

Atlas of Cancer Mortality in the United States

1950-94



National Institutes of Health
National Cancer Institute



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National Institutes of Health
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NIH Publication No. 99-4564
September 1999

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The geographic patterns of cancer around the world and within countries have provided important clues to the causes of cancer. In the mid-1970s the National Cancer Institute prepared county-based and state economic area (SEA)-based maps of cancer mortality during 1950–69 in the United States that identified distinctive variations for specific tumors, thus prompting a series of analytic studies of cancer in high-risk areas of the country. This new Atlas of Cancer Mortality in the United States utilizes 1950–94 mortality data from the National Center for Health Statistics and population estimates from the Census Bureau. Rates per 100,000 person-years, directly standardized using the 1970 U.S. population, are calculated by race (whites, blacks) and sex for 40 forms of cancer. The Atlas includes more than 250 computerized color-coded maps showing variations in cancer rates during 1970–94 and compares them with corresponding maps for 1950–69. Summary tables and figures are also presented. Accompanying text describes the observed variations for specific cancers and suggests explanations based in part on the risk factors identified by analytic studies stimulated by the earlier atlases. The updated maps show that the patterns previously observed for several cancers have persisted, such as the broad stretches of high rates for cancers of the breast, colon, and rectum in the Northeast, although the regional variation has diminished somewhat as rates have risen in many areas of the South. For some tumors, the geographic clustering of areas with elevated rates has become more pronounced in the recent time period, as shown for cancers of the corpus uteri, prostate, bladder, and biliary tract. For lung cancer, there have been remarkable changes in the geographic patterns corresponding to regional/temporal variations in smoking trends by sex and race, with the recent emergence of high mortality rates among white men across the South, among white women in the far western states, and among blacks in northern urban areas. The updated geographic patterns should help in formulating etiologic and other hypotheses, and in targeting high-risk populations for further epidemiologic research and cancer control interventions.

The study of geographic variation in cancer rates has provided important clues to the role of lifestyle and other environmental factors that affect cancer risk. Earlier atlases of cancer mortality in the United States¹⁻⁴ prepared by the National Cancer Institute (NCI) revealed substantial geographic fluctuations in rates from 1950 to 1980 in the white and nonwhite populations, pointing to high-risk areas for epidemiologic studies designed to identify carcinogenic exposures.^{5,6} This Atlas updates the maps through 1994, presenting for the first time data specifically for blacks. The main focus will be the recent geographic patterns for 1970-94, but we also present maps for 1950-69 prepared in a similar fashion for purposes of comparison. The geographic patterns of cancer displayed in this Atlas should help to target further epidemiologic investigations into the causes of cancer and to set priorities for public health activities aimed at cancer prevention and control.

Two Web sites are available to further enhance evaluation of data illustrated in the Atlas:

Static Web Site: This Web site contains the entire text of the Atlas, as well as the maps for both time periods (1950-69 and 1970-94), tables, and figures. Maps at the state level, which are not included in the Atlas, are also available at this Web site. All data used to generate the county, state economic area, and state maps are housed at this site as well. Data, text, maps, tables, and figures can be downloaded. The Table of Contents is hyperlinked to the various sections of the Atlas, and references in the text are hyperlinked to the individual citations in the References section of the Atlas. The discussion about any specific cancer and the associated maps are interlinked.

Dynamic Web Site: This Web site enables the user to view the maps for both time periods, as well as for the entire period 1950-94. The user can control certain parameters such as number of ranges and colors. Also available is the option to view maps using percentiles based on one of the two time periods versus the entire time period. The user can select (from a drop-down menu) a specific state, state economic area, or county and view a map of the specific geographic unit and a table displaying the mortality rate and number of deaths for the selected unit, as well as the larger areas in which it is contained. Zooming in and out, and panning around the map, are additional options available at this Web site.

Sources of data

Data on all deaths among Americans during 1950–94 with cancer as the underlying cause according to age, sex, and race were provided for the 3,053 contiguous U.S. counties by the National Center for Health Statistics. Annual county-, age-, sex-, and race-specific midyear population estimates based on data from the Bureau of the Census were aggregated over the 25-year period 1970–94 and the 20-year period 1950–69 to form the person-years at risk. Data for the recent time period were produced at the county level for whites and at the state economic area (SEA) level for blacks and whites. The 506 contiguous SEAs are individual counties or groups of counties that are relatively homogeneous with respect to various demographic, economic, and cultural factors; they do not cross state lines. For 1950–69, when detailed county-level population estimates were not available specifically for blacks, maps are produced for whites only. Data for all 50 states and the District of Columbia are presented. Since mortality data were available only at the state level for Alaska and Hawaii, each was considered a single unit for county and SEA purposes, resulting in data for 3,055 counties and 508 SEAs. Data for Alaska and Hawaii are available only beginning in 1959 and 1960, respectively, when they became states. Appendix Map 1 of the United States displays the state, SEA, and county boundaries. Appendix Table 1 lists the state economic areas by state, and Appendix Table 2 lists the counties within state economic areas by state. A total of more than 40 cancers (including all forms combined) were considered, as shown in Appendix Table 3 (which also indicates the sixth to ninth revisions of the International Classification of Diseases^{7–10} [ICD] codes used for each form of cancer).

Calculation of age-adjusted cancer mortality rates

For each form of cancer, the age-adjusted (direct method, 1970 U.S. population standard—see Appendix Table 4) mortality rate R per 100,000 person-years was calculated by race, sex, and geographic area for each of the time periods 1970–94 and 1950–69, as follows:^{3,11,12}

$$R=100,000\sum(w_i r_i)=100,000\sum(w_i d_i/n_i)$$

where

i =the 18 age groups 0–4, 5–9, ..., 85+,

w_i =the proportion of the standard population in age group i ,

r_i =the age-specific rate d_i/n_i ,

d_i =the number of deaths in age group i , and

n_i =the person-years in age group i

The binomial approximation to the variance of the age-adjusted rate was calculated as:

$$\text{var}(R)=100,000^2\sum[w_i^2 r_i(1-r_i)/n_i]$$

The 95 percent confidence limits of R were calculated from the square root of the variance as:

$$R \pm 1.96\sqrt{\text{var}(R)}$$

A negative lower confidence limit was replaced by zero. For an area with zero deaths, the rate R was zero and the var(R) was estimated using the national rate. An area-specific age-adjusted rate was deemed significantly different statistically from the U.S. age-adjusted rate if their confidence limits did not overlap. Detailed area-specific data are not presented in this Atlas but are available from the NCI and from the NCI Atlas Static Web site.

Expected numbers of deaths from cancer for each geographic area by race and sex were the sums over age groups of the corresponding national age-specific rates times the age-specific person-years for each area by race and sex.

Male/female and black/white rate ratios (R_1/R_2) were calculated using the national age-adjusted rates rounded to two digits after the decimal point. The 95 percent confidence limits on the rate ratios are not presented but may be calculated as:¹³

$$\exp[\ln(R_1/R_2) \pm 1.96\sqrt{1/D_1 + 1/D_2}]$$

where

$$\exp[x] = e^x,$$

$\ln[x]$ = the natural logarithm of x, and

D_1, D_2 = the deaths associated with R_1, R_2 respectively

Maximum likelihood estimates of the relative risk standard deviations (RRSDs) and their standard errors (SEs) were calculated under the assumption of a mixed effects model. The RRSDs provide a measure of the standard deviation of the underlying area-specific relative risks and serve as quantitative indices to compare geographic variation across maps.¹⁴

Map production

Maps displaying cancer mortality rates by county and SEA were produced using Atlas Pro and Atlas GIS for Windows software (Strategic Mapping, Inc., now part of ESRI) on a Pentium personal computer. For ease of comparisons and readability, the size of Alaska was reduced and, for the SEA maps, the size of the District of Columbia was increased and separated from adjacent areas. Prior to mapping, rates for an area based on sparse data were deemed unstable if (a) the observed number of deaths was less than 6; (b) the observed number of deaths was less than 12 and the rate was not significantly different statistically from the U.S. rate; or (c) the expected number of deaths was less than 6 and the rate was not significantly different statistically from the U.S. rate. The stable rates were then ranked and partitioned into 10 deciles. The legend for each map

portrays the national rate and the range of rates for each decile. Rates per 100,000 person-years are generally presented with 2 digits to the right of the decimal, although for some of the rarer cancers 3 digits are shown. In each map and legend, five shades of red (deciles at the median and above) and five shades of blue (deciles below the median) are used, with the intensity of color reflecting the ranked distance from the median. Gray is used for areas with sparse data (i.e., unstable rates as defined above).

National mortality rates

During the 25-year study period 1970–94, more than 9.5 million whites and 1.1 million blacks died from cancer (Table 1a). The national annual age-adjusted mortality rates per 100,000 person-years for all cancers combined ranged from 136 among white females to 294 among black males. Although counts and rates for more than 40 specific categories of cancer are presented, almost 60 percent of all cancer deaths among males were due to 4 primary sites of cancer: lung, prostate, colon, and pancreas. Among females, nearly 60 percent of all cancer deaths were due to cancers of the breast, lung, colon, ovary, and pancreas. During the 20-year study period 1950–69, more than 4.8 million whites died from cancer; the numbers and rates are presented in Table 1b.

The 1970–94 national mortality rates for all cancers combined were 54 percent higher among white males than females and 84 percent higher among black males than females (Table 2 and Figures 1a-b). Most forms of cancer were more common among males than females, except for cancers of the breast, gallbladder, and thyroid. Among whites, the male/female rate ratio was highest for lip cancer, surpassing 10-fold, while ratios were also notably high for cancers of the larynx, esophagus, and bladder, each exceeding three-fold. Among blacks, the male/female ratio was highest for cancer of the larynx (6.5), followed by cancers of the oral cavity and pharynx, and the esophagus, each ratio being four-fold or greater. The male/female ratio for lung cancer was nearly three-fold among whites and nearly four-fold among blacks. Due to the large numbers of deaths, all male/female rate ratios were significantly different from unity.

