3,466,421$ persons and was more than 90

Table A. Distribution of the Asian and Pacific Islander Population by Region: 1980
(Data based on sample, see appendix. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| United States <br> Regions <br> States with 100,000 or more <br> Asians and Pacific Islanders | $\begin{array}{r} \text { Total } \\ \text { population } \end{array}$ | Asian and Pacific Islander | Asian | Pacific <br> Islander |
| :---: | :---: | :---: | :---: | :---: |
| United States (number).... | 226545805 | $3726440^{1}$ | 3,466 421 | 259566 |
| United States (percent)... | 100.0 | 100.0 | 100.0 | 100.0 |
| West. | 19.1 | 58.5 | 56.4 | 86.2 |
| California. | 10.4 | 35.2 | 36.0 | 25.5 |
| Washington. | 1.8 | 3.0 | 3.0 | 2.7 |
| Hawaii. | 0.4 | 15.9 | 13.1 | 53.0 |
| Northeast | 21.7 | 16.1 | 17.1 | 2.9 |
| New York. | 7.8 | 8.9 | 9.4 | 1.3 |
| New Jersey. | 3.3 | 2.9 | 3.1 | 0.4 |
| South. . | 33.3 | 13.8 | 14.2 | 7.4 |
| Texas. | 6.3 | 3.6 | 3.7 | 1.7 |
| North Central. | 26.0 | 11.7 | 12.3 | 3.5 |
| Illinois.......... . . . . . . . . . . . . | 5.0 | 4.6 | 4.9 | 0.6 |

${ }^{1}$ Includes 453 persons who provided Asian and Pacific Islander write-in entries which could not be specifically classified as either "Asian" or "Pacific Islander."

Table B. Asian Population : 1980 and 1970
(Data based on sample, see appendix. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| United States | Number |  |  |  | Percent |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 |  | 1970 |  | 1980 | 1970 |
| Total Asian population. |  | 466421 | 1426 | 148 | 100.0 | 100.0 |
| Chinese. |  | 812178 |  | 583 | 23.4 | 30.3 |
| Filipino. |  | 781894 | 336 | 731 | 22.6 | 23.6 |
| Japanese |  | 716331 | 588 | 324 | 20.7 | 41.3 |
| Asian Indian. |  | 387223 |  | (NA) | 11.2 | $\cdots$ |
| Korean ${ }^{1}$. |  | 357393 | 69 | 510 | 10.3 | 4.9 |
| Vietnamese. |  | 245025 |  | (NA) | 7.1 | . |
| Other Asians. |  | 166377 |  | (NA) | 4.8 | . |
| Laotian. |  | 47683 |  | (NA) | 1.4 | . $\cdot$ |
| Thai. |  | 45279 |  | (NA) | 1.3 | . |
| Cambodian (Kampuchea). |  | 16044 |  | (NA) | 0.5 | ... |
| Pakistani.. |  | 15792 |  | (NA) | 0.5 | . |
| Indonesian. |  | 9618 |  | (NA) | 0.3 | . $\cdot$ |
| Hmong. . |  | 5204 |  | (NA) | 0.2 | ... |
| A11 other |  | 26757 |  | ( NA ) | 0.8 |  |

${ }^{1}$ The 1970 data on the Korean population excluded the State of Alaska.
percent of the total Asian and Pacific Islander population. Asians include a number of diverse groups who differ in language, culture, and recency of immigration. More than 20 Asian populations were reported in the 1980 census; the eight largest groups in rank order were Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, Laotian, and Thai. The composition of the Asian population changed considerably between 1970 and 1980 because of immigration. The adoption of the Immigration Act of 1965 dramatically increased the number of Asians eligible to enter the United States; prior to 1965, Asian immigration was small. As a result of this law, Asians annually comprised a
substantial portion of the total immigrant population during the 1970 decade. The increased immigration was from countries such as the Philippines, Korea, China, India, Pakistan, and Thailand. In addition, more than $400,000^{2}$ Southeast Asian refugees came to this country between 1975 and 1980, entering primarily under a series of parole authorizations granted by the Attorney General under the Immigration and Nationality Act.

[^1]As shown in table $B$ below, the Chinese population was the largest Asian group $(812,178)$ and Filipinos ranked second $(781,894)$. Both groups surpassed the Japanese population, which was the largest group in 1970, but fell to third in 1980 with 716,331 persons. Each of these groups comprised more than one-fifth of the Asian population. Asian Indians ranked fourth with 387,223 persons, followed by Koreans with 357,393 persons and Vietnamese with 245,025 persons; both Asian Indians and Koreans constituted approximately 10 percent and Vietnamese 7 percent of the Asian population. The "Other Asian" population numbered 166,377 and comprised about 5 percent of the total Asian population. The largest "Other Asian" groups were Laotian $(47,683)$ and Thai $(45,279)$. Other groups with sizeable numbers were Cambodian $(16,044)$, Pakistani $(15,792)$, Indonesian $(9,618)$ and Hmong $(5,204)$.

## Distribution

Although the Asian population was more geographically dispersed in 1980 than in 1970, they remained highly concentrated in the West. In 1980, 56 percent of the Asian population lived in the West compared with 70 percent from the 1970 census. All other regions experienced increases between 1970 and 1980; especially notable was the increase in the South where more than 14 percent of Asians lived in 1980 compared to only 7 percent in 1970. ${ }^{3}$ Among the six largest Asian groups-Chinese, Japanese, Filipino, Asian Indian, Korean, and Vietnamese-the heaviest population concentrations were found in the West for each group with the notable exception of the Asian Indian population who were primarily in the Northeast. However, the degree of concentration in the West varied among the groups. For instance, about 8 of 10 Japanese, but only about 4 of 10 Koreans were residing in the West in 1980. In contrast, only about 2 of every 10 Asian Indians resided in the West (table 4).

In three States the Asian population had more than 300,000 persons: Cali-

[^2]fornia $(1,246,654)$, Hawaii $(452,951)$, and New York $(327,499)$. The concentration of Asian subgroups varied somewhat from the total Asian population. For example, California ranked first in the number of Chinese, Filipinos, Japanese, Koreans, and Vietnamese. The second highest ranking State was New York for both Chinese and Koreans, Hawaii for Filipinos and Japanese, and Texas for Vietnamese. In contrast, among Asian Indians, New York and California held the first and second places, respectively.

The geographical dispersion of the "Other Asian" groups was greater than that of the larger Asian groups. For example, a substantial proportion (33 percent) of the Pakistani population lived in the Northeast; about 53 percent of the Hmong population resided in the North Central region; and more than 40 percent of both Laotians and Thais were residing in the West (table 4).

Four States had more than 10,000 "Other Asians" in 1980. The largest number of "Other Asians" was found in California with 45,986 followed by New York with 13,120. Illinois and Texas followed in rank order with 10,942 and 10,264, respectively (table 1). Among "Other Asian" groups, California ranked first in the number of Laotians, Thais, Cambodians, and Indonesians. The second highest ranking State was New York for Thais and Indonesians; Washington for Cambodians; and Illinois and Minnesota for Laotians. In contrast, New York ranked first for the Pakistani population and Minnesota for the Hmong population; California was the second ranking State for each of these groups (table 4).

## RECENT ARRIVALS FROM SOUTHEAST ASIA

Since 1975 , substantial numbers of Vietnamese, Laotians (including Hmong), and Cambodians have entered this country under the Refugee Resettlement Program. ${ }^{4}$ The vast majority of Southeast

[^3]Asians included in the 1980 census entered the United States as refugees; however, refugees cannot be directly identified from the census questionnaire. Detailed cross tabulations on race by country of birth and year of immigration needed to identify all the recent Southeast Asian refugee groups (e.g., the Chinese from Vietnamese), will be available in subsequent 1980 census reports. These data will allow for more accurate estimation of the size of the Southeast Asian refugee population.

The Asian groups that are likely to be predominantly recent refugees are: Vietnamese $(245,025)$, Laotians $(47,683)$, Cambodians $(16,044)$, Hmong $(5,204)$, and Indochinese (427). These identified groups numbered 314,383 comprising 8.4 percent of the total Asian and Pacific Islander population (table C).

Through the policy of sponsorship established by the Federal government,
the Southeast Asian refugee population initially was dispersed throughout the country. The census showed that by 1980 most groups were concentrated in geographic areas with a sizable total Asian population. Forty-six percent of the identified recent arrivals from Southeast Asia lived in the West. The South was the second most populous region with 28 percent followed by the North Central (16 percent) and Northeast (9 percent) regions. The largest population concentrations were found in the West for each identified group with the exception of the Hmong population whose heaviest concentration was in the North Central region.

There has been a tendency for Southeast Asian refugees to cluster in selected States. As shown in table D, in 1980, 80 percent of the identified recent arrivals from Southeast Asia resided in 16 States. The highest concentrations were in

## Table C. Recent Arrivals From Southeast Asia: 1980

(Data based on sample, see appendix. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| United States |  |  |
| :--- | :--- | :--- |

IPersons who reported Indochinese may have come from Vietnam as well as Thailand or Burma.

Table D. Recent Arrivals From Southeast Asia for Selected States by Population Rank: 1980
(Data based on sample, see appendix. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| States with largest number of recent arrivals from Southeast Asia | Rank | Number | Percent distribution |
| :---: | :---: | :---: | :---: |
| United States.............. | . . | 314383 | 100.0 |
| Total, selected States..... | - $\cdot$ | 251551 | 80.0 |
| California. | 1 | 103623 | 33.0 |
| Texas. | 2 | 31695 | 10.1 |
| Washington. | 3 | 13260 | 4.2 |
| Louisiana.. | 4 | 11115 | 3.5 |
| Virginia.. | 5 | 10517 | 3.3 |
| Illinois. | 6 | 10360 | 3.3 |
| Minnesota. | 7 | 10218 | 3.3 |
| Pennsylvania. | 8 | 10017 | 3.2 |
| Oregon....... | 9 | 8821 | 2.8 |
| Florida..... | 10 | 7982 | 2.5 |
| New York. | 11 | 7740 | 2.5 |
| Michigan. | 12 | 5894 | 1.9 |
| Colorado. | 13 | 5469 | 1.7 |
| Oklahoma. | 14 | 5123 | 1.6 |
| Hawaii. | 15 | 4882 | 1.6 |
| Kansas... | 16 | 4835 | 1.5 |

California with 103,623 or one-third of the recent arrivals; another 31,695 or 10 percent lived in Texas. The top ranking States for the individual groups varied somewhat; however, California had the highest concentration for all groups with the exception of the Hmong whose major concentration was in Minnesota. The second highest ranking State was Texas for Vietnamese, Illinois and Minnesota for Laotians, Washington for Cambodians, and California for Hmong (table 4).

