comparison of the
Classification of Place of Residence on Death Certificates and Matching Census Records
United States - May - August 1960

Comparison of the classification of residence stated on the death certificate with residence as stated on the matching census record for selected geographic areas by age, race, and sex. Based on a sample of death certificates for deaths occurring in the United States during May-August 1960, matched to 1960 census records.

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IN THIS REPORT *a comparison of the classification of residence stated on the death certificate with residence as stated on the matching census record for selected geographic regions by demographic variables is presented.*

The classification of residence information on the death certificates corresponds closely to the residence on the census records for the decedents whose records were matched. An inverse relationship exists between the size of the geographic area and the degree of difference between census assignments and those by the National Center for Health Statistics (NCHS) with differences approaching zero as the size of the area increases. NCHS somewhat overstates the numbers of deaths for individual urban places and understates those for rural areas. Towns, townships, boroughs in Connecticut, New Jersey, and Pennsylvania, territorial annexations between 1950 and 1960, and urban fringe areas presented problems to NCHS in properly allocating the residence of the decedents. The poorest age agreement between the census records and the death certificates was for the nonwhite group at ages 85-99 years in the geographic divisions comprising the South Region. The average proportion of records unmatched was 50 percent higher for the nonwhite group than for the white. Both the differences by race between census and NCHS records and the match status were most favorable for the white population and the Japanese when compared with other racial and ethnic groups. Differences by sex were negligible.

SYMBOLS

Category not applicable	...
Quantity zero	-
Net difference rate not computed if census frequency is the same as NCHS frequency	-
Net difference rate not computed if either census frequency or NCHS frequency or both are zero	-
Quantity more than 0 but less than 0.05	0.0

COMPARISON OF THE CLASSIFICATION OF PLACE OF RESIDENCE ON DEATH CERTIFICATES AND MATCHING CENSUS RECORDS

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INTRODUCTION

The chief purpose of the 1960 Comparison Study is to measure differences for selected characteristics as reported on the death certificates and on the questionnaires for those decedents enumerated in the Eighteenth Decennial Census of the United States. A secondary objective is to assess the accuracy of the annual death rate on the basis of the results of this study.

This comparison study involves a sample of deaths occurring during the 4-month period May-August, 1960. The design of the sample, number of records, procedure for matching, and related information are noted in the Technical Appendix.

The present study is a byproduct of the University of Chicago Mortality Study, Social and Economic Differentials in Mortality: United States, 1960, which is now providing nationwide statistics on mortality differentials collected in the 1960 census by social and economic characteristics.[1,2]

This report evaluates the comparability of classification of residence as reported on the death certificate and on the 1960 census schedules. The report primarily evaluates coding differences between the Bureau of the Census and the National Center for Health Statistics (NCHS). The standard certificate of death (1956 Revision) contained the following item for eliciting residence information:

2. USUAL RESIDENCE (*Where deceased lived. If institution: Residence before admission*) a. STATE	b. COUNTY
c. CITY, TOWN, OR LOCATION	
d. STREET ADDRESS	
e. IS RESIDENCE INSIDE CITY LIMITS? YES ☐ NO ☐	f. IS RESIDENCE ON A FARM? YES ☐ NO ☐

In order to develop uniform national statistics, NCHS issues standard certificates which serve as models for the States. With respect to the death certificate, the usual residence is the place where the deceased resided at the time of death. However, in the case of persons residing in long-term institutions, assignment is made to the place where the deceased lived prior to admission, if it is given.

In the 1960 Census of Population each individual enumerated was counted as an inhabitant of his usual place of abode which, for the most part, was the place where the individual lived most of the time. Differences exist between census and vital statistics in determining the usual residence for certain numerically small groups such as inmates of long-term institutions and residents of foreign countries temporarily living in the United States.

The residence data shown in this report were grouped into six major categories:

(1) Urban places of 25,000 population or more in 1960
(2) Population-size groups of areas
(3) Metropolitan and nonmetropolitan counties, urban and rural areas
(4) Standard metropolitan statistical areas
(5) Geographic divisions
(6) Geographic regions

(For definitions of these geographic areas, see the Technical Appendix.)

MAJOR FINDINGS

The classification of residence information on the death certificates corresponds closely to the place of residence as stated on the census records for the decedents whose records were matched. The proportion of unmatched records was high—23 percent.

Considerable improvement in the quality of the residence data has taken place since 1950. This observation is based on a comparison of the results of this study with those for a matched record study involving births for 1950.

An inverse relationship exists between the size of the geographic area and the degree of difference found between census assignments and those by NCHS. Differences diminish as the population size of the area increases. Compared with census assignments, NCHS somewhat overstates the numbers of deaths for individual urban places and understates those for rural areas. A comparison of NCHS annual data with figures tabulated by selected State offices of vital statistics shows the same pattern.

Towns, townships, and boroughs in Connecticut, New Jersey, and Pennsylvania; urban fringe areas; and territorial annexations made between 1950 and 1960 presented the greatest problems to NCHS in properly allocating the residence of decedents.

The poorest age agreement between the census records and the death certificates was for the nonwhite group at ages 85-99 years in the geographic divisions comprising the South Region.

For three-fifths of the 729 urban places of 25,000 population or more in 1960, either no matched deaths for nonwhite persons were reported or fewer than 10 deaths were reported, thereby obscuring the comparison of differences by color.

The average proportion of records unmatched was 50 percent higher for nonwhite than for white persons. Both the net difference rates by race and the match status were more favorable for the white and Japanese groups than for other racial and ethnic groups. Differences by sex were negligible.

A followback survey involving almost 10,000 decedents showed that the distribution of matched and unmatched records by nine population-size groups of geographic areas was not different. However, this general finding cannot be extended to the more detailed residence data used in this report.

The findings of this study on the annual death rate are limited by the fact that a sample of deaths is taken only for the summer months, and data are for a single year. Other limiting factors are covered in the Technical Appendix. The results of this study generally indicate that the annual death rate for an individual urban place is slightly overstated.

URBAN PLACES

A frequency distribution of net difference rates for 729 urban areas with a population of 25,000 or more in 1960 is shown in table 1. Net difference rates were computed by subtracting the number of deaths matched at the usual place of residence according to census assignments from those by NCHS assignments, dividing by the census figure, and multiplying by 100. A negative rate indicates more assignments by census than by NCHS. The group "matched at usual residence" represents those decedents who died at the place where they had usually resided and had been enumerated in the 1960 Census of Population. Net difference rates based on 100 frequencies or more (according to census designations) are shown separately from those based on fewer than 100 deaths. The reason for this separation is that the variance would be greater for rates based on small frequencies. This latter group has a wider range of rates—from 0 to 94.9—compared with

the range of 0 to 49.9 for the group in which the rates are based on 100 deaths or more.

The median net difference rate for the 729 areas falls at 3.0 percent. Based on 100 deaths or more, the median is 2.9, and for small frequencies, 3.2. The size of the difference varies inversely with the size of the urban area. For areas of under 100,000 population, differences of understatement by NCHS exceed those of overstatement.

As indicated in table 1, most of the differences are positive. This finding is consistent with that of other independent sources used for comparison. In a previous matched-record study involving births for 1950, the results were the same as those of this study--an overstatement of events in the urban areas by NCHS compared with census records.[3]

Net difference rates for deaths in 1960 and births in 1950 for 221 selected urban areas were reviewed. The basis for the selection of the 221 areas was the number of births included in the 1950 study, namely, 100 events according to either the census record or the birth record. For 66.5 percent of the areas the difference was positive for births and deaths (more assignments by NCHS than by census). The direction of the differences for births and deaths for the balance of the areas was as follows:

Direction of difference	*Percent of total*
Both negative	7.2
One positive and one negative	16.3
Zero net difference for either births or deaths	10.0

The negative differences were not concentrated in any one State but were scattered among 32 of the 42 States and the District of Columbia, shown in table 2. This pattern was also typical of the other types of differences shown above.

The magnitude of the difference was substantially less for deaths than it was for births (table 2). Two factors contributed to this difference. First, the addition of the residence checkbox item on whether the place of residence was inside or outside the city limits on the standard certificates in 1956 aided in properly allocating the residence of persons living near cities, but outside the corporate limits. Certificates of births and deaths for the majority of States contain this checkbox item. The second factor involves the mobility of persons using hospitals. There is more likelihood of movement for the utilization of hospitals for births than for deaths.

A comparison was made between the annual number of deaths by place of residence as tabulated by NCHS and those tabulated by the various State offices of vital statistics. For most registration areas, NCHS figures were larger than the State tabulated data.

Three-fifths of the States or registration areas had State assigned residence codes on the microfilm copies of the death certificates received by NCHS for 1960. It is not known if these codes were assigned on the basis of census tracts, street maps, or if the codes were assigned only on the basis of the information entered in the residence section of the certificate. NCHS used the State codes in determining its own geographic codes for only four States and for selected local areas and counties in 11 other States.

The findings of the 1960 Comparison Study show the same pattern of difference when comparing NCHS figures with either those of the State or the Bureau of the Census.

The primary reasons for the differences between census and NCHS figures are to be found in the enumeration process and vital registration—the former giving greater support to the accuracy of the census figures. In the 1960 Census of Population, geographic locations can be fixed with a high degree of precision by the use of street maps and similiar aids. The situation is very different with respect to the vital record, however. In assigning residence codes, NCHS is, for the most part, dependent on the information entered in the section of the vital record pertaining to usual residence. Due to the great number of vital records which NCHS must code, it is not feasible to verify all addresses by means of a census tract or street guide.

Few extreme differences between census and NCHS assignments were observed. Only 14 of the 729 areas had net difference rates of 50 percent or more. With the exception of Boise City, Idaho, the remaining 13 areas had fewer than 100 deaths matched at the usual place of residence as re-

ported by either census or NCHS designations. The average number of such records for the combined 14 areas was below 50.

Not all of the excess differences can be explained. Generally, the areas with these extreme differences in code assignments between census and NCHS fell into three groups. First, towns, townships, and boroughs were difficult to identify and code for vital statistics purposes. Almost three-fourths of the areas with large net difference rates were towns or townships in Connecticut, New Jersey, and Pennsylvania. In each of these areas, the numbers of assignments were understated by NCHS when compared with census numbers. For example, the first area listed in Pennsylvania was Bristol Township--an area of 59,298 population which was classified as urban by special rule. In the same county—Bucks County--there was also the incorporated area of Bristol borough (population of 12,364) which NCHS also classified as urban. Duplication of place names within a county and double entries of place names on certificates resulted in problems in correctly classifying geographic areas.

The second factor relating to extreme differences may be the number of annexations between the two decennial census periods. For example, Hayward, California, had over a 400-percent increase in population, primarily due to annexations between 1950 and 1960. Frequently, the place names of the annexed areas are reported as the decedent's residence and thus may be improperly classified. Several of the areas with substantial net differences had large annexations between 1950 and 1960.

Finally, unincorporated areas which have mailing addresses and/or place names similar to that of an adjacent urban place present a coding problem. One such example is Boise City, Idaho, which is surrounded by unincorporated areas with place names similar to Boise City such as South Boise.

The numbers of deaths matched at the usual place of residence were tabulated by color for the 729 urban places having 25,000 population or more in 1960. Comparisons of net difference rates for the white and nonwhite decedents were limited by the small frequencies for the nonwhite group. Almost one-third of the 729 areas had no matched deaths assigned according to either the census record or death record for the nonwhite group (table 3). Another 4 percent of the areas had no frequency according to either census assignments or those by NCHS and with only one or two deaths in the alternative cell. Consequently, no net difference rate could be computed. An additional one-third of the areas had frequencies of fewer than 10. Net difference rates for white individuals were lower than those for the nonwhite group for most areas. As the number of matched deaths increased, the net difference rates for the nonwhite group approached those for the white.

The urban places with at least 50 nonwhite deaths or more assigned by both census and NCHS were concentrated in the South Region (table 4). In this region the match status for both color groups was least favorable. About one-fourth of the records in the South were not matched and thus obscured the analysis of white-nonwhite differences.

The proportions of records which were unmatched for the nonwhite group were higher than those for the white in 324 of the 729 areas. However, for three-fourths of the 324 areas there were fewer than 20 unmatched deaths. The unmatched proportion was higher for white than nonwhite persons in only 92 of the 729 areas. The balance (43 percent) had no matched and/or unmatched deaths.

It can be concluded that no judgment can be made about the white-nonwhite differences for the unmatched group for urban areas of 25,000 population or more throughout the country because of the small frequencies for nonwhite deaths except in the South Region.

POPULATION-SIZE GROUPS

Table 5 shows the numbers of deaths matched at the usual place of residence for urban places grouped by population size as of 1960. As indicated previously, for the less definitive population-size groups in table 1, the magnitude of the net difference rates varies inversely with the size of the area. This inverse relationship is more evident from data shown in table 1, than from data shown in table 5. For all urban areas of 100,000 population or over and for rural areas, the net difference rates are positive, indicating more assignments according to the death record

than by the census record. For all other urban places, the direction of the difference is negative.

The group, urban areas of 2,500-10,000 population, had the largest net difference rate (-9.0) compared with other population-size groups. There are slightly over 3,000 such areas and the problem of properly identifying the residence of decedents of such areas has increased so extensively since 1960 that starting with data-year 1964 NCHS no longer separately identifies such places. The reason for this change was primarily due to the fact that mailing addresses rather than the actual residence of the decedents were often entered on the death record.

The proportions of records which were not matched at the usual place of residence were similar for the various population-size groups with the exception of that for rural areas. The proportion for this latter group was 26 percent and the range for the other eight groups was from 20 to 22 percent. Lack of a well defined place of residence on the vital record undoubtedly contributed to the high proportion of unmatched records for rural areas.

Data for white and nonwhite individuals are also included in table 5. The net difference rates by population-size groups follow the same pattern for each color group as for the total population. For most of the population-size groups in table 5, the net difference rates for the white group were higher than those for the nonwhite. However, the proportion of the records which were not matched at the usual place of residence was about 50 percent greater for nonwhite than for white persons. For urban places of a combined population of 25,000 or more, the unmatched proportion was 19 percent for the white and 30 for the nonwhite group.

Underenumeration in 1960 Census of Population

There appears to be an association between the net undercount in the 1960 Census of Population for geographic areas grouped by population size and the proportion of records unmatched in the 1960 Comparison Study. Various methods were used in estimating the coverage errors in the 1960 census. One method was an estimate of housing unit coverage errors noted in Waksberg's paper.[4] The data relate only to field enumeration errors and not to errors resulting from FOSDIC Processing (Film Optical Sensing Device for Input to Computer). The highest net undercounts were reported for urban places of 500,000 population or more and for areas of under 10,000 population. Likewise the proportion of records unmatched in the 1960 Comparison Study showed somewhat the same distribution—low proportions of unmatched records for groups of urban places of 10,000 to 250,000 population and high proportions for areas above and below these population groups.

Followback Survey

One method of evaluating the character of the unmatched group was to followback by an independent survey on a sample of matched and unmatched decedents. This was done for 9,475 decedents of the 340,033 included in the comparison study. A survey questionnaire was mailed to the 9,475 informants whose names were entered on the death certificates. On the basis of the questionnaires returned and after personal interview followups, there was over 90-percent response.

The only residence data included in both the survey and the 1960 Comparison Study were those for population-size groups of areas. Table 6 shows the number and percent distribution of deaths by population-size groups of areas included in both the survey and the comparison study. The distributions were almost identical, thereby indicating that the survey was representative of the major study. The number of records matched in both the survey and the comparison study are shown in table 7. With the exception of the category 25,000 to 50,000, the distributions of matched events followed closely those of total events shown in table 6. The large difference for this category was the result of processing errors. It is probable that an additional 300 records in the survey in the group "25,000 or more, but not further defined" should be properly classified to the size of areas, 25,000-50,000.

Table 8 shows data for the unmatched group. The number of decedents for which there was a response in the followback survey is shown separately from that for which a response was

not received. Since this latter group included only 221 records, it is not feasible to make a judgment about the differences between this distribution and that representing a response in the survey.

The percentage distribution by population-size group of the unmatched decedents for which there was a response in the survey differed only slightly from the matched groups (table 7). Therefore, it is probable that the matched and unmatched decedents were from the same "population." To be conclusive, it would be necessary to have a distribution of deaths matched in the survey only and coded according to the responses in the survey. This was not done, however.

METROPOLITAN AND NONMETROPOLITAN COUNTIES FOR URBAN AND RURAL AREAS

Net difference rates and the proportion of records unmatched for the combined groups of metropolitan and nonmetropolitan counties are presented in table 9. The two groups of counties are further classified by urban and rural areas for color-sex groups.

Metropolitan counties had smaller net difference rates and lower proportions of unmatched records than nonmetropolitan counties. For the latter group of counties there were more assignments according to the census record, whereas for metropolitan counties there were more assignments according to the death record. Consistent with the findings noted in the previous section, NCHS classified more deaths to urban areas than to rural. The rural areas of both types of counties have higher proportions of unmatched records than urban areas. This may be related to the fact that rural areas generally have less definitive mailing addresses than urban areas. Consequently, matching the census and death records for individuals who had resided in these areas was not as successful as in urban areas.

The difference between census assignments and those by NCHS was greatest for rural areas in metropolitan counties (table 10). Likewise, the proportion of records not matched—27.4—was considerably higher for this geographic component than for the others shown in the table. The rural section of metropolitan counties is unique for several reasons. First, the rural component of metropolitan counties as defined for vital statistics includes the "urban fringe," that is, places surrounding large metropolitan areas. This definition differs from that used by the Eighteenth Decennial Census insofar as the Bureau of the Census classifies these fringe areas as urban. This difference is necessitated by the fact that census can set up one-time boundaries for unincorporated areas for its decennial enumerations, whereas NCHS must depend upon established political delineations for a 10-year period. A rapid growth of new fringe areas took place between the two census periods—1950 and 1960. Such areas frequently had mailing addresses of the adjacent incorporated urban places, and these addresses were reported as the usual place of residence. Consequently, there were difficulties in matching.

The second factor to adversely affect the match status was migration. As used here, migration pertains to those persons 5 years of age and over who moved from one county to another between April 1, 1955, and April 1, 1960. The proportion of persons who moved to different counties in this quinquennial period was 21.1 percent for the urban fringe of metropolitan areas and only 14.0 percent for the central cities of metropolitan counties.[5]

The social and economic characteristics of the rural parts of metropolitan areas are very different from those for rural areas in nonmetropolitan counties.[5] From one point of view, the rural section of metropolitan areas is more urban in character than the rural section of nonmetropolitan areas.

In regard to the net difference rates and the proportions unmatched, the differential between the white and the nonwhite groups is pronounced—both measures are higher for nonwhite than for white persons. The contrast between the direction of the net difference rates is noteworthy. These rates for rural areas are negative for the white group and positive for the nonwhite. The individual geographic areas which comprise the rural total are not separately identified in coding geographic information on the death certificates. This detail would be necessary to attempt to explain the differences in the rates for the white and nonwhite groups. Rural data were reviewed for the four geographic regions and the differences observed

in the North Central Region contributed most to the high positive net difference rate for the nonwhite group.

Region	*Nonwhite metropolitan-rural net difference rate*
Total	10.3
Northeast	25.9
North Central	57.6
South	8.0
West	-13.6

(Death record is base of rate and minus sign indicates more assignments by the death record than by the census record.)

STANDARD METROPOLITAN STATISTICAL AREAS

Table 11 shows a comparison of net difference rates for 25 standard metropolitan statistical areas (SMSA's) which were randomly selected, and the urban components of these same SMSA's. Here the urban components are limited to those places of 25,000 population or more in 1960 since deaths for urban places below 25,000 population were not separately tabulated. All subsequent references to these components will be limited to urban areas of 25,000 population or more.

Data presented in this table show that the net difference rates are, for the most part, lower for the SMSA than for selected urban areas which are a part of that SMSA. The SMSA is a county or group of contiguous counties and therefore includes urban and rural areas. As noted in table 9, NCHS data generally show an overstatement of events for urban places and an understatement for rural areas. As a result, the net difference rate is low—the result of compensating differences.