The U.S. rates for all cancers combined were 40 percent higher among black than white males and 17 percent higher among black than white females (Table 2 and Figures 2a-b). For most specific forms of cancer, rates were higher among blacks than whites. The excess among blacks was most pronounced for esophageal cancer, with a black/white ratio exceeding three-fold in both males and females. Black/white ratios ranged between two- and three-fold for cancer of the cervix uteri among females; for cancers of the penis, prostate, oral cavity, and stomach among males; and for multiple myeloma in both sexes. On the other hand, rates for about one-third of all the cancers were higher among whites than blacks, most notably for cancers of the lip (males only), testis, eye, and brain, and for melanoma and non-Hodgkin's lymphoma. Most of the black/white rate ratios were significantly different from unity, except for rectal cancer among males, lung cancer among females, and nonmelanoma skin cancer in both sexes. The sex and race ratios varied somewhat with age. For all cancers combined, the higher rates among black than white males were limited to those aged 40 years and older (Figure 3), while the higher rates among males than females were primarily among those aged 60 and older.

Cancer mortality rates increased logarithmically with age, at least up to about age 40 for melanoma of the skin and cervical cancer, age 50 for breast cancer, and age 60 for many other sites (Figure 3). At older ages, the rates for certain cancers, such as cancers of the

nasopharynx, oral cavity and pharynx, esophagus, larynx, lung, and brain, and Hodgkin's disease, did not continue to rise. Age-specific rates were bimodal for cancers of the bones and joints, testis, brain, and other endocrine glands, and for Hodgkin's disease and leukemia.

Measures of geographic variation

To assess geographic variability, mortality rates were calculated for counties and SEAs. Appendix Map 1 shows the boundaries for the states, SEAs, and counties, which vary greatly in area and population size. Based on 1980 census figures (the approximate mid-point of the 1970–94 study period), the largest white populations were clustered in counties and SEAs in the northeast, midwest, and west coast areas, with lightly populated areas in the Plains and Rocky Mountain states (Appendix Maps 2a-c). The black populations tended to be concentrated across the South and in urban areas in the East and along the west coast, with few blacks residing in large portions of the rest of the country. All 508 SEAs had at least 10,000 whites, while almost 90 percent had at least 100,000. In contrast, 47 percent of the SEAs had fewer than 10,000 blacks.

Geographic areas (counties or SEAs) with sparse data are shaded gray on the maps. For all cancers combined among whites during 1970–94 and 1950–69, mortality rates for only a few of the 3,055 counties were unstable on the basis of small numbers (Tables 3a-d). At the SEA level, no rates among whites were based on sparse data. Among blacks, however, the total cancer rates during 1970–94 for 61 and 80 of the 508 SEAs among males and females, respectively, were based on data too sparse to analyze, but these areas contributed less than 0.07 percent of all cancer deaths among U.S. blacks. The number of geographic units with sparse data for specific tumors varied considerably, and thus the proportion of areas shaded gray differs among the maps.

County-level maps for a specific form of cancer were included in this volume when less than 10 percent of male or female deaths from that cancer occurred in gray areas during 1970–94. Because of this criterion, county maps are presented only for whites with the more common tumors. Individual SEA-level maps, however, are shown for whites and for blacks if fewer than 50 percent of the deaths from the specific cancer among males or females of that race occurred in gray areas (Tables 3a-d). Thus, the numbers of maps presented vary by site of cancer (Table 4). Maps are not shown at the county or SEA level for the very rare sites: lip and eye.

Measures of the degree of geographic variation in cancer rates are given by the relative range and decile distribution of the rates for each 1970–94 SEA map included in the Atlas (Figures 4a-d). In most of the four race/sex groups, the relative differences were greatest for cancers of the oral cavity and pharynx, esophagus, liver, larynx, and lung. Considerably less variation was apparent for leukemia and cancers of the pancreas, ovary, and brain. Prostate cancer varied relatively little among whites but more among blacks. A closely-packed midrange of rates indicates little geographic variation, whereas a spread out midrange suggests substantial differences in rates across the country. The 95

percent confidence limits on the national rates are not shown because, being based on large numbers of events, they generally are quite narrow. For example, a cancer rate of 1.000 based on 1,000 events would have confidence limits of 0.939 and 1.064, or ± 6 percent.

The relative risk standard deviations (RRSDs), an additional measure of the extent of geographic variation, are presented in Table 5 and Figures 5a-d for each 1970–94 SEA map included in the Atlas. Among those 28 cancers with sufficient data to warrant SEA maps for both races, the RRSDs were greatest for cancers of the oral cavity and pharynx, gallbladder, larynx, and (among whites) rectum. Relatively small RRSDs were estimated for leukemia, multiple myeloma, and cancers of the pancreas and prostate (among whites).

Geographic patterns by type of cancer

Following are brief descriptions of the geographic patterns of mortality during 1970–94 by form of cancer. Comparisons are made with the patterns for 1950–69, along with possible explanations suggested by epidemiologic studies prompted by the earlier maps. It should be noted that each map was prepared independently and portrays the geographic variation in rates during the given time period. Thus, for those cancers whose rates have increased or decreased over time, the relative position of a particular rate in a given area may vary when the change is more or less rapid compared to other areas.

All cancers (pages 64–73): In the recent time period 1970–94, rates were elevated among white males in a large proportion of counties across the eastern third of the country, both north and south, and along parts of the lower Mississippi River, while rates were low in most of California and Nevada. By contrast, in the earlier time period 1950–69, rates among white males were relatively low across the Southeast except for coastal areas. In both time periods, rates tended to be low across the upper midwestern states, the Plains, and Rocky Mountain states. Particularly striking was the change from low to high rates across much of the Southeast. Among white females in both periods, high rates were concentrated in the northeastern and mid-Atlantic states and in parts of the upper midwestern states, while in recent years high rates emerged in the far western states and several southeast coastal areas. Relatively low rates persisted in the southern and central regions of the country. Among black males and females, rates tended to be low across the southern parts of the country and elevated in the mid-Atlantic and midwestern areas. There was little geographic concordance at the SEA level between high-rate areas for whites and blacks among either males or females.

Salivary glands (pages 74–77): There was little consistent variation in SEA-level rates among white males or females, although rates were unstable in most areas due to small numbers of deaths. Mortality was elevated in parts of Texas in three of the four maps presented.

Nasopharynx (pages 78–83): There was no evidence of geographic clustering except for some elevated rates among white males along the Gulf coast in the recent time period. Mortality was elevated in Hawaii among white males during both time periods and white females during 1970–94. Since several Asian groups, especially Chinese, have an increased risk of nasopharyngeal cancer,¹⁵ it is possible that the elevated rates reported among whites in Hawaii are related to racial misclassification or admixture. It is noteworthy that nasopharyngeal cancer incidence rates are not elevated among whites in Hawaii,¹⁶ suggesting possible misclassification on Hawaiian death certificates.

Oral cavity and pharynx (pages 84–93): In recent years, geographic variation was pronounced, with high rates along the eastern seaboard among white males and females and elevated rates also among females in the northeastern and several western states, especially along the Pacific coast. In both time periods, low rates were seen across the central, Plains, and Rocky Mountain states in both sexes. The prominent clustering of excess mortality among white females in the Southeast during 1950–69 faded somewhat during 1970–94. Among blacks, the rates were generally low across the South. As the dominant risk factors for oral and pharyngeal cancer, cigarette smoking and alcohol consumption largely account for the higher national rates among blacks than whites and among men than women^{17,18} and contribute to the geographic patterns observed.¹⁹ Use of smokeless tobacco has been implicated as the cause of the elevated rates of oral cancer observed since the 1950s among women in the rural South.²⁰ Despite reductions in the prevalence of snuff dipping among women,²¹ there are still patches of elevated oral cancer rates in parts of the Carolinas, Georgia, and Florida in the recent period.

Esophagus (pages 94–103): Marked geographic variation among white males and females was seen in both periods, especially in recent years, with elevated rates primarily in the northeastern and mid-Atlantic states and in scattered midwestern areas. Low rates have persisted among white males in the southern and Rocky Mountain states and among white females in the central portions of the country. The geographic variation has been more pronounced among males than females and among whites than blacks. However, high rates among white females have emerged recently in certain areas along the Gulf coast and in the far western states. Tobacco smoking and alcohol drinking are the major risk factors for esophageal cancer,^{22,23} as they are for oral cancer, and they contribute to the high rates in urban areas and to the striking black/white differentials in rates.²⁴ In Washington, DC, and coastal areas of South Carolina, where the rates are especially high in blacks, case-control studies have revealed strong associations with alcohol consumption and tobacco use along with deficiencies of fruit and vegetable consumption.^{25–27} Heavy use of moonshine (home-brewed) whiskeys among blacks in the South Carolina low country appears partly responsible for the elevated rates in that area.²⁷ Mortality rates for esophageal cancer almost doubled among blacks from the 1950s to their peak in the 1980s, accounting for increases in the black/white rate ratios over time.^{23,28}

In recent decades, a remarkable shift has occurred in the histologic patterns of esophageal cancer among whites, as incidence rates for squamous cell cancer have decreased while rates for adenocarcinoma have increased dramatically to surpass the rates for squamous cancer of the esophagus among males.^{29,30} The reasons for the upward trend in esophageal adenocarcinoma are not entirely clear but may be related in part to smoking habits³¹ and obesity,³² which appear to promote the development of reflux esophagitis and its evolution to Barrett's esophagus, a precursor state for this cancer.^{33,34} Since histologic type is not routinely recorded on death certificates, the geographic differences in the two forms of esophageal cancer could not be evaluated. Incidence rates among white males in the Surveillance, Epidemiology, and End Results (SEER) program during 1973–95 were highest in Connecticut and Seattle for esophageal cancer overall and for esophageal adenocarcinoma, while the rates for squamous cell carcinoma were highest in Hawaii and Connecticut (unpublished SEER data). Rates for total esophageal cancer and both histologic types were lowest in New Mexico and Utah.