## COMPOSITION AND DISTRIBUTION OF THE PACIFIC ISLANDER POPULATION

## Composition

In 1980, there were 259,566 Pacific Islanders comprising 7 percent of the total Asian and Pacific Islander population in the United States. The Pacific Islander population included 172,346 Hawaiians, 39,520 Samoans, 30,695 Guamanians, and 17,005 "Other Pacific Islander" persons. The two largest "Other Pacific Islander" groups were Tongan $(6,226)$ and Fijian $(2,834)$.

Pacific Islanders include diverse populations who differ in language and culture. Pacific Islanders are of Polynesian, Micronesian, and Melanesian background. About 85 percent of the Pacific Islander population in the United States was of Polynesian background, another 14 percent was Micronesian, and 1 percent was Melanesian. The largest Polynesian, Micronesian, and Melanesian groups are shown in table E. Of the 220,278 Polynesian people, the Hawaiian, Samoan, and

Table E Pacific Islander Population by Type: 1980
(Data based on sample, see appendix. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| United States |  |  |  |
| :---: | ---: | ---: | ---: |
| Total Pacific |  | Percent |  |
| Islander pop- |  |  |  |
| ulation....... | 259 | 566 | 100.0 |
|  |  |  |  |
| (istribution |  |  |  |

Tongan populations were the largest groups. Among the 35,508 persons of Micronesian background, more than 8 of every 10 were Guamanian. The Fijian population was the largest Melanesian group (table E).

## Distribution

In 1980, more than 8 of every 10 Pacific Islanders lived in the West with the overwhelming majority residing in two States: Hawaii $(137,696)$ and California $(66,171)$. Other States with more than 4,000 Pacific Islanders were Washington, Texas, and Utah.

Although the majority of Pacific Islanders resided in the West in 1980 the extent of this concentration varied
by group. Pacific Islanders of Micronesian background were more geographically dispersed than Polynesian and Melanesian persons. In 1980, about 71 percent of Micronesians lived in the West, 16 percent in the South, and about 7 percent in both the Northeast and North Central regions. In contrast, among Polynesians 89 percent resided in the West, 6 percent in the South and approximately 3 percent in each of the remaining regions. The geographical distribution of Melanesians was quite similar to that of the Polynesian population: 87 percent lived in the West, 5 percent in the South and about 4 percent in the Northeast and North Central regions.

Differences were also evident in the concentration at the State level for Pacific Islander groups. The majority of Micronesians and Melanesians lived in California while most Polynesian persons resided in Hawaii. Among the largest Pacific Islander groups, (table E) Hawaii and California ranked first or second in population size for all groups except Guamanians and Tongans. California had the highest concentration for both groups followed by Washington and Hawaii for Guamanians and Utah for Tongans.

## SYMBOLS USED IN TABLES

- A dash "-" represents zero or a percent which rounds to less than 0.1.
- (NA) means not available.
- Three dots ". . ." means not applicable.
- A minus sign (-) preceding a figure denotes decrease.


## Definitions and Explanations

Race-The data on race shown in this report were derived from answers to question 4, which was asked of all persons. (See facsimile of questionnaire item in this section.)

The concept of race as used by the Census Bureau reflects self-identification by respondents; it does not denote any clear-cut scientific definition of biological stock. Since the 1980 census obtained information on race through self-identification, the data represent self-classification by people according to the race with which they identify. For persons who could not provide a single response to the race question, the race of the person's mother was used; if a single response could not be provided for the person's mother, the first race reported by the person was used. This is a modification of the 1970 census procedure when the race of the person's father was used.

The category "Asian and Pacific Islander" includes persons who indicated their race as Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, Hawaiian, Samoan, and Guamanian, as well as persons who provided written entries such as Cambodian, Laotian, Pakistani, and Fijian under the "Other" race category. Also, persons who did not classify themselves in one of the specific race categories but wrote in an entry indicating one of the nine specific categories listed above (e.g., Chinese and Filipino) were classified accordingly. For example, entries of Nipponese and Japanese American were classified as Japanese; entries of Taiwanese and Cantonese as Chinese, etc.

Table $F$, below, shows the groups comprising the Asian and Pacific Islander population. This listing was developed based on guidelines issued by the Office of Management and Budget in Statistical Policy Directive No. 15, recommendations of the 1980 Census Advisory Committee on the Asian and Pacific

Table F. Asian and Pacific Islander Groups Reported in the 1980 Census

| Asian | Pacific Islander |
| :---: | :---: |
| Chinese* | Polynesian |
| Filipino* | Hawaiian* |
| Japanese* | Samoan* |
| Asian Indian* | Tahitian |
| Korean* | Tongan |
| Vietnamese* | Other, Polynesian |
| Bangladeshi | Tokelauan |
| Burmese | Polynesian |
| Cambodian (Kampuchea) | Micronesian |
| Hmong | Guamanian* |
| Indonesian | Other Mariana Islanders |
| Laotian | Saipanese |
| Ma layan | Tinian Islander |
| Okinawan | Mariana Islander |
| Pakistani | Marshallese |
| Sri Lankan (Ceylonese) | Marshall Islander |
| Thai ${ }^{1}$ | Eniwetok Is lander |
| Asian not specified ${ }^{1}$ | Bikini Is lander |
| A11 other Asians Bhutanese | Kwajalein Islander Palauan |
| Borneo | Other Micronesian |
| Celebesian | Micronesian |
| Cernan | Ponapean |
| Indochinese | Trukese |
| Iwo-Jiman | Yapese |
| Javanese | Carolinian |
| Maldivian | Tarawa Islander |
| Sikkim | Melanesian |
| Singaporean | Fijian |
|  | Other Melanesian Melanesian |
|  | Papua New Guinean |
|  | Solomon Islander <br> New Hebrides Islander |
|  | Other Pacific Islanders ${ }^{2}$ |

[^4]Americans Population for the 1980 Census, and write-in responses to the 1980 census item on race. In addition, experts, both governmental and nongovernmental, were consulted concerning the classification.

Race Edit and Allocation-If the race entry was missing on the questionnaire for a member of a household, an answer was assigned in the computer according to the reported entries of race of other household members using specific rules of precedence of household relationship. If
race was not entered for anyone in the household (excluding paid employees), the race of a householder in a previously processed household was assigned. This procedure is a variation of the general allocation process; a fuller discussion of general edit and allocation procedures is included in Appendix D, "Accuracy of the Data," in Characteristics of the Population, General Population Characteristics, PC80-1-B.

Comparability Between 1980 Census 100 -percent and Sample Totals for the Asian and Pacific Islander PopulationsA comparison of the 100-percent count and sample distributions of the Asian and Pacific Islander populations is presented in table G. Differences between the 100-percent counts and the sample figures for Asian and Pacific Islander groups are a result of additional edit and review procedures performed during the processing of sample questionnaires as well as sampling variability and nonsampling errors.

During the processing of the sample questionnaires, a thorough review of write-in entries was performed as well as additional editing to resolve inconsistent or incomplete responses. For instance, a number of persons who marked the "Other" race category supplied a write-in entry (e.g., Bengali, Cantonese, Chamarro, or Filipino American) which indicated they belonged in one of the specific race categories. Limited edit and review procedures were performed for entries of this type during the 100 -percent processing; however, not all such cases were identified. As part of the sample coding operation, a more thorough review of write-in entries was performed and such responses were reclassified into one of the 14 specific race categories. Also, during the sample coding operation, writein entries of Asian and Pacific Islander groups, such as Cambodian, Laotian,

Table G. Comparison of 100-Percent and Sample Data on the Asian and Pacific Islander Population: 1980
(For meaning of symbals, see Introduction. For definition of terms, see Definitions and Explanations)

| United States | 100-percent |  | Sample |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total |  | Difference from 100 -percent count |  |
|  |  |  | Number | Percent |
| Total population................. | 226 | 545805 |  |  |  | 545805 | - | - |
| Total Asian and Pacific Islander..... | 3 | 500439 | 3 | 726440 | --. | . . |
| Total excluding "Other Asian and Pacific |  |  |  |  |  |  |
| Islander". . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3 | 500439 $806 \quad 040$ | 3 | 542605 812178 | $\begin{array}{rrr}42 & 166 \\ 6 & 138\end{array}$ |  |
| Chilipino. |  | 774652 |  | 812178 781894 | $\begin{array}{ll}6 & 138 \\ 7 & 242\end{array}$ | 0.8 0.9 |
| Japanese... . . . . . . . . . . . . . . . . . . . . . . . . |  | 700974 |  | 716331 | 15357 | 2.2 |
| Asian Indian. |  | 361531 |  | 387223 | 25692 | 7.1 |
| Korean. . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 354593 |  | 357393 | 2800 | 0.8 |
| Vietnamese |  | 261729 |  | 245025 | -16 704 | -6.4 |
| Hawaiian. |  | 166814 |  | 172346 | 5532 | 3.3 |
| Samoan. |  | 41948 |  | 39520 | -2 428 | -5.8 |
| Guamanian. |  | 32158 |  | 30695 | -1 463 | -4.5 |
| Other Asian and Pacific Islander |  | (NA) |  | 183835 |  | ... |

and Thai, which were not listed separately in the race item, were coded and subsequently tabulated as "Other Asian and Pacific Islander" to provide data on the total Asian and Pacific Islander population. The statistics in this report reflect the effects of this editing.

Information now available indicates that since the effects of the additional review and edit were generally limited and rather varied, the 100 -percent tabulations are usually the preferable source for statistics on the nine Asian and Pacific Islander groups listed separately on the census questionnaire (e.g., Chinese and Filipino). In the case of data for the entire Asian and Pacific Islander population and "Other Asian and Pacific Islander" persons, the sample figures are the only data available and should be used within the context of the sampling variability associated with them.