The SMSA's with the highest proportion of unmatched records were located in the South Region with the West having the next highest proportion. This is not only true for the 25 SMSA's in table 11 but for all 201 SMSA's (MSEA's in New England) and for other residence data in this report. Both the South and the West Regions have a higher proportion of nonwhite persons than either the Northeast or North Central Regions. For this color group the unmatched proportion is less favorable than that for the white group. Another factor is that migration is higher in the West and South; therefore it is likely that the unmatched proportion would be higher in these two regions than in the Northeast or the North Central Regions.

The largest of the SMSA's in table 11—Chicago, Illinois—had 22 urban components of 25,000 population or more. The net difference rates for these areas ranged from 0 for several components to 91.4 for Oak Lawn, Illinois, but the average was only 5.9 percent and the net difference rate for the SMSA, 0.2 percent.

The number of matched deaths for SMSA's was tabulated separately for two groups: Matched at usual place of residence (UPOR) and matched but not at the usual place of residence. This latter group was numerically small and represents those matched at the place of death (POD). The number and percentage breakdown of the number of records by match status are as follows:

	Number	*Percent*
Total	532,948	100.0
Matched	420,292	78.9
UPOR	388,754	72.9
POD	31,538	5.9
Unmatched	112,656	21.1

The group matched at the place of death (POD) is different insofar as any comparison of residence coding by census and NCHS is not applicable. One factor which accounts for a match at the place of death rather than at the usual place of residence is the difference between the enumeration process and the vital registration system. Persons residing in long-term institutions were enumerated in the census at these institutions prior to their death, but the death record asks for the usual place of residence prior to admission to the institution. Therefore, the two geographic codes assigned are not the same.

The net difference rate for the total matched group was 0.3 and for the two subgroups, UPOR and POD, the rates were 0.0 and 4.1 (table 12).

The highest rates for the total group were observed for the three SMSA's of Columbia, South Carolina; Pueblo, Colorado; and Tuscaloosa, Alabama. The high difference rates for the total group were the result of matching at the place of death. The distribution of net difference rates by type of match is as follows:

	Total	*UPOR*	*POD*
Columbia, S.C ------	-22.3	-1.7	-77.5
Pueblo, Colo--------	-30.3	-2.1	-85.7
Tuscaloosa, Ala-----	-37.4	-	-92.5

In comparing the net difference rates by color only 57 SMSA's were considered. The areas were those to which 100 or more nonwhite deaths were assigned (table 13). Although the net difference rates for the white group were higher for slightly over half of the 57 areas, the proportion unmatched was considerably higher for the nonwhite group (table 14). The frequency distribution of the proportion unmatched (using census as base) for the white and nonwhite groups is presented below:

Proportion unmatched	*Number of SMSA's*	
	White	*Nonwhite*
Total----------	57	57
10.0-19.9----------	20	1
20.0-29.9----------	28	26
30.0-39.9----------	9	28
40.0-49.9----------	-	2

Those areas for which the net difference rates for the nonwhite group did exceed those for the white were located for the most part in the South Region, where the match status was least favorable.

One purpose of the 1960 Comparison Study was to evaluate the effect of the findings of this study on the annual death rate. The annual death rates for SMSA's in 1960 are published in *Vital Statistics of the United States, 1960,* Vol. II, Part B. The method involves the following assumptions. First, the assignment of deaths to any SMSA made by census is presumably the "correct" figure rather than the NCHS figure for the May-August study period. As indicated previously, the difference between the enumeration process and vital registration gives greater support to the accuracy of the coding of geographic locations by the Bureau of the Census. The second assumption is that the population enumerated as of April 1, 1960, for an SMSA is "correct." Measures of misstatement of residence or underenumeration for individual SMSA's as of April 1 have not been published by the Bureau of the Census.

The annual rate could be adjusted on the basis of the findings of this study. An upper and lower range of the annual rate could be computed as indicated below.

The upper range is derived as follows:

(1) Increase or decrease the annual number of deaths by the percent difference between census and NCHS assignments for the study period for the SMSA. If the census figure is lower than the NCHS figure, the annual number of deaths would be reduced; if the NCHS figure is lower, the annual figure would be increased.

(2) Compute the upper range of the annual adjusted rate using the frequency derived in step 1.

In computing the upper range of the annual adjusted rate, all unmatched deaths are assumed to be correctly assigned to the SMSA. In computing the lower range of the annual adjusted rate, all unmatched deaths are assumed to be incorrectly assigned to the SMSA. Therefore, the range of the annual adjusted rate is determined by the unmatched deaths.

The lower range of the annual adjusted rate is computed as follows:

(1) Follow step 1 for the upper range.

(2) Reduce the annual number of deaths by the proportion that unmatched deaths are of total deaths for the study period. The figure for total deaths is the sum of the matched and unmatched deaths.

(3) Compute the lower range of the annual adjusted rate using the frequency derived in step 2.

It is probable that the true adjusted rate is closer to the upper range since it is most likely that the majority of unmatched deaths are correctly assigned.

The formulas for computing the adjusted rates and their application for one SMSA are shown in the Technical Appendix.

AGE BY GEOGRAPHIC DIVISION

Net difference rates vary slightly among the nine geographic divisions for the total population. In five of the divisions, the highest net difference rates—all negative—were reported for the age group 25-34 years. (Negative indicates more assignments by census than by NCHS to an age group.) For the three divisions comprising the South Region, maximum positive net differences were observed for the interval 55-64 years. The highest net difference rate (-5.5) in the Middle Atlantic division was reported at ages 35-44 years (table 15). Division data discussed here and region data discussed in the following section are according to census designations. These sections differ from those appearing previously insofar as they are a comparison of age and race, respectively, rather than a comparison of residence. A detailed analysis of age for the United States has been covered in a report in *Vital and Health Statistics*, Series 2, No. 29.[6]

There was only a slight difference by sex, but a pronounced difference by color when data were compared by age for the divisions. Net difference rates for nonwhite males and females were considerably higher than those for white males and females. The highest rates were reported for nonwhite individuals below 25 years of age. However, the rates are based on extremely small frequencies—generally about 10 deaths—for all divisions except those in the South Region.

In addition to net difference rates, the percent agreement between census and NCHS assignments was also computed. This measure was derived by dividing the number of matched records classified by a given age group by both census and NCHS (the common cell) by the number of matched records classified to that same age group by census. As was noted for net difference rates, extensive variability was observed for the percent agreements for the nine divisions by 10-year age groups. Generally, the poorest agreement occurred at 85-99 years—the age group for which the annual age-specific death rate is maximal. The New England Division was an exception to the pattern; the percent agreement was poorest at the younger ages rather than the older ages. The observations made for the net difference rates by color and sex are applicable to the percent agreements. Nonwhite differences between census and NCHS assignments were more extreme than those for white decedents and these differences were greatest in the divisions comprising the South Region.

With few exceptions, the proportions of records unmatched for males and females and for white and nonwhite persons were highest for the age groups 15-24 and 25-34 years in the nine geographic divisions. For the most part, the exceptions to this pattern were for the interval 1-4 years of age and the proportions were based on small frequencies.

With respect to the characteristics of age and race, there were two phases in the 1960 Comparison Study. The difference between the two phases of the study relates to the two-stage enumeration in the 1960 Census of Population. All matched records in stage I represent decedents who were in the 100-percent enumeration. Stage II includes those decedents who were matched in stage I and who also were included in the 25-percent sample of households. With respect to this study and the impact on vital rates, the important distinction is that in stage II, not stated and not valid codes for the majority of items were allocated. The method of allocation is described in the various publications relating to the 1960 Census of Population found in the bibliography. It is data from stage II which are used in computing selected vital rates.

All data by age previously discussed have been derived from stage I. Table 16 shows four series of net difference rates for white males for the South Atlantic Division—stage I with and without the "not stated and not valid" codes and stage II with and without the allocations of the "not stated and not valid" codes. Stage I illustrates better than stage II the "true" comparison between data derived from the census record and those from the death record. The fact that the effect of the allocations on most age groups was

to increase the disparity between age reporting on the census record and the death record has an impact on the analysis of mortality data.

RACE BY GEOGRAPHIC REGION

Detailed data for race for the United States and four regions are presented in tables 17 and 18. The net difference rates for each of the regions were less than 1 percent for the white group. The direction of the difference was always positive, that is, more assignments were made to the white group by NCHS than by census (census record used as base). Two factors may contribute slightly to the direction of these differences. First, the number of "race not stated and not valid" assignments according to census tabulations was 3,214, compared with 22 "race not valid" assignments according to NCHS tabulations. Therefore, the figures for the white and for the nonwhite category by census designations are below those by NCHS designations for the United States and each region. Second, the death records for which the race was not stated were assigned to "white" in the initial coding operation in NCHS. The number of "not stated" entries is not known, but presumably the figure is small.

Not only are the net difference rates generally lowest for the white group but the proportions of unmatched deaths are lowest. The latter factor gives greater validity to the net difference rates for the white population.

The net difference rates for the Negro race were higher than those for the white and were generally positive; the rates were less than 2 percent for the United States and each region. However, the proportion of records unmatched was approximately 30 percent for the Negro race—almost 50 percent above that for the white.

The net difference rates for the Indian group were negative for each region and lowest in the West where the majority of the Indian reservations are located. Self-enumeration of race, which was introduced in the 1960 Census of Population, may contribute to the excess of census records over death records which were coded as Indian. The annual death rate for the Indian group was 8.6 per 1,000 population in the United States for 1960 compared with 13.0 in 1950. The self-enumeration procedure in the 1960 census and changes in classification by census of persons of mixed stock of Indian and other races contributed to a sharp increase in the Indian population between the two census years. This artifact observed in the anual death rates is consistent with the findings of this study.

With the exception of those for the West, the regional net difference rates for Chinese, Japanese, and Filipino are based on such small frequencies as to render the rates statistically unreliable. The net difference rate for the Japanese in the West was -0.6 which was the lowest of any net difference rate for any racial category for the United States or any of the four regions. The match status for this racial group—18 percent—is superior to that of the other racial categories in the West Region or in the United States as a whole. The net difference rate for the Chinese is 0.9—the same as that for the white group in this region. The proportion unmatched is about the same for the two categories—22 for the white group and 23 for the Chinese. The net difference rates for the "other nonwhite" group showed the greatest divergence between census assignments and those by NCHS. Likewise the proportion unmatched is highest—approximately 50 percent (census record used as a base). If the death record is used as a base, the equivalent proportion is below 30 percent because the denominator of the proportion would be substantially larger. It is difficult to explain the large difference between census assignments and those by NCHS for this group because it is an "all other" category. Differences may exist in interpretation between census and NCHS as to what should be included in this "all other" group.

Regional differences for each sex group were examined only for the white and nonwhite categories since the frequencies for the racial groups were very small. Net difference rates for females were lower than those for males for each region except the West.

In stage II of the 1960 Comparison Study there were 87,905 matched records. Of this number 1,145 or 1.3 percent had no entry for race ("not valid" included). After the 1,145 records were assigned a code for race, the assignments were compared with the codes for race on the death records for those 1,145 decedents. There was only 20 percent agreement. The effect on the

comparison study was to bring into closer agreement the assignments of codes by census and NCHS to the white category. The reverse effect occurred with respect to most of the nonwhite racial groups. A comparison of the net difference rates for stages I and II by race for the United States is shown below. (Census record is used as base and minus sign indicates more assignments by census than by NCHS.)

Race	*Net difference rates for stages:*	
	I	*II*
White	0.8	-0.4
Nonwhite	1.1	-1.2
Negro	1.1	0.2
Indian	-9.4	-11.2
Japanese	-0.9	7.5
Chinese	-4.6	-25.0
Filipino	-23.2	-33.3
Other	-125.4	21.9
Not stated and not valid	-99.3	...

If the annual death rates for the two groups, white and nonwhite, are evaluated in terms of the findings noted above, the effects are negligible. However, rates for specified nonwhite racial groups would be affected. For example, the net difference rate for the Japanese according to stage I is -0.9 and according to stage II, +7.5. The latter net difference rate (+7.5) represents fewer allocations of "not stated" to the Japanese than the findings of this study would warrant. The effect would be to overstate the published annual death rate for the Japanese from 5.1 per 1,000 population to 5.5.

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DETAILED TABLES

Table 1. Frequency distribution of size of net difference rates based on deaths matched at usual place of residence, for urban areas of 25,000 population or more: United States, May-August 1960

[Census record used as a base. Negative indicates more assignments by census than by NCHS]

Net difference rate	Positive difference				Negative difference			
	Total	Areas of:			Total	Areas of:		
		100,000 or more	50,000 to 100,000	25,000 to 50,000		100,000 or more	50,000 to 100,000	25,000 to 50,000
	Based on 100 deaths or more							
Total	289	110	110	69	83	21	45	17
0-0.04	47	5	22	20	...	...	...	...
0.1-4.9	172	91	55	26	68	18	38	12
5.0-9.9	50	12	23	15	10	2	5	3
10.0-14.9	14	2	6	6	1	1	-	-
15.0-19.9	3	-	1	2	1	-	1	-
20.0-24.9	2	-	2	-	-	-	-	-
25.0-29.9	-	-	-	-	1	-	1	-
30.0-34.9	-	-	-	-	-	-	-	-
35.0-39.9	1	-	1	-	1	-	-	1
40.0-44.9	-	-	-	-	-	-	-	-
45.0-49.9	-	-	-	-	1	-	-	1
All other	-	-	-	-	-	-	-	-
	Based on less than 100 deaths							
Total	243	-	21	222	114	-	16	98
0-0.04	84	-	7	77	...	...	...	...
0.1-4.9	89	-	8	81	61	-	10	51
5.0-9.9	32	-	3	29	21	-	1	20
10.0-14.9	12	-	1	11	12	-	3	9
15.0-19.9	3	-	-	3	3	-	-	3
20.0-24.9	12	-	1	11	3	-	-	3
25.0-29.9	4	-	-	4	3	-	-	3
30.0-34.9	2	-	-	2	1	-	-	1
35.0-39.9	-	-	-	-	-	-	-	-
40.0-44.9	-	-	-	-	-	-	-	-
45.0-49.9	1	-	-	1	-	-	-	-
50.0-54.9	-	-	-	-	2	-	-	2
55.0-59.9	1	-	1	-	-	-	-	-
60.0-64.9	1	-	-	1	2	-	-	2
65.0-69.9	1	-	-	1	1	-	-	1
70.0-74.9	-	-	-	-	-	-	-	-
75.0-79.9	-	-	-	-	1	-	-	1
80.0-84.9	-	-	-	-	3	-	2	1
85.0-89.9	-	-	-	-	1	-	-	1
90.0-94.9	1	-	-	1	-	-	-	-
95.0-99.9	-	-	-	-	-	-	-	-
100.0 or more	-	-	-	-	-	-	-	-

Table 2. Net difference rates based on events matched at usual place of residence for 221 selected urban areas of 25,000 population or more: United States, selected months, 1950 and 1960

[Census record used as base. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 100 births or more were assigned according to either the census record or the birth record in 1950]

Area	Net difference rate		Area	Net difference rate	
	Deaths, 1960	Births, 1950		Deaths, 1960	Births, 1950
Alabama:			Georgia:		
Birmingham	2.1	5.0	Atlanta	2.7	4.0
Gadsden	-2.7	-11.7	Augusta	8.2	34.7
Mobile	-0.6	-4.9	Columbus	-	34.5
Montgomery	4.2	-7.4	Macon	17.5	53.3
			Savannah	0.9	9.1
Arizona:					
Phoenix	-5.5	22.9	Illinois:		
Tucson	4.6	271.0	Chicago	0.5	0.8
			Decatur	9.3	4.3
Arkansas:			East St. Louis	5.6	8.1
Little Rock	8.1	10.3	Joliet	4.4	71.1
			Peoria	0.7	1.8
California:			Rockford	2.5	2.3
Alameda	0.7	1.2	Springfield	8.0	-
Bakersfield	14.4	41.1			
Berkeley	1.4	3.2	Indiana:		
Burbank	0.6	0.8	East Chicago	-	-
Compton	12.9	15.1	Evansville	-0.3	10.6
Fresno	4.1	18.9	Fort Wayne	1.5	9.6
Glendale	-	-1.7	Gary	4.3	20.2
Long Beach	0.5	1.6	Hammond	-1.1	-15.0
Los Angeles	-0.1	3.1	Indianapolis	2.7	9.0
Oakland	0.9	3.7	Muncie	13.3	15.9
Pasadena	1.1	-1.4	South Bend	4.9	12.1
Richmond	-	9.1	Terre Haute	1.6	25.7
Riverside	11.0	13.3			
Sacramento	8.4	3.9	Iowa:		
San Bernardino	1.6	38.8	Cedar Rapids	1.1	4.1
San Diego	-1.2	2.5	Davenport	-3.2	-4.9
San Francisco	-	1.8	Des Moines	2.2	17.4
San Jose	6.8	35.7	Dubuque	-	4.4
Santa Monica	2.6	0.9	Sioux City	-0.5	-5.9
Stockton	5.3	11.4	Waterloo	3.4	6.6
Colorado:			Kansas:		
Colorado Springs	7.6	28.2	Kansas City	11.5	10.3
Denver	-0.2	0.7	Topeka	2.8	17.1
Pueblo	2.0	7.9	Wichita	6.8	23.3
Connecticut:			Kentucky:		
Bridgeport	-1.0	1.6	Covington	-1.0	6.1
Hartford	-5.9	1.4	Louisville	12.1	12.7
New Britain	1.4	0.9			
New Haven	-0.5	-0.5	Louisiana:		
Stamford	-1.0	-6.8	Baton Rouge	4.0	0.4
Waterbury	0.3	4.1	New Orleans	0.7	1.9
			Shreveport	0.7	11.2
Delaware:					
Wilmington	3.3	7.4	Maine:		
			Portland	-0.4	-3.9
District of Columbia:					
Washington	-0.7	7.4	Maryland:		
			Baltimore	0.6	1.1
Florida:					
Jacksonville	7.4	25.7	Massachusetts:		
Miami	6.0	15.2	Boston	0.1	1.1
Pensacola	-3.5	41.1	Brockton	-1.7	-5.7
Tampa	3.4	63.1	Cambridge	0.7	1.1

Table 2. Net difference rates based on events matched at usual place of residence for 221 selected urban areas of 25,000 population or more: United States, selected months, 1950 and 1960—Con.

[Census record used as base. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 100 births or more were assigned according to either the census record or the birth record in 1950]

Area	Net difference rate		Area	Net difference rate	
	Deaths, 1960	Births, 1950		Deaths, 1960	Births, 1950
Massachusetts—Con.			New Mexico:		
Fall River	-	3.6	Albuquerque	6.0	19.0
Lawrence	-0.5	2.3			
Lowell	-	3.0	New York:		
Lynn	-0.7	-0.5	Albany	1.9	6.9
Malden	0.6	2.0	Binghamton	1.2	-3.6
New Bedford	1.3	2.5	Buffalo	0.5	-0.2
Newton	-6.5	4.9	Mount Vernon	-1.1	-2.0
Quincy	-0.9	2.1	New York City	0.2	0.5
Somerville	-0.5	-2.2	Niagara Falls	1.2	3.0
Springfield	-	4.4	Rochester	1.4	2.4
Worcester	0.2	2.2	Schenectady	5.8	10.8
			Syracuse	1.1	0.3
Michigan:			Troy	1.0	14.8
Bay City	3.6	44.2	Utica	-2.4	-
Dearborn	9.4	24.0	Yonkers	-2.6	-5.2
Detroit	0.4	1.5			
Flint	0.9	6.1	North Carolina:		
Grand Rapids	3.0	11.4	Charlotte	-0.6	6.5
Jackson	7.5	35.4	Durham	0.6	21.7
Kalamazoo	3.5	13.7	Fayetteville	20.9	9.6
Lansing	2.0	8.0	Greensboro	1.1	32.7
Muskegon	3.3	26.9	Raleigh	-	21.2
Pontiac	0.6	6.9	Winston-Salem	3.4	15.5
Royal Oak	-	22.2			
Saginaw	1.9	1.0	Ohio:		
			Akron	1.7	3.5
Minnesota:			Canton	3.5	25.7
Duluth	2.1	-	Cincinnati	0.4	0.4
Minneapolis	1.1	2.2	Cleveland	1.7	1.1
St. Paul	0.2	3.6	Columbus	-0.1	-2.5
			Dayton	2.1	46.1
Mississippi:			Lakewood	-0.6	-3.9
Jackson	2.5	-	Lima	3.3	32.0
			Lorain	-0.8	3.0
Missouri:			Springfield	5.1	14.1
Kansas City	0.2	-1.7	Toledo	0.3	16.2
Springfield	1.3	2.9	Warren	5.1	13.8
St. Joseph	-0.5	3.1	Youngstown	0.2	15.0
St. Louis	0.6	1.5			
			Oklahoma:		
Nebraska:			Oklahoma City	5.2	3.8
Lincoln	3.0	5.6	Tulsa	8.7	7.3
Omaha	4.1	5.1			
			Oregon:		
New Hampshire:			Eugene	-8.6	62.7
Manchester	-	3.0	Portland	5.0	30.5
New Jersey:			Pennsylvania:		
Bayonne	-	0.8	Allentown	1.5	1.9
Camden	1.6	-	Altoona	2.4	5.5
Clifton	0.6	-4.8	Bethlehem	4.0	6.7
East Orange	-1.3	-0.9	Chester	5.1	17.2
Elizabeth	1.1	2.4	Erie	1.0	8.7
Jersey City	-0.8	2.6	Harrisburg	12.0	13.0
Newark	0.9	-0.2	Johnstown	36.9	42.6
Paterson	0.8	-0.5	Lancaster	21.0	13.2
Trenton	3.3	4.3	Philadelphia	0.3	1.8

Table 2. Net difference rates based on events matched at usual place of residence for 221 selected urban areas of 25,000 population or more: United States, selected months, 1950 and 1960—Con.