Stomach (pages 104–113): The maps for both time periods revealed high rates among whites that stretch across the northeastern and north-central states, especially in urban areas. Rates were elevated also in parts of the Southwest but were generally low across the Southeast. The geographic patterns among blacks were less pronounced, although rates were generally higher than among whites, with clustering in parts of southern Louisiana. The elevated rates in the north-central areas appear to be related to the concentration of Scandinavian and other high-risk ethnic groups from Europe,^{35,36} while the elevated rates among whites in the Southwest appear to reflect the excess risk among Hispanics.³⁷ In high-risk areas of southern Louisiana, case-control studies have suggested protective effects of fruit and vitamin C consumption in whites and blacks, while consumption of smoked foods and home-cured meats was associated with increased risk among blacks but not whites.³⁸ Although dietary factors may influence the geographic, temporal, and racial patterns of stomach cancer, there is mounting evidence that infection with *Helicobacter pylori*, particularly at young ages, plays a key role in the origins and distribution of gastric cancer.^{39,40}

Rates for stomach cancer have been declining for many years.⁴¹ However, the incidence of cancers arising from the gastric cardia has increased along with esophageal adenocarcinoma, both of which appear to share risk factors.^{29,30} The location of tumors within the stomach is typically not recorded on death certificates, so that geographic variation by subsite could not be studied. The SEER incidence rates among whites for total stomach cancer during 1973–95 were highest in Hawaii and lowest in Atlanta, whereas rates for tumors of the gastric cardia were highest in Seattle and lowest in Utah (unpublished SEER data).

Colon (pages 114–123): In all four race/sex groups, striking geographic variation was evident, with mortality rates highest in the northeast quadrant of the United States, including parts of New England, and both the mid-Atlantic and the midwestern states. Rates across the South and West have remained relatively low. Colon cancer mortality has been elevated in the Northeast for at least four decades, partly due to increased risks

for urban populations with high socioeconomic levels,⁴² although the regional variation has diminished somewhat over time as more areas in the South have displayed rising mortality rates than in the North.^{3,4} While reasons for the geographic patterns are unclear, dietary and nutritional factors are likely to be involved.⁴³⁻⁴⁵ A diet high in fat and calories was suggested, for example, by a case-control study of colon cancer in a high-risk area of Nebraska with a large concentration of residents of Czechoslovakian background.⁴⁶ Of particular note is the lack of high rates in southern retirement areas, suggesting a pattern opposite to the rapid increase in risk reported in population groups migrating from low- to high-risk countries.⁴⁷ Colon cancer incidence rates among whites during 1991-95 were relatively high in Connecticut, Detroit, and Iowa, and low in Utah and New Mexico,⁴⁸ consistent with the mortality patterns.

Rectum (pages 124-133): Like colon cancer, there was a clear pattern in both periods of elevated rates among whites in the northeastern, mid-Atlantic, and midwestern areas, with low rates across the southern tier. Few of the SEAs west of the Mississippi River had high rates. The similar variations for colon and rectal cancer suggest risk factors in common. Reporting practices may contribute to the similarity in patterns, since rectal cancer is sometimes specified on the death certificate as intestinal cancer, which is then categorized with colon cancer.⁴⁹ The geographic variation among blacks was similar to that of whites, although less consistent.

Liver, gallbladder, and other biliary tract (pages 134-143): These sites did not have separate ICD codes until 1958, so that the three sites are grouped together for both time periods and then considered separately for the recent time period 1970-94. Included with primary liver cancers are tumors not stated to be primary in the liver, but excluded are those stated as secondary or metastatic. In the combined categories of liver, gallbladder, and other biliary tract cancers, the rates among white males were elevated during both periods in several Appalachian areas and in southern Louisiana and Texas. High rates among white females were prominent in the midwestern and north-central areas as well as in Appalachia, south Texas, and New Mexico. Rates among blacks were higher in northern urban areas and generally low across the Southeast.

Liver (pages 144-147): Rates were elevated in many areas across the south-central and southwestern states among whites and were generally low in northern areas. Little geographic variation was evident in blacks, whose rates have been higher than those among whites. Liver cancer is particularly subject to misspecification on death certificates,⁵⁰ but it is unclear whether diagnostic and reporting practices have varied geographically. In the SEER data, liver cancer incidence rates are higher among Hispanic than non-Hispanic whites,³⁷ which probably contributes to the excess mortality in the southwestern states. Further work is needed to clarify the role of hepatitis B and C infection, as well as that of alcohol consumption, in the ethnic and geographic patterns of liver cancer.⁵¹

Gallbladder (pages 148-151): Among whites, rates were elevated in portions of the Appalachian region, the midwestern and north-central regions, and parts of the

Southwest, with generally low rates across the southeastern and far western states. The pattern was more pronounced among females, whose rates of gallbladder disease, including cancer, are higher than those of males and reflect the excess risk of gallbladder cancer in patients with gallstones.⁵² Despite the rarity of mortality from gallstones, the geographic patterns have been found to resemble those for gallbladder cancer.⁵³ The elevated rates of gallstones and gallbladder cancer among Hispanics and American Indians largely account for the excessive mortality seen in the southwestern states, while a high incidence of both conditions has been reported in areas of Appalachia with low socioeconomic levels.⁵⁴ The elevated rates in the northeastern and north-central areas may be related to the concentration of high-risk ethnic groups from eastern Europe,⁵² but further studies are needed. Among blacks, there was no consistent geographic variation for this rare cancer.

Other biliary tract (pages 152–153): The geographic distribution of other biliary tract cancers (including bile duct and ampulla of Vater) resembles that for gallbladder cancer, especially in females. However, the variation is less pronounced, probably because gallstones are less conspicuous as a risk factor for these tumors.⁵²

Pancreas (pages 154–163): In both time periods, geographic variation was less pronounced than for most other cancers. Nevertheless, several high-rate areas were seen among whites in the urban northeastern and south-central areas, including southern Louisiana, along with scattered areas with elevated rates across the north-central and western states (especially for white females in the recent time period). Among blacks, whose rates are higher than those for whites, there was no obvious clustering of high-rate areas, except in southern Louisiana among males, although mortality tended to be low across the South. Ecological studies have suggested that pancreas cancer mortality rates are higher in urban areas and in areas with many persons of Scandinavian and eastern European descent.⁵⁵ Although cigarette smoking is an important risk factor for pancreas cancer, the geographic patterns have shown little resemblance to those for lung cancer. In the high-rate area of southern Louisiana, a case-control study revealed elevated risks associated with cigarette smoking and with dietary habits characteristic of the Cajun population, especially the use of pork products and low consumption of fruit.⁵⁶

Nose, nasal cavity, and sinuses (pages 164–167): There were no clear-cut patterns for this uncommon tumor, except for some elevated rates among white males in the eastern part of Texas. However, elevated mortality from sinonasal cancer was found in a correlation study of counties with furniture industries,⁵⁷ prompting case-control studies in high-exposure areas of North Carolina and Virginia.^{58–61} Work in the furniture industry was found to be associated with an excess risk of nasal adenocarcinoma, resembling the occupational hazard previously reported in England and other countries.⁶² In addition, heavy smokers were shown to have an excess risk of squamous cell carcinomas of the nasal passages, the most common form of nasal cancer.⁵⁹ Among females, an excess risk of nasal cancer was associated also with work in the textile industry, consistent with results of other studies.⁶⁰

Larynx (pages 168–173): Rates among white males and, to a lesser extent, white females were elevated in scattered areas of the eastern third of the country and in southern Louisiana but tended to be low in central and western areas. The clustering of high rates across the eastern part of the country seemed more pronounced in 1970–94 than in 1950–69. The pattern among white females is less remarkable, with scattered high rates in the Northeast. The geographic patterns of laryngeal cancer have been strongly correlated with those for lung, esophageal, and oral cancers,⁶³ consistent with the major risk factors of tobacco smoking and alcohol consumption.^{64,65} Laryngeal cancer rates were elevated among white men in counties that had shipyard industries during World War II,⁶⁶ but a case-control study in Virginia failed to identify an excess risk associated with employment in area shipyards.⁶⁷

Lung, trachea, bronchus, and pleura (pages 174–183): Among white males, rates in the recent time period 1970–94 were elevated across broad stretches of the Southeast, particularly along the eastern seaboard, across the Gulf coast, and along the Mississippi valley. Rates in the upper midwestern, Plains, and Rocky Mountain states were notably low, whereas rates in the northeastern and far western states approximated the national rate. Among white females, elevated rates during 1970–94 tended to cluster along both the Atlantic and Pacific coasts, including most of Florida and California. Among black males and females, rates were elevated in scattered northeastern and midwestern areas, and low across much of the South. These patterns are described in more detail elsewhere.⁶⁸ The recent patterns for whites are quite different from those of 1950–69, which showed high lung cancer rates among males in northeastern urban areas, in areas along the southeastern Atlantic and Gulf coasts, and throughout the far western states, but only limited clustering of high rates among females. When data were previously reported through the 1970s, there was a shift towards higher rates in broader areas of the South among men and along the Atlantic and Pacific coastal areas among women.^{3,69} The earlier maps for nonwhites^{2,4} showed low rates across the South for both males and females, with scattered high rates in other areas of the country.