Comparability of 1980 With 1970 Census Data-The 1980 figures for the Asian and Pacific Islander population reflect a high level of immigration during the 1970's as well as a number of changes in Census procedures which were developed, in part, as a result of this high level of immigration. First, the number of Asian and Pacific Islander groups identified separately on the 1980 census questionnaire was expanded over that identified in 1970 to include four additional Asian and Pacific Islander groups: Vietnamese, Asian Indian, Guamanian, and Samoan. Asian Indians were classified as "White" in 1970 but were included in the "Asian and Pacific Islander" category in 1980.

The Vietnamese, Guamanian, and Samoan populations were included in the "Other" race category in the 1970 census. Second, "Other Asian and Pacific Islander" groups such as Cambodian, Pakistani, and Fijian, which were not listed separately in the race item, were coded and tabulated as Asian and Pacific Islander in sample tabulations in the 1980 census; in 1970, most of these groups were included in the "Other" race category.

In 1980, data were collected separately for Hawaiians and Koreans in all States, but in 1970, these data were not collected for Alaska. (On the 1970 census questionnaire used in Alaska, "Eskimo" and "Aleut" were substituted for these two categories.) Since the number of Hawaiians and Koreans was small in Alaska, the questionnaire change does not have a significant impact on the comparability of the 1980 and 1970 data on Hawaiians and Koreans at the national level.

Asian and Pacific Islander Data in Other 1980 Census Reports-Counts of the Asian and Pacific Islander population were published in Summary Characteristics for Governmental Units and Standard Metropolitan Statistical Areas, PHC80-3. Data are shown for the State, standard metropolitan statistical areas (SMSA's), counties, selected county subdivisions, and incorporated places.

Data on the Asian and Pacific Islander subgroups cross-classified by age, sex, relationship, and marital status were published on a State-by-State basis in Characteristics of the Population, General

Population Characteristics, PC80-1-B. The PC80-1-B reports were published for the United States and each State; data are shown for standard consolidated statistical areas (SCSA's), standard metropolitan statistical areas (SMSA's), urbanized areas (UA's), counties, county subdivisions, and places of 1,000 or more inhabitants. Comparable housing data were also published in Characteristics of Housing Units, General Housing Characteristics, HC80-1-A.

Data from 100-percent tabulations have been published for the Asian and Pacific Islander population in various reports in the 1980 Census of Population Supplementary Report series. The Supplementary Reports showing data on the Asian and Pacific Islander population are "Age, Sex, Race, and Spanish Origin of the Population by Regions, Divisions, and States: 1980," PC80-S1-1; "Race of the Population by States: 1980," PC80-S1-3; "Standard Metropolitan Statistical Areas and Standard Consolidated Statistical Areas: 1980," PC80-S1-5 and "Detailed Occupation and Years of School Completed by Age, for the Civilian Labor Force by Sex, Race, and Spanish Origin: 1980," PC80-S1-8. The Supplementary Report "Race of the Population by States: 1980," PC80-S1-3, shows data for Asian and Pacific Islander subgroups (e.g., Chinese and Filipino); whereas, the other supplementary reports provide data only for "Asian and Pacific Islander."

Provisional data from a $11 / 2$ percent sample of social, economic, and housing characteristics for the total Asian and Pacific Islander population are shown for States and SMSA's with 25,000 persons or 12,500 households in Provisional Estimates of Social, Economic, and Housing Characteristics, PHC80-S1-1.

Data from the full sample on social, economic, and housing characteristics for the total Asian and Pacific Islander population were published for each State, its counties or comparable areas, and places of 25,000 persons or 12,500 households in Advance Estimates of Social, Economic and Housing Characteristics, PHC80-S2. Also, social and economic data on the Asian and Pacific Islander population and its subgroups have been published in the State reports, General Social and Economic Characteristics, PC80-1-C. Statistics for the total Asian and Pacific Islander
population and its subgroups are shown for States; data for substate areas (counties, places of 2,500 or more, SCSA's, SMSA's, and UA's) are presented for the total Asian and Pacific Islander population. A United States Summary will be published in the series early next year. Comparable housing data are being presented in Detailed Housing Characteristics, HC80-1-B.

Statistics for most population and housing subjects included in the 1980
census are being published in Census Tracts, PHC80-2. Both 100-percent and sample data are being published for census tracts with 400 or more total Asian and Pacific Islander population in SMSA's and in other tracted areas. Counts for the Asian and Pacific Islander subgroups are shown for all census tracts. There is one report for each SMSA, as well as one for each of the States which have tracted areas outside SMSA's.

Future 1980 census reports which will show data on the Asian and Pacific Islander populations are Detailed Population Characteristics, PC80-1-D, and Metropolitan Housing Characteristics, HC80-2. Also, data are planned for publication in the Subject Report series: Population (PC80-2), including a separate report on the Asian and Pacific Islander population, and Housing (HC80-3).

Facsimile of questionnaire item 4.

| 4. Is this person - | White | Asian Indian |
| :--- | :--- | :--- |
| Fill one circle. | Black or Negro | Hawaiian |
|  | Japanese | Guamanian |
|  | Chinese | Samoan |
|  | Filipino | Eskimo |
|  | Korean | Aleut |
|  | Vietnamese | Other - Specify |
|  | Indian (Amer.) |  |
|  | Print |  |
|  | tribe |  |

Table 1. Asian and Pacific Islander Population: 1980


[^5]Table 1. Asian and Pacific Islander Population: 1980-Con.

 "Pacific Islander."