[Census record used as base. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 100 births or more were assigned according to either the census record or the birth record in 1950]

Area	Net difference rate		Area	Net difference rate	
	Deaths, 1960	Births, 1950		Deaths, 1960	Births, 1950
Pennsylvania—Con.			Texas—Con.		
Pittsburgh	5.0	30.5	Houston	-12.3	14.2
Reading	1.0	10.3	Laredo	-	3.9
Scranton	1.9	1.6	Lubbock	4.7	0.6
Upper Darby	-3.4	-16.9	Port Arthur	0.7	9.7
Wilkes-Barre	-	23.7	San Antonio	1.2	8.7
York	4.0	26.7	San Angelo	2.0	1.8
			Waco	-1.7	2.5
Rhode Island:			Wichita Falls	2.7	10.5
Pawtucket	-0.8	7.3	Utah:		
Providence	-0.7	1.1	Ogden	5.5	5.5
			Salt Lake City	3.7	6.6
South Carolina:					
Charleston	2.0	11.9	Virginia:		
Columbia	-1.0	45.2	Alexandria	1.5	13.2
Greenville	4.2	7.7	Arlington County	-	0.3
			Norfolk	1.6	5.1
South Dakota:			Portsmouth	0.5	2.0
Sioux Falls	6.7	6.9	Richmond	0.3	6.9
			Roanoke	3.9	0.6
Tennessee:			Washington:		
Chattanooga	3.2	27.7	Seattle	3.7	43.9
Knoxville	0.4	5.0	Spokane	1.6	9.7
Memphis	1.8	-7.9	Tacoma	1.2	10.3
Nashville	3.0	58.1	Yakima	17.6	33.0
			West Virginia:		
Texas:			Charleston	2.6	38.0
Amarillo	-0.5	7.4	Huntington	3.5	9.7
Austin	-1.4	7.8	Wheeling	3.6	4.9
Beaumont	1.6	1.9			
Corpus Christi	0.4	1.4	Wisconsin:		
Dallas	0.8	5.2	Green Bay	6.8	-
El Paso	1.7	6.0	Madison	3.1	-0.5
Fort Worth	3.4	14.6	Milwaukee	0.5	1.1
Galveston	0.5	23.2	Racine	0.5	11.5

NOTE: May-August 1960 used for deaths and January-March 1950 used for births.

Source for births: National Vital Statistics Division: Matched record comparison of birth certificate and census information: United States, 1950. Vital Statistics—Special Reports, Vol. 47, No. 12. Public Health Service. Washington, D.C., Mar. 1962.

Table 3. Distribution of nonwhite deaths matched at usual place of residence for 729 urban areas of 25,000 population or more, by frequency groupings and type of difference: United States, May-August 1960

Direction of difference	Number of urban areas
All areas	729
No deaths assigned according to census record or death record	201
Frequency of 1 or 2 according to either census record or death record and zero frequency in other	26
Frequency of less than 10 deaths according to census record	239
Net difference rate is zero	150
Net difference rate for white is higher than for nonwhite	5
Net difference rate for white is lower than for nonwhite	84
Frequency of 10 deaths or more according to census records	[1]263
Net difference rate is zero	58
Net difference rate for white is higher than for nonwhite	79
Net difference rate for white is lower than for nonwhite	125

[1] Includes one area for which the net difference rate was the same for white and nonwhite.

Table 4. Number of deaths matched at usual place of residence and net difference rates, deaths unmatched, and proportion unmatched for 89 selected urban areas of 25,000 population or more, by color: United States, May-August 1960

[Census record used as a base for net difference rate and proportion unmatched. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 50 nonwhite deaths were assigned according to either the census record or death record]

Area	Deaths matched at usual residence according to:				Net difference rate		Unmatched deaths		Proportion unmatched	
	Census record		Death record							
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
Alabama:										
Bessemer	23	42	29	51	26.1	21.4	12	26	34.3	38.2
Birmingham	450	370	466	380	3.6	2.7	169	136	27.3	26.9
Mobile	222	120	227	117	2.3	-2.5	72	45	24.5	27.3
Montgomery	110	127	123	127	11.8	-	63	55	36.4	30.2
Arkansas:										
Little Rock	171	74	189	77	10.5	4.1	51	37	23.0	33.3
California:										
Los Angeles	4,975	627	5,021	618	0.9	-1.4	1,362	305	21.5	32.7
Oakland	858	150	877	146	2.2	-2.7	257	65	23.0	30.2
San Diego	884	56	886	54	0.2	-3.6	323	24	26.8	30.0
San Francisco	2,012	172	2,035	169	1.1	-1.7	514	69	20.3	28.6
Colorado:										
Denver	1,183	56	1,193	53	0.2	-0.8	230	24	16.3	30.0
Delaware:										
Wilmington	254	51	262	54	3.1	5.9	51	33	16.7	39.3
District of Columbia:										
Washington	1,070	854	1,064	863	-0.6	1.1	260	358	19.5	29.5
Florida:										
Jacksonville	251	205	278	214	10.8	4.4	100	83	28.5	28.8
Miami	639	103	687	108	7.5	4.9	293	64	31.4	38.3
St. Petersburg	720	66	751	65	4.3	-1.5	135	25	15.8	27.5
Tampa	584	138	614	140	5.1	1.4	152	56	20.7	28.9
Georgia:										
Albany	56	50	58	54	3.6	8.0	16	22	22.2	30.6
Atlanta	691	428	724	438	4.8	2.3	227	174	24.7	28.9
Augusta	67	84	81	90	20.9	7.1	41	34	38.0	28.8
Columbus	147	59	146	60	-0.7	1.7	73	26	33.2	30.6
Macon	111	88	132	103	18.9	17.0	26	33	19.0	27.3
Savannah	169	152	163	163	-3.6	7.2	47	41	21.8	21.2
Hawaii:										
Hilo	17	43	19	56	11.8	30.2	3	29	15.0	40.3
Honolulu	103	231	106	294	2.9	27.3	44	72	29.9	23.8
Illinois:										
Chicago	8,081	1,643	8,199	1,682	1.5	2.4	2,061	849	20.3	34.1
East St. Louis	133	92	149	95	12.0	3.3	41	36	23.6	28.1
Indiana:										
Gary	262	132	276	137	5.3	3.8	46	56	14.9	29.8
Indianapolis	970	239	1,017	235	4.8	-1.7	259	98	21.1	29.1
Kansas:										
Kansas City	237	78	272	86	14.8	10.3	67	22	22.0	22.0
Kentucky:										
Lexington	142	54	182	61	28.2	13.0	36	24	20.2	30.8
Louisville	806	225	933	237	15.8	5.3	281	111	25.9	33.0
Louisiana:										
Alexandria	46	52	51	51	10.9	-1.9	31	25	40.3	32.5
Baton Rouge	169	108	177	111	4.7	2.8	45	38	21.0	26.0
Monroe	46	69	48	75	4.3	8.7	16	28	25.8	28.9
New Orleans	1,111	609	1,128	618	1.5	1.5	231	213	17.2	25.9
Shreveport	234	171	231	179	-1.3	4.7	83	72	26.2	29.6
Maryland:										
Baltimore	1,744	679	1,773	687	1.7	1.2	469	329	21.2	32.6

Table 4. Number of deaths matched at usual place of residence and net difference rates, deaths unmatched, and proportion unmatched for 89 selected urban areas of 25,000 population or more by color: United States, May-August 1960—Con.

[Census record used as a base for net difference rate and proportion unmatched. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 50 nonwhite deaths were assigned according to either the census record or death record]

Area	Deaths matched at usual residence according to:				Net difference rate		Unmatched deaths		Proportion unmatched	
	Census record		Death record							
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
Massachusetts:										
Boston	1,927	134	1,946	129	1.0	-3.7	457	71	19.2	34.6
Michigan:										
Detroit	3,344	885	3,383	898	1.2	1.5	663	341	16.5	27.8
Flint	380	73	387	71	1.8	-2.7	68	16	15.2	18.0
Mississippi:										
Greenville	32	62	34	60	6.3	-3.2	12	13	27.3	17.3
Jackson	134	105	139	106	3.7	1.0	54	32	28.7	23.4
Vicksburg	31	67	31	69	-	3.0	12	14	27.9	17.3
Missouri:										
Kansas City	1,139	213	1,146	216	0.6	1.4	242	85	17.5	28.5
St. Louis	1,742	514	1,771	513	1.7	-0.2	471	242	21.3	32.0
Nebraska:										
Omaha	584	65	613	66	5.0	1.5	151	33	20.5	33.7
New Jersey:										
Atlantic City	165	53	160	58	-3.0	9.4	51	24	23.6	31.2
Jersey City	767	69	761	74	-0.8	7.2	153	44	16.6	38.9
Newark	740	266	761	264	2.8	-0.8	239	160	24.4	37.6
New York:										
New York City	18,703	2,074	18,813	2,132	0.6	2.8	4,350	1,252	18.9	37.6
Buffalo	1,520	129	1,559	116	2.6	-10.1	225	36	12.9	21.8
North Carolina:										
Charlotte	208	139	206	139	-1.0	-	73	40	26.0	22.3
Durham	120	55	123	54	2.5	-1.8	28	31	18.9	36.0
Greensboro	114	63	117	62	2.6	-1.6	45	24	28.3	27.6
Raleigh	93	60	94	59	1.1	-1.7	29	11	23.8	15.5
Wilmington	71	60	73	65	2.8	8.3	12	13	14.5	17.8
Winston-Salem	122	112	128	115	4.9	2.7	25	46	17.0	29.1
Ohio:										
Akron	602	58	616	56	2.3	-3.4	127	29	17.4	33.3
Cincinnati	1,082	247	1,091	254	0.8	2.8	232	101	17.7	29.0
Cleveland	1,934	492	1,995	489	3.2	-0.6	339	184	14.9	27.2
Columbus	836	167	835	173	-0.1	3.6	179	46	17.6	21.6
Dayton	529	127	549	126	3.8	-0.8	133	44	20.1	25.7
Toledo	783	81	791	83	1.0	2.5	186	22	19.2	21.4
Youngstown	416	53	418	52	0.5	-1.9	55	18	11.7	25.4
Oklahoma:										
Oklahoma City	546	81	581	83	6.4	2.5	201	44	26.9	35.2
Tulsa	447	65	493	70	10.3	7.7	131	31	22.7	32.3
Pennsylvania:										
Philadelphia	4,464	1,174	4,529	1,162	1.5	-1.0	,235	518	21.7	30.6
Pittsburgh	1,551	264	1,639	281	5.7	6.4	410	88	20.9	25.0
South Carolina:										
Charleston	79	71	84	70	6.3	-1.4	26	20	24.8	22.0
Columbia	132	59	132	62	-	5.1	20	40	13.2	40.4
Greenville	65	52	74	50	13.8	-3.8	36	26	35.6	33.3
Tennessee:										
Chattanooga	200	114	212	113	6.0	-0.9	85	65	29.8	36.3
Knoxville	215	57	221	53	2.8	-7.0	95	22	30.6	27.8
Memphis	594	437	617	443	3.9	1.4	135	173	18.5	28.4
Nashville	279	190	294	191	5.4	0.5	78	65	21.8	25.5
Texas:										
Beaumont	163	75	172	76	5.5	1.3	45	21	21.6	21.9
Dallas	928	251	945	247	1.8	-1.6	321	137	25.7	35.3
Fort Worth	569	130	598	131	5.1	0.8	211	58	27.1	30.9
Galveston	144	55	147	56	2.1	1.8	34	20	19.1	26.7
Houston	1,152	374	1,017	334	-11.7	-10.7	348	161	23.2	30.1
San Antonio	925	98	940	99	1.6	1.0	286	42	23.6	30.0
Waco	170	59	177	54	4.1	-8.5	62	18	26.7	23.4

Table 4. Number of deaths matched at usual place of residence and net difference rates, deaths unmatched, and proportion unmatched for 89 selected urban areas of 25,000 population or more by color: United States, May-August 1960—Con.

[Census record used as a base for net difference rate and proportion unmatched. Minus (-) sign indicates more assignments by census than by NCHS. Includes only those areas for which at least 50 nonwhite deaths were assigned according to either the census record or death record]

Area	Deaths matched at usual residence according to:				Net difference rate		Unmatched deaths		Proportion unmatched	
	Census record		Death record							
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
Virginia:										
Newport News	108	71	109	72	0.9	1.4	31	31	22.3	30.4
Norfolk	377	190	383	195	1.6	2.6	107	81	22.1	29.9
Petersburg	56	49	56	51	-	4.1	13	14	18.8	22.2
Portsmouth	140	78	143	79	2.1	1.3	40	36	22.2	31.6
Richmond	432	185	440	185	1.9	-	85	92	16.4	33.2
Washington:										
Seattle	1,205	59	1,260	60	4.6	1.7	468	25	28.0	29.8
Wisconsin:										
Milwaukee	1,750	92	1,766	91	0.9	-1.1	326	34	15.7	27.0

Table 5. Number of deaths matched at usual place of residence and net difference rates, by population-size group of area: United States, May-August 1960

[Census record used as base. Minus (-) sign indicates more assignments by census than by NCHS]

Population-size group of area	Deaths matched at usual residence according to:		Net difference rate
	Census record	Death record	
Total			
All areas	388,754	388,754	...
Total areas of 25,000 or more	189,363	189,307	-0.0
1,000,000 or more	46,317	46,452	0.3
500,000 to 1,000,000	27,760	27,924	0.6
250,000 to 500,000	25,671	26,259	2.3
100,000 to 250,000	27,203	27,530	1.2
50,000 to 100,000	30,768	30,543	-0.7
25,000 to 50,000	31,644	30,599	-3.3
10,000 to 25,000	36,159	34,464	-4.7
2,500 to 10,000	41,510	37,786	-9.0
Rural	121,722	127,197	4.5
White			
All areas	344,495	347,247	0.8
Total areas of 25,000 or more	163,749	164,963	0.7
1,000,000 or more	39,567	39,957	1.0
500,000 to 1,000,000	22,529	22,899	1.6
250,000 to 500,000	21,255	22,025	3.6
100,000 to 250,000	23,423	23,899	2.0
50,000 to 100,000	28,003	27,982	-0.1
25,000 to 50,000	28,972	28,201	-2.7
10,000 to 25,000	33,294	31,854	-4.3
2,500 to 10,000	38,142	34,879	-8.6
Rural	109,310	115,551	5.7
Nonwhite			
All areas	41,111	41,486	0.9
Total areas of 25,000 or more	24,084	24,335	1.0
1,000,000 or more	6,401	6,492	1.4
500,000 to 1,000,000	5,026	5,024	-0.0
250,000 to 500,000	4,140	4,233	2.2
100,000 to 250,000	3,593	3,628	1.0
50,000 to 100,000	2,509	2,561	2.1
25,000 to 50,000	2,415	2,397	-0.7
10,000 to 25,000	2,645	2,607	-1.4
2,500 to 10,000	2,995	2,903	-3.1
Rural	11,387	11,641	2.2

NOTE: For explanation of why white and nonwhite do not add to the total, see Technical Appendix.

Table 6. Number and percent distribution of deaths in the 1960 Comparison Study and the followback survey, by population-size group of area according to death record designations: United States, May-August 1960

Population-size group of area	1960 Comparison Study		Followback survey	
	Number	Percent distribution	Number	Percent distribution
Total	501,410	100.0	9,475	100.0
1,000,000 or more	59,390	11.8	1,134	12.0
500,000 to 1,000,000	35,800	7.1	717	7.6
250,000 to 500,000	33,830	6.7	651	6.9
100,000 to 250,000	34,600	6.9	653	6.9
50,000 to 100,000	37,991	7.6	708	7.5
25,000 to 50,000	38,000	7.6	718	7.6
10,000 to 25,000	43,425	8.7	825	8.7
2,500 to 10,000	47,434	9.5	843	8.9
All other	170,940	34.1	3,226	34.0

Table 7. Number and percent distribution of deaths matched in the 1960 Comparison Study and the followback survey, by population-size group of area according to census record designations: United States, May-August 1960

Population-size group of area	1960 Comparison Study		Followback survey	
	Number	Percent distribution	Number	Percent distribution
Total	388,754	100.0	7,393	100.0
1,000,000 or more	46,317	11.9	889	12.0
500,000 to 1,000,000	27,760	7.1	539	7.3
250,000 to 500,000	25,671	6.6	495	6.7
100,000 to 250,000	27,203	7.0	474	6.4
50,000 to 100,000	30,768	7.9	564	7.6
25,000 to 50,000	31,644	8.1	292	3.9
10,000 to 25,000	36,159	9.3	700	9.5
2,500 to 10,000	41,510	10.7	761	10.3
25,000 or more[1]	...	...	302	4.1
All other	121,722	31.3	2,377	32.2

[1]Processing errors by census category represents areas of 25,000 population or more, but size of area could not be further defined.

Table 8. Number and percent distribution of unmatched deaths, for which there were response and no response in the followback survey, and unmatched deaths in the 1960 Comparison Study, by population-size group of area according to death record designations: United States, May-August 1960

Population-size group of area	Followback survey				Unmatched deaths in 1960 Comparison Study	
	Response		No response			
	Number	Percent distribution	Number	Percent distribution	Number	Percent distribution
Total	1,861	100.0	221	100.0	112,656	100.0
1,000,000 or more	189	10.2	30	13.6	12,938	11.5
500,000 to 1,000,000	127	6.8	34	15.4	7,876	7.0
250,000 to 500,000	121	6.5	16	7.2	7,571	6.7
100,000 to 250,000	140	7.5	11	5.0	7,070	6.3
50,000 to 100,000	126	6.8	24	10.9	7,448	6.6
25,000 to 50,000	127	6.8	17	7.7	7,401	6.6
10,000 to 25,000	155	8.3	18	8.1	8,961	8.0
2,500 to 10,000	164	8.8	5	2.3	9,648	8.6
All other	712	38.3	66	29.9	43,743	38.8

Table 9. Net difference rates and proportion of death records unmatched for urban and rural areas in metropolitan and nonmetropolitan counties, by color and sex: United States, May-August 1960

[Death record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area, color, and sex	Net difference rate	Proportion of deaths unmatched
Total	...	21.1
Metropolitan counties	-0.3	20.8
Urban	0.3	19.4
Rural	-3.6	27.4
Nonmetropolitan counties	0.5	21.6
Urban	2.0	20.0
Rural	-0.5	22.7
White male	...	21.0
Metropolitan counties	-0.3	20.8
Urban	0.3	19.2
Rural	-3.4	27.4
Nonmetropolitan counties	0.5	21.2
Urban	2.5	19.8
Rural	-0.7	22.0
White female	...	20.4
Metropolitan counties	-0.3	19.8
Urban	0.6	18.0
Rural	-5.0	27.8
White female—Con.		
Nonmetropolitan counties	0.5	21.5
Urban	2.4	19.7
Rural	-0.9	22.9
Nonwhite male	...	34.6
Metropolitan counties	-0.7	35.4
Urban	-2.2	33.8
Rural	15.0	48.1
Nonmetropolitan counties	1.1	33.2
Urban	0.3	31.8
Rural	2.0	34.1
Nonwhite female	...	31.5
Metropolitan counties	-0.3	31.0
Urban	-1.2	29.4
Rural	10.0	45.1
Nonmetropolitan counties	0.4	32.4
Urban	-0.2	28.8
Rural	1.0	34.9

NOTE: Figures with color and/or sex not stated are included in the total, but are not shown separately.