Since the dominant cause of lung cancer in the United States is cigarette smoking,⁷⁰ efforts have been made to correlate the cancer patterns with regional variations in smoking rates identified from population surveys in the 1950s through the 1990s according to area of residence. Since smoking acts at both early and late stages in the process of lung carcinogenesis,⁷¹ the relevant data on smoking for cancers occurring in 1970–94 would be smoking prevalences for this time period *and* for periods 10, 20, and 30 or more years earlier. Limited data from the 1950s indicate that regional differences in smoking patterns among males were rather small, except that smoking was more common in urban than rural areas and the percentage of heavy smokers was greatest in the Northeast.⁷² By the late 1970s, the prevalence of current smokers was highest among men in the South under age 65, with little difference at older ages.⁷³ More recently, in the mid-1980s, it was clear that the South led the nation at all ages in the percentage of adult males who smoked.⁷⁴ Hence the smoking trends fit well with an early excess of lung cancer among white men in urban areas, particularly in the North, and the recent

emergence of elevated mortality among white men across broad stretches of the South. Smoking data were not specific enough to correlate with the patterns of lung cancer seen along the southeastern coast. However, smoking habits, including the greater use of hand-rolled cigarettes, were found to contribute to the high rates in southern Louisiana, especially in the Cajun population.⁷⁵ The prevalence of smoking among black males in 1985 was lowest in the South and highest in the West,⁷⁴ where the lung cancer rates are not yet elevated.

Among females, the 1950s' smoking survey found the highest prevalence of current smokers in the West and the lowest in the South.⁷² By the 1980s, however, white women in the West, in both the Pacific and Rocky Mountain states, made up the lowest percentage of current smokers among all regions.⁷⁴ Thus, the clustering of lung cancer among white women in the recent time period, particularly along the Pacific coast, is consistent with earlier rather than later variations in smoking rates. The 1985 prevalence of smoking among black females was highest in the north-central region and lowest in the South, similar to the geographic patterns of lung cancer.

Although smoking patterns largely account for the regional variation in lung cancer mortality, the early maps^{1,3} and subsequent correlation studies also suggested a relation to certain occupational exposures,^{35,76} which prompted a series of case-control studies in high-risk areas, particularly along the southern seaboard. In the 1970s and early 1980s, studies in coastal Georgia,⁷⁷ Tidewater Virginia,⁶⁷ northeast Florida,⁷⁸ and southern Louisiana⁷⁹ revealed an excess risk of lung cancer associated with work in shipyards, primarily during World War II. Asbestos exposure appeared to be the major hazard, especially since clusters of mesothelioma were also observed in certain coastal areas.^{80,81} In the recent maps, the coastal excess of lung cancer among men was less pronounced, perhaps due to a diminished effect of wartime asbestos exposures, since risk of lung cancer is known to decline following cessation of asbestos exposure.⁷¹ Indeed, a case-control study of lung cancer in northeast Florida during the 1990s found no significant excess risk associated with prior work in shipyards.⁸² It is possible that the recent clustering of high lung cancer rates among females in certain areas along the southeast coast may be partly related to asbestos exposures associated with the shipbuilding industry, particularly in view of synergistic effects with smoking.⁷⁷

Correlation studies have also revealed elevated rates of lung cancer among males and females residing in counties with arsenic-emitting smelters,⁸³ prompting case-control studies indicating a carcinogenic effect of neighborhood as well as occupational exposures to inorganic arsenic.⁸⁴

Bones and joints (pages 184–189): High rates among whites were seen in both time periods in portions of Appalachia, extending into the deep South. Rates among blacks also were higher in the South than in the North. It seems likely, however, that the mortality patterns are influenced by the inclusion of tumors metastatic to the bone.⁸⁵ In contrast, incidence rates for primary bone cancer during 1973–95 were highest in Utah, Seattle, Connecticut, and San Francisco-Oakland, and lowest in Atlanta (unpublished

SEER data). Despite concerns that fluoridation of drinking water might increase the risk of bone tumors, particularly osteosarcomas, detailed analyses of incidence and mortality rates have revealed no temporal or spatial patterns suggesting a relation to fluoridated supplies of drinking water.^{86,87}

Connective tissue (pages 190–195): There was little evidence of geographic variation, except for some elevated rates among white females in the northern Plains and mountain states in the recent time period. The patterns for this uncommon tumor may be influenced by changes in diagnostic and reporting practices.⁸⁸

Melanoma of skin (pages 196–199): During both time periods, a north-south differential was seen among white males and females, with lower rates in the North and higher rates in the southeastern and south-central regions. The low rates in south Texas and south Florida may be due to the concentration of Hispanic populations, which have low rates of melanoma.³⁷ The persistent latitudinal gradient seen for melanoma has been attributed to ultraviolet radiation from sunlight, especially when exposures occur at young ages.⁸⁹ The epidemiologic patterns for melanoma suggest that intermittent or recreational exposures are especially important, along with host susceptibility factors, including light skin pigmentation and dysplastic nevi.⁹⁰ Because of the rarity of melanoma among blacks, the data were too sparse for mapping.

Other skin (pages 200–205): The geographic patterns generally resemble melanoma, despite the low case-fatality rates of basal and squamous cell carcinomas. Based on special incidence surveys in the United States, both tumors have shown latitudinal gradients consistent with sunlight exposure.⁹¹ The assignment of Kaposi sarcoma to this category during part of the recent time period is likely to explain the high rates in some urban areas where the AIDS epidemic was most prevalent.⁹²

Breast (pages 206–212): Among white females in both time periods, there was a predominance of high rates in the northeastern and north-central regions and in scattered areas of the far western states, as well as low rates across the South and in the Rocky Mountain areas. A north-south gradient in breast cancer risk was also suggested among white males and black females, although not as pronounced as among white females. The regional excess of breast cancer across the Northeast, especially in urban centers, has persisted for over four decades.^{1,3,93} The pattern is most pronounced among postmenopausal women, with little geographic variation among premenopausal women.⁹⁴ However, the north-south differences have diminished over time as mortality rates have risen in many areas of the South, including rural areas of Appalachia.³ In a recent correlational analysis, regional variations in breast cancer mortality were attributed mainly, but not totally, to the distribution of established risk factors, including late age at first birth, early menarche, and late menopause, and to certain prognostic factors, including education and mammography history.⁹⁵

Cervix uteri (pages 214–218): Elevated rates among white females tended to cluster across the South, more so in the earlier time period than recently, across Appalachia, parts of the midwestern states, and the upper Northeast. High rates were also seen in the southern part of Texas, perhaps due to the concentration of Hispanic women, who tend to have elevated risks.³⁷ Low rates occurred in the lower Northeast, northern Plains, and Rocky Mountain states. Among black females, elevated rates were seen in areas across the Southeast. In southern stretches of the Appalachian mountains, incidence and mortality rates for cervical cancer are known to be increased, particularly among rural women of low socioeconomic status.^{96,97} The geographic, racial, and socioeconomic patterns of cervical cancer can be attributed mainly to variations in the prevalence of human papillomavirus (HPV) and in the use of Pap smears to detect premalignant lesions, which can then be cured.⁹⁸ The prevalence of HPV infection was shown to be 34 percent among Washington, DC, women who attended medical assistance clinics and were presumably at high risk,⁹⁹ as compared with 18 percent among low-risk women in Portland, OR.¹⁰⁰ Although mortality from cervical cancer has declined substantially throughout the country,¹⁰¹ rates in certain areas have decreased less rapidly, mainly due to relative lack of access to screening programs.

Corpus uteri and uterus not otherwise specified (NOS) (pages 220–224): High rates among white females clustered in parts of the northeastern, midwestern, and Plains states, whereas rates generally were low across the South and the Rocky Mountain states. These patterns were more pronounced in recent years than earlier. In the far western states, low rates in the past have given way to intermediate and higher levels of mortality. Among black females, rates appeared high in scattered areas of the eastern half of the country. The clustering of elevated rates among white women in the Northeast, the West, and the midwestern states in recent years appears related to variations in the prevalence of risk factors such as nulliparity, obesity, and hormone replacement therapy.^{95,102–104} National mortality rates for cancers of the corpus and uterus NOS have decreased over time,¹⁰¹ partly due to the pronounced decline in cervical cancer that might have been specified as uterus NOS on death certificates and to earlier diagnoses of corpus cancer with consequent improvements in survival. The incidence trends corresponding to the increase and subsequent decline in use of unopposed menopausal estrogens during the early 1970s had little effect on the mortality trends,⁴⁸ since affected cases were largely diagnosed at early stages with a favorable prognosis. The map for blacks shows some resemblance to that for cervical cancer, suggesting problems with reporting and classification.

Ovary (pages 226–230): Mortality rates among white females in both time periods revealed a north-south gradient, with high rates extending across the northern tier and low rates in most of the South. The pattern among black females was similar, with rates being low in most of the Southeast and high in scattered areas elsewhere. The maps resemble those for breast cancer and suggest risk factors in common, such as nulliparity.¹⁰⁵

Vagina (page 232): Cancer of the vagina was coded with other tumors of the genital tract during the earlier time period, so rates are available only for the recent period. Among white females, elevated rates were seen in parts of northern Appalachia, but the rates in most SEAs are based on sparse data. Like cervical cancer, these tumors have been related to HPV infection.¹⁰⁶ Although the national rate was higher for blacks than whites, the data for black females were too sparse for mapping.

Vulva (page 234): Cancer of the vulva was also coded with other tumors of the female genital tract during the earlier time period. In recent years, high rates clustered not only in parts of northern Appalachia but also in some areas of the northeast quadrant of the country, with generally low rates in the rest of the country. These tumors also have been linked to HPV infection.¹⁰⁷ The data for black females were too limited for presentation.