Table 2. Percent Distribution of the Asian and Pacific Islander Population: 1980
(Data based on sample. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| United States Regions and Divisions States <br> United States | Total <br> Asian and Pacific Islander | Chinese | Fili- <br> pino | Japanese | Asian Indian | Korean | Vietnamese | Hawaiian | Samoan | Guama nian | Other Asian and Pacific Islander |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  | Total ${ }^{1}$ | Asian | Pacific <br> Islander |
|  | 100.0 | 21.8 | 21.0 | 19.2 | 10.4 | 9.6 | 6.6 | 4.6 | 1.1 | 0.8 | 4.9 | 4.5 | 0.5 |
| REGIONS AND DIVIS IONS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 100.0 | 36.3 | 12.9 | 7.8 | 22.1 | 11.4 | 3.7 | 0.7 | 0.1 | 0.3 | 4.7 | 4.6 | 0.1 |
| New England................. | 100.0 | 37.4 | 9.4 | 8.5 | 19.2 | 10.5 | 5.9 | 0.9 | 0.2 | 0.6 | 7.3 | 7.1 | 0.1 |
| Middle Atlantic............ | 100.0 | 36.1 | 13.5 | 7.7 | 22.6 | 11.6 | 3.3 | 0.7 | 0.1 | 0.3 | 4.2 | 4.1 | 0.1 |
| North Central. | 100.0 | 17.2 | 18.6 | 10.6 | 20.6 | 14.8 | 7.6 | 1.3 | 0.2 | 0.4 | 8.7 | 8.5 | 0.2 |
| East North Central......... | 100.0 | 17.8 | 20.9 | 10.7 | 22.4 | 14.3 | 5.2 | 1.0 | 0.1 | 0.3 | 7.2 | 7.0 | 0,1 |
| West North Central......... | 100.0 | 15.2 | 10.9 | 10.4 | 14.4 | 16.5 | 15.6 | 2.0 | 0.6 | 0.8 | 13.6 | 13.2 | 0.5 |
| South.. | 100.0 | 17.8 | 16.7 | 9.3 | 17.7 | 13.8 | 15.0 | 2.2 | 0.3 | 0.9 | 6.2 | 6.0 | 0.2 |
| South Atlantic | 100.0 | 18.1 | 21.0 | 9.3 | 17.8 | 16.0 | 9.6 | 2.0 | 0.3 | 0.9 | 5.1 | 4.9 | 0.2 |
| East South Central. | 100.0 | 16.1 | 12.5 | 10.8 | 21.4 | 15.4 | 11.7 | 4.0 | 0.6 | 0.9 | 6.6 | 6.5 | 0.1 |
| West South Central.......... | 100.0 | 17.9 | 11.3 | 9.0 | 16.5 | 10.3 | 24.0 | 2.1 | 0.3 | 1.0 | 7.8 | 7.5 | 0.3 |
| West. | 100.0 | 19.7 | 24.7 | 26.4 | 3.4 | 7.0 | 5.2 | 6.9 | 1.7 | 1.0 | 4.0 | 3.3 | 0.7 |
| Mountain | 100.0 | 17.5 | 12.4 | 25.8 | 6.3 | 11.7 | 8.3 | 3.4 | 1.5 | 1.1 | 11.9 | 9.4 | 2.5 |
| Pacific.................... | 100.0 | 19.8 | 25.4 | 26.4 | 3.3 | 6.8 | 5.0 | 7.1 | 1.7 | 1.0 | 3.5 | 3.0 | 0.5 |
| States |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New England: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maine....................... | 100.0 | 14.1 | 22.1 | 9.8 | 15.5 | 15.6 | 8.5 | 2.7 | 0.9 | 2.6 | 8.2 | 7.6 | 0.6 |
| New Hampshire.............. | 100.0 | 26.8 | 8.5 | 10.6 | 22.1 | 15.4 | 4.0 | 2.3 | 0.4 | 0.1 | 9.9 | 9.2 | 0.7 |
| Vermont. . . . . . . . . . . . . . . | 100.0 | 12.6 | 7.0 | 13.5 | 31.7 | 20.2 | 5.7 | 0.7 | 0.9 | 1.3 | 6.5 | 5.7 | 0.7 |
| Massachusetts. | 100.0 | 47.3 | 6.0 | 8.2 | 17.0 | 10.2 | 5.4 | 0.7 | 0.2 | 0.5 | 4.6 | 4.5 | 0.1 |
| Rhode Island. | 100.0 | 26.4 | 15.1 | 7.0 | 13.7 | 9.2 | 4.3 | 1.0 | - | 1.8 | 21.6 | 21.0 | 0.6 |
| Connecticut................ | 100.0 | 23.4 | 14.4 | 8.7 | 25.7 | 9.5 | 7.5 | 1.2 | 0.1 | 0.5 | 8.9 | 8.9 | - |
| Middle Atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| New York.. | 100.0 | 44.5 | 10.8 | 7.5 | 20.4 | 10.0 | 1.8 | 0.6 | - | 0.3 | 4.1 | 4.0 | 0.1 |
| New Jersey. | 100.0 | 21.5 | 22.4 | 9.4 | 28.1 | 12.0 | 2.6 | 0.5 | 0.1 | 0.2 | 3.3 | 3.2 | 0.1 |
| Pennsylvania............... | 100.0 | 19.5 | 12.3 | 6.3 | 24.4 | 17.9 | 11.5 | 1.3 | 0.1 | 0.2 | 6.5 | 6.3 | 0.2 |
| East North Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ohio............. | 100.0 | 19.9 | 15.0 | 11.8 | 25.6 | 14.6 | 5.2 | 1.5 | 0.1 | 0.3 | 6.0 | 5.9 | 0.1 |
| Indiana | 100.0 | 18.4 | 14.4 | 10.3 | 19.5 | 16.2 | 8.8 | 2.1 | 0.2 | 0.5 | 9.6 | 9.4 | 0.3 |
| Illinois. | 100.0 | 16.8 | 25.7 | 10.7 | 21.7 | 14.1 | 3.7 | 0.6 | 0.1 | 0.2 | 6.5 | 6.4 | 0.1 |
| Michigan................... | 100.0 | 17.3 | 17.8 | 10.3 | 24.5 | 14.3 | 7.0 | 1.4 | 0.1 | 0.3 | 7.0 | 6.7 | 0.2 |
| Wisconsin.................. | 100.0 | 21.9 | 13.8 | 9.6 | 17.7 | 13.2 | 7.7 | 1.2 | 0.4 | 0.7 | 13.8 | 13.5 | 0.2 |
| West North Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Iowa. | 100.0 | 14.2 | 7.6 | 7.4 | 17.5 | 14.9 | 15.2 | 2.2 | 0.4 | 0.7 | 20.0 | 19.7 | 0.3 |
| Missouri.................... | 100.0 | 18.1 | 15.6 | 11.6 | 17.1 | 13.4 | 12.6 | 3.1 | 1.4 | 0.8 | 6.2 | 5.8 | 0.4 |
| North Dakota. | 100.0 | 16.9 | 21.6 | 9.8 | 11.0 | 15.7 | 12.6 | 3.0 | - | 0.8 | 8.6 | 8.2 | 0.4 |
| South Dakota | 100.0 | 10.4 | 16.3 | 15.9 | 8.2 | 17.0 | 13.8 | 2.1 | 2.0 | 2.4 | 11.8 | 11.8 | - |
| Nebraska...................... . | 100.0 | 15.7 | 11.5 | 14.8 | 13.5 | 14.7 | 15.6 | 2.2 | 0.6 | 1.3 | 10.1 | 8.8 | 1.1 |
| Kansas.. | 100.0 | 13.9 | 9.4 | 9.2 | 14.8 | 15.4 | 19.0 | 2.0 | 0.3 | 1.5 | 14.6 | 13.9 | 0.6 |
| South Atlantic: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Delaware.. | 100.0 | 25.4 | 17.1 | 8.9 | 26.5 | 10.8 | 3.7 | 1.7 | 0.1 | 1.0 | 4.9 | 4.9 | - |
| Maryland. | 100.0 | 22.1 | 17.3 | 6.9 | 20.3 | 21.8 | 6.1 | 0.9 | 0.1 | 0.5 | 4.0 | 3.9 | 0.1 |
| District of Columbia....... | 100.0 | 33.5 | 18.2 | 11.7 | 12.7 | 4.5 | 6.3 | 2.8 | 0.6 | 1.3 | 8.3 | 8.3 | - |
| Virginia..................... | 100.0 | 13.5 | 27.1 | 7.3 | 12.8 | 18.1 | 13.4 | 1.5 | 0.3 | 0.8 | 5.3 | 5.0 | 0.2 |
| West Virginia............... | 100.0 | 18.6 | 21.7 | 8.6 | 32.8 | 8.3 | 2.8 | 1.4 | 0.5 | 0.5 | 4.7 | 4.7 | - |
| North Carolina............. | 100.0 | 13.9 | 12.4 | 15.5 | 21.0 | 16.0 | 8.5 | 4.1 | 0.6 | 1.7 | 6.3 | 5.7 | 0.6 |
| South Carolina.............. | 100.0 | 9.0 | 28.4 | 11.8 | 19.2 | 13.2 | 8.3 | 3.5 | 0.4 | 1.4 | 4.7 | 4.5 | 0.2 |
| Georgia...................... | 100.0 | 16.4 | 10.9 | 13.8 | 18.2 | 21.5 | 9.0 | 3.1 | 0.5 | 1.9 | 4.8 | 4.5 | 0.2 |
| Florida..................... | 100.0 | 20.7 | 24.4 | 9.1 | 17.7 | 7.9 | 11.3 | 2.4 | 0.4 | 0.7 | 5.5 | 5.3 | 0.2 |
| East South Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kentucky..................... | 100.0 | 11.7 | 12.0 | 9.9 | 22.6 | 18.4 | 12.4 | 3.2 | 1.0 | 1.8 | 7.2 | 7.0 | 0.2 |
| Tennessee. . . . . . . . . . . . . . . | 100.0 | 19.0 | 11.5 | 11.5 | 22.2 | 15.8 | 7.6 | 2.9 | 0.7 | 0.4 | 8.3 | 8.2 | 0.1 |
| Alabama. . | 100.0 | 13.3 | 10.2 | 13.4 | 22.3 | 16.5 | 11.4 | 5.5 | 0.4 | 0.6 | 6.5 | 6.5 | - |
| Mississippi................. | 100.0 | 20.8 | 18.1 | 7.5 | 16.9 | 8.4 | 19.1 | 5.2 | 0.3 | 1.1 | 2.7 | 2.7 | - |
| West South Central: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arkansas.................... | 100.0 | 16.4 | 10.1 | 9.6 | 16.5 | 8.2 | 26.3 | 2.9 | 0.1 | 0.9 | 8.9 | 8.7 | 0.1 |
| Louisiana. . . . . . . . . . . . . . . | 100.0 | 12.3 | 10.5 | 6.7 | 12.1 | 8.0 | 43.2 | 2.5 | 0.3 | 0.9 | 3.5 | 3.4 | 0.1 |
| Oklahoma.................... | 100.0 | 12.1 | 8.5 | 11.4 | 16.0 | 13.9 | 21.1 | 3.5 | 0.6 | 1.3 | 11.5 | 10.8 | 0.7 |
| Texas........................ | 100.0 | 19.9 | 11.9 | 9.0 | 17.4 | 10.2 | 20.7 | 1.8 | 0.3 | 0.9 | 8.0 | 7.6 | 0.3 |
| Mountain: 100.0 , 0 , |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Montana...................... | 100.0 | 12.8 | 16.2 | 25.9 | 5.0 | 10.5 | 2.6 | 3.9 | 0.5 | 0.4 | 22.2 | 20.9 | 1.4 |
| Idaho. . . . . . . . . . . . . . . . . . . . | 100.0 | 10.4 | 11.3 | 46.2 | 3.7 | 9.4 | 6.6 | 4.4 | 1.5 | 0.6 | 5.9 | 4.6 | 1.3 |
| Wyoming. . . . . . . . . . . . . . . . . | 100.0 | 21.6 | 9.5 | 37.0 | 5.1 | 11.7 | 2.1 | 4.3 | 1.3 | 0.5 | 6.9 | 5.5 | 1.4 |
| Colorado.................... | 100.0 | 12.3 | 8.1 | 31.6 | 7.5 | 15.0 | 9.5 | 2.4 | 0.4 | 1.5 | 11.7 | 11.5 | 0.2 |
| New Mexico................. | 100.0 | 18.3 | 15.5 | 17.5 | 8.0 | 9.8 | 12.1 | 2.8 | 0.9 | 0.6 | 14.5 | 14.3 | 0.2 |
| Arizona..................... | 100.0 | 27.2 | 15.5 | 18.8 | 8.5 | 10.4 | 7.1 | 3.5 | 0.7 | 1.4 | 6.9 | 6.0 | 0.9 |
| Utah........................ | 100.0 | 14.4 | 5.6 | 27.2 | 4.6 | 6.9 | 9.8 | 4.5 | 5.8 | 0.3 | 20.8 | 9.9 | 10.9 |
| Nevada...................... | 100.0 | 20.5 | 24.5 | 15.9 | 3.4 | 14.9 | 6.5 | 3.5 | 0.3 | 1.8 | 8.7 | 7.0 | 1.7 |
| Pacific: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Washington................. | 100.0 | 16.1 | 23.0 | 24.5 | 3.8 | 12.0 | 8.0 | 2.5 | 1.6 | 1.6 | 6.7 | 6.3 | 0.5 |
| Oregon...................... | 100.0 | 19.3 | 11.7 | 20.9 | 5.5 | 12.2 | 14.0 | 3.8 | 0.2 | 0.9 | 11.3 | 10.1 | 1.1 |
| California................. | 100.0 | 24.8 | 27.3 | 20.5 | 4.6 | 7.8 | 6.5 | 1.8 | 1.4 | 1.3 | 4.0 | 3.5 | 0.5 |
| Alaska....................... | 100.0 | 6.4 | 38.4 | 18.6 | 2.8 | 19.4 | 3.7 | 5.0 | 1.2 | 1.6 | 2.9 | 2.5 | 0.3 |
| Hawaii...................... | 100.0 | 9.5 | 22.4 | 40.6 | 0.1 | 3.0 | 0.6 | 20.0 | 2.4 | 0.3 | 1.2 | 0.6 | 0.6 |

 "Pacific Islander."

Table 3. Total Asian and Pacific Islander Population by Rank: 1980 and 1970

${ }^{1}$ In the 1970 census, the following groups were identified as Asian and Pacific Islander: Japanese, Chinese, Filipino, Korean, and Hawaiian. Also, data on Koreans and Hawaiians are for all States except Alaska.