Table 10. Number of deaths matched at usual place of residence and not at usual place of residence, according to census record and death record for urban and rural areas in metropolitan and nonmetropolitan counties, by color and sex: United States, May-August 1960

[For definition of areas, see Technical Appendix]

Area according to census record	Total	Area according to death record					
		Metropolitan county			Nonmetropolitan county		
		Total	Urban	Rural	Total	Urban	Rural
USUAL PLACE OF RESIDENCE							
Total							
All counties	388,754	241,075	201,366	39,709	147,679	60,191	87,488
All metropolitan counties	241,030	240,717	201,154	39,563	313	118	195
Urban	205,660	205,469	197,373	8,096	191	100	91
Rural	35,370	35,248	3,781	31,467	122	18	104
All nonmetropolitan counties	147,724	358	212	146	147,366	60,073	87,293
Urban	61,372	120	86	34	61,252	57,565	3,687
Rural	86,352	238	126	112	86,114	2,508	83,606
White							
Male	190,119	115,442	94,749	20,693	74,677	29,139	45,538
All metropolitan counties	115,438	115,263	94,624	20,639	175	60	115
Urban	96,833	96,733	92,632	4,101	100	56	44
Rural	18,605	18,530	1,992	16,538	75	4	71
All nonmetropolitan counties	74,681	179	125	54	74,502	29,079	45,423
Urban	29,867	57	47	10	29,810	27,870	1,940
Rural	44,814	122	78	44	44,692	1,209	43,483
Female	138,013	87,880	73,672	14,208	50,133	21,899	28,234
All metropolitan counties	87,854	87,761	73,614	14,147	93	41	52
Urban	75,443	75,381	72,430	2,951	62	30	32
Rural	12,411	12,380	1,184	11,196	31	11	20
All nonmetropolitan counties	50,159	119	58	61	50,040	21,858	28,182
Urban	22,380	44	28	16	22,336	21,071	1,265
Rural	27,779	75	30	45	27,704	787	26,917
Nonwhite							
Male	19,886	12,113	11,076	1,037	7,773	2,998	4,775
All metropolitan counties	12,108	12,089	11,061	1,028	19	6	13
Urban	11,141	11,129	10,924	205	12	5	7
Rural	967	960	137	823	7	1	6
All nonmetropolitan counties	7,778	24	15	9	7,754	2,992	4,762
Urban	2,996	9	7	2	2,987	2,851	136
Rural	4,782	15	8	7	4,767	141	4,626

Table 10. Number of deaths matched at usual place of residence and not at usual place of residence, according to census record and death record for urban and rural areas in metropolitan and nonmetropolitan counties, by color and sex: United States, May-August 1960—Con.

[For definition of areas, see Technical Appendix]

Area according to census record	Total	Area according to death record					
		Metropolitan county			Nonmetropolitan county		
		Total	Urban	Rural	Total	Urban	Rural
USUAL PLACE OF RESIDENCE—Con.							
Nonwhite—Con.							
Female	16,814	10,520	9,666	854	6,294	2,703	3,591
All metropolitan counties	10,523	10,507	9,660	847	16	6	10
Urban	9,732	9,722	9,566	156	10	4	6
Rural	791	785	94	691	6	2	4
All nonmetropolitan counties	6,291	13	6	7	6,278	2,697	3,581
Urban	2,703	4	1	3	2,699	2,591	108
Rural	3,588	9	5	4	3,579	106	3,473
NOT AT USUAL PLACE OF RESIDENCE							
Total							
All counties	31,538	19,992	16,936	3,056	11,546	5,038	6,508
All metropolitan counties	19,210	17,041	14,445	2,596	2,169	932	1,237
Urban	13,368	11,886	10,581	1,305	1,482	632	850
Rural	5,842	5,155	3,864	1,291	687	300	387
All nonmetropolitan counties	12,328	2,951	2,491	460	9,377	4,106	5,271
Urban	5,165	1,075	890	185	4,090	2,170	1,920
Rural	7,163	1,876	1,601	275	5,287	1,936	3,351
White							
Male	13,450	8,325	7,030	1,295	5,125	2,183	2,942
All metropolitan counties	7,920	6,891	5,807	1,084	1,029	424	605
Urban	5,274	4,550	4,049	501	724	309	415
Rural	2,646	2,341	1,758	583	305	115	190
All nonmetropolitan counties	5,530	1,434	1,223	211	4,096	1,759	2,337
Urban	2,223	543	437	106	1,680	849	831
Rural	3,307	891	786	105	2,416	910	1,506
Female	15,493	9,902	8,322	1,580	5,591	2,552	3,039
All metropolitan counties	9,634	8,689	7,323	1,366	945	430	515
Urban	7,049	6,372	5,632	740	677	291	386
Rural	2,585	2,317	1,691	626	268	139	129
All nonmetropolitan counties	5,859	1,213	999	214	4,646	2,122	2,524
Urban	2,662	439	373	66	2,223	1,221	1,002
Rural	3,197	774	626	148	2,423	901	1,522

Table 10. Number of deaths matched at usual place of residence and not at usual place of residence, according to census record and death record for urban and rural areas in metropolitan and nonmetropolitan counties, by color and sex: United States, May-August 1960—Con.

[For definition of areas, see Technical Appendix]

Area according to census record	Total	Area according to death record					
		Metropolitan county			Nonmetropolitan county		
		Total	Urban	Rural	Total	Urban	Rural
NOT AT USUAL PLACE OF RESIDENCE—Con.							
Nonwhite							
Male	1,273	886	793	93	387	148	239
All metropolitan counties	800	696	625	71	104	39	65
Urban	467	428	405	23	39	15	24
Rural	333	268	220	48	65	24	41
All nonmetropolitan counties	473	190	168	22	283	109	174
Urban	139	61	52	9	78	42	36
Rural	334	129	116	13	205	67	138
Female	903	617	565	52	286	115	171
All metropolitan counties	585	518	476	42	67	26	41
Urban	379	350	330	20	29	12	17
Rural	206	168	146	22	38	14	24
All nonmetropolitan counties	318	99	89	10	219	89	130
Urban	108	27	25	2	81	48	33
Rural	210	72	64	8	138	41	97

NOTE: Figures with color and/or sex not stated are included in the total but are not shown separately.

Table 11. Comparison of net difference rates and proportion unmatched, based on deaths matched at usual place of residence for 25 selected standard metropolitan statistical areas (SMSA's) and urban area components of those SMSA's: United States, May-August 1960

[Urban area components are only those of 25,000 population or more. For further definition of areas, see Technical Appendix]

Area	Net difference rate[1]	Proportion unmatched	
		Census record base	Death record base
Albuquerque, N. Mex	-0.3	31.4	31.4
Albuquerque, N. Mex	6.0	30.6	29.3
Augusta, Ga.-S.C	0.3	36.1	36.1
Augusta, Ga	8.2	32.2	30.5
Billings, Mont	-	31.1	31.1
Billings, Mont	8.5	29.3	27.7
Chicago, Ill	0.2	21.3	21.3
Arlington Heights, Ill	4.2	32.4	31.5
Aurora, Ill	8.3	20.0	18.8
Berwyn, Ill	1.1	2.6	2.7
Calumet City, Ill	4.5	21.4	20.7
Chicago, Ill	0.5	22.8	22.8
Chicago Heights, Ill	1.2	16.0	15.8
Cicero, Ill	-0.9	6.6	6.6
Des Plaines, Ill	15.8	33.3	30.2
Elgin, Ill	-3.1	17.7	18.2
Elmhurst, Ill	4.7	14.7	14.1
Evanston, Ill	-0.5	10.9	11.0
Harvey, Ill	-	25.6	25.6
Highland Park, Ill	-	15.1	15.1
Joliet, Ill	4.4	13.2	12.7
Maywood, Ill	-8.5	13.7	14.8
Oak Lawn, Ill	91.4	18.6	10.7
Oak Park, Ill	0.6	20.4	20.3
Park Forest, Ill	-	8.0	8.0
Park Ridge, Ill	2.1	9.4	9.3
Skokie, Ill	-1.1	10.7	10.8
Waukegan, Ill	5.6	19.1	18.3
Wilmette, Ill	-	4.3	4.3
Davenport-Rock Island-Moline, Iowa-Ill	-1.4	19.1	19.4
Davenport, Iowa	-3.2	20.3	20.8
Moline, Ill	6.5	23.9	22.8
Rock Island, Ill	-1.5	9.6	9.7
El Paso, Tex	3.3	28.9	28.2
El Paso, Tex	1.7	28.7	28.3
Fort Wayne, Ind	0.2	12.5	12.5
Fort Wayne, Ind	1.5	12.5	12.3
Jersey City, N.J	0.2	17.9	17.9
Bayonne, N.J	-	20.0	20.0
Hoboken, N.J	-0.8	25.6	25.7
Jersey City, N.J	-0.8	18.9	19.1
Kearny, N.J	-0.9	11.9	12.0
North Bergen, N.J	-	12.3	12.3
Union City, N.J	0.6	9.9	9.8
West New York, N.J	-1.1	20.7	20.9
Laredo, Tex	0.8	25.3	25.2
Laredo, Tex	-	25.7	25.7
Lorain-Elyria, Ohio	-0.3	25.0	25.1
Elyria, Ohio	-3.0	17.3	17.7
Lorain, Ohio	-0.8	19.6	19.7

Table 11. Comparison of net difference rates and proportion unmatched, based on deaths matched at usual place of residence for 25 selected standard metropolitan statistical areas (SMSA's) and urban area components of those SMSA's: United States, May-August 1960—Con.

[Urban area components are only those of 25,000 population or more. For further definition of areas, see Technical Appendix]

Area	Net difference rate[1]	Proportion unmatched	
		Census record base	Death record base
Milwaukee, Wis	0.1	16.6	16.6
Milwaukee, Wis	0.5	16.3	16.2
Waukesha, Wis	-7.0	26.0	24.7
Wawatosa, Wis	6.3	13.0	13.8
West Allis, Wis	5.7	7.6	7.3
Muncie, Ind	-	25.2	25.2
Muncie, Ind	13.3	19.5	17.6
Nashville, Tenn	-0.3	25.5	25.5
Nashville, Tenn	3.0	23.3	22.8
Odessa, Tex	-	29.9	29.9
Odessa, Tex	1.2	33.1	32.8
Omaha, Nebr.-Iowa	2.1	20.1	19.8
Council Bluffs, Iowa	-	3.6	3.6
Omaha, Nebr	4.1	22.0	21.3
Racine, Wis	-	15.4	15.4
Racine, Wis	0.5	12.0	12.0
Rockford, Ill	-0.2	18.3	18.3
Rockford, Ill	2.5	14.2	13.9
Salt Lake City, Utah	-	23.7	23.7
Salt Lake City, Utah	3.7	20.9	20.3
Shreveport, La	-0.4	31.1	31.2
Bossier City, La	-	28.9	28.9
Shreveport, La	0.7	27.6	27.4
Steubenville-Weirton, Ohio-W.Va	0.8	24.8	24.7
Steubenville, Ohio	-	19.9	19.9
Weirton, W.Va	2.9	32.0	31.4
Tacoma, Wash	-0.3	28.4	28.5
Tacoma, Wash	1.2	17.9	17.7
Tuscaloosa, Ala	-	48.1	48.1
Tuscaloosa, Ala	13.3	46.5	43.4
Wichita Falls, Tex	1.9	24.0	23.6
Wichita Falls, Tex	2.7	20.0	19.6
Wilkes-Barre--Hazleton, Pa	-	15.1	15.1
Hazelton, Pa	-	13.7	13.7
Wilkes-Barre, Pa	-	21.3	21.3
Youngstown-Warren, Ohio	-0.1	19.9	19.9
Warren, Ohio	5.1	18.0	17.2
Youngstown, Ohio	0.2	13.5	13.4

[1]Census record used as base. Minus (-) sign indicates more assignments by census than by NCHS.

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Total				
All areas	412,197	8,095	8,095	...
Total SMSA's	255,454	4,786	5,613	0.3
Abilene, Tex	179	4	9	2.7
Akron, Ohio	1,042	24	46	2.1
Albany, Ga	126	-	1	0.8
Albany-Schenectady-Troy, N.Y	1,833	19	76	3.1
Albuquerque, N.Mex	364	3	3	-
Allentown-Bethlehem-Easton, Pa.-N.J	1,398	14	16	0.1
Altoona, Pa	404	21	4	-4.0
Amarillo, Tex	210	15	7	-3.6
Ann Arbor, Mich	288	70	9	-17.0
Asheville, N.C	264	22	6	-5.6
Atlanta, Ga	1,869	24	62	2.0
Atlantic City, N.J	517	6	17	2.1
Augusta, Ga.-S.C	350	14	12	0.5
Austin, Tex	329	55	6	-12.8
Bakersfield, Calif	467	-	16	3.4
Baltimore, Md	3,855	64	55	-0.2
Baton Rouge, La	356	7	12	1.4
Bay City, Mich	224	1	8	3.1
Beaumont-Port Arthur, Tex	546	8	18	1.8
Billings, Mont	134	-	1	0.7
Binghamton, N.Y	522	33	14	-3.4
Birmingham, Ala	1,200	8	37	2.4
Boston-Lowell-Lawrence, Mass[1]	8,713	71	129	0.7
Bridgeport-Stamford-Norwalk, Conn[1]	1,532	28	34	0.4
Brockton, Mass[1]	692	20	28	1.1
Brownsville-Harlingen-San Benito, Tex	223	5	7	0.9
Buffalo, N.Y	3,468	57	53	-0.1
Canton, Ohio	764	42	9	-4.1
Cedar Rapids, Iowa	241	-	3	1.2
Champaign-Urbana, Ill	192	2	13	5.7
Charleston, S.C	295	6	12	2.0
Charleston, W.Va	436	3	9	1.4
Charlotte, N.C	405	4	2	-0.5
Chattanooga, Tenn.-Ga	512	6	10	0.8
Chicago, Ill	15,504	91	377	1.8
Cincinnati, Ohio-Ky	2,694	32	29	-0.1
Cleveland, Ohio	4,406	12	94	1.9
Colorado Springs, Colo	245	13	19	2.3
Columbia, S.C	432	124	-	-22.3
Columbus, Ga.-Ala	309	6	19	4.1
Columbus, Ohio	1,490	35	24	-0.7
Corpus Christi, Tex	312	7	11	1.3
Dallas, Tex	1,880	43	54	0.6
Davenport-Rock Island-Moline, Iowa-Ill	633	32	10	-3.3
Dayton, Ohio	1,458	37	10	-1.8

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Decatur, Ill	237	5	5	-
Denver, Colo	1,942	22	66	2.2
Des Moines, Iowa	622	3	19	2.6
Detroit, Mich	7,848	26	141	1.5
Dubuque, Iowa	186	23	4	-9.1
Duluth-Superior, Minn.-Wis	741	16	37	2.8
Durham, N.C	222	1	11	4.5
El Paso, Tex	439	7	22	3.4
Erie, Pa	649	3	21	2.8
Eugene, Oreg	238	-	9	3.8
Evansville, Ind.-Ky	440	19	2	-3.7
Fall River-New Bedford, Mass[1]	998	13	16	0.3
Fargo-Moorhead, N.Dak.-Minn	170	7	14	4.0
Flint, Mich	720	9	14	0.7
Fort Lauderdale-Hollywood, Fla	702	26	5	-2.9
Fort Smith, Ark	127	5	3	-1.5
Fort Wayne, Ind	521	25	27	0.4
Fort Worth, Tex	1,025	14	28	1.3
Fresno, Calif	715	6	13	1.0
Gadsden, Ala	150	10	3	-4.4
Galveston-Texas City, Tex	278	3	14	3.9
Gary-Hammond-East Chicago, Ind	1,166	1	35	2.9
Grand Rapids, Mich	808	34	20	-1.7
Great Falls, Mont	180	6	3	-1.6
Green Bay, Wis	253	8	12	1.5
Greensboro-High Point, N.C	392	11	9	-0.5
Greenville, S.C	269	-	12	4.5
Hamilton-Middletown, Ohio	400	-	7	1.8
Harrisburg, Pa	885	39	29	-1.1
Hartford-New Britain-Bristol, Conn[1]	1,551	16	41	1.6
Honolulu, Hawaii	602	6	2	-0.7
Houston, Tex	1,934	18	31	0.7
Huntington-Ashland, W.Va.-Ky.-Ohio	529	23	15	-1.4
Huntsville, Ala	144	6	4	-1.3
Indianapolis, Ind	1,673	19	49	1.8
Jackson, Mich	345	5	15	2.9
Jackson, Miss	346	22	17	-1.4
Jacksonville, Fla	839	13	22	1.1
Jersey City, N.J	1,865	9	60	2.7
Johnstown, Pa	813	21	20	-0.1
Kalamazoo, Mich	322	29	2	-7.7
Kansas City, Mo.-Kans	2,330	26	94	2.9
Kenosha, Wis	192	5	10	2.5
Knoxville, Tenn	622	36	8	-4.3
Lake Charles, La	185	-	7	3.8
Lancaster, Pa	656	64	24	-5.6
Lansing, Mich	568	12	16	0.7
Laredo, Tex	118	-	8	6.8
Las Vegas, Nev	199	-	9	4.5
Lawton, Okla	99	1	6	5.0

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Lexington, Ky	292	40	6	-10.2
Lima, Ohio	228	14	21	2.9
Lincoln, Nebr	355	21	3	-4.8
Little Rock-North Little Rock, Ark	410	32	4	-6.3
Lorain-Elyria, Ohio	394	17	7	-2.4
Los Angeles-Long Beach, Calif	14,583	90	203	0.8
Louisville, Ky.-Ind	1,643	37	16	-1.3
Lubbock, Tex	179	-	24	13.4
Lynchburg, Va	215	22	12	-4.2
Macon, Ga	336	16	11	-1.4
Madison, Wis	426	23	14	-2.0
Manchester, N.H[1]	450	2	10	1.8
Memphis, Tenn	1,297	22	18	-0.3
Miami, Fla	1,984	3	16	0.7
Midland, Tex	61	-	6	9.8
Milwaukee, Wis	2,762	23	33	0.4
Minneapolis-St. Paul, Minn	3,207	65	90	0.8
Mobile, Ala	520	35	21	-2.5
Monroe, La	195	3	9	3.0
Montgomery, Ala	280	16	10	-2.0
Muncie, Ind	242	-	6	2.5
Muskegon-Muskegon Heights, Mich	328	5	10	1.5
Nashville, Tenn	819	49	4	-5.2
Newark, N.J	4,163	116	115	-0.0
New Haven-Waterbury, Conn[1]	1,672	18	60	2.5
New Orleans, La	2,169	24	56	1.5
Newport News-Hampton, Va	366	34	8	-6.5
New York, N.Y	28,001	93	333	0.9
Norfolk-Portsmouth, Va	974	3	34	3.2
Odessa, Tex	101	-	2	2.0
Ogden, Utah	179	1	4	1.7
Oklahoma City, Okla	915	55	15	-4.1
Omaha, Nebr.-Iowa	968	29	48	1.9
Orlando, Fla	555	5	8	0.5
Paterson-Clifton-Passaic, N.J	2,619	42	100	2.2
Pensacola, Fla	306	4	10	1.9
Peoria, Ill	644	52	8	-6.3
Philadelphia, Pa.-N.J	10,931	94	134	0.4
Phoenix, Ariz	994	42	22	-1.9
Pittsburgh, Pa	6,061	57	54	-0.0
Pittsfield, Mass[1]	418	6	10	0.9
Portland, Maine[1]	465	11	23	2.5
Portland, Oreg.-Wash	2,130	29	67	1.8
Providence, R.I[1]	2,012	21	28	0.3
Provo-Orem, Utah	180	31	-	-14.7
Pueblo, Colo	245	108	1	-30.3
Racine, Wis	320	12	7	-1.5
Raleigh, N.C	267	40	13	-8.8
Reading, Pa	852	29	5	-2.7
Reno, Nev	158	21	1	-11.2