Prostate gland (pages 236–240): Although geographic variation is generally more limited than for most cancers, a distinct geographic pattern was seen during both time periods among white males, with a concentration of elevated rates in the Northwest, Rocky Mountain, and north-central areas of the United States and low mortality in the south-central areas. An inverse urban-rural gradient was also suggested, with high rates in less populated areas of New England, the midwestern, northern Plains, and Rocky Mountain states, and the West. The recent patterns for white males have revealed more pronounced clustering in the northwest sector of the country than in earlier years. Black males have especially high mortality from prostate cancer at the national level, with pockets of elevated rates in the southeastern part of the country. It is unclear whether the patterns are partly related to screening and treatment practices, but there is some evidence that agricultural exposures may contribute to the geographic variation, including the high rates among whites in farming communities in the north-central and western states¹⁰⁸ and among blacks in the southeastern states.^{109,110}

Testis (pages 242–243): In both time periods, scattered high rates were seen among white males in the northern and central areas of the country, while mortality was generally low across the South and close to the national rate in the Northeast. Mortality rates have declined substantially since the early 1970s due to improved treatment and patient survival, whereas incidence rates have risen.⁹² During 1973–95, testicular cancer incidence rates among white males were highest in Seattle, Hawaii, and San Francisco-Oakland, and lowest in New Mexico, Atlanta, and Iowa (unpublished SEER data). Testicular cancer is relatively rare among blacks, with the incidence rate among whites more than five times that among blacks,⁴⁸ so that the mortality data for blacks were too sparse for mapping.

Penis (page 244): Rates among white males are based on sparse data in most SEAs, but some elevations were seen in midwestern areas, while low rates were noted in the West and in southern Florida. Although rates were higher among blacks than whites, the data for blacks were too limited for mapping. Rates are not available for the earlier time period, since penile cancer was coded with other tumors of the male genital tract.

Bladder (pages 246–255): In both time periods, elevated mortality rates among white males clustered in the northeastern states, especially in New Jersey, New York, and upper New England. High rates also occurred in parts of the midwestern and far western states, whereas rates generally were low across the South, except in Florida. Rates among white females also were elevated in the Northeast, particularly in northern New England and New York, overlapping with the patterns seen in males. North-south gradients were suggested also among black males and females, except for Florida. Bladder cancer among men has tended to cluster in the urban Northeast since the 1950s, particularly in areas with chemical industries.¹¹¹ Case-control studies in high-risk areas have revealed excess risks in a variety of occupations, which contribute to about one-quarter of bladder tumors in white males,^{112–114} including an increased risk among truck drivers and other workers exposed to motor exhausts.¹¹⁵ Although cigarette smoking accounts for one-half of bladder cancer,¹¹⁶ the geographic patterns for lung and bladder cancer are dissimilar. Elevated rates for bladder cancer among males and females in northern New England and New York have become more pronounced over time, and thus cannot be entirely explained by the associations with textile and leather occupations that were once prevalent in this area.¹¹⁷

Kidney, renal pelvis, and ureter (pages 256–265): Among white males and females, high rates were most prominent in New England and the upper midwestern and northern Plains states, with scattered elevations in the South and other areas, more so in the recent period than earlier. Among blacks, rates were generally low across the South. The persistently elevated rates among whites in the north-central states may be partly related to ethnic factors, with higher rates among those of northern European ancestry.¹¹⁸ Cigarette smoking, obesity, and hypertension are important risk factors for renal cell carcinoma, the most common form of kidney cancer, but their contributions to the geographic patterns and upward trends are unclear.^{119,120}

Brain and other nervous system (pages 266–275): In both time periods, elevated rates were seen in parts of the upper midwestern and north-central states and the Southeast among white males and females, with rates generally low in most areas of the northeastern, lower midwestern, southwestern, and Rocky Mountain states. Among blacks, the patterns appear fairly random. The causes of brain cancer are not well understood,¹²¹ and it is possible that variations in diagnosis and reporting practices as well as survival experience contribute to the patterns observed.

Thyroid gland (pages 276–279): Consistent geographic patterns are not readily apparent, but in the earlier period there were scattered high rates among whites in the north-central and Rocky Mountain states,¹²² where goiters were once more prevalent.¹²³ Concerns have been raised that thyroid cancer rates may be related to the fallout from radioactive iodine as a result of nuclear test explosions,¹²⁴ but the geographic and temporal correlations with mortality and incidence data are inconclusive.¹²⁵ Although female thyroid cancer mortality has been higher among blacks than whites, the data for blacks were too sparse for mapping.

Other endocrine glands (pages 280–283): There was little suggestion of a geographic pattern for this heterogeneous category among white males or females, with most rates being unstable due to limited data. Rates among blacks were based on data too sparse to map.

Hodgkin's disease (pages 284–289): Among white males and females, a latitudinal gradient was suggested, with mortality rates tending to be higher in the North than in the South. The clustering of high rates in the midwestern and northeastern states was more pronounced in 1970–94 than in 1950–69. This north-south gradient is most pronounced for the peak occurrence in young people,¹²⁶ which is suspected to be related to infectious agents, including Epstein-Barr virus.¹²⁷ Although incidence rates have not changed greatly over time, mortality rates have declined due to improvements in treatment and patient survival,^{48,92} which may have influenced the geographic patterns. The rates among blacks are based on sparse data and show no evidence of a north-south gradient.

Non-Hodgkin's lymphoma (pages 290–299): In both periods, among white males and females, rates were higher in the northern and central parts of the country, especially in the north-central and upper midwestern states, and were generally low across the South. A north-south gradient was also suggested among blacks. The geographic patterns have been positively correlated with urbanization and socioeconomic status,¹²⁸ yet several studies have indicated that farm-related activities, including use of certain pesticides, may contribute to the elevated rates in the central parts of the country.^{129–134} It has been suggested also that sunlight exposure may be a risk factor for non-Hodgkin's lymphoma, but the north-south gradients are opposite to those seen for melanoma and other skin cancers.¹³⁵ Incidence and mortality rates for this cancer have been increasing for many years,^{92,136} and these trends are only partly explained by the AIDS epidemic, which accounts for nearly 20 percent of non-Hodgkin's lymphoma.^{137,138} Despite the rising trends for this tumor, the geographic patterns have not significantly changed over time.

Multiple myeloma (pages 300–305): Some geographic clustering among whites was evident in both the 1950–69 and the 1970–94 maps, with rates being relatively high in midwestern areas and the Plains states and low in parts of the South. In early years, the patterns were positively correlated with degree of urbanization and socioeconomic level,¹³⁹ probably related to diagnostic factors, but the disease is now more common in persons of low socioeconomic status.¹⁴⁰ Environmental causes are obscure, although an elevated risk has been reported among farmers.¹⁰⁹ North-south gradients are suggested among blacks, whose rates are much higher than those among whites for reasons that are unknown.¹⁴¹

Leukemia (pages 306–315): In both time periods, high rates among whites occurred in a central band of the country from the Plains states to the midwestern region and south to the Gulf, along with a scattering of high rates in the East and West. Rates were generally low in the Southwest and much of the East. This pattern was more pronounced among white males than white females. Similarly, leukemia incidence rates

among whites during 1973–95 were highest in Detroit and Iowa and lowest in Atlanta, Utah, and New Mexico (unpublished SEER data). Little variation in leukemia mortality was seen among blacks. Although the geographic variation is less pronounced than for other cancers, some studies have suggested that agricultural exposures, including pesticides, may contribute to the patterns.¹⁰⁹ The patterns for the major cell types of leukemia could not be distinguished from the available data. Ionizing radiation may contribute to some forms of leukemia, but a nationwide survey of mortality among populations living near nuclear facilities revealed no excess risk.¹⁴²

Other and unspecified cancers (pages 316–325): Rates for these poorly specified cancers were elevated in several areas across the South, West, and mid-Atlantic regions, while low rates were evident in the north-central and northwest areas of the country. Due to changes in coding specificity, cancers of the vagina, vulva, and penis were included with other and unspecified cancers in the earlier time period, but are presented separately for the recent period. Because of their rarity, these tumors probably had little influence on the 1950–69 maps. In the recent time period, the category of other and unspecified cancers accounted for seven to nine percent of all cancers, and it would appear to represent a very heterogeneous group of tumors.



The updated maps presented in this new Atlas continue to display substantial geographic variation in mortality from a number of cancers in the United States. Mortality data are derived from death certificates and, as such, are dependent on the accuracy of the information recorded. However, the precision of demographic data (sex, race, age, address) on the certificates has been found to be quite good,¹⁴³⁻¹⁴⁵ and diagnoses of cancer are considered generally reliable. A comparison of the information on the death certificates with autopsy findings revealed that neoplasms were more accurately diagnosed than other causes of death.¹⁴⁶ Although specificity of the site or type of cancer on the death certificate may be less detailed than in the medical record, there is generally good agreement for most forms of cancer.^{147,148} Geographic variation in the accuracy of death certificates has not been well studied and may contribute to some of the patterns observed. Coding of the cause of death, however, is conducted nationally according to strict guidelines, using an automated system, and thus should not vary geographically.^{149,150}

Mortality data are available for the entire country over a substantial period of time, a key advantage over cancer incidence data that are available for only certain portions of the United States. Furthermore, for the more fatal cancers, mortality approximates incidence. For the less fatal cancers, mortality may reflect not only risk of cancer but also stage of disease at diagnosis, treatment efficacy, and subsequent survival. Thus, geographic variation in patient access to medical facilities, and in diagnostic and treatment practices, may influence the mortality patterns for certain cancers. Residential history is not available in the mortality data, so that migration effects could not be evaluated. In general, however, population movements would tend to reduce the geographic fluctuations in mortality rates.