Table 4. Asian Population: 1980

| United States <br> Regions <br> States With 10,000 or More Asians | (Data based on sample. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Asian population |  |  | $\begin{aligned} & \text { Asian } \\ & \text { Indian } \end{aligned}$ |  | Bangla- deshi | Burmese | Cambodian (Kampuchean) |  | Sri Lankan (Ceylonese) | Chinese | Filipino | Hmong | Indonesian |
| United States................ |  | 466 | 421 | 387 | 223 | 1314 | 2756 |  | 044 | 2923 | 812178 | 781894 | 5204 | 9618 |
| Total, selected States........... |  | 373 | 604 |  |  | 1296 | 2647 |  | 370 | 2793 | 794750 | 765664 | 4877 | 9411 |
| Percent of Asians in selected <br> States. |  |  | 97.3 |  | 96.3 | 98.6 | 96.0 |  | 5.8 | 95.6 | 97.9 | 97.9 | 93.7 | 97.8 |
| Northeast. . . . . . . . . . . . . . . . . . . . . . . . |  | 591 | 844 | 132 | 560 | 692 | 421 | 2 | 288 | 842 | 217624 | 77051 | 354 | 1888 |
| Massachusetts. |  |  | 882 |  | 943 | 87 | 50 |  | 198 | 109 | 24882 | 3180 | 46 | 208 |
| Connecticut. |  |  | 742 |  | 426 | 29 | - |  | 228 | 81 | 4948 | 3049 | 35 | 79 |
| New York. |  | 327 | 499 |  | 636 | 393 | 278 |  | 496 | 421 | 147250 | 35630 | 10 | 1212 |
| New Jersey........................... |  | 108 | 417 |  | 684 | 167 | 56 |  | 52 | 140 | 23492 | 24470 | - | 172 |
| Pennsylvania......................... |  |  | 211 |  | 230 | 16 | 37 |  | 885 | 80 | 13769 | 8640 | 79 | 175 |
| North Central.......................... |  | 426 | 081 |  | 588 | 138 | 476 | 2 | 258 | 442 | 74944 | 80928 | 2780 | 1087 |
| ohio.. |  |  | 070 |  | 602 | 13 | 20 |  | 87 | 47 | 10584 | 7966 | 27 | 124 |
| Indiana. . |  |  | 612 |  | 746 | - | 7 |  | 172 | 10 | 4491 | 3507 | - | 94 |
| Illinois. |  | 170 | 614 |  | 438 | 25 | 269 |  | 554 | 132 | 28847 | 44317 | 433 | 229 |
| Michigan. |  |  | 313 | 15 | 363 | 37 | 30 |  | 280 | 144 | 10824 | 11132 | 127 | 280 |
| Wisconsin |  |  | 465 |  | 902 | 12 | 13 |  | 95 | 2 | 4835 | 3036 | 408 | 163 |
| Minnesota |  |  | 647 |  | 734 | - | 5 |  | 555 | 85 | 4558 | 2628 | 1331 | 93 |
| Iowa.. |  | 13 | 358 |  | 424 | - | 41 |  | 183 | 6 | 1973 | 1058 | 266 | 40 |
| Missouri. |  |  | 516 |  | 276 | 32 | 91 |  | 104 | 11 | 4520 | 3883 | - | 12 |
| Kansas. |  |  | 755 |  | 588 | 19 | - |  | 169 | 5 | 2440 | 1648 | 159 | 40 |
| South. |  | 493 | 744 |  | 602 | 292 | 734 | 2 | 570 | 423 | 91415 | 85626 | 123 | 1235 |
| Maryland. |  |  | 849 |  | 788 | 38 | 251 |  | 232 | 28 | 15037 | 11763 | - | 234 |
| Virginia. |  |  | 619 |  | 046 | 100 | 94 |  | 450 | 40 | 9495 | 19111 | 19 | 112 |
| North Carolina. |  |  | 530 |  | 855 | - | 20 |  | 94 | 9 | 3229 | 2869 | - | 127 |
| South Carolina. |  |  | 641 |  | 572 | - | - |  | 21 | - | 1204 | 3797 | - | - |
| Georgia. |  |  | 510 |  | 725 | - | 54 |  | - | 8 | 4258 | 2825 | - | 13 |
| Florida. |  |  | 211 |  | 039 | - | 51 |  | 357 | 40 | 12930 | 15252 | 6 | 219 |
| Kentucky............................. |  |  | 090 |  | 669 | 2 | 8 |  | - | - | 1381 | 1417 | - | 6 |
| Tennessee..................... . . . . . . |  |  | 624 |  | 392 | - | - |  | 116 | 17 | 2904 | 1761 | - | 27 |
| Louisiana |  |  | 174 |  | 036 | - | 14 |  | 55 | 10 |  | 2650 | - | 32 |
| Oklahoma. |  |  | 553 |  | 168 | 20 | 36 |  | 91 | 5 | 2384 | 1681 | 34 | 46 |
| Texas.. |  | 129 | 972 |  |  | 114 | 97 |  | 025 | 160 | 26714 | 15952 | 7 | 325 |
| West. |  | 954 | 752 |  | 473 | 192 | 1125 |  | 928 | 1216 | 428195 | 538289 | 1947 | 5408 |
| Colorado. |  |  | 733 |  | 565 | - | 33 |  | 273 | 17 | 4224 | 2764 | 110 | 215 |
| Arizona. |  |  | 968 |  | 078 | 32 | 39 |  | 111 | - | 6681 | 3799 | 4 | 21 |
| Utah. |  |  | 874 |  | 932 | - | - |  | 342 | - | 2913 | 1138 | 364 | 16 |
| Nevada. |  |  | 458 |  | 527 | - | 12 |  | - | - | 3192 | 3826 | - | - |
| Washington. |  | 104 | 662 |  | 267 | 46 | 87 |  | 752 | 108 | 17984 | 25662 | 89 | 238 |
| Oregon.. |  | 38 | 430 |  | 265 | - | 5 |  | 749 | 12 | 7918 | 4800 | 538 | 171 |
| California |  | 246 | 654 | 59 | 774 | 114 | 933 |  | 586 | 1040 | 325882 | 358378 | 733 | 4535 |
| Hawaii................................ |  | 452 | 951 |  | 708 | - | 16 |  | 58 | 26 | 55916 | 132075 | 52 | 153 |

See footnote at end of table.

Table 4. Asian Population: 1980-Con.
(Data based on sample. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

| ```United States Regions States With 10,000 or More Asians``` | Japane se | Korean | Laotian | Malayan | Okinawan | Pakistani |  | Thai | Vietnamese | Asian not specified ${ }^{1}$ | A11 <br> other <br> Asian |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States... | 716331 | 357393 | 47683 | 4:075 | 1415 | 15792 | 45 | 279 | 245025 | 12897 | 1377 |
| Total, selected States........... | 701251 | 345679 | 44745 | 3944 | 1362 | 15344 |  | 612 | 235238 | 12518 | 1310 |
| States............................. | 97.9 | 96.7 | 93.8 | 96.8 | 96.3 | 97.2 |  | 94.1 | 96.0 | 97.1 | 95.1 |
| Northeast................................ . | 46913 | 68357 | 4666 | 589 | 42 | 5166 | 7 | 214 | 22021 | 2884 | 272 |
| Massachusetts | 4290 | 5369 | 570 | 107 | - | 198 |  | 549 | 2847 | 230 | 19 |
| Connecticut. | 1841 | 2015 | 873 | 32 | - | 123 |  | 254 | 1575 | 124 | 30 |
| New York... | 24754 | 33260 | 1357 | 261 | - | 3214 | 4 | 028 | 5849 | 1261 | 189 |
| New Jersey.............................. . | 10263 | 13173 | 230 | 52 | - | 1109 |  | 921 | 2846 | 565 | 25 |
| Pennsylvania. . . . . . . . . . . . . . . . . . . . | 4422 | 12597 | 926 | 108 | - | 516 |  | 943 | 8127 | 652 | 9 |
| North Central. . . . . . . . . . . . . . . . . . . . . | 46254 | 64573 | 13371 | 1986 | 32 | 3355 | 8 | 433 | 32949 | 2178 | 309 |
| Ohio.. | 6271 | 7756 | 1080 | 209 | 4 | 268 |  | 950 | 2751 | 303 | 8 |
| Indiana. | 2503 | 3940 | 817 | 382 | 6 | 224 |  | 469 | 2137 | 104 | 3 |
| Illinois.............................. . | 18432 | 24351 | 3086 | 666 | 4 | 1760 | 3 | 265 | 6287 | 462 | 57 |
| Michigan. . . . . . . . . . . . . . . . . . . . . . | 6460 | 8948 | 1031 | 328 | 10 | 481 |  | 938 | 4364 | 436 | 100 |
| Wisconsin. . . . . . . . . . . . . . . . . . . . . . | 2123 | 2900 | 1472 | 137 | 5 | 104 |  | 309 | 1699 | 196 | 54 |
| Minnesota. | 3191 | 6676 | 3012 | 21 | - | 77 |  | 167 | 5316 | 173 | 25 |
| Iowa. . | 1024 | 2057 | 1162 | 105 | 3 | 55 |  | 741 | 2101 | 106 | 13 |
| Missouri. . . . . . . . . . . . . . . . . . . . . . . | 2897 | 3356 | 202 | 28 | - | 125 |  | 648 | 3134 | 148 | 49 |
| Kansas....................... . . . . . . . . | 1611 | 2701 | 1176 | 74 | - | 172 |  | 461 | 3331 | 161 | - |
| South. | 47631 | 70999 | 7846 | 535 | 115 | 3565 | 10 | 184 | 76916 | 2633 | 300 |
| Maryland. . . . . . . . . . . . . . . . . . . . . . . | 4656 | 14783 | 105 | 12 | - | 378 |  | 944 | 4162 | 398 | 40 |
| Virginia. . . . . . . . . . . . . . . . . . . . . . . | 5173 | 12797 | 597 | 97 | 13 | 658 |  | 913 | 9451 | 345 | 108 |
| North Carolina. . . . . . . . . . . . . . . . . | 3594 | 3694 | 419 | 27 | - | 26 |  | 454 | 1966 | 121 | 26 |
| South Carolina. | 1584 | 1766 | 203 | 4 | - | 31 |  | 277 | 1113 | 47 | 22 |
| Georgia. . . . . . . . . . . . . . . . . . . . . . . | 3596 | 5590 | 290 | 21 | - | 29 |  | 603 | 2339 | 159 | - |
| Florida. . . . . . . . . . . . . . . . . . . . . . . | 5667 | 4948 | 542 | 42 | 20 | 392 | 1 | 441 | 7077 | 169 | 19 |
| Kentucky. . . . . . . . . . . . . . . . . . . . . . . | 1170 | 2170 | 336 | 6 | - | - |  | 327 | 1461 | 137 | - |
| Tennes see. . . . . . . . . . . . . . . . . . . . . . . | 1752 | 2405 | 720 | 55 | - | 59 |  | 220 | 1158 | 38 | - |
| Louisiana. | 1671 | 2009 | 201 | 68 | - | 136 |  | 265 | 10853 | 57 | 26 |
| Oklahoma. | 2249 | 2757 | 824 | 93 | 2 | 277 |  | 533 | 4174 | 179 | - |
| Texas................................ | 12084 | 13772 | 2872 | 73 | 69 | 1302 | 3 | 373 | 27791 | 835 | 12 |
| West. | 575533 | 153464 | 21800 | 965 | 1226 | 3706 | 19 | 448 | 113139 | 5202 | 496 |
| Colorado. | 10841 | 5143 | 1839 | 50 | 7 | 209 |  | 812 | 3247 | 308 | 76 |
| Arizona. | 4629 | 2543 | 264 | 6 | 13 | 78 |  | 744 | 1756 | 139 | 31 |
| Utah. | 5508 | 1397 | 730 | - | - | 11 |  | 409 | 1991 | 119 | 4 |
| Nevada. . . . . . . . . . . . . . . . . . . . . . . . . . | 2478 | 2332 | 246 | 13 | - | 73 |  | 675 | 1018 | 58 | 8 |
| Washington. . . . . . . . . . . . . . . . . . . . . . | 27389 | 13441 | 2470 | 76 | 53 | 104 | 1 | 329 | 8933 | 618 | 16 |
| Oregon.. . . . . . . . . . . . . . . . . . . . . . . . . | 8580 | 4998 | 1779 | 84 | 12 | 74 |  | 473 | 5743 | 129 | 100 |
| California. | 268814 | 102582 | 11945 | 648 | 206 | 3022 | 13 | 412 | 85238 | 3611 | 201 |
| Hawaii................................ | 239734 | 17453 | 1369 | 59 | 935 | 59 |  | 765 | 3403 | 130 | 40 |