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August, 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Richmond, Va	830	24	34	1.2
Roanoke, Va	316	41	17	-6.7
Rochester, N.Y	1,631	33	33	-
Rockford, Ill	467	4	12	1.7
Sacramento, Calif	918	7	56	5.3
Saginaw, Mich	436	3	11	1.8
St. Joseph, Mo	263	39	2	-12.3
St. Louis, Mo.-Ill	4,881	42	47	0.1
Salt Lake City, Utah	652	15	20	0.7
San Angelo, Tex	114	10	13	2.4
San Antonio, Tex	1,153	64	12	-4.3
San Bernardino-Riverside-Ontario, Calif	1,570	58	37	-1.3
San Diego, Calif	1,694	26	33	0.4
San Francisco-Oakland, Calif	6,234	65	276	3.3
San Jose, Calif	1,080	83	7	-6.5
Santa Barbara, Calif	331	1	10	2.7
Savannah, Ga	399	1	13	3.0
Scranton, Pa	835	11	22	1.3
Seattle, Wash	2,384	19	88	2.9
Shreveport, La	562	8	3	-0.9
Sioux City, Iowa	299	5	13	2.6
Sioux Falls, S.Dak	174	-	3	1.7
South Bend, Ind	537	3	11	1.5
Spokane, Wash	701	42	15	-3.6
Springfield, Ill	440	9	24	3.3
Springfield, Mo	290	7	6	-0.3
Springfield, Ohio	322	18	7	-3.2
Springfield-Holyoke, Mass[1]	1,357	33	22	-0.8
Steubenville-Weirton, Ohio-W.Va	391	7	19	3.0
Stockton, Calif	528	33	13	-3.6
Syracuse, N.Y	1,450	20	63	2.9
Tacoma, Wash	658	80	7	-9.9
Tampa-St. Petersburg, Fla	2,440	40	37	-0.1
Terre Haute, Ind	329	2	8	1.8
Texarkana, Tex.-Ark	161	3	14	6.7
Toledo, Ohio	1,141	23	24	0.1
Topeka, Kans	300	29	7	-6.7
Trenton, N.J	664	27	15	-1.7
Tucson, Ariz	445	12	4	-1.8
Tulsa, Okla	840	10	37	3.2
Tuscaloosa, Ala	143	87	1	-37.4
Tyler, Tex	143	23	1	-13.3
Utica-Rome, N.Y	872	122	8	-11.5
Waco, Tex	322	22	10	-3.5
Washington, D.C.-Md.-Va	3,612	65	86	0.6
Waterloo, Iowa	264	8	5	-1.1
West Palm Beach, Fla	563	8	11	0.5
Wheeling, W.Va.-Ohio	500	4	57	10.5
Wichita, Kans	602	7	16	1.5
Wichita Falls, Tex	215	55	7	-17.8

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Wilkes-Barre—Hazleton, Pa	1,168	18	19	0.1
Wilmington, Del.-N.J	756	25	32	0.9
Winston-Salem, N.C	325	5	5	-
Worcester, Mass[1]	1,652	92	24	-3.9
York, Pa	545	8	33	4.5
Youngstown-Warren, Ohio	1,116	7	31	2.1
All other areas	156,743	3,309	2,482	-0.5
Usual place of residence				
All areas	387,763	991	991	...
Total SMSA's	240,397	633	678	0.0
Abilene, Tex	167	-	-	-
Akron, Ohio	1,010	3	-	-0.3
Albany, Ga	124	-	1	0.8
Albany-Schenectady-Troy, N.Y	1,731	-	12	0.7
Albuquerque, N.Mex	360	1	-	-0.3
Allentown-Bethlehem-Easton, Pa.-N.J	1,330	6	-	-0.4
Altoona, Pa	378	2	2	-
Amarillo, Tex	208	1	2	0.5
Ann Arbor, Mich	273	8	3	-1.8
Asheville, N.C	257	1	1	-
Atlanta, Ga	1,802	6	3	-0.2
Atlantic City, N.J	462	1	-	-0.2
Augusta, Ga.-S.C	327	-	1	0.3
Austin, Tex	301	4	-	-1.3
Bakersfield, Calif	460	-	2	0.4
Baltimore, Md	3,581	2	-	-0.1
Baton Rouge, La	350	-	1	0.3
Bay City, Mich	209	1	-	-0.5
Beaumont-Port Arthur, Tex	538	6	12	1.1
Billings, Mont	133	-	-	-
Binghamton, N.Y	494	3	-	-0.6
Birmingham, Ala	1,175	6	1	-0.4
Boston-Lowell-Lawrence, Mass[1]	7,844	26	29	0.0
Bridgeport-Stamford-Norwalk, Conn[1]	1,456	2	2	-
Brockton, Mass[1]	619	7	8	0.2
Brownsville-Harlingen-San Benito, Tex	215	-	-	-
Buffalo, N.Y	3,230	14	6	-0.2
Canton, Ohio	714	2	5	0.4
Cedar Rapids, Iowa	227	-	1	0.4
Champaign-Urbana, Ill	180	1	1	-
Charleston, S.C	289	6	1	-1.7
Charleston, W.Va	422	1	1	-
Charlotte, N.C	394	2	-	-0.5
Chattanooga, Tenn.-Ga	501	1	2	0.2
Chicago, Ill	14,683	18	46	0.2

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Cincinnati, Ohio-Ky	2,438	9	3	-0.2
Cleveland, Ohio	4,241	3	12	0.2
Colorado Springs, Colo	245	-	-	-
Columbia, S.C	398	7	-	-1.7
Columbus, Ga.-Ala	305	1	3	0.7
Columbus, Ohio	1,377	5	1	-0.3
Corpus Christi, Tex	312	2	-	-0.6
Dallas, Tex	1,822	19	3	-0.9
Davenport-Rock Island-Moline, Iowa-Ill	612	9	-	-1.4
Dayton, Ohio	1,351	1	1	-
Decatur, Ill	229	-	1	0.4
Denver, Colo	1,863	2	-	-0.1
Des Moines, Iowa	577	2	1	-0.2
Detroit, Mich	7,451	3	11	0.1
Dubuque, Iowa	171	-	2	1.2
Duluth-Superior, Minn.-Wis	718	8	3	-0.7
Durham, N.C	222	-	-	-
El Paso, Tex	427	2	16	3.3
Erie, Pa	624	-	-	-
Eugene, Oreg	231	-	2	0.9
Evansville, Ind.-Ky	429	-	-	-
Fall River-New Bedford, Mass[1]	896	1	6	0.6
Fargo-Moorhead, N.Dak.-Minn	165	1	1	-
Flint, Mich	711	2	-	-0.3
Fort Lauderdale-Hollywood, Fla	668	4	1	-0.4
Fort Smith, Ark	127	-	1	0.8
Fort Wayne, Ind	508	2	3	0.2
Fort Worth, Tex	1,000	-	2	0.2
Fresno, Calif	697	5	3	-0.3
Gadsden, Ala	148	3	-	-2.0
Galveston-Texas City, Tex	277	-	2	0.7
Gary-Hammond-East Chicago, Ind	1,133	1	10	0.8
Grand Rapids, Mich	749	-	3	0.4
Great Falls, Mont	159	1	-	-0.6
Green Bay, Wis	253	3	1	-0.8
Greensboro-High Point, N.C	371	-	1	0.3
Greenville, S.C	250	-	5	2.0
Hamilton-Middletown, Ohio	366	-	-	-
Harrisburg, Pa	848	1	11	1.2
Hartford-New Britain-Bristol, Conn[1]	1,487	5	2	-0.2
Honolulu, Hawaii	577	1	2	0.2
Houston, Tex	1,896	5	2	-0.2
Huntington-Ashland, W.Va.-Ky.-Ohio	515	2	5	0.6
Huntsville, Ala	144	1	-	-0.7
Indianapolis, Ind	1,539	1	22	1.4
Jackson, Mich	331	-	2	0.6
Jackson, Miss	335	-	1	0.3
Jacksonville, Fla	784	1	2	0.1
Jersey City, N.J	1,769	4	7	0.2
Johnstown, Pa	773	1	2	0.1

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Kalamazoo, Mich	310	1	1	-
Kansas City, Mo.-Kans	2,238	4	7	0.1
Kenosha, Wis	192	5	5	-
Knoxville, Tenn	573	1	1	-
Lake Charles, La	185	-	-	-
Lancaster, Pa	606	11	3	-1.3
Lansing, Mich	523	-	-	-
Laredo, Tex	118	-	1	0.8
Las Vegas, Nev	198	-	-	-
Lawton, Okla	99	1	5	4.0
Lexington, Ky	279	4	-	-1.4
Lima, Ohio	215	-	1	0.5
Lincoln, Nebr	340	13	2	-3.1
Little Rock-North Little Rock, Ark	391	3	2	-0.3
Lorain-Elyria, Ohio	378	2	1	-0.3
Los Angeles-Long Beach, Calif	13,321	10	16	0.0
Louisville, Ky.-Ind	1,554	-	4	0.3
Lubbock, Tex	179	-	7	3.9
Lynchburg, Va	202	3	-	-1.5
Macon, Ga	332	1	3	0.6
Madison, Wis	391	1	5	1.0
Manchester, N.H[1]	443	-	1	0.2
Memphis, Tenn	1,232	-	3	0.2
Miami, Fla	1,916	2	1	-0.1
Midland, Tex	61	-	-	-
Milwaukee, Wis	2,635	4	6	0.1
Minneapolis-St. Paul, Minn	2,998	5	3	-0.1
Mobile, Ala	509	1	2	0.2
Monroe, La	194	3	2	-0.5
Montgomery, Ala	274	1	3	0.7
Muncie, Ind	238	-	-	-
Muskegon-Muskegon Heights, Mich	320	-	-	-
Nashville, Tenn	736	4	2	-0.3
Newark, N.J	3,920	9	13	0.1
New Haven-Waterbury, Conn[1]	1,610	3	11	0.5
New Orleans, La	2,104	4	2	-0.1
Newport News-Hampton, Va	335	-	1	0.3
New York, N.Y	26,017	20	17	-0.0
Norfolk-Portsmouth, Va	949	-	-	-
Odessa, Tex	101	-	-	-
Ogden, Utah	169	-	-	-
Oklahoma City, Okla	871	7	7	-
Omaha, Nebr.-Iowa	922	2	21	2.1
Orlando, Fla	523	2	3	0.2
Paterson-Clifton-Passaic, N.J	2,529	13	5	-0.3
Pensacola, Fla	306	3	2	-0.3
Peoria, Ill	599	1	-	-0.2
Philadelphia, Pa.-N.J	10,302	25	23	-0.0
Phoenix, Ariz	955	7	7	-
Pittsburgh, Pa	5,645	13	9	-0.1

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Pittsfield, Mass[1]	403	-	-	-
Portland, Maine[1]	459	2	-	-0.4
Portland, Oreg.-Wash	1,968	-	-	-
Providence, R.I[1]	1,809	6	1	-0.3
Provo-Orem, Utah	168	1	-	-0.6
Pueblo, Colo	228	6	1	-2.1
Racine, Wis	283	2	2	-
Raleigh, N.C	266	-	-	-
Reading, Pa	804	1	-	-0.1
Reno, Nev	150	-	-	-
Richmond, Va	814	5	3	-0.2
Roanoke, Va	309	-	2	0.6
Rochester, N.Y	1,447	8	1	-0.5
Rockford, Ill	442	1	-	-0.2
Sacramento, Calif	879	1	11	1.1
Saginaw, Mich	422	-	1	0.2
St. Joseph, Mo	233	-	-	-
St. Louis, Mo.-Ill	4,579	11	3	-0.2
Salt Lake City, Utah	613	2	2	-
San Angelo, Tex	109	-	1	0.9
San Antonio, Tex	1,097	1	-	-0.1
San Bernardino-Riverside-Ontario, Calif	1,495	10	4	-0.4
San Diego, Calif	1,571	10	1	-0.6
San Francisco-Oakland, Calif	5,892	10	14	0.1
San Jose, Calif	1,015	7	3	-0.4
Santa Barbara, Calif	323	1	2	0.3
Savannah, Ga	390	1	-	-0.3
Scranton, Pa	756	2	5	0.4
Seattle, Wash	2,160	10	3	-0.3
Shreveport, La	544	3	1	-0.4
Sioux City, Iowa	269	-	2	0.7
Sioux Falls, S.Dak	167	-	-	-
South Bend, Ind	508	3	3	-
Spokane, Wash	612	4	5	0.2
Springfield, Ill	434	-	9	2.1
Springfield, Mo	270	-	1	0.4
Springfield, Ohio	298	-	2	0.7
Springfield-Holyoke, Mass[1]	1,300	3	5	0.2
Steubenville-Weirton, Ohio-W.Va	383	2	5	0.8
Stockton, Calif	496	1	2	0.2
Syracuse, N.Y	1,333	3	3	-
Tacoma, Wash	594	3	1	-0.3
Tampa-St. Petersburg, Fla	2,303	7	12	0.2
Terre Haute, Ind	328	-	-	-
Texarkana, Tex.-Ark	154	3	-	-1.9
Toledo, Ohio	1,074	-	5	0.5
Topeka, Kans	274	-	-	-
Trenton, N.J	627	-	1	0.2
Tucson, Ariz	433	1	3	0.5
Tulsa, Okla	823	3	4	0.1

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Tuscaloosa, Ala	137	-	-	-
Tyler, Tex	131	-	-	-
Utica-Rome, N.Y	778	5	3	-0.3
Waco, Tex	303	5	-	-1.6
Washington, D.C.-Md.-Va	3,397	16	3	-0.4
Waterloo, Iowa	259	2	5	1.1
West Palm Beach, Fla	542	2	-	-0.4
Wheeling, W.Va.-Ohio	470	2	14	2.5
Wichita, Kans	601	5	2	-0.5
Wichita Falls, Tex	204	2	6	1.9
Wilkes-Barre—Hazleton, Pa	1,137	7	7	-
Wilmington, Del.-N.J	718	-	1	0.1
Winston-Salem, N.C	324	-	-	-
Worcester, Mass[1]	1,485	9	5	-0.3
York, Pa	520	4	-	-0.8
Youngstown-Warren, Ohio	1,083	2	1	-0.1
All other areas	147,366	358	313	-0.0
Not at usual place of residence				
All areas	24,434	7,104	7,104	...
Total SMSA's	15,057	4,153	4,935	4.1
Abilene, Tex	12	4	9	31.3
Akron, Ohio	32	21	46	47.2
Albany, Ga	2	-	-	-
Albany-Schenectady-Troy, N.Y	102	19	64	37.2
Albuquerque, N.Mex	4	2	3	16.7
Allentown-Bethlehem-Easton, Pa.-N.J	68	8	16	10.5
Altoona, Pa	26	19	2	-37.8
Amarillo, Tex	2	14	5	-56.3
Ann Arbor, Mich	15	62	6	-72.7
Asheville, N.C	7	21	5	-57.1
Atlanta, Ga	67	18	59	48.2
Atlantic City, N.J	55	5	17	20.0
Augusta, Ga.-S.C	23	14	11	-8.1
Austin, Tex	28	51	6	-57.0
Bakersfield, Calif	7	-	14	200.0
Baltimore, Md	274	62	55	-2.1
Baton Rouge, La	6	7	11	30.8
Bay City, Mich	15	-	8	53.3
Beaumont-Port Arthur, Tex	8	2	6	40.0
Billings, Mont	1	-	1	100.0
Binghamton, N.Y	28	30	14	-27.6
Birmingham, Ala	25	2	36	125.9
Boston-Lowell-Lawrence, Mass[1]	869	45	100	6.0
Bridgeport-Stamford-Norwalk, Conn[1]	76	26	32	5.9
Brockton, Mass[1]	73	13	20	8.1

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Brownsville-Harlingen-San Benito, Tex	8	5	7	15.4
Buffalo, N.Y	238	43	47	1.4
Canton, Ohio	50	40	4	-40.0
Cedar Rapids, Iowa	14	-	2	14.3
Champaign-Urbana, Ill	12	1	12	84.6
Charleston, S.C	6	-	11	183.3
Charleston, W.Va	14	2	8	37.5
Charlotte, N.C	11	2	2	-
Chattanooga, Tenn.-Ga	11	5	8	18.8
Chicago, Ill	821	73	331	28.9
Cincinnati, Ohio-Ky	256	23	26	1.1
Cleveland, Ohio	165	9	82	42.0
Colorado Springs, Colo	-	13	19	46.2
Columbia, S.C	34	117	-	-77.5
Columbus, Ga.-Ala	4	5	16	122.2
Columbus, Ohio	113	30	23	-4.9
Corpus Christi, Tex	-	5	11	120.0
Dallas, Tex	58	24	51	32.9
Davenport-Rock Island-Moline, Iowa-Ill	21	23	10	-29.5
Dayton, Ohio	107	36	9	-18.9
Decatur, Ill	8	5	4	-7.7
Denver, Colo	79	20	66	46.5
Des Moines, Iowa	45	1	18	37.0
Detroit, Mich	397	23	130	25.5
Dubuque, Iowa	15	23	2	-55.3
Duluth-Superior, Minn.-Wis	23	8	34	83.9
Durham, N.C	-	1	11	1,000.0
El Paso, Tex	12	5	6	5.9
Erie, Pa	25	3	21	64.3
Eugene, Oreg	7	-	7	100.0
Evansville, Ind.-Ky	11	19	2	-56.7
Fall River-New Bedford, Mass[1]	102	12	10	-1.8
Fargo-Moorhead, N.Dak.-Minn	5	6	13	63.6
Flint, Mich	9	7	14	43.8
Fort Lauderdale-Hollywood, Fla	34	22	4	-32.1
Fort Smith, Ark	-	5	2	-60.0
Fort Wayne, Ind	13	23	24	2.8
Fort Worth, Tex	25	14	26	30.8
Fresno, Calif	18	1	10	47.4
Gadsden, Ala	2	7	3	-44.4
Galveston-Texas City, Tex	1	3	12	225.0
Gary-Hammond-East Chicago, Ind	33	-	25	75.8
Grand Rapids, Mich	59	34	17	-18.3
Great Falls, Mont	21	5	3	-7.7
Green Bay, Wis	-	5	11	120.0
Greensboro-High Point, N.C	21	11	8	-9.4
Greenville, S.C	19	-	7	36.8
Hamilton-Middletown, Ohio	34	-	7	20.6
Harrisburg, Pa	37	38	18	-26.7
Hartford-New Britain-Bristol, Conn[1]	64	11	39	37.3