Despite these limitations, it is likely that the mortality data in this Atlas provide an adequate and appropriate measure of cancer deaths across the United States, and that the site-specific geographic patterns are a meaningful source of clues to the causes and control of cancer. In particular, clustering of adjacent counties or SEAs with elevated rates may provide a signal to lifestyle or other environmental causes of cancer, while aggregation of low rates may reflect a lowered prevalence of risk factors or perhaps a higher prevalence of protective factors. The maps, along with other descriptive and ecologic patterns, cannot serve to identify carcinogenic exposures, but they have proven to be useful as a strategy for generating etiologic leads and identifying areas of the country where hypothesis-testing studies may be targeted.⁶

The updated maps show that the patterns previously observed for several cancers have persisted, such as the broad stretches of high rates for cancers of the breast, colon, and rectum in the Northeast. However, the amount of regional variation has diminished somewhat as rates have risen in many areas of the South. For some tumors, the clustering of areas with elevated rates has become more pronounced in the recent time period, as seen for cancers of the corpus uteri, prostate, bladder, liver, and gallbladder. For lung cancer, there have been remarkable shifts in the geographic patterns

corresponding to regional/temporal variations in smoking trends by sex and race, with the recent emergence of high mortality rates among white men across the South, among white women in the far western states, and among blacks in northern urban areas.

The determinants of many geographic patterns remain to be elucidated, but there is little question that variations in cigarette smoking greatly influence the patterns of lung and certain other tobacco-related cancers. In addition, smokeless tobacco use contributes to the patterns of oral cancer, specifically the high rates among women in the Southeast. The patterns of alcohol consumption are responsible in part for the geographic variations in cancers of the oral cavity and pharynx, larynx, esophagus, and liver.¹⁵¹ Dietary factors, including the protective effects of fruit and vegetable consumption,¹⁵² may affect the patterns of esophageal, stomach, colorectal, and other cancers, while infectious agents probably contribute to the variations seen for cancers of the cervix, liver, and stomach, and the lymphomas.^{153,154} Occupational exposures have been implicated in the more localized clusters of high-rate areas, as seen among men with cancers of the lung and bladder and possibly lymphoma. The persistently high rates for bladder cancer among males and females in northern New England suggest the need for further studies to identify environmental pollutants, dietary factors, or other exposures that affect both sexes. For several cancer sites, it is unclear whether the geographic variations in mortality reflect environmental hazards, medical care and delivery systems, reporting practices, or other factors. Whatever the reason, the updated geographic patterns should help in formulating etiologic and other hypotheses, and in targeting high-risk populations for further epidemiologic research and cancer control interventions.

Acknowledgments

We thank the National Center for Health Statistics for the mortality data, the Bureau of the Census for the population estimates, and Tom Helde, Ruth Parsons, Julie Smith, and Gray Williams of IMS, Inc., for computer support and development of the mortality rate calculation software (RateCalc). In addition, we gratefully acknowledge Drs. Mitchell H. Gail and Thomas R. Fears for statistical consultation; Antoinette Davis and Annette Cunningham for table preparation; Stella Semiti, Joan Hertel, and John Lahey of IMS, Inc., for figure preparation; and Dr. B.J. Stone and Kerry Giglio for editorial assistance. Finally, we gratefully acknowledge the generous financial support of the Information Technology Innovation Fund Committee of the National Partnership for Reinventing Government, which helped make the U.S. Cancer Mortality Atlas Web sites possible.



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Tables

Table 1a. Number of Deaths and Annual Mortality Rates¹ by Race, Sex, and Cancer, United States, 1970-94

	White males		White females		Black males		Black females	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
All cancers	5,076,130	209.47	4,447,015	135.88	664,255	294.16	506,881	159.54
Lip	2,672	0.11	516	0.01	40	0.02	40	0.01
Salivary glands	8,703	0.36	5,575	0.16	702	0.30	482	0.15
Nasopharynx	8,611	0.35	4,427	0.14	1,314	0.53	542	0.17
Other oral cavity and pharynx	96,782	3.99	45,996	1.41	19,505	8.30	5,977	1.94
Esophagus	116,575	4.80	41,879	1.24	34,488	14.98	11,456	3.75
Stomach	177,132	7.33	120,836	3.41	33,394	14.94	20,399	6.31
Colon	486,151	20.13	529,256	14.97	47,988	21.63	56,862	17.75
Rectum	106,338	4.40	89,133	2.54	9,986	4.45	8,906	2.78
Liver, gallbladder, and other biliary tract	115,351	4.76	118,241	3.40	16,823	7.31	12,195	3.81
Liver	80,872	3.33	56,875	1.66	14,406	6.22	7,853	2.45
Gallbladder	13,702	0.57	38,651	1.10	1,080	0.49	2,826	0.89
Other biliary tract	20,777	0.86	22,715	0.64	1,337	0.60	1,516	0.47
Pancreas	247,625	10.21	236,921	6.84	31,297	13.96	30,805	9.72
Nose, nasal cavity, and sinuses	6,557	0.27	4,688	0.14	1,092	0.47	537	0.17
Larynx	60,572	2.49	13,031	0.42	11,401	4.96	2,303	0.76
Lung, trachea, bronchus, and pleura	1,690,373	69.40	752,779	23.93	214,308	94.08	73,930	23.87
Bones and joints	17,034	0.71	12,864	0.44	2,051	0.78	1,582	0.47
Connective tissue	27,030	1.10	27,278	0.89	3,129	1.19	4,094	1.26
Melanoma of skin	73,365	2.96	49,846	1.61	1,099	0.47	1,210	0.37
Other skin	28,187	1.17	15,611	0.43	2,747	1.14	1,406	0.44
Breast	6,095	0.25	836,318	26.89	933	0.42	90,913	28.64
Cervix uteri	-	-	96,657	3.22	-	-	27,774	8.63
Corpus uteri and uterus NOS ²	-	-	124,993	3.72	-	-	20,671	6.52
Ovary	-	-	262,478	8.38	-	-	21,248	6.75
Vagina	-	-	7,907	0.23	-	-	1,265	0.39
Vulva	-	-	12,794	0.34	-	-	1,127	0.35
Prostate gland	523,854	22.01	-	-	99,011	47.21	-	-
Testis	12,417	0.46	-	-	563	0.19	-	-
Penis	4,101	0.17	-	-	933	0.42	-	-
Bladder	157,285	6.56	70,673	1.87	11,761	5.44	8,879	2.76
Kidney, renal pelvis, and ureter	118,694	4.90	74,028	2.24	10,078	4.33	6,348	1.98
Eye	3,401	0.14	3,469	0.11	168	0.06	152	0.04
Brain and other nervous system	127,553	5.22	104,098	3.55	7,938	3.04	6,633	2.03
Thyroid gland	8,086	0.33	14,512	0.42	641	0.28	1,502	0.47
Other endocrine glands	7,599	0.32	6,841	0.25	977	0.34	893	0.27
Hodgkin's disease	28,115	1.10	20,438	0.67	2,675	0.95	1,668	0.48
Non-Hodgkin's lymphoma	171,267	7.03	160,172	4.76	11,983	4.89	9,480	2.93
Multiple myeloma	75,075	3.10	71,494	2.08	14,392	6.49	13,994	4.43
Leukemia	211,764	8.80	168,740	5.16	18,543	7.59	15,376	4.64
Other and unspecified cancers	351,766	14.51	342,526	10.01	52,295	23.00	46,232	14.50

¹Per 100,000 person-years, age-adjusted using the 1970 U.S. population distribution

²NOS = not otherwise specified

Table 1b. Number of Deaths and Annual Mortality Rates¹ by Race, Sex, and Cancer, United States, 1950-69

	White males		White females	
	Number	Rate	Number	Rate
All cancers	2,570,037	184.46	2,252,355	136.94
Lip	4,750	0.37	526	0.03
Salivary glands	6,450	0.47	3,946	0.24
Nasopharynx	5,763	0.39	1,988	0.12
Other oral cavity and pharynx	67,323	4.80	19,166	1.17
Esophagus	60,799	4.34	18,227	1.11
Stomach	222,311	16.34	137,207	8.37
Colon	241,859	17.79	287,643	17.55
Rectum	112,183	8.18	85,179	5.20
Liver, gallbladder, and other biliary tract	78,798	5.68	96,724	5.88
Liver	n/a ²	n/a	n/a	n/a
Gallbladder	n/a	n/a	n/a	n/a
Other biliary tract	n/a	n/a	n/a	n/a
Pancreas	142,268	10.20	102,904	6.26
Nose, nasal cavity, and sinuses	6,302	0.46	4,056	0.25
Larynx	37,953	2.67	4,143	0.25
Lung, trachea, bronchus, and pleura	570,986	39.25	108,343	6.57
Bones and joints	20,377	1.46	14,417	0.91
Connective tissue	9,778	0.67	8,015	0.49
Melanoma of skin	23,425	1.57	18,863	1.13
Other skin	21,728	1.70	12,933	0.81
Breast	4,130	0.30	436,588	26.43
Cervix uteri	-	-	131,262	7.87
Corpus uteri and uterus NOS ³	-	-	106,439	6.46
Ovary	-	-	145,897	8.84
Vagina	-	-	n/a	n/a
Vulva	-	-	n/a	n/a
Prostate gland	252,641	20.15	-	-
Testis	12,923	0.83	-	-
Penis	n/a	n/a	-	-
Bladder	98,269	7.38	43,100	2.64
Kidney, renal pelvis, and ureter	57,779	3.99	34,212	2.07
Eye	3,452	0.24	3,288	0.20
Brain and other nervous system	67,758	4.37	47,198	2.88
Thyroid gland	6,436	0.45	12,036	0.73
Other endocrine glands	4,767	0.31	3,190	0.19
Hodgkin's disease	35,286	2.33	22,349	1.36
Non-Hodgkin's lymphoma	73,474	5.05	55,666	3.38
Multiple myeloma	26,278	1.84	21,477	1.30
Leukemia	130,708	9.13	95,932	5.88
Other and unspecified cancers	163,083	11.74	169,441	10.33