${ }^{1}$ Includes write-in entries such as Asian Anerican, Asian, and Asiatic.

Table 5. Pacific Islander Population by Type: 1980


[^6]Table 5. Pacific Islander Population by Type: 1980-Con.
(Data based on sample. For meaning of symbols, see Introduction. For definition of terms, see Definitions and Explanations)

${ }^{1}$ Includes persons who did not provide a specific written entry but reported "Pacific Islander."

## Appendix.-Accuracy of the Data

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## INTRODUCTION

The data presented in this publication are based on the 1980 census sample. The data are estimates of the actual figures that would have resulted from a complete count. Estimates can be expected to vary from the complete count result, because they are subject to two basic types of error-sampling and nonsampling. The sampling error in the data arises from the selection of persons and housing units to be included in the sample. The nonsampling error, which affects both sample and complete count data, is the result of all other errors that may occur during the collection and processing phases of the census. A more detailed discussion of both sampling and nonsampling error and a description of the estimation procedure are given in this appendix.

## SAMPLE DESIGN

While every person and housing unit in the United States was enumerated on a questionnaire that requested certain basic
demographic information (e.g., age, race, relationship), a sample of persons and housing units was enumerated on a questionnaire that requested additional information. The basic sampling unit for the 1980 census was the housing unit, including all occupants. For persons living in group quarters, the sampling unit was the person. Two sampling rates were employed. In counties, incorporated places, and minor civil divisions estimated to have fewer than 2,500 persons (based on precensus estimates), one-half of all housing units and persons in group quarters were to be included in the sample. In all other places, one-sixth of the housing units or persons in group quarters were sampled. The purpose of this scheme was to provide relatively more reliable estimates for small places. When both sampling rates were taken into account across the Nation, approximately 19 percent of the Nation's housing units were included in the census sample.

The sample designation method depended on the data collection procedures. In about 95 percent of the country, the census was taken by the mailout/ mailback procedure. For these areas, the Bureau of the Census either purchased a commercial mailing list which was updated and corrected by Census Bureau field staff, or prepared a mailing list by canvassing and listing each address in the area prior to Census Day. These lists were computerized, and every sixth unit (for 1 -in-6 areas) or every second unit (for 1 -in-2 areas) was designated as a sample unit by computer. Both of these lists were also corrected by the Post Office.

In non-mailout/mailback areas, a blank listing book with designated sample lines (every sixth or every second line) was prepared for the enumerator. Beginning about Census Day, the enumerator systematically canvassed the area and listed all housing units in the listing book in the order they were encountered. Completed
questionnaires, including sample information for any housing unit which was listed on a designated sample line, were collected.

In both types of data collection procedure areas, an enumerator was responsible for a small geographic area known as an enumeration district, or ED. An ED usually represented the average workload area for one enumerator.

## ERRORS IN THE DATA

Since the data in this publication are based on a sample, they may differ somewhat from complete count figures that would have been obtained if all housing units, persons within those housing units, and persons living in group quarters had been enumerated using the same questionnaires, instructions, enumerators, etc. The deviation of a sample estimate from the average of all possible samples is called the sampling error. The standard error of a survey estimate is a measure of the variation among the estimates from the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples The sample estimate and its estimated standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. The method of calculating standard errors and confidence intervals for the data in this report is given below.

In addition to the variability which arises from the sampling procedures, both sample data and complete-count data are subject to nonsampling error. Nonsampling error may be introduced during each of the many extensive and complex operations used to collect and process census data. For example, operations such as editing, reviewing, or handling questionnaires may introduce error into
the data. A more detailed discussion of the sources of nonsampling error is given in the section on "Control of Nonsampling Errors" in this appendix.

Nonsampling error may affect the data in two ways. Errors that are introduced randomly will increase the variability of the data and should therefore be reflected in the standard error. Errors that tend to be consistent in one direction will make both sample and complete-count data biased in that direction. For example, if respondents consistently tend to underreport their income, then the resulting counts of households or families by income category will be skewed toward the lower income categories. Such biases are not reflected in the standard error.

## Calculation of Standard Errors

Totals and Percentages-Tables $H$ and 1 in this appendix contains the information necessary to calculate the standard errors of all census sample estimates in this report. In order to calculate standard errors and census sample estimates, the steps in this section must be followed. To perform the calculations of census standard errors, it is necessary to know the unadjusted standard error for the characteristic, given in tables H or I, that would result under a simple random sample design (of persons) and estimation technique; the adjustment factor for the particular characteristic estimated, is given in table J. The adjustment factors reflect the effects of the actual sample design and complex ratio estimation procedure used for the 1980 census.

To calculate the approximate standard error of a census estimate, follow the steps given below:
a. Obtain the unadjusted standard error from table H or I (or from the formula given below the table) for the estimated total or percentage, respectively.
b. Use table $J$ to obtain the factor for the Asian and Pacific Islander characteristic. Multiply the unadjusted standard error by this factor. If the estimate is a cross-tabulation of more than one characteristic, use the largest factor.

As is evident from the formulas below tables H and I , the unadjusted standard
errors of zero estimates or very small estimated totals or percentages approach zero. This is also the case for very large percentages or estimated totals that are close to the size of the tabulation areas to which they correspond. These estimated totals and percentages are, nevertheless, still subject to sampling and nonsampling variability, and an estimated standard error of zero (or a very small standard error) is not appropriate.

For estimated percentages that are less than 2 or greater than 98 , use the unadjusted standard errors in table 1 that appear in the " 2 " or " 98 " row. For an estimated total that is less than 50 or within 50 of the total size of the tabulation area, use an unadjusted standard error of 16 .

An illustration of the use of the tables is given in a later section of this appendix.

Differences-The standard errors estimated from these tables are not directly applicable to differences between two sample estimates. In order to estimate the standard error of a difference, the tables are to be used somewhat diffrently in the following three situations:
a. For the difference between a sample estimate and a complete-count value, use the standard error of the sample estimate.
b. For the difference between (or sum of) two census sample estimates, the appropriate standard error is approximately the square root of the sum of the two individual standard errors squared; that is, for standard errors $\mathrm{Se}_{x}$ and $\mathrm{Se}_{y}$ of estimates $x$ and $y$ :

$$
\text { Se }(x+y)=S e_{(x-y)} \doteq \sqrt{\left(\operatorname{Se}_{x}\right)^{2}+\left(\operatorname{Se}_{y}\right)^{2}}
$$

This method, however, will underestimate (overestimate) the standard error if the two items in a sum are highly positively (negatively) correlated or if the two items in a difference are highly negatively (positively) correlated. This method may also be used for the difference between (or sum of) sample estimates from two censuses or between a census sample and another survey such as the CPS. The standard error for estimates not based on the 1980 census sample and not
given in this report, must be obtained from an appropriate source outside of this publication.
c. For the difference between two census sample estimates, one of which is a subclass of the other, use the tables directly where the calculated difference is the estimate of interest.

## Confidence Intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals are ranges that will contain the average value of the estimated characteristic that results over all possible samples, with a known probability. For example, if all possible samples that could result under the 1980 census sample design were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:
(1) Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible samples; and
(2) Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68 percent and 95 percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples is or is not contained in any particular computed interval. Thus, we cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability or confidence that the calculated confidence interval includes the average estimate from all possible samples (approximately the complete-count value).

Confidence intervals may also be constructed for the difference between two
sample figures. This is done by computing the difference between these figures, obtaining the standard error of the difference (using the formula given earlier) and then forming a confidence interval for this estimated difference as above. One can then say with specified confidence that this interval includes the difference that would have been obtained by averaging the results from all possible samples.

The estimated standard errors given in this report do not include all portions of the variability due to nonsampling error that may be present in the data. Thus, the standard errors calculated represent a lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68 or 95 percent). Thus, some care must be exercised in the interpretation of the data in this publication based on the estimated standard errors.

For more information on confidence intervals and nonsampling error see any standard sampling theory text.

## Use of Tables to Compute Standard Errors

Table 1 shows that for the State of California, out of $23,667,902$ persons, 358,378 were reported to be of Filipino race. The procedures for obtaining the standard error of 358,378 will be demonstrated.

The unadjusted standard error for the estimated total is obtained from the Table $H$ or from the formula below Table H. In order to avoid interpolation, use of the formula will be demonstrated here. By the formula, the unadjusted standard error, Se , is:

$$
\begin{aligned}
\operatorname{Se}(Y) & =\sqrt{5(358,378)\left(1-\frac{358,378}{23,667,902}\right)} \\
& =1,328 \text { persons. }
\end{aligned}
$$

The standard error of the estimated 358,378 persons of Filipino race in California is found by multiplying the unadjusted standard error, 1,328 , by the appropriate adjustment factor for the characteristic "Asian race (excluding Japanese) '". It is shown to be 1.6. Thus, the estimated standard error is $1,328 \times$ 1.6 or 2,125 .