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Honolulu, Hawaii	25	5	-	-16.7
Houston, Tex	38	13	29	31.4
Huntington-Ashland, W.Va.-Ky.-Ohio	14	21	10	-31.4
Huntsville, Ala	-	5	4	-20.0
Indianapolis, Ind	134	18	27	5.9
Jackson, Mich	14	5	13	42.1
Jackson, Miss	11	22	16	-18.2
Jacksonville, Fla	55	12	20	11.9
Jersey City, N.J	96	5	53	47.5
Johnstown, Pa	40	20	18	-3.3
Kalamazoo, Mich	12	28	1	-67.5
Kansas City, Mo.-Kans	92	22	87	57.0
Kenosha, Wis	-	-	5	-
Knoxville, Tenn	49	35	7	-33.3
Lake Charles, La	-	-	7	-
Lancaster, Pa	50	53	21	-31.1
Lansing, Mich	45	12	16	7.0
Laredo, Tex	-	-	7	-
Las Vegas, Nev	1	-	9	900.0
Lawton, Okla	-	-	1	-
Lexington, Ky	13	36	6	-61.2
Lima, Ohio	13	14	20	22.2
Lincoln, Nebr	15	8	1	-30.4
Little Rock-North Little Rock, Ark	19	29	2	-56.3
Lorain-Elyria, Ohio	16	15	6	-29.0
Los Angeles-Long Beach, Calif	1,262	80	187	8.0
Louisville, Ky.-Ind	89	37	12	-19.8
Lubbock, Tex	-	-	17	-
Lynchburg, Va	13	19	12	-21.9
Macon, Ga	4	15	8	-36.8
Madison, Wis	35	22	9	-22.8
Manchester, N.H[1]	7	2	9	77.8
Memphis, Tenn	65	22	15	-8.0
Miami, Fla	68	1	15	20.3
Midland, Tex	-	-	6	-
Milwaukee, Wis	127	19	27	5.5
Minneapolis-St. Paul, Minn	209	60	87	10.0
Mobile, Ala	11	34	19	-33.3
Monroe, La	1	-	7	700.0
Montgomery, Ala	6	15	7	-38.1
Muncie, Ind	4	-	6	150.0
Muskegon-Muskegon Heights, Mich	8	5	10	38.5
Nashville, Tenn	83	45	2	-33.6
Newark, N.J	243	107	102	-1.4
New Haven-Waterbury, Conn[1]	62	15	49	44.2
New Orleans, La	65	20	54	40.0
Newport News-Hampton, Va	31	34	7	-41.5
New York, N.Y	1,984	73	316	11.8
Norfolk-Portsmouth, Va	25	3	34	110.7
Odessa, Tex	-	-	2	-

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August, 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Ogden, Utah	10	1	4	27.3
Oklahoma City, Okla	44	48	8	-43.5
Omaha, Nebr.-Iowa	46	27	27	-
Orlando, Fla	32	3	5	5.7
Paterson-Clifton-Passaic, N.J	90	29	95	55.5
Pensacola, Fla	-	1	8	700.0
Peoria, Ill	45	51	8	-44.8
Philadelphia, Pa.-N.J	629	69	111	6.0
Phoenix, Ariz	39	35	15	-27.0
Pittsburgh, Pa	416	44	45	0.2
Pittsfield, Mass[1]	15	6	10	19.0
Portland, Maine[1]	6	9	23	93.3
Portland, Oreg.-Wash	162	29	67	19.9
Providence, R.I[1]	203	15	27	5.5
Provo-Orem, Utah	12	30	-	-71.4
Pueblo, Colo	17	102	-	-85.7
Racine, Wis	37	10	5	-10.6
Raleigh, N.C	1	40	13	-65.9
Reading, Pa	48	28	5	-30.3
Reno, Nev	8	21	1	-69.0
Richmond, Va	16	19	31	34.3
Roanoke, Va	7	41	15	-54.2
Rochester, N.Y	184	25	32	3.3
Rockford, Ill	25	3	12	32.1
Sacramento, Calif	39	6	45	86.7
Saginaw, Mich	14	3	10	41.2
St. Joseph, Mo	30	39	2	-53.6
St. Louis, Mo.-Ill	302	31	44	3.9
Salt Lake City, Utah	39	13	18	9.6
San Angelo, Tex	5	10	12	13.3
San Antonio, Tex	56	63	12	-42.9
San Bernardino-Riverside-Ontario, Calif	75	48	33	-12.2
San Diego, Calif	123	16	32	11.5
San Francisco-Oakland, Calif	342	55	262	52.1
San Jose, Calif	65	76	4	-51.1
Santa Barbara, Calif	8	-	8	100.0
Savannah, Ga	9	-	13	144.4
Scranton, Pa	79	9	17	9.1
Seattle, Wash	224	9	85	32.6
Shreveport, La	18	5	2	-13.0
Sioux City, Iowa	30	5	11	17.1
Sioux Falls, S.Dak	7	-	3	42.9
South Bend, Ind	29	-	8	27.6
Spokane, Wash	89	38	10	-22.0
Springfield, Ill	6	9	15	40.0
Springfield, Mo	20	7	5	-7.4
Springfield, Ohio	24	18	5	-31.0
Springfield-Holyoke, Mass[1]	57	30	17	-14.9
Steubenville-Weirton, Ohio-W.Va	8	5	14	69.2
Stockton, Calif	32	32	11	-32.8

Table 12. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, on census record only, and on death record only; and net difference rates for total matched, matched at usual place of residence, and not at usual place of residence: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	Number reporting			Net difference rate
	Same on both	Census record only	Death record only	
Syracuse, N.Y	117	17	60	32.1
Tacoma, Wash	64	77	6	-50.4
Tampa-St. Petersburg, Fla	137	33	25	-4.7
Terre Haute, Ind	1	2	8	200.0
Texarkana, Tex.-Ark	7	-	14	200.0
Toledo, Ohio	67	23	19	-4.4
Topeka, Kans	26	29	7	-40.0
Trenton, N.J	37	27	14	-20.3
Tucson, Ariz	12	11	1	-43.5
Tulsa, Okla	17	7	33	108.3
Tuscaloosa, Ala	6	87	1	-92.5
Tyler, Tex	12	23	1	-62.9
Utica-Rome, N.Y	94	117	5	-53.1
Waco, Tex	19	17	10	-19.4
Washington, D.C.-Md.-Va	215	49	83	12.9
Waterloo, Iowa	5	6	-	-54.5
West Palm Beach, Fla	21	6	11	18.5
Wheeling, W.Va.-Ohio	30	2	43	128.1
Wichita, Kans	1	2	14	400.0
Wichita Falls, Tex	11	53	1	-81.3
Wilkes-Barre—Hazleton, Pa	31	11	12	2.4
Wilmington, Del.-N.J	38	25	31	9.5
Winston-Salem, N.C	1	5	5	-
Worcester, Mass[1]	167	83	19	-25.6
York, Pa	25	4	33	100.0
Youngstown-Warren, Ohio	33	5	30	65.8
All other areas	9,377	2,951	2,169	-6.3

[1]Metropolitan State economic areas.

Table 13. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, census record only, and death record only; and net difference rates, by color: United States, May-August 1960

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	White				Nonwhite			
	Number reporting			Net difference rate	Number reporting			Net difference rate
	Same on both	Census record only	Death record only		Same on both	Census record only	Death record only	
All areas	366,216	7,308	7,308	...	42,579	723	723	...
Total SMSA's	226,877	4,341	5,056	0.3	26,521	395	516	0.4
Abilene, Tex	168	4	9	2.9	10	-	-	-
Akron, Ohio	981	24	45	2.1	60	-	1	1.7
Albany, Ga	63	-	1	1.6	62	-	-	-
Albany-Schenectady-Troy, N.Y	1,791	19	75	3.1	37	-	1	2.7
Albuquerque, N. Mex	342	3	2	-0.3	20	-	1	5.0
Allentown-Bethlehem-Easton, Pa.-N.J	1,375	13	16	0.2	7	1	-	-12.5
Altoona, Pa	400	21	4	-4.0	4	-	-	-
Amarillo, Tex	195	14	7	-3.3	14	1	-	-6.7
Ann Arbor, Mich	275	63	8	-16.3	13	5	1	-22.2
Asheville, N.C	227	16	5	-4.5	37	6	1	-11.6
Atlanta, Ga	1,331	21	52	2.3	514	3	10	1.4
Atlantic City, N.J	443	5	15	2.2	71	1	2	1.4
Augusta, Ga.-S.C	218	12	7	-2.2	124	2	4	1.6
Austin, Tex	280	40	5	-10.9	49	15	1	-21.9
Bakersfield, Calif	417	-	14	3.4	46	-	2	4.3
Baltimore, Md	3,002	38	51	0.4	823	26	4	-2.6
Baton Rouge, La	204	2	6	1.9	152	5	6	0.6
Bay City, Mich	222	1	8	3.1	1	-	-	-
Beaumont-Port Arthur, Tex	403	8	12	1.0	136	-	6	4.4
Billings, Mont	132	-	1	0.8	2	-	-	-
Binghamton, N.Y	508	33	14	-3.5	13	-	-	-
Birmingham, Ala	678	4	25	3.1	510	4	12	1.6
Boston-Lowell-Lawrence, Mass[1]	8,438	70	123	0.6	186	1	6	2.7
Bridgeport-Stamford-Norwalk, Conn[1]	1,462	25	33	0.5	51	2	1	-1.9
Brockton, Mass[1]	674	18	27	1.3	13	2	1	-6.7
Brownsville-Harlingen-San Benito, Tex	219	5	7	0.9	3	-	-	-
Buffalo, N.Y	3,272	56	51	-0.2	172	1	2	0.6
Canton, Ohio	718	34	8	-3.5	36	3	1	-5.1
Cedar Rapids, Iowa	240	-	3	1.3	1	-	-	-
Champaign-Urbana, Ill	185	2	13	5.9	6	-	-	-
Charleston, S.C	176	1	7	3.4	117	4	5	0.8
Charleston, W. Va	391	3	8	1.3	40	-	1	2.5
Charlotte, N.C	254	4	-	-1.6	151	-	2	1.3
Chattanooga, Tenn.-Ga	376	6	10	1.0	132	-	-	-
Chicago, Ill	13,489	82	338	1.9	1,853	4	39	1.9
Cincinnati, Ohio-Ky	2,338	32	25	-0.3	332	-	4	1.2
Cleveland, Ohio	3,854	11	83	1.9	527	1	11	1.9
Colorado Springs, Colo	235	12	19	2.8	7	-	-	-
Columbia, S.C	304	73	-	-19.4	123	51	-	-29.3
Columbus, Ga.-Ala	195	5	13	4.0	114	1	6	4.3
Columbus, Ohio	1,287	30	23	-0.5	191	5	1	-2.0
Corpus Christi, Tex	288	7	11	1.4	22	-	-	-
Dallas, Tex	1,559	38	42	0.3	307	4	12	2.6
Davenport-Rock Island-Moline, Iowa-Ill	617	32	9	-3.5	14	-	1	7.1
Dayton, Ohio	1,285	34	9	-1.9	165	3	1	-1.2
Decatur, Ill	224	5	3	-0.9	13	-	2	15.4
Denver, Colo	1,866	21	56	1.9	60	1	6	8.2
Des Moines, Iowa	593	3	18	2.5	23	-	1	4.3
Detroit, Mich	6,734	24	118	1.4	1,049	2	21	1.8
Dubuque, Iowa	185	23	4	-9.1	-	-	-	-
Duluth-Superior, Minn.-Wis	735	16	37	2.8	4	-	-	-

See footnote at end of table.

Table 13. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, census record only, and death record only; and net difference rates, by color: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	White				Nonwhite			
	Number reporting			Net difference rate	Number reporting			Net difference rate
	Same on both	Census record only	Death record only		Same on both	Census record only	Death record only	
Durham, N.C	159	-	10	6.3	62	1	1	-
El Paso, Tex	425	7	22	3.5	11	-	-	-
Erie, Pa	630	3	20	2.7	18	-	1	5.6
Eugene, Oreg	235	-	9	3.8	2	-	-	-
Evansville, Ind.-Ky	398	19	2	-4.1	36	-	-	-
Fall River-New Bedford, Mass[1]	968	13	16	0.3	22	-	-	-
Fargo-Moorhead, N. Dak.-Minn	169	7	14	4.0	-	-	-	-
Flint, Mich	641	8	12	0.6	75	1	2	1.3
Fort Lauderdale-Hollywood, Fla	614	23	2	-3.3	84	3	3	-
Fort Smith, Ark	113	5	2	-2.5	13	-	1	7.7
Fort Wayne, Ind	501	25	27	0.4	14	-	-	-
Fort Worth, Tex	875	13	23	1.1	141	1	5	2.8
Fresno, Calif	665	5	11	0.9	47	1	-	-2.1
Gadsden, Ala	126	9	-	-6.7	22	1	3	8.7
Galveston-Texas City, Tex	207	3	11	3.8	68	-	3	4.4
Gary-Hammond-East Chicago, Ind	983	1	32	3.2	175	-	2	1.1
Grand Rapids, Mich	769	33	20	-1.6	31	1	-	-3.1
Great Falls, Mont	176	6	3	-1.6	3	-	-	-
Green Bay, Wis	251	7	10	1.2	2	1	-	-33.3
Greensboro-High Point, N.C	291	11	6	-1.7	100	-	3	3.0
Greenville, S.C	194	-	7	3.6	73	-	5	6.8
Hamilton-Middletown, Ohio	376	-	7	1.9	19	-	-	-
Harrisburg, Pa	825	39	28	-1.3	55	-	1	1.8
Hartford-New Britain-Bristol, Conn[1]	1,483	15	39	1.6	53	1	2	1.9
Honolulu, Hawaii	159	2	-	-1.2	342	2	2	-
Houston, Tex	1,495	13	28	1.0	424	5	3	-0.5
Huntington-Ashland, W. Va.-Ky.-Ohio	486	22	15	-1.4	34	1	-	-2.9
Huntsville, Ala	116	6	2	-3.3	27	-	2	7.4
Indianapolis, Ind	1,400	19	48	2.0	263	-	1	0.4
Jackson, Mich	333	3	15	3.6	11	2	-	-15.4
Jackson, Miss	184	18	15	-1.5	157	4	2	-1.2
Jacksonville, Fla	584	12	16	0.7	252	1	6	2.0
Jersey City, N.J	1,771	8	58	2.8	78	-	2	2.6
Johnstown, Pa	801	19	19	-	9	2	1	-9.1
Kalamazoo, Mich	309	28	2	-7.7	7	1	-	-12.5
Kansas City, Mo.-Kans	1,991	18	89	3.5	314	3	3	-
Kenosha, Wis	185	5	10	2.6	6	-	-	-
Knoxville, Tenn	539	36	5	-5.4	80	-	2	2.5
Lake Charles, La	130	-	5	3.8	55	-	2	3.6
Lancaster, Pa	646	64	24	-5.6	7	-	-	-
Lansing, Mich	555	12	16	0.7	13	-	-	-
Laredo, Tex	113	-	8	7.1	-	-	-	-
Las Vegas, Nev	181	-	8	4.4	18	-	1	5.6
Lawton, Okla	90	1	6	5.5	9	-	-	-
Lexington, Ky	225	35	6	-11.2	67	5	-	-6.9
Lima, Ohio	217	13	21	3.5	10	1	-	-9.1
Lincoln, Nebr	343	19	3	-4.4	12	2	-	-14.3
Little Rock-North Little Rock, Ark	282	26	1	-8.1	125	6	3	-2.3
Lorain-Elyria, Ohio	369	15	6	-2.3	22	2	1	-4.2
Los Angeles-Long Beach, Calif	13,584	84	187	0.8	872	6	8	0.2
Louisville, Ky.-Ind	1,366	37	13	-1.7	263	-	3	1.1
Lubbock, Tex	164	-	22	13.4	15	-	2	13.3
Lynchburg, Va	165	21	10	-5.9	50	1	2	2.0
Macon, Ga	201	15	5	-4.6	134	1	6	3.7
Madison, Wis	414	21	14	-1.6	5	2	-	-28.6

See footnote at end of table.

Table 13. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, census record only, and death record only; and net difference rates, by color: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	White				Nonwhite			
	Number reporting			Net difference rate	Number reporting			Net difference rate
	Same on both	Census record only	Death record only		Same on both	Census record only	Death record only	
Manchester, N.H	450	1	10	2.0	-	1	-	-100.0
Memphis, Tenn	762	19	15	-0.5	523	3	1	-0.4
Miami, Fla	1,751	2	10	0.5	207	1	6	2.4
Midland, Tex	57	-	6	10.5	4	-	-	-
Milwaukee, Wis	2,659	22	33	0.4	96	1	-	-1.0
Minneapolis-St. Paul, Minn	3,113	65	90	0.8	78	-	-	-
Mobile, Ala	327	1	18	5.2	187	34	3	-14.0
Monroe, La	96	3	4	1.0	93	-	5	5.4
Montgomery, Ala	127	11	4	-5.1	150	5	6	0.6
Muncie, Ind	223	-	6	2.7	17	-	-	-
Muskegon-Muskegon Heights, Mich	293	5	9	1.3	32	-	1	3.1
Nashville, Tenn	589	39	2	-5.9	216	10	2	-3.5
Newark, N.J	3,674	109	107	-0.1	462	7	8	0.2
New Haven-Waterbury, Conn[1]	1,604	18	58	2.5	53	-	1	1.9
New Orleans, La	1,468	13	34	1.4	685	11	22	1.6
Newport News-Hampton, Va	244	25	3	-8.2	119	9	5	-3.1
New York, N.Y	25,332	90	307	0.9	2,461	2	26	1.0
Norfolk-Portsmouth, Va	658	3	19	2.4	310	-	15	4.8
Odessa, Tex	93	-	2	2.2	8	-	-	-
Ogden, Utah	170	1	4	1.8	7	-	-	-
Oklahoma City, Okla	809	54	12	-4.9	101	-	3	3.0
Omaha, Nebr.-Iowa	893	24	45	2.3	72	-	3	4.2
Orlando, Fla	463	5	6	0.2	89	-	2	2.2
Paterson-Clifton-Passaic, N.J	2,516	42	95	2.1	78	-	4	5.1
Pensacola, Fla	229	3	8	2.2	76	1	2	1.3
Peoria, Ill	612	51	8	-6.5	14	1	-	-6.7
Philadelphia, Pa.-N.J	9,336	88	117	0.3	1,512	6	15	0.6
Phoenix, Ariz	924	40	19	-2.2	67	2	2	-
Pittsburgh, Pa	5,571	53	53	-	453	4	1	-0.7
Pittsfield, Mass[1]	409	6	10	1.0	6	-	-	-
Portland, Maine[1]	457	11	23	2.6	-	-	-	-
Portland, Oreg.-Wash	2,063	28	67	1.9	47	1	-	-2.1
Providence, R.I[1]	1,969	20	28	0.4	21	-	-	-
Provo-Orem, Utah	179	30	-	-14.4	-	1	-	-100.0
Pueblo, Colo	239	100	1	-29.2	6	5	-	-45.5
Racine, Wis	312	11	7	-1.2	8	1	-	-11.1
Raleigh, N.C	165	39	9	-14.7	97	1	4	3.1
Reading, Pa	835	29	5	-2.8	14	-	-	-
Reno, Nev	148	21	1	-11.8	8	-	-	-
Richmond, Va	624	19	20	0.2	199	5	14	4.4
Roanoke, Va	265	36	15	-7.0	50	5	2	-5.5
Rochester, N.Y	1,588	33	32	-0.1	36	-	1	2.8
Rockford, Ill	451	3	10	1.5	15	1	-	-6.3
Sacramento, Calif	848	4	53	5.8	52	1	2	1.9
Saginaw, Mich	406	3	11	2.0	30	-	-	-
St. Joseph, Mo	249	38	2	-12.5	13	1	-	-7.1
St. Louis, Mo.-Ill	4,125	39	41	0.0	724	3	6	0.4
Salt Lake City, Utah	640	15	20	0.8	11	-	-	-
San Angelo, Tex	104	10	12	1.8	10	-	1	10.0
San Antonio, Tex	1,050	62	7	-4.9	99	2	5	3.0
San Bernardino-Riverside-Ontario, Calif	1,509	50	37	-0.8	56	3	-	-5.1
San Diego, Calif	1,601	26	32	0.4	79	-	1	1.3
San Francisco-Oakland, Calif	5,703	64	266	3.5	477	1	10	1.9
San Jose, Calif	1,052	81	7	-6.5	24	1	-	-4.0
Santa Barbara, Calif	326	1	10	2.8	5	-	-	-

See footnote at end of table.

Table 13. Number of matched deaths reporting same standard metropolitan statistical area (SMSA) on both census and death records, census record only, and death record only; and net difference rates, by color: United States, May-August 1960—Con.