¹Per 100,000 person-years, age-adjusted using the 1970 U.S. population distribution

²n/a = not available

³NOS = not otherwise specified



Table 2. Cancer Mortality Rate Ratios¹ by Race and Sex, United States, 1970-94

	Male/female rate ratio		Black/white rate ratio	
	Whites	Blacks	Males	Females
All cancers	1.54	1.84	1.40	1.17
Lip	11.00	2.00	0.18	1.00
Salivary glands	2.25	2.00	0.83	0.94
Nasopharynx	2.50	3.12	1.51	1.21
Other oral cavity and pharynx	2.83	4.28	2.08	1.38
Esophagus	3.87	3.99	3.12	3.02
Stomach	2.15	2.37	2.04	1.85
Colon	1.34	1.22	1.07	1.19
Rectum	1.73	1.60	1.01	1.09
Liver, gallbladder, and other biliary tract	1.40	1.92	1.54	1.12
Liver	2.01	2.54	1.87	1.48
Gallbladder	0.52	0.55	0.86	0.81
Other biliary tract	1.34	1.28	0.70	0.73
Pancreas	1.49	1.44	1.37	1.42
Nose, nasal cavity, and sinuses	1.93	2.76	1.74	1.21
Larynx	5.93	6.53	1.99	1.81
Lung, trachea, bronchus, and pleura	2.90	3.94	1.36	1.00
Bones and joints	1.61	1.66	1.10	1.07
Connective tissue	1.24	0.94	1.08	1.42
Melanoma of skin	1.84	1.27	0.16	0.23
Other skin	2.72	2.59	0.97	1.02
Breast	0.01	0.01	1.68	1.07
Cervix uteri	-	-	-	2.68
Corpus uteri and uterus NOS ²	-	-	-	1.75
Ovary	-	-	-	0.81
Vagina	-	-	-	1.70
Vulva	-	-	-	1.03
Prostate gland	-	-	2.14	-
Testis	-	-	0.41	-
Penis	-	-	2.47	-
Bladder	3.51	1.97	0.83	1.48
Kidney, renal pelvis, and ureter	2.19	2.19	0.88	0.88
Eye	1.27	1.50	0.43	0.36
Brain and other nervous system	1.47	1.50	0.58	0.57
Thyroid gland	0.79	0.60	0.85	1.12
Other endocrine glands	1.28	1.26	1.06	1.08
Hodgkin's disease	1.64	1.98	0.86	0.72
Non-Hodgkin's lymphoma	1.48	1.67	0.70	0.62
Multiple myeloma	1.49	1.47	2.09	2.13
Leukemia	1.71	1.64	0.86	0.90
Other and unspecified cancers	1.45	1.59	1.59	1.45

¹Based on annual rates per 100,000 person-years, age-adjusted using the 1970 U.S. population distribution

²NOS = not otherwise specified

Table 3a. Numbers of Geographic Units with Cancer Mortality Rates Based on Sparse Data, Numbers of Deaths Therein, and Each as Percent of the Total United States, 1970-94: Males

	Whites by county				Whites by SEA ¹				Blacks by SEA ¹			
	Units		Deaths		Units		Deaths		Units		Deaths	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All cancers	7	0.23	55	0.00	0	0.00	0	0.00	61	12.01	213	0.03
Lip	3037	99.41	2314	86.60	460	90.55	1727	64.63	508	100.00	40	100.00
Salivary glands	2913	95.35	4457	51.21	279	54.92	1851	21.27	499	98.23	484	68.95
Nasopharynx	2904	95.06	3781	43.91	302	59.45	1798	20.88	488	96.06	651	49.54
Other oral cavity and pharynx	1770	57.94	8157	8.43	1	0.20	4	0.00	283	55.71	713	3.66
Esophagus	1533	50.18	7558	6.48	0	0.00	0	0.00	243	47.83	659	1.91
Stomach	1051	34.40	6066	3.42	0	0.00	0	0.00	237	46.65	692	2.07
Colon	289	9.46	1758	0.36	0	0.00	0	0.00	198	38.98	611	1.27
Rectum	1637	53.58	7479	7.03	1	0.20	5	0.00	328	64.57	860	8.61
Liver, gallbladder, and other biliary tract	1437	47.04	7798	6.78	0	0.00	0	0.00	294	57.87	823	4.89
Liver	1818	59.51	8887	10.99	2	0.39	16	0.02	310	61.02	827	5.74
Gallbladder	2831	92.67	5623	38.41	177	34.84	1126	8.22	494	97.24	679	62.87
Other biliary tract	2709	88.67	6678	32.14	79	15.55	565	2.72	487	95.87	759	56.77
Pancreas	637	20.85	3997	1.61	0	0.00	0	0.00	233	45.87	709	2.27
Nose, nasal cavity, and sinuses	2943	96.33	3655	55.74	343	67.52	1964	29.95	490	96.46	637	58.33
Larynx	2131	69.75	8842	14.60	6	1.18	52	0.09	330	64.96	819	7.18
Lung, trachea, bronchus, and pleura	43	1.41	243	0.01	0	0.00	0	0.00	114	22.44	412	0.19
Bones and joints	2766	90.54	6725	39.48	99	19.49	707	4.15	468	92.13	900	43.88
Connective tissue	2607	85.34	7307	27.03	44	8.66	348	1.29	444	87.40	1016	32.47
Melanoma of skin	1967	64.39	8878	12.10	5	0.98	42	0.06	490	96.46	670	60.96
Other skin	2582	84.52	8492	30.13	35	6.89	276	0.98	455	89.57	930	33.86
Breast	2954	96.69	3141	51.53	377	74.21	1970	32.32	492	96.85	522	55.95
Prostate gland	203	6.64	1343	0.26	0	0.00	0	0.00	158	31.10	542	0.55
Testis	2849	93.26	5084	40.94	206	40.55	1399	11.27	500	98.43	387	68.74
Penis	3005	98.36	2924	71.30	419	82.48	1921	46.84	493	97.05	639	68.49
Bladder	1177	38.53	6612	4.20	0	0.00	0	0.00	308	60.63	782	6.65
Kidney, renal pelvis, and ureter	1379	45.14	7414	6.25	0	0.00	0	0.00	324	63.78	797	7.91
Eye	3018	98.79	2456	72.21	449	88.39	1803	53.01	507	99.80	152	90.48
Brain and other nervous system	1338	43.80	7329	5.75	0	0.00	0	0.00	356	70.08	877	11.05
Thyroid gland	2922	95.65	3887	48.07	313	61.61	1898	23.47	501	98.62	469	73.17
Other endocrine glands	2924	95.71	3953	52.02	314	61.81	1899	24.99	495	97.44	613	62.74
Hodgkin's disease	2607	85.34	7586	26.98	41	8.07	326	1.16	450	88.58	872	32.60
Non-Hodgkin's lymphoma	1036	33.91	5940	3.47	0	0.00	0	0.00	324	63.78	894	7.46
Multiple myeloma	1839	60.20	9083	12.10	1	0.20	11	0.01	292	57.48	720	5.00
Leukemia	733	23.99	4666	2.20	0	0.00	0	0.00	284	55.91	858	4.63
Other and unspecified cancers	395	12.93	2407	0.68	0	0.00	0	0.00	200	39.37	603	1.15

¹State economic area

Table 3b. Numbers of Geographic Units with Cancer Mortality Rates Based on Sparse Data, Numbers of Deaths Therein, and Each as Percent of the Total United States, 1970-94: Females