The estimated percent of persons of

Filipino race in California is 1.5. From the formula shown in Table 1, the unadjusted standard error is found to be 0.1. Thus, the standard error for the estimated percent of persons of Filipino race in California is $0.1 \times 1.6=0.2$.

A note of caution concerning numerical values is necessary. Standard errors of percentages derived from Table I are approximate. Calculations can be expressed to several decimal places, but to do so would indicate more precision in the data than in justifiable. Final results should contain no more than one decimal place when the standard error is one percentage point (i.e., 1.0) or more.

In the previous example, the standard error of the estimated 358,378 persons of Filipino race in California is found to be 2,125 . Thus, a 95 percent confidence interval for this estimated total is found to be:

$$
\begin{gathered}
358,378-2(2,125) \text { to } 358,378+2(2,125) \\
\text { or } \\
354,128 \text { to } 362,628
\end{gathered}
$$

The calculation of standard errors and confidence intervals will be illustrated when a difference of two sample estimates is obtained. For example, out of 964,691 persons in Hawaii, 132,075 are of Filipino race. Thus, the percentage of persons of Filipino race in Hawaii is 13.7 percent. The unadjusted standard error from Table 1 is 0.1 percent. From Table J, the adjustment factor is found to be 1.6 for "Asian race (excluding Japanese)". Thus, the approximate standard error of the percentage (13.7 percent) is $0.1 \times 1.6=0.2$.

Suppose that one wishes to obtain the standard error of the difference between Hawaii and California of the percentages of persons of Filipino race. The difference in the percentages of interest for the two States is:

$$
13.7-1.5=12.2 \text { percent }
$$

Using the results of the previous example:

$$
\begin{aligned}
\text { Se }(12.2) & =\sqrt{\left(\operatorname{Se}(13.7)^{2}+(\operatorname{Se}(1.5))^{2}\right.} \\
& =\sqrt{(0.2)^{2}+(0.2)^{2}} \\
& =0.28 \text { percent }
\end{aligned}
$$

The 95 percent confidence interval for the difference is formed as before:

$$
\begin{gathered}
12.2-2(0.28) \text { to } 12.2+2(0.28) \\
\text { or } \\
11.6 \text { to } 12.8
\end{gathered}
$$

## ESTIMATION PROCEDURE

The estimates which appear in this publication were obtained from an iterative ratio estimation procedure which resulted in the assignment of a weight to each sample person. For any given tabulation area, a characteristic total was estimated by summing the weights assigned to the persons in the tabulation area which possessed the characteristic. Estimates of family characteristics were based on the weights assigned to the family members designated as householders. Each sample person was assigned exactly one weight to be used to produce estimates of all characteristics. For example, if the weight given to a sample person had the value five, all characteristics of that person or housing unit would be tabulated with a weight of five. The estimation procedure, however, did assign weights which vary from person to person.

The estimation procedure used to assign the weights was performed in geographically defined "weighting areas." Weighting areas were generally formed of adjoining portions of geography, which closely agreed with census tabulation areas within counties. Weighting areas were required to have a minimum sample of 400 persons. Weighting areas were never allowed to cross state or county boundaries. In small counties with a sample count of less than 400 persons, the minimum required sample condition was relaxed to permit the entire county to become a weighting area.

Within a weighting area, the ratio estimation procedure for persons was performed in three stages. For persons the first stage employed 17 household type groups. The second stage used two groups: householders and non-householders. The third stage could potentially use 160 age-sex-race-Spanish origin groups. The stages were as follows:

## Stage I-Type of Household

Group Persons in Housing Units With a Family With Own Children Under 18.
$1 \quad 2$ persons in housing unit
23 persons in housing unit

| 3 | 4 persons in housing unit |
| :--- | :--- |
| 4 | 5 to 7 persons in housing unit |
| 5 | 8 or more persons in housing |
| unit |  |

6-10 2 persons in housing unit through 8 or more persons in housing unit

|  | Persons in All Other Housing Units |
| :---: | :---: |
| 11 | 1 person in housing unit |
| 12-16 | 2 persons in housing unit through 8 or more persons in housing unit |
| 17 | Persons in Group Quarters |
| Stage | II-Householder/Nonhouseholder |
| Group |  |
| 1 | Householder |
| 2 | Non-householder (including persons in group quarters) |

## Stage III-Age/Sex/Race/Spanish Origin

Group
White Race
Persons of Spanish Origin Male

0 to 4 years of age
5 to 14 years of age
15 to 19 years of age
20 to 24 years of age
25 to 34 years of age
35 to 44 years of age
45 to 64 years of age
65 years of age or older

9-16 Female $\quad$ Same age categories as groups 1 to 8

Persons Not of Spanish Origin Same age and sex categories as groups 1 to 16

## Black Race

Same age-sex-Spanish origin categories as groups 1 to 32

65-96

## Asian, Pacific Islander Race

Same age-sex-Spanish origin categories as groups 1 to 32

Indian (American) or Eskimo or Aleut Race

## 97-128 Same age-sex-Spanish origin

 categories as groups 1 to 32
## Other Race lincludes those races not listed above)

129.160 Same age-sex-Spanish origin categories as groups 1 to 32

Within a weighting area, the first step in the estimation procedure was to assign each sample person record an initial weight. This weight was approximately equal to the inverse of the probability of selecting a person for the census sample.

The next step in estimation procedure was to combine, if necessary, the groups in each of the three stages prior to the repeated ratio estimation in order to increase the reliability of the ratio estimation procedure. For the first and second stages, any group that did not meet certain criteria concerning the unweighted sample count or the ratio of the complete count to the initially weighted sample count was combined or collapsed with another group in the same stage according to a specified collapsing pattern. At the third stage, the "other" race category was collapsed with the "White" race category before the above collapsing criteria as well as an additional criterion concerning the number of complete-count persons in each category were applied.

As the final step, the initial weights underwent three stages of ratio adjustment which used the groups listed above. At the first stage, the ratio of the complete census count to the sum of the initial weights for each sample person was computed for each stage $\mid$ group. The initial weight assigned to each person in a group was then multiplied by the stage I group ratio to produce an adjusted weight. In stage II, the stage I adjusted weights were again adjusted by the ratio of the complete census count to the sum of the stage 1 weights for sample persons in each stage 11 group. Finally, the stage $/ 1$ weights were adjusted at stage III by the ratio of the complete census count and the sum of the stage II weights for sample persons in each stage 111 group. The three stages of adjustment were performed twice (two iterations) in the order given above. The weights obtained from the second itera-
tion for stage III were assigned to the sample person records. However, to avoid complications in rounding for tabulated data, only whole number weights were assigned. For example, if the final weight for the persons in a particular group was 7.2, then one-fifth of the sample persons in this group were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7 .

The estimates produced by this procedure realize some of the gains in sampling efficiency that would have resulted if the population had been stratified into the ratio estimation groups before sampling, and the sampling rate had been applied independently to each group. The net effect is a reduction in both the standard error and the possible bias of most estimated characteristics to levels below what would have resulted from simply using the initial (unadjusted) weight. A by-product of this estimation procedure is that the estimates from the sample will, for the most part, be consistent with the complete-count figures for the population and housing unit groups used in the estimation procedure.

## CONTROL OF NONSAMPLING ERROR

As mentioned above, nonsampling error is present in both sample and completecount data. If left unchecked, this error could introduce serious bias into the data, the variability of which could increase dramatically over that which would result purely from sampling. While it is impossible to completely eliminate nonsampling error from an operation as large and complex as the 1980 census, the Bureau of the Census attempted to control the sources of such error during the collection and processing operations. The primary sources of nonsampling error and the programs instituted for control of this error are described below. The success of these programs, however, was contingent upon how well the instructions were actually carried out during the census. To the extent possible, both the effects of these programs and the amount of error remaining after their application will be evaluated.

Undercoverage-It is possible for some housing units or persons to be entirely missed by the census. This undercoverage
of persons and housing units can introduce biases into the data. Several extensive programs that were developed to focus on this important problem are explained below.

- The Postal Service reviewed mailing lists and reported housing unit addresses which were missing, undeliverable, or duplicated in the listings.
- The purchased commercial mailing list was updated and corrected by a complete field review of the list of housing units during a precanvass operation.
- A record check was performed to reduce the undercoverage of individual persons in selected areas. Independent lists of persons, such as driver's license holders, were matched with the household rosters in the census listings. Persons not matched to the census rosters were followed up and added to the census counts if they were found to have been missed.
- A recheck of units initially classified as vacant or nonexistent was utilized to further reduce the undercoverage of persons.
More extensive discussions of programs developed to reduce undercoverage will be published as the analyses of those programs are completed.
Respondent and Enumeration Error-The person answering the questionnaire or responding to the questions posed by an enumerator could serve as a source of error by offering incorrect or incomplete information. To reduce this source of error, questions were phrased as clearly as possible based on precensus tests and detailed instructions for completing the questionnaire were provided to each household. In addition, respondents' answers were edited for completeness and consistency and followed up as necessary. For example, if labor force items were incomplete for a person 15 years or older, long-form field edit procedures would recognize the situation and a followup attempt to obtain the information would be made.

The enumerator may misinterpret or otherwise incorrectly record informatıon given by a respondent; may fail to collect some of the information for a person or household; or may collect data for households that were not designated as part of the sample. To control these problems, the work of enumerators was
carefully monitored. Field staff were prepared for their tasks by using standardized training packages which included experience in using census materials. A sample of the households interviewed by enumerators for nonresponse was reinterviewed to control for the possibility of data for fabricated persons being submitted by enumerators. Also, the estimation procedure was designed to control for biases that would result from the collection of data from households not designated for the sample.

Processing Error-The many phases of processing the census represent potential sources for the introduction of nonsampling error. The processing of the census questionnaires includes the field editing, followup, and transmittal of completed questionnaires; the manual coding of write-in responses; and the electronic data processing. The various field, coding and computer operations undergo a number of quality control checks to insure their accurate application.