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS. For definition of areas, see Technical Appendix]

Area	White				Nonwhite			
	Number reporting			Net difference rate	Number reporting			Net difference rate
	Same on both	Census record only	Death record only		Same on both	Census record only	Death record only	
Savannah, Ga	216	-	7	3.2	182	-	6	3.3
Scranton, Pa	827	11	22	1.3	5	-	-	-
Seattle, Wash	2,296	19	85	2.9	77	-	3	3.9
Shreveport, La	320	6	-	-1.8	237	2	3	0.4
Sioux City, Iowa	292	5	13	2.7	3	-	-	-
Sioux Falls, S. Dak	174	-	3	1.7	-	-	-	-
South Bend, Ind	507	3	10	1.4	24	-	1	4.2
Spokane, Wash	683	39	15	-3.3	14	3	-	-17.6
Springfield, Ill	426	9	24	3.4	12	-	-	-
Springfield, Mo	278	5	6	0.4	12	2	-	-14.3
Springfield, Ohio	272	16	4	-4.2	43	-	3	7.0
Springfield-Holyoke, Mass[1]	1,316	33	17	-1.2	33	-	-	-
Steubenville-Weirton, Ohio-W. Va	368	7	18	2.9	20	-	1	5.0
Stockton, Calif	484	27	10	-3.3	40	4	3	-2.3
Syracuse, N.Y	1,421	20	60	2.8	21	-	1	4.8
Tacoma, Wash	637	78	7	-9.9	19	2	-	-9.5
Tampa-St. Petersburg, Fla	2,190	39	32	-0.3	233	1	5	1.7
Terre Haute, Ind	312	2	8	1.9	17	-	-	-
Texarkana, Tex-Ark	117	2	9	5.9	44	1	5	8.9
Toledo, Ohio	1,049	23	24	0.1	84	-	-	-
Topeka, Kans	270	28	6	-7.4	29	1	-	-3.3
Trenton, N.J	594	21	13	-1.3	68	6	2	-5.4
Tucson, Ariz	417	11	3	-1.9	27	1	1	-
Tulsa, Okla	733	9	34	3.4	93	1	3	2.1
Tuscaloosa, Ala	84	82	-	-49.4	59	3	1	-3.2
Tyler, Tex	107	18	-	-14.4	36	5	1	-9.8
Utica-Rome, N.Y	855	122	8	-11.7	11	-	-	-
Waco, Tex	247	18	6	-4.5	69	4	4	-
Washington, D.C.-Md.-Va	2,531	63	67	0.2	1,039	2	19	1.6
Waterloo, Iowa	255	8	5	-1.1	9	-	-	-
West Palm Beach, Fla	467	4	10	1.3	91	4	1	-3.2
Wheeling, W. Va.-Ohio	488	4	55	10.4	10	-	2	20.0
Wichita, Kans	562	7	14	1.2	32	-	2	6.3
Wichita Falls, Tex	195	54	7	-18.9	19	1	-	-5.0
Wilkes-Barre—Hazleton, Pa	1,160	18	19	0.1	2	-	-	-
Wilmington, Del.-N.J	649	19	26	1.0	104	6	6	-
Winston-Salem, N.C	205	5	5	-	119	-	-	-
Worcester, Mass[1]	1,636	88	24	-3.7	6	4	-	-40.0
York, Pa	533	8	33	4.6	10	-	-	-
Youngstown-Warren, Ohio	1,024	7	27	1.9	87	-	4	4.6
All other areas	139,339	2,967	2,252	-0.5	16,058	328	207	-0.7

[1]Metropolitan State economic areas.

Table 14. Number of unmatched deaths for standard metropolitan statistical areas (SMSA's), by color: United States, May-August 1960

[For definition of areas, see Technical Appendix]

Area	Total	White	Nonwhite
All areas	[1]112,656	93,319	19,336
Total SMSA's	68,731	56,613	12,117
Abilene, Tex	60	57	3
Akron, Ohio	268	236	32
Albany, Ga	48	23	25
Albany-Schenectady-Troy, N.Y	381	367	14
Albuquerque, N.Mex	165	158	7
Allentown-Bethlehem-Easton, Pa.-N.J	214	207	7
Altoona, Pa	93	92	1
Amarillo, Tex	70	64	6
Ann Arbor, Mich	66	57	9
Asheville, N.C	183	158	25
Atlanta, Ga	677	458	219
Atlantic City, N.J	132	94	38
Augusta, Ga.-S.C	185	106	79
Austin, Tex	137	115	22
Bakersfield, Calif	174	154	20
Baltimore, Md	1,274	876	398
Baton Rouge, La	131	69	62
Bay City, Mich	57	57	-
Beaumont-Port Arthur, Tex	177	133	44
Billings, Mont	60	60	-
Binghampton, N.Y	114	113	1
Birmingham, Ala	622	351	271
Boston-Lowell-Lawrence, Mass[2]	1,724	1,642	82
Bridgeport-Stamford-Norwalk, Conn[2]	344	308	36
Brockton, Mass[2]	158	151	7
Brownsville-Harlingen-San Benito, Tex	116	114	2
Buffalo, N.Y	620	567	53
Canton, Ohio	217	193	24
Cedar Rapids, Iowa	92	92	-
Champaign-Urbana, Ill	55	53	2
Charleston, S.C	205	89	116
Charleston, W.Va	146	130	16
Charlotte, N.C	201	133	68
Chattanooga, Tenn.-Ga	281	204	77
Chicago, Ill	3,979	3,077	902
Cincinnati, Ohio-Ky	635	516	119
Cleveland, Ohio	869	681	188
Colorado Springs, Colo	75	74	1
Columbia, S.C	146	71	75
Columbus, Ga.-Ala	169	113	56
Columbus, Ohio	321	273	48
Corpus Christi, Tex	113	105	8
Dallas, Tex	663	488	175
Davenport-Rock Island-Moline, Iowa-Ill	147	145	2
Dayton, Ohio	349	298	51
Decatur, Ill	75	73	2
Denver, Colo	425	400	25
Des Moines, Iowa	125	115	10
Detroit, Mich	1,545	1,163	382
Dubuque, Iowa	16	16	-

See footnotes at end of table.

Table 14. Number of unmatched deaths for standard metropolitan statistical areas (SMSA's), by color: United States, May-August 1960—Con.

[For definition of areas, see Technical Appendix]

Area	Total	White	Nonwhite
Duluth-Superior, Minn.-Wis	167	165	2
Durham, N.C	96	55	41
El Paso, Tex	174	171	3
Erie, Pa	159	156	3
Eugene, Oreg	117	116	1
Evansville, Ind.-Ky	115	97	18
Fall River-New Bedford, Mass[2]	120	117	3
Fargo-Moorhead, N.Dak.-Minn	64	64	-
Flint, Mich	152	135	17
Fort Lauderdale-Hollywood, Fla	226	156	70
Fort Smith, Ark	67	61	6
Fort Wayne, Ind	73	68	5
Fort Worth, Tex	400	337	63
Fresno, Calif	228	205	23
Gadsden, Ala	109	95	14
Galveston-Texas City, Tex	133	96	37
Gary-Hammond-East Chicago, Ind	262	197	65
Grand Rapids, Mich	155	149	6
Great Falls, Mont	49	45	4
Green Bay, Wis	69	67	2
Greensboro-High Point, N.C	143	102	41
Greenville, S.C	185	140	45
Hamilton-Middletown, Ohio	78	74	4
Harrisburg, Pa	178	157	21
Hartford-New Britain-Bristol, Conn[2]	369	345	24
Honolulu, Hawaii	211	78	133
Houston, Tex	810	594	216
Huntington-Ashland, W.Va.-Ky.-Ohio	173	167	6
Huntsville, Ala	106	71	35
Indianapolis, Ind	433	334	99
Jackson, Mich	43	39	4
Jackson, Miss	125	70	55
Jacksonville, Fla	307	194	113
Jersey City, N.J	386	336	50
Johnstown, Pa	122	115	7
Kalamazoo, Mich	76	76	-
Kansas City, Mo.-Kans	656	544	112
Kenosha, Wis	71	71	-
Knoxville, Tenn	319	284	35
Lake Charles, La	94	74	20
Lancaster, Pa	135	134	1
Lansing, Mich	159	153	6
Laredo, Tex	40	40	-
Las Vegas, Nev	116	100	16
Lawton, Okla	41	34	7
Lexington, Ky	78	52	26
Lima, Ohio	30	26	4
Lincoln, Nebr	89	89	-
Little Rock-North Little Rock, Ark	226	130	96
Lorain-Elyria, Ohio	127	119	8
Los Angeles-Long Beach, Calif	3,559	3,189	370
Louisville, Ky.-Ind	517	401	116
Lubbock, Tex	70	65	5
Lynchburg, Va	88	62	26
Macon, Ga	128	74	54

See footnotes at end of table.

Table 14. Number of unmatched deaths for standard metropolitan statistical areas (SMSA's), by color: United States, May-August 1960—Con.

[For definition of areas, see Technical Appendix]

Area	Total	White	Nonwhite
Madison, Wis	71	71	-
Manchester, N.H[2]	132	132	-
Memphis, Tenn	387	170	217
Miami, Fla	724	601	123
Midland, Tex	38	32	6
Milwaukee, Wis	526	490	36
Minneapolis-St. Paul, Minn	796	777	19
Mobile, Ala	223	134	89
Monroe, La	109	61	48
Montgomery, Ala	155	79	76
Muncie, Ind	80	78	2
Muskegon-Muskegon Heights, Mich	35	29	6
Nashville, Tenn	253	173	80
Newark, N.J	987	773	214
New Haven-Waterbury, Conn[2]	336	311	25
New Orleans, La	557	315	242
Newport News-Hampton, Va	123	62	61
New York, N.Y	[1]7,119	5,746	1,372
Norfolk-Portsmouth, Va	389	220	169
Odessa, Tex	43	40	3
Ogden, Utah	44	43	1
Oklahoma City, Okla	339	280	59
Omaha, Nebr.-Iowa	233	199	34
Orlando, Fla	209	161	48
Paterson-Clifton-Passaic, N.J	513	483	30
Pensacola, Fla	140	94	46
Peoria, Ill	175	169	6
Philadelphia, Pa.-N.J	2,946	2,301	645
Phoenix, Ariz	545	493	52
Pittsburgh, Pa	1,554	1,414	140
Pittsfield, Mass[2]	68	68	-
Portland, Maine[2]	143	141	2
Portland, Oreg.-Wash	582	565	17
Providence, R.I[2]	391	380	11
Provo-Orem, Utah	30	30	-
Pueblo, Colo	82	78	4
Racine, Wis	52	51	1
Raleigh, N.C	107	66	41
Reading, Pa	110	105	5
Reno, Nev	96	93	3
Richmond, Va	325	210	115
Roanoke, Va	101	84	17
Rochester, N.Y	224	208	16
Rockford, Ill	99	95	4
Sacramento, Calif	350	320	30
Saginaw, Mich	81	68	13
St. Joseph, Mo	59	56	3
St. Louis, Mo.-Ill	1,432	1,109	323
Salt Lake City, Utah	191	185	6
San Angelo, Tex	60	56	4
San Antonio, Tex	389	346	43
San Bernardino-Riverside-Ontario, Calif	557	522	35
San Diego, Calif	620	589	31
San Francisco-Oakland, Calif	1,561	1,379	182
San Jose, Calif	314	308	6

See footnotes at end of table.

Table 14. Number of unmatched deaths for standard metropolitan statistical areas (SMSA's), by color: United States, May-August 1960—Con.

[For definition of areas, see Technical Appendix]

Area	Total	White	Nonwhite
Santa Barbara, Calif	117	114	3
Savannah, Ga	121	70	51
Scranton, Pa	119	115	4
Seattle, Wash	803	764	39
Shreveport, La	247	126	121
Sioux City, Iowa	82	82	-
Sioux Falls, S.Dak	38	37	1
South Bend, Ind	118	102	16
Spokane, Wash	177	166	11
Springfield, Ill	113	107	6
Springfield, Mo	116	114	2
Springfield, Ohio	82	73	9
Springfield-Holyoke, Mass[2]	187	177	10
Steubenville-Weirton, Ohio-W.Va	127	116	11
Stockton, Calif	225	196	29
Syracuse, N.Y	233	221	12
Tacoma, Wash	237	225	12
Tampa-St. Petersburg, Fla	598	501	97
Terre Haute, Ind	98	93	5
Texarkana, Tex.-Ark	81	59	22
Toledo, Ohio	303	277	26
Topeka, Kans	91	85	6
Trenton, N.J	173	141	32
Tucson, Ariz	202	187	15
Tulsa, Okla	251	207	44
Tuscaloosa, Ala	127	69	58
Tyler, Tex	94	57	37
Utica-Rome, N.Y	223	219	4
Waco, Tex	118	95	23
Washington, D.C.-Md.-Va	1,180	728	452
Waterloo, Iowa	62	60	2
West Palm Beach, Fla	198	121	77
Wheeling, W.Va.-Ohio	164	158	6
Wichita, Kans	164	151	13
Wichita Falls, Tex	65	56	9
Wilkes-Barre—Hazleton, Pa	203	201	2
Wilmington, Del.-N.J	232	179	53
Winston-Salem, N.C	146	94	52
Worchester, Mass[2]	280	280	-
York, Pa	139	133	6
Youngstown-Warren, Ohio	270	240	30
All other areas	43,925	36,706	7,219

[1] Includes one machine error.

[2] Metropolitan State economic areas.

NOTE: For explanation of why white and nonwhite do not add to the total, see Technical Appendix.

Table 15. Net difference rates, by color, sex,and age: United States and each geographic division, May-August 1960

[Census record used as a base. Minus (-) sign indicates more assignments by census than by NCHS]

Color, sex, and age	Total	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Total										
1-4 years	-2.1	0.6	-0.4	-2.3	-3.4	-2.9	-2.5	-3.4	-1.5	-2.0
5-14 years	-0.3	-2.6	-0.6	0.6	-	-0.1	-1.3	-0.2	1.3	-0.9
15-24 years	-0.8	0.7	-1.0	-1.1	1.8	-2.1	-0.6	0.8	-0.3	-2.9
25-34 years	-3.9	-12.4	-4.3	-3.5	-4.5	-1.1	-5.6	-2.6	-4.4	-3.9
35-44 years	-3.6	-5.5	-5.5	-3.4	-4.3	-2.0	-2.1	-2.2	-3.5	-3.3
45-54 years	0.3	-0.8	-0.9	-0.3	-0.3	3.5	1.0	1.6	0.1	-1.2
55-64 years	1.8	-0.5	0.7	1.0	-0.6	6.6	5.8	4.4	-0.2	-0.3
65-74 years	-1.3	-1.0	-0.7	-1.4	-2.6	-1.6	-1.4	-0.6	-0.8	-1.4
75-84 years	0.7	2.4	1.9	0.9	1.8	-3.3	-0.3	-1.3	1.1	2.3
85-99 years	1.0	1.6	0.3	2.4	3.5	-1.6	-2.5	-2.2	3.1	2.6
White male										
1-4 years	-0.6	4.3	0.3	-1.3	-3.1	0.6	-	-2.9	-	-0.9
5-14 years	0.2	2.9	1.7	0.9	0.4	-0.6	-2.9	-1.6	-	-1.0
15-24 years	0.2	1.1	-0.9	-	-0.3	-0.2	2.4	2.2	-0.4	-
25-34 years	-4.0	-16.0	-5.0	-3.1	-3.0	-2.2	-2.9	-3.3	-2.9	-3.0
35-44 years	-4.1	-5.3	-5.2	-4.5	-3.6	-2.6	-3.1	-4.6	-3.0	-3.1
45-54 years	-1.2	-1.8	-1.2	-1.5	-0.9	-0.6	0.3	-1.6	-0.4	-1.5
55-64 years	0.1	-0.0	0.1	0.7	-0.5	-0.1	1.0	0.1	-0.3	-0.3
65-74 years	-0.3	1.8	-0.1	-0.9	-1.0	-0.1	-1.1	-0.4	-1.0	0.0
75-84 years	1.2	0.9	1.6	0.9	0.8	0.6	1.2	1.7	2.1	1.7
85-99 years	2.0	-2.1	1.0	3.9	4.1	2.2	-0.2	2.4	2.1	0.7
White female										
1-4 years	-1.2	3.6	0.5	-2.7	-3.1	-0.8	4.0	-1.5	-	-4.0
5-14 years	-1.5	-12.8	-6.0	1.7	-	-0.6	-2.0	0.8	2.6	-0.6
15-24 years	-1.8	2.4	-1.5	-3.6	5.8	-1.3	-2.1	-1.6	-3.4	-5.6
25-34 years	-4.9	-9.4	-2.1	-4.9	-7.6	-4.2	-9.0	-4.0	-8.4	-3.8
35-44 years	-4.0	-5.7	-6.9	-1.6	-6.0	-2.2	-1.9	-2.4	-2.3	-4.0
45-54 years	-1.3	0.1	-2.4	-0.5	-	-1.9	-4.3	0.5	-1.0	-1.2
55-64 years	-0.6	-1.4	0.2	-1.2	-2.3	0.3	0.1	-0.1	-0.3	-0.7
65-74 years	-2.8	-4.4	-1.3	-1.9	-5.2	-3.3	-4.8	-3.9	-0.5	-3.6
75-84 years	2.4	3.7	2.6	1.6	3.4	-1.2	4.2	2.8	-0.5	2.8
85-99 years	2.8	3.2	0.8	2.4	3.8	-5.9	3.1	1.4	5.2	4.1
Nonwhite male										
1-4 years	-1.5	-20.0	7.6	2.9	-	-4.1	-8.2	-4.8	6.7	-
5-14 years	0.4	33.3	2.9	-5.2	6.3	0.6	-	1.3	-	-2.8
15-24 years	-2.9	-12.5	-3.2	3.2	6.3	-3.5	-2.9	-	4.5	-18.0
25-34 years	-3.2	12.5	-7.8	-6.1	3.2	-0.4	-3.9	1.9	-12.5	-7.4
35-44 years	-1.9	-7.7	-2.9	-3.5	-8.3	2.9	-4.3	-3.2	-5.6	-4.3
45-54 years	6.2	3.3	4.3	5.2	5.6	9.0	5.3	7.2	16.7	-1.0
55-64 years	13.6	-	4.3	10.0	9.6	23.8	12.0	17.9	-2.8	4.0
65-74 years	2.1	3.6	0.8	-1.8	2.6	-0.1	5.6	6.5	2.1	2.3
75-84 years	-15.2	-	-6.6	-10.3	-6.3	-28.1	-11.7	-19.6	7.3	0.4
85-99 years	-22.6	-4.8	-20.5	-15.0	-22.2	-35.2	-15.7	-29.1	-20.8	2.4
Nonwhite female										
1-4 years	-2.2	-	-5.0	-3.3	12.5	-	-2.3	-1.9	-16.7	-2.9
5-14 years	-2.3	-	-2.4	-4.9	-28.6	-3.4	1.9	-2.7	-	3.7
15-24 years	-4.8	-33.3	2.3	2.5	40.0	-11.2	-8.1	-3.6	-	-4.2
25-34 years	-2.4	7.1	-5.3	-1.5	-20.0	4.3	-9.0	-5.6	22.2	-15.0
35-44 years	-1.1	-7.7	-2.1	-5.0	7.7	-4.0	2.2	10.4	-17.4	1.9
45-54 years	13.3	-	9.6	9.4	2.4	22.2	6.8	18.0	21.4	4.3
55-64 years	23.6	-	11.1	19.1	12.1	32.5	32.5	27.7	10.3	6.8
65-74 years	-4.5	-10.0	-7.1	-7.1	-6.0	-5.9	-3.5	2.6	-5.1	-6.6
75-84 years	-17.2	13.9	-5.4	-13.2	-2.6	-27.8	-15.6	-25.7	4.5	3.8
85-99 years	-20.8	6.7	-13.8	-13.9	-7.2	-32.0	-18.0	-25.7	-13.3	-4.6

NOTE: Figures with color and/or sex not stated are included in the total, but are not shown separately.