Nonresponse-Nonresponse to particular questions on the census questionnaire allows for the introduction of bias into the data since the characteristics of the nonrespondents have not been observed, and may differ from those reported by respondents. As a result, any allocation procedure using respondent data may not completely reflect this difference either at the element level (individual person or housing unit) or on the average. Some protection against the introduction of large biases is afforded by minimizing nonresponse. In the census, nonresponse was substantially reduced during the field operations by the various edit and followup operations aimed at obtaining a response for every question. Characteristics of the nonrespondents remaining after this operation were allocated by computer using reported data for a person or housing unit with similar characteristics. The allocation procedure is described in more detail below.

## EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of statistics that describes the population as accurately
and clearly as possible. To meet this objective, certain unacceptable entries were edited.

In the field, questionnaires were reviewed for omissions and certain inconsistencies by a census clerk or an enumerator and, if necessary, a followup was made to obtain missing information. In addition, a similar review of questionnaires was done in the central processing offices. As a rule, however, editing was performed by hand only when it could not be done effectively by machine.

As one of the first steps in editing, the configuration of marks on the questionnaire column was scanned electronically to determine whether it contained information for a person or a housing unit or merely spurious marks. If the column contained entries for at least two of the basic characteristics (relationship, sex, race, age, marital status, Spanish origin), the inference was made that the marks represented a person. In cases in which two or more basic characteristics were available for only a portion of the people in the unit, other information on the questionnaire provided by an enumerator was used to determine the total number of persons. Names were not used as a criterion of the presence of a person because the electronic scanning did not distinguish any entry in the name space.

If any characteristic for a person or a housing unit was still missing when the questionnaires reached the central processing offices, they were supplied by allocation. Allocations, or assignments of acceptable codes in place of unacceptable entries, were needed most often when there was no entry for a given item or when the information reported for a person or housing unit on that item was inconsistent with other information for the person or housing unit. As in previous censuses, the general procedure for changing unacceptable entries was to assign an entry for a person or housing unit that was consistent with entries for other persons or units with similar characteristics. Thus, a person who was reported as a 20 -year-old son of the householder, but for whom marital status was not reported, was assigned the same marital status as that of the last one processed in the same age group. The assignment of acceptable codes in place of blanks or
unacceptable entries enhances the usefulness of the data.

The editing process also includes another type of correction; namely, the assignment of a full set of characteristics for a person or a housing unit. When there was indication that a housing unit was occupied but the questionnaire contained no information for all or most of the people, although persons were known to be present, or when there was no information on the housing unit, a pre-
viously processed household was selected as a substitute, and the full set of characteristics for each substitute person or a housing unit was duplicated. These dupii cations fall into two classes: (1) "substitution for mechanical failure," e.g., when the questionnaire page was not properly microfilmed, and (2) "substitution for noninterview," e.g., when a housing unit was indicated as occupied but the occupants or housing unit characteristics were not listed on the questionnaire.

Specific tolerances were established for the number of computer allocations and substitutions that would be permitted. If the number of corrections was beyond tolerance, the question:iaires in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged questionnaires, from improper microfilming, from faulty reading by FOSDIC of undamaged questionnaires, or from other types of machine failure, the questionnaires were reprocessed.

Table H. Unadjusted Standard Errors for Estimated Totals

| EstImated Total 1/ | Slze of publication area |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 50000 | 100000 | 250000 | 500000 | 1000 | 000 | 5000 | 000 | 10000 | 000 | 25000 | 000 | United States |
| 50.................... . | 16 | 16 | 16 | 16 |  | 16 |  | 16 |  | 16 |  | 16 | 16 |
| 100. | 22 | 22 | 22 | 22 |  | 22 |  | 22 |  | 22 |  | 22 | 22 |
| 250........... ....... . | 35 | 35 | 35 | 35 |  | 35 |  | 35 |  | 35 |  | 35 | 35 |
| 500. | 50 | 50 | 50 | 50 |  | 50 |  | 50 |  | 50 |  | 50 | 50 |
| 1 000......... ....... . . | 70 | 70 | 70 | 70 |  | 70 |  | 70 |  | 70 |  | 70 | 70 |
| 2 500.................. . | 110 | 110 | 110 | 110 |  | 110 |  | 110 |  | 110 |  | 110 | 110 |
| 5 000.................. . | 150 | 150 | 160 | 160 |  | 160 |  | 160 |  | 160 |  | 160 | 160 |
| 10000. | 200 | 210 | 220 | 220 |  | 220 |  | 220 |  | 220 |  | 220 | 220 |
| 15000. | 230 | 250 | 270 | 270 |  | 270 |  | 270 |  | 270 |  | 270 | 270 |
| $25000 . . . . . . . . . . . . . . . . .$. | 250 | 310 | 340 | 350 |  | 350 |  | 350 |  | 350 |  | 350 | 350 |
| $75000 . . . . . . . . . . . . . . .$. | - | 310 | 510 | 570 |  | 590 |  | 610 |  | 610 |  | 610 | 610 |
| 100 000............... . . | - | 310 | 550 | 630 |  | 670 |  | 700 |  | 710 |  | 710 | 710 |
| 250 000....... ........ . . | - | - | 5 | 790 |  | 970 | 1 | 090 |  | 100 |  | 100 | 1120 |
| 500 000................ . . . | - | - | - | - | 1 | 120 | 1 | 500 |  |  |  | 570 | 1580 |
| 1000 000............. .. | - | - | - | - |  | - | 2 | 000 |  |  |  |  | 2230 |
| $5000000 . . . . . . . . . . .$. | - | - | - | - |  | - |  |  |  |  |  |  | 4940 |
| 10000 000........... . . | - | - | - | - |  | - |  | - |  | - |  |  | 6910 |

 used to calculate the standard error.

Se $(\hat{Y})=\sqrt{5 \hat{Y}\left(1-\frac{\hat{Y}}{N}\right)}$
$N=$ Size of area
$\hat{Y}=$ Estimate of characteristic total
 total is a housing unit characteristic.

Table I. Unadjusted Standard Error in Percentage Points for Estimated Percentages

| EstImated Percentage | Base of percentage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 500 | 750 | 1000 | 1500 | 2500 | 5000 | 7500 | 10000 | 25000 | 50000 | 100 | 000 | 250 | 000 | 500 | 000 |
| 2 or 98.... | 1.4 | 1.1 | 1.0 | 0.8 | 0.6 | 0.4 | 0.4 | 0.3 | 0.2 | 0.1 |  | 0.1 |  | 0.1 |  | 0.1 |
| 5 or 95..... | 2.2 | 1.8 | 1.5 | 1.3 | 1.0 | 0.7 | 0.6 | 0.5 | 0.3 | 0.2 |  | 0.2 |  | 0.1 |  | 0.1 |
| 10 or 90.... | 3.0 | 2.4 | 2.1 | 1.7 | 1.3 | 0.9 | 0.8 | 0.7 | 0.4 | 0.3 |  | 0.2 |  | 0.1 |  | 0.1 |
| 15 or 85.... | 3.6 | 2.9 | 2.5 | 2.1 | 1.6 | 1.1 | 0.9 | 0.8 | 0.5 | 0.4 |  | 0.3 |  | 0.2 |  | 0.1 |
| 20 or 80.... | 4.0 | 3.3 | 2.8 | 2.3 | 1.8 | 1.3 | 1.0 | 0.9 | 0.6 | 0.4 |  | 0.3 |  | 0.2 |  | 0.1 |
| 25 or 75.... | 4.3 | 3.5 | 3.1 | 2.5 | 1.9 | 1.4 | 1.1 | 1.0 | 0.6 | 0.4 |  | 0.3 |  | 0.2 |  | 0.1 |
| 30 or 70... | 4.6 | 3.7 | 3.2 | 2.6 | 2.0 | 1.4 | 1.2 | 1.0 | 0.6 | 0.5 |  | 0.3 |  | 0.2 |  | 0.1 |
| 35 or 65.. | 4.8 | 3.9 | 3.4 | 2.8 | 2.1 | 1.5 | 1.2 | 1.1 | 0.7 | 0.5 |  | 0.3 |  | 0.2 |  | 0.2 |
| 50... | 5.0 | 4.1 | 3.5 | 2.9 | 2.2 | 1.6 | 1.3 | 1.1 | 0.7 | 0.5 |  | 0.4 |  | 0.2 |  | 0.2 |

1/ For a percentage and/or base of percentage not shown in the table, the formula given below may be used to calculate the standard error.
$\operatorname{Se}(\hat{p})=\sqrt{\frac{5}{8} \hat{p}(100-\hat{p})}$
$8=$ Base of estimated percentage
$\hat{p}=$ Estlmated percentage

## Table J. Standard Error Adjustment Factors

| Characteristic | Factor |
| :---: | :---: |
| ASIAN RACE (excluding Japanese) |  |
| U.S. Total, Regions, Divisions and All States................... | 1.6 |
| pactric islander and japanese race |  |
| U.S. Total, Regions, Divisions, and the States of California and Hawa11.................................................................... | 1.7 |
| All other States. | 1.2 |

## 1980 Census of Population and Housing

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[^0]:    ${ }^{1}$ The category "Asian and Pacific Islander" is included as a racial classification in Statistical Policy Directive No. 15, which provides standards on ethnic and racial categories for statistical reporting to be used by Federal agencies.

[^1]:    ${ }^{2}$ These data are limited to persons legally admitted as refugees. U.S. Department of Health and Human Services Report to Congress, "Refugee Resettlement Program," January 1981, page 5.

[^2]:    ${ }^{3}$ The 1970 census regional distribution for Asians was 70 percent in the West, 14 percent in the Northeast, 9 percent in the North Central, and 7 percent in the South.

[^3]:    ${ }^{4}$ The Office of Refugee Resettlement reports that 415,225 Southeast Asian refugees, primarily from Vietnam, have entered the Nation between the spring of 1975 and September 1980. These data are limited to persons legally admitted as refugees. U.S. Department of Health and Human Services Report to Congress, "Refugee Resettlement Program," January 1981, page 5.

[^4]:    * Listed separately on the 1980 census questionnaire.
    ${ }^{1}$ Includes entries such as Asian American, Asian, and Asiatic.
    ${ }^{2}$ Includes persons who did not provide a specific written entry but reported "Pacific Islander."

[^5]:    See footnote at end of table.

[^6]:    See footnote at end of table.