Table 16. Net difference rates for white males for stage I and stage II, by age: South Atlantic Division, May-August 1960

[Census record used as base. Minus (-) sign indicates more assignments by census than NCHS. For explanation of stage I and stage II, see Technical Appendix]

Age	Stage I		Stage II	
	Age not stated and not valid included	Age not stated and not valid excluded	Age not stated and not valid allocated	Age not stated and not valid unallocated
1-4 years	1.1	0.6	-6.3	-6.3
5-14 years	-	-0.6	1.3	-
15-24 years	0.5	-0.2	-3.8	-2.9
25-34 years	-1.0	-2.2	0.8	2.3
35-44 years	-1.7	-2.6	-5.7	-4.5
45-54 years	0.2	-0.6	-3.8	-2.7
55-64 years	0.9	-0.1	-0.5	-0.8
65-74 years	0.6	-0.1	0.9	0.7
75-84 years	1.4	-0.6	1.8	1.1
85-99 years	3.1	2.2	...	...
85 years and over	...	...	5.2	5.5
Not stated	-100.0	...	...	...
Not valid	-42.9	...	...	...

NOTE: Stage I, but not stage II, excludes decedents whose age was stated to be 100 years or over on the census record.

Table 17. Number of matched deaths reporting same race on both census and death records, census record only, and death record only; and net and gross difference rates: United States and each region, May-August 1960

Region and race	Number reporting			Census record as base				Death record as base			
	Same on both	Census record only	Death record only	Net difference[1]		Gross difference		Net difference[2]		Gross difference	
				Number	Rate	Number	Rate	Number	Rate	Number	Rate
All regions											
White	353,612	847	3,621	2,774	0.8	4,468	1.3	-2,774	-0.8	4,468	1.3
Nonwhite	37,110	881	1,299	418	1.1	2,180	5.7	-418	-1.1	2,180	5.7
Negro	35,309	685	1,092	407	1.1	1,777	4.9	-407	-1.1	1,777	4.9
Indian	602	154	83	-71	-9.4	237	31.3	71	10.4	237	34.6
Japanese	562	19	14	-5	-0.9	33	5.7	5	0.9	33	5.7
Chinese	315	33	17	-16	-4.6	50	14.4	16	4.8	50	15.1
Filipino	138	56	11	-45	23.2	67	34.5	45	30.2	67	45.0
Other nonwhite	69	49	197	148	125.4	246	208.5	-148	-55.6	246	92.5
Not stated and not valid	...	3,214	22	-3,192	-99.3	3,236	100.7	3,192	14,509.1	3,236	14,709.1
Northeast											
White	107,551	275	1,007	732	0.7	1,282	1.2	-732	-0.7	1,282	1.2
Nonwhite	5,467	245	332	87	1.5	577	10.1	-87	-1.5	577	9.9
Negro	5,313	229	335	106	1.9	564	10.2	-106	-1.9	564	10.0
Indian	24	21	10	-11	-24.4	31	68.9	11	32.4	31	91.2
Japanese	8	-	1	1	12.5	1	12.5	-1	-11.1	1	11.1
Chinese	74	13	3	-10	-11.5	16	18.4	10	13.0	16	20.8
Filipino	3	15	1	-14	-77.8	16	88.9	14	350.0	16	400.0
Other nonwhite	1	11	26	15	125.0	37	308.3	-15	-55.6	37	137.0
Not stated and not valid	...	824	5	-819	-99.4	829	100.6	819	16,380.0	829	16,580.0
North Central											
White	113,116	196	1,117	921	0.8	1,313	1.2	-921	-0.8	1,313	1.1
Nonwhite	6,587	204	263	59	0.9	467	6.9	-59	-0.9	467	6.8
Negro	6,401	153	257	104	1.6	410	6.3	-104	-1.6	410	6.2
Indian	110	51	14	-37	-23.0	65	40.4	37	29.8	65	52.4
Japanese	28	3	1	-2	-6.5	4	12.9	2	6.9	4	13.8
Chinese	21	8	2	-6	-20.7	10	34.5	6	26.1	10	43.5
Filipino	5	3	2	-1	-12.5	5	62.5	1	14.3	5	71.4
Other nonwhite	-	8	9	1	12.5	17	212.5	-1	-11.1	17	188.9
Not stated and not valid	...	989	9	-980	-99.1	998	100.9	980	10,888.9	998	11,088.9
South											
White	81,809	274	926	652	0.8	1,200	1.5	-652	-0.8	1,200	1.5
Nonwhite	22,369	262	448	186	0.8	710	3.1	-186	-0.8	710	3.1
Negro	22,188	220	433	213	1.0	653	2.9	-213	-0.9	653	2.9
Indian	146	38	20	-18	-9.8	58	31.5	18	10.8	58	34.9
Japanese	5	3	2	-1	-12.5	5	62.5	1	14.3	5	71.4
Chinese	15	3	1	-2	-11.1	4	22.2	2	12.5	4	25.0
Filipino	-	7	2	-5	-71.4	9	128.6	5	250.0	9	450.0
Other nonwhite	-	6	5	-1	-16.7	11	183.3	1	20.0	11	220.0
Not stated and not valid	...	842	4	-838	-99.5	846	100.5	838	20,950.0	846	21,150.0
West											
White	51,136	102	571	469	0.9	673	1.3	-469	-0.9	673	1.3
Nonwhite	2,687	170	256	86	3.0	426	14.9	-86	-2.9	426	14.5
Negro	1,407	83	67	-16	-1.1	150	10.1	16	1.1	150	10.2
Indian	322	44	39	-5	-1.4	83	22.7	5	1.4	83	23.0
Japanese	521	13	10	-3	-0.6	23	4.3	3	0.6	23	4.3
Chinese	205	9	11	2	0.9	20	9.3	-2	-0.9	20	9.3
Filipino	130	31	6	-25	-15.5	37	23.0	25	18.4	37	27.2
Other nonwhite	68	24	157	133	144.6	181	196.7	-133	-59.1	181	80.4
Not stated and not valid	...	559	4	-555	-99.3	563	100.7	555	13,875.0	563	14,075.0

[1]Minus sign indicates more assignments by census than by NCHS.

[2]Minus sign indicates more assignments by NCHS than by census.

NOTE: For explanation of why white and nonwhite do not add to the total, see Technical Appendix.

Table 18. Number of matched and unmatched deaths and proportion unmatched, by race: United States and each region, May-August 1960

Region and race	Matched deaths according to:		Unmatched deaths	Proportion unmatched	
	Census record	Death record		Census record	Death record
All regions					
All races	395,664	395,664	100,412	20.2	20.2
White	354,459	357,233	84,560	19.3	19.1
Nonwhite	37,991	38,409	15,851	29.4	29.2
Negro	35,994	36,401	14,913	29.3	29.1
Indian	756	685	432	36.4	38.7
Japanese	581	576	131	18.4	18.5
Chinese	348	332	153	30.5	31.5
Filipino	194	149	112	36.6	42.9
Other nonwhite	118	266	110	48.2	29.3
Not stated and not valid	3,214	22	1	0.0	4.3
Northeast					
All races	114,362	114,362	24,321	17.5	17.5
White	107,826	108,558	21,821	16.8	16.7
Nonwhite	5,712	5,799	2,499	30.4	30.1
Negro	5,542	5,648	2,410	30.3	29.9
Indian	45	34	16	26.2	32.0
Japanese	8	9	4	33.3	30.8
Chinese	87	77	58	40.0	43.0
Filipino	18	4	2	10.0	33.3
Other nonwhite	12	27	9	42.9	25.0
Not stated and not valid	824	5	1	0.1	16.7
North Central					
All races	121,092	121,092	26,318	17.9	17.9
White	113,312	114,233	23,792	17.4	17.2
Nonwhite	6,791	6,850	2,526	27.1	26.9
Negro	6,554	6,658	2,386	26.7	26.4
Indian	161	124	105	39.5	45.9
Japanese	31	29	7	18.4	19.4
Chinese	29	23	15	34.1	39.5
Filipino	8	7	3	27.3	30.0
Other nonwhite	8	9	10	55.6	52.6
Not stated and not valid	989	9	-	-	-
South					
All races	105,556	105,556	34,279	24.5	24.5
White	82,083	82,735	24,681	23.1	23.0
Nonwhite	22,631	22,817	9,598	29.8	29.6
Negro	22,408	22,621	9,487	29.7	29.5
Indian	184	166	83	31.1	33.3
Japanese	8	7	3	27.3	30.0
Chinese	18	16	15	45.5	48.4
Filipino	7	2	4	36.4	66.7
Other nonwhite	6	5	6	50.0	54.5
Not stated and not valid	842	4	-	-	-
West					
All races	54,654	54,654	15,494	22.1	22.1
White	51,238	51,707	14,266	21.8	21.6
Nonwhite	2,857	2,943	1,228	30.1	29.4
Negro	1,490	1,474	630	29.7	29.9
Indian	366	361	228	38.4	38.7
Japanese	534	531	117	18.0	18.1
Chinese	214	216	65	23.3	23.1
Filipino	161	136	103	39.0	43.1
Other nonwhite	92	225	85	48.0	27.4
Not stated and not valid	559	4	-	-	-

TECHNICAL APPENDIX

Design of Study

The study includes a sample of registered deaths which occurred during the 4-month period, May-August, 1960. The following age-color groups were included:

1. All nonwhite decedents
2. All white decedents under 65 years of age
3. One-half of white decedents 65-74 years of age
4. One-fifth of white decedents 75 years and over

The records for white decedents were systematically selected from the regular mortality punched-card file using the randomly assigned terminal digits of the certificate numbers. Sample groups three and four of both the matched and unmatched records were inflated by two and five, respectively, during the processing operation.

As indicated in table I, the actual count of death certificates included in the match operation was 340,033. Of this number, 495 records were excluded because of "impossible" codes—483 matched and 12 records unmatched.

Also included in table I are the inflated counts of records by match status.

A seasonal bias may be introduced since the deaths were limited to May-August. But an examination of "nonmatch" rates by month, particularly April and September, for a previous study involving the occupation item on the census and death records,[7] resulted in a decision to limit this study to the 4-month period.

Table I. Number and percent distribution of records included in the 1960 Comparison Study: United States, May-August 1960

Result of match operation	Actual count of records		Inflated count of records	
	Number	Percent distribution	Number	Percent distribution
Total	340,033	100.0	533,747	100.0
Matched	262,483	77.2	420,292	78.7
Unmatched	77,055	22.7	112,656	21.1
Rejects[1]	[2]495	0.1	[3]799	0.1

[1]Includes impossible codes not included in the study.

[2]Includes 483 matched records and 12 unmatched.

[3]Includes 782 matched records and 17 unmatched.

Criteria for Matching

Copies of the 340,033 death certificates included in this study were coded for the stage I Census Enumeration District (ED). A record was considered matched if the exact street address of residence and the name of the decedent were located in the ED book. Other information such as date of birth and marital status were used if the above criteria did not result in a match.

If infants under 1 year of age were not located in the ED book, an attempt was made to match via the mother. The infants represented a high nonmatch risk group since many of them were born after the 1960 Census of Population and therefore were not enumerated.

Almost 6 percent of the records were matched at the place of death, rather than the usual place of residence. Those persons matched at the place of death were for the most part those who died in institutions.

Decedents matched in stage I and included in the 25-percent sample of the 1960 Census of Population, referred to as stage II, were then searched in the stage II books. There were 64,675 such decedents and all but 2,188 were located in the stage II census records. The names of these 2,188 decedents could not be located on the appropriate pages of the stage II schedules.

A host of reasons exists for failure to match the death certificate to the census record:

(1) The decedent may have moved after the date of enumeration on April 1.

(2) The decedent may not have been enumerated.

(3) Clerical and machine errors occurred at all stages of the study.

(4) Misstatements of information were entered on the census record and/or the death certificate.

Variances

The sample design has been discussed in a previous section, "Design of Study." To obtain the sampling error of an estimate of the net difference rate for a given geographic area, it would be necessary to know the number of death records for white decedents 65-74 years of age and 75 years and over during May-August 1960 for geographic areas both before and after sampling. The death records were sampled but the color designations for most geographic areas were based on the color on the census record. Although all nonwhite decedents were included in the study period, a decedent stated to be white on the death record may be nonwhite on the census record and vice versa. Therefore, it is not possible to state that the sampling error is zero for the nonwhite group shown in the tables.

Age

The age reported on the death record is generally the age of the decedent at his last birthday. If the reported age did not agree with the computed age (the difference between the date of death and the date of birth on the certificate), the stated age was accepted unless the difference was 5 years or more. If the difference was 5 years or more, entries for other items on the vital record such as cause of death, occupation, marital status, and social security number were considered in determining the age. Most of the differences involved infants. Therefore, the aforementioned characteristics would give some indication of the "correct" age. If a discrepancy occurred such as 25 years for the computed age and 35 for the stated age, the stated age was accepted.

The age classification used in the 1960 Census of Population is based on the quarter of the year of birth as of April 1, 1960. For this study, the age was updated to adjust for a birthday that might have occurred between the date of the census and the time of death.

As indicated in the tables showing data by age, the number of matched records for decedents under 1 year of age and 100 years and over, according to the census record, are excluded. The number of records with negative ages are also excluded. Infants were excluded because many were born after the date of enumeration on April 1, 1960. There were 23,176 records

for infants. Decedents 100 years and over and those with negative ages were omitted because there was an excessive number of errors in the century-of-birth codes on the census record. For example, if the year of birth was actually 1861 and the century code for 1900 was assigned, the result was a negative age. There were 1,452 such records, that is, for persons 100 years and over and for negative ages. Such exclusions were made to maintain comparability in order to better assess differences in age reported on the two records.

Additional technical problems relating to age reported on the vital record are covered in another report.[6]

Race and Color

Deaths in the United States in 1960 are classified for vital statistics purposes into white, Negro, American and Alaskan Indian, Chinese, Japanese, Aleut, Eskimo, Filipino, Hawaiian, part-Hawaiian, and other nonwhite. The U.S. Bureau of the Census uses the same classification.

Tabulations in this study by race were grouped as follows:

White
Nonwhite:
- Negro
- Indian (American and Alaskan)
- Japanese
- Chinese
- Filipino
- Other nonwhite (Aleut, Eskimo, Hawaiian, part-Hawaiian, and racial mixtures except as noted below)

Not stated and not valid

The category "white" includes, in addition to persons reported as "white," those reported as Mexican or Puerto Rican. If race is given as a mixture of Negro with any other race except Hawaiian, the race is classified as Negro. Mixtures of Hawaiian and any other race are classified as "other nonwhite."

In stage I the number of census records for which the race item was not stated is combined with "not valid" codes (processing errors) and shown as a single group in the race tables. The relative number of such records is small—less than 1 percent of the matched records. If the race was not entered on the death record, the code for "white" was assigned in the initial code-punch operation in NCHS. Consequently, the category "not stated and not valid" according to death certificate designations includes only invalid codes. The number of such records is small. This factor is noted, not because it seriously invalidates the net difference rates, but because the category "not stated and not valid" was excluded from most of the residence tables. Therefore, figures by white and nonwhite do not add to the total.

With the exception of table 18 which shows a comparison of detailed groupings of race, the tables show the color item according to census designations. The purpose was to compare a single characteristic such as data for an SMSA according to census and to death record assignments. Therefore, all other characteristics such as age, sex, and color in that table were by census designations so as not to distort the comparison of the variable being compared.

Sex

In a table showing a characteristic such as age or race classified by sex, the sex of the matched decedent is that stated on the census records in order not to invalidate the characteristic being compared.

The small number of deaths for which the sex was not stated—0.5 percent of the total matched records—is included in the total in those tables containing sex, but the category is not shown separately.

Urban and Rural Areas

The urban-rural definitions used by NCHS differ from those used for data published by the U.S. Bureau of the Census. For this study, the Bureau of the Census assigned the residence codes on the census records of the decedents included in this study according to the rules used for vital statistics. Therefore, the figures for urban and rural are comparable with respect to the application of rules, and the differences

between the NCHS figures and those tabulated by census result from the entries on the two records or processing errors. As noted earlier, differences in the enumeration process and the registration system give greater weight to the accuracy of the census figures. For the decennial census, geographic locations can be fixed with a high degree of accuracy by the Bureau of the Census through the use of street maps, census tracts, and the like. NCHS is dependent almost entirely on the information entered in the residence item on the vital record.

For the definitions of urban and rural as used for vital statistics purposes, see *Vital Statistics of the United States, 1960,* Volume II, Part A.

Standard Metropolitan Statistical Areas

The standard metropolitan statistical areas (SMSA's) used in this report are the same as those established by the U.S. Bureau of the Budget as of 1960 (except in the New England States) and used by the U.S. Bureau of the Census.

Except in the New England States, an SMSA is a county or a group of contiguous counties which contains at least one city of 50,000 inhabitants or more or "twin cities" with a combined population of at least 50,000 in the 1960 census. Contiguous counties are included in an SMSA if, according to specified criteria, they are (1) essentially metropolitan in character and (2) socially and economically intergrated with the central city or cities.

In New England the Bureau of the Budget uses towns and cities rather than counties as geographic components of SMSA's. NCHS cannot use the SMSA classification in New England because its data are not coded to identify all towns. Instead the metropolitan State economic area (MSEA) established by the Bureau of the Census, which is made up of county units, is used. (For a more complete discussion of SMSA's and MSEA's, see references 8-10.)

Metropolitan and Nonmetropolitan Counties

Counties which are included in SMSA's, or in New England MSEA's, are called metropolitan counties; all other counties are classified as nonmetropolitan.

Geographic Divisions and Regions

The nine divisions and four regions referred to in this report correspond to those used by the U.S. Bureau of the Census. For States included in each division and region, see reference 8.

Formula for Adjusting Annual Death Rate

$$\frac{D - D\left(\frac{dm_d - dm_c}{dm_c}\right)}{P} = R_1 = \text{Upper range of rate}$$

$$\frac{D - D\left(\frac{dm_d - dm_c}{dm_c}\right) - D\left(\frac{du}{dm_c + d_u}\right)}{P} = R_2 = \text{Lower range of rate}$$

Symbols

D = annual number of deaths, 1960

P = population enumerated as of April 1, 1960

dm_c = matched deaths in study period according to census record

dm_d = matched deaths in study period according to death record

du = unmatched deaths in study period

R = annual death rate per 1,000 population

R_1 = upper range of adjusted annual death rate per 1,000 population

R_2 = lower range of adjusted annual death rate per 1,000 population

Deaths, 1960, by residence—SMSA of Abilene, Texas—White

Formula A—upper range

$$\frac{794 - 794\left(\frac{177 - 172}{172}\right)}{114,508} = R_1$$

$$\frac{771}{114,508} \times 1,000 = 6.7 = R_1 = \text{upper range}$$

Formula B—lower range

$$\frac{794 - \left[794\left(\frac{177-172}{172}\right)\right] - 794\left(\frac{57}{172+57}\right) = R_2}{114,508}$$

$$\frac{573}{114,508} \times 1,000 = R_2 = 5.0 = \text{lower range}$$

Rates

R = 6.9 published annual rate

R_1 = 6.7 } adjusted rates

R_2 = 5.0 }

Net and Gross Difference Rates

Net difference rates for matched deaths were computed as follows:

(1) Subtract the number of records according to census assignments only from those according to NCHS assignments only

(2) Divide the number obtained in step 1 by the number of records for which there is agreement between census and NCHS plus census assignments only

(3) Multiply by 100

Most tables contain net difference rates with the census record as base; thus a negative rate indicates more assignments by census than by NCHS. If the death record is the base, a negative rate signifies more assignments by NCHS. In most instances the base is inconsequential. If the differences are relatively large, the rate may vary greatly depending on the base.

Gross difference rates were computed by summing the differences rather than subtracting the differences as for net difference rates. Otherwise the computation was the same.

Due to a programming error the first digit of the gross difference rates was not printed out on the tabulations in many instances. Rather than manually correct all of these errors, only a few were recomputed for inclusion in this report.

Symbols

s_i = Number of assignments are the *same* according to both the census record and the death record

c_i = Number of assignments according to the *census* record *only*

d_i = Number of assignments according to the *death* record *only*

ndr_i = Net difference rate

gdr_i = Gross difference rate

Formulas

Net difference rate:

Census record is base.

$$\frac{d_i - c_i}{s_i + c_i} \times 100 = ndr_i$$

Death record is base.

$$\frac{c_i - d_i}{s_i + d_i} \times 100 = ndr_i$$

Gross difference rate:

Census record is base.

$$\frac{d_i + c_i}{s_i + c_i} \times 100 = gdr_i$$

Death record is base.

$$\frac{c_i + d_i}{s_i + d_i} \times 100 = gdr_i$$

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