	Whites by county				Whites by SEA ¹				Blacks by SEA ¹			
	Units		Deaths		Units		Deaths		Units		Deaths	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All cancers	12	0.39	86	0.00	0	0.00	0	0.00	80	15.75	291	0.06
Lip	3054	99.97	499	96.71	504	99.21	463	89.73	508	100.00	40	100.00
Salivary glands	2964	97.02	3205	57.49	390	76.77	2133	38.26	502	98.82	363	75.31
Nasopharynx	2972	97.28	2397	54.15	421	82.87	1795	40.55	498	98.03	345	63.65
Other oral cavity and pharynx	2375	77.74	7827	17.02	16	3.15	119	0.26	386	75.98	858	14.36
Esophagus	2463	80.62	7650	18.27	22	4.33	169	0.40	332	65.35	812	7.09
Stomach	1528	50.02	8056	6.67	0	0.00	0	0.00	289	56.89	811	3.98
Colon	292	9.56	1809	0.34	0	0.00	0	0.00	195	38.39	624	1.10
Rectum	1871	61.24	8135	9.13	4	0.79	38	0.04	345	67.91	833	9.35
Liver, gallbladder, and other biliary tract	1393	45.60	7452	6.30	0	0.00	0	0.00	324	63.78	902	7.40
Liver	2105	68.90	9023	15.86	6	1.18	60	0.11	365	71.85	879	11.19
Gallbladder	2424	79.35	8567	22.17	23	4.53	171	0.44	443	87.20	933	33.01
Other biliary tract	2691	88.09	6910	30.42	74	14.57	558	2.46	483	95.08	803	52.97
Pancreas	756	24.75	4551	1.92	0	0.00	0	0.00	242	47.64	718	2.33
Nose, nasal cavity, and sinuses	2983	97.64	2892	61.69	413	81.30	2040	43.52	503	99.02	420	78.21
Larynx	2827	92.54	4487	34.43	202	39.76	1290	9.90	469	92.32	767	33.30
Lung, trachea, bronchus, and pleura	187	6.12	1006	0.13	0	0.00	0	0.00	173	34.06	530	0.72
Bones and joints	2847	93.19	5781	44.94	163	32.09	1127	8.76	478	94.09	799	50.51
Connective tissue	2615	85.60	7488	27.45	49	9.65	361	1.32	423	83.27	1026	25.06
Melanoma of skin	2239	73.29	9132	18.32	9	1.77	70	0.14	488	96.06	678	56.03
Other skin	2801	91.69	6388	40.92	124	24.41	972	6.23	483	95.08	706	50.21
Breast	151	4.94	901	0.11	0	0.00	0	0.00	167	32.87	495	0.54
Cervix uteri	1597	52.27	7775	8.04	0	0.00	0	0.00	260	51.18	692	2.49
Corpus uteri and uterus NOS ²	1410	46.15	7445	5.96	0	0.00	0	0.00	272	53.54	750	3.63
Ovary	730	23.90	4307	1.64	0	0.00	0	0.00	270	53.15	776	3.65
Vagina	2918	95.52	4058	51.32	297	58.46	1823	23.06	491	96.65	760	60.08
Vulva	2827	92.54	5154	40.28	189	37.20	1316	10.29	490	96.46	595	52.80
Bladder	2027	66.35	8628	12.21	6	1.18	61	0.09	340	66.93	820	9.24
Kidney, renal pelvis, and ureter	1895	62.03	8966	12.11	5	0.98	47	0.06	365	71.85	874	13.77
Eye	3013	98.63	2418	69.7	451	88.78	1850	53.33	508	100.00	152	100.00
Brain and other nervous system	1578	51.65	8152	7.83	0	0.00	0	0.00	379	74.61	943	14.22
Thyroid gland	2829	92.60	5564	38.34	161	31.69	1089	7.50	482	94.88	772	51.40
Other endocrine glands	2945	96.40	3690	53.94	342	67.32	1993	29.13	494	97.24	556	62.26
Hodgkin's disease	2718	88.97	6202	30.35	90	17.72	658	3.22	479	94.29	781	46.82
Non-Hodgkin's lymphoma	1159	37.94	6488	4.05	0	0.00	0	0.00	347	68.31	926	9.77
Multiple myeloma	1954	63.96	9043	12.65	4	0.79	33	0.05	309	60.83	798	5.70
Leukemia	1031	33.75	6074	3.60	0	0.00	0	0.00	300	59.06	766	4.98
Other and unspecified cancers	465	15.22	2838	0.83	0	0.00	0	0.00	218	42.91	641	1.39

¹State economic area

²NOS = not otherwise specified

Table 3c. Numbers of Geographic Units with Cancer Mortality Rates Based on Sparse Data, Numbers of Deaths Therein, and Each as Percent of the Total United States, 1950-69: Males

	Whites by county						Whites by SEA ¹					
	Units			Deaths			Units			Deaths		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All cancers	14	0.46	101	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Lip	2990	97.87	3333	70.17	369	72.64	1934	40.72	1934	40.72	1934	40.72
Salivary glands	2951	96.60	3442	53.36	345	67.91	1861	28.85	1861	28.85	1861	28.85
Nasopharynx	2964	97.02	2718	47.16	390	76.77	1839	31.91	1839	31.91	1839	31.91
Other oral cavity and pharynx	2229	72.96	8359	12.42	6	1.18	42	0.06	42	0.06	42	0.06
Esophagus	2316	75.81	7616	12.53	13	2.56	77	0.13	77	0.13	77	0.13
Stomach	677	22.16	4067	1.83	0	0.00	0	0.00	0	0.00	0	0.00
Colon	765	25.04	4203	1.74	1	0.20	11	0.00	11	0.00	11	0.00
Rectum	1663	54.44	6604	5.89	2	0.39	11	0.01	11	0.01	11	0.01
Liver, gallbladder, and other biliary tract	1825	59.74	9195	11.67	2	0.39	11	0.01	11	0.01	11	0.01
Liver	n/a ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gallbladder	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other biliary tract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pancreas	1142	37.38	6707	4.71	1	0.20	8	0.01	8	0.01	8	0.01
Nose, nasal cavity, and sinuses	2965	97.05	3584	56.87	360	70.87	2024	32.12	2024	32.12	2024	32.12
Larynx	2578	84.39	7324	19.30	32	6.30	232	0.61	232	0.61	232	0.61
Lung, trachea, bronchus, and pleura	208	6.81	1214	0.21	0	0.00	0	0.00	0	0.00	0	0.00
Bones and joints	2742	89.75	7301	35.83	75	14.76	566	2.78	566	2.78	566	2.78
Connective tissue	2905	95.09	4292	43.89	267	52.56	1653	16.91	1653	16.91	1653	16.91
Melanoma of skin	2705	88.54	7602	32.45	62	12.20	475	2.03	475	2.03	475	2.03
Other skin	2675	87.56	8957	41.22	60	11.81	472	2.17	472	2.17	472	2.17
Breast	2998	98.13	2358	57.09	437	86.02	1792	43.39	1792	43.39	1792	43.39
Prostate gland	481	15.74	3000	1.19	0	0.00	0	0.00	0	0.00	0	0.00
Testis	2857	93.52	5316	41.14	183	36.02	1225	9.48	1225	9.48	1225	9.48
Penis	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bladder	1753	57.38	7841	7.98	4	0.79	27	0.03	27	0.03	27	0.03
Kidney, renal pelvis, and ureter	2238	73.26	9245	16.00	11	2.17	68	0.12	68	0.12	68	0.12
Eye	3017	98.76	2442	70.74	449	88.39	1871	54.20	1871	54.20	1871	54.20
Brain and other nervous system	2080	68.09	9610	14.18	5	0.98	42	0.06	42	0.06	42	0.06
Thyroid gland	2953	96.66	3059	47.53	364	71.65	1815	28.20	1815	28.20	1815	28.20
Other endocrine glands	2970	97.22	2475	51.92	416	81.89	1824	38.26	1824	38.26	1824	38.26
Hodgkin's disease	2529	82.78	8457	23.97	23	4.53	166	0.47	166	0.47	166	0.47
Non-Hodgkin's lymphoma	2014	65.92	9476	12.90	7	1.38	58	0.08	58	0.08	58	0.08
Multiple myeloma	2668	87.33	8006	30.47	53	10.43	369	1.40	369	1.40	369	1.40
Leukemia	1208	39.54	7076	5.41	0	0.00	0	0.00	0	0.00	0	0.00
Other and unspecified cancers	972	31.82	5771	3.55	1	0.20	10	0.01	10	0.01	10	0.01

¹State economic area

²n/a = not available

Table 3d. Numbers of Geographic Units with Cancer Mortality Rates Based on Sparse Data, Numbers of Deaths Therein, and Each as Percent of the Total United States, 1950-69: Females

	Whites by county				Whites by SEA ¹			
	Units		Deaths		Units		Deaths	
	No.	%	No.	%	No.	%	No.	%
All cancers	26	0.85	191	0.01	0	0.00	0	0.00
Lip	3053	99.93	493	93.73	505	99.41	473	89.92
Salivary glands	3000	98.20	2449	62.06	437	86.02	1862	47.19
Nasopharynx	3035	99.35	1412	71.03	485	95.47	1189	59.81
Other oral cavity and pharynx	2767	90.57	6279	32.76	94	18.50	648	3.38
Esophagus	2784	91.13	5374	29.48	126	24.80	863	4.73
Stomach	1281	41.93	7071	5.51	1	0.20	3	0.00
Colon	680	22.26	3821	1.33	0	0.00	0	0.00
Rectum	1999	65.43	8074	9.48	7	1.38	45	0.05
Liver, gallbladder, and other biliary tract	1580	51.72	7909	8.18	4	0.79	38	0.04
Liver	n/a ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gallbladder	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other biliary tract	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pancreas	1634	53.49	8417	8.18	4	0.79	32	0.03
Nose, nasal cavity, and sinuses	3001	98.23	2522	62.18	437	86.02	1932	47.63
Larynx	2578	84.39	1006	24.28	435	85.63	1753	42.31
Lung, trachea, bronchus, and pleura	1717	56.20	8475	7.82	2	0.39	21	0.00
Bones and joints	2845	93.13	2837	19.68	160	31.50	1169	8.11
Connective tissue	2932	95.97	3705	46.23	323	63.58	1824	22.76
Melanoma of skin	2770	90.67	6995	37.08	99	19.49	734	3.89
Other skin	2829	92.60	6115	47.28	158	31.10	1047	8.10
Breast	415	13.58	2527	0.58	0	0.00	0	0.00
Cervix uteri	1383	45.27	7054	5.37	0	0.00	0	0.00
Corpus uteri and uterus NOS ³	1513	49.53	7778	7.31	2	0.39	15	0.01
Ovary	1369	44.81	6978	4.78	1	0.20	9	0.01
Vagina	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vulva	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bladder	2451	80.23	8139	18.88	25	4.92	182	0.42
Kidney, renal pelvis, and ureter	2565	83.96	8683	25.38	39	7.68	288	0.84
Eye	3012	98.59	2198	66.85	456	89.76	1751	53.25
Brain and other nervous system	2408	78.82	9727	20.61	17	3.35	133	0.28
Thyroid gland	2879	94.24	4756	39.51	228	44.88	1410	11.71
Other endocrine glands	3006	98.40	1958	61.38	461	90.75	1654	51.85
Hodgkin's disease	2730	89.36	6483	29.01	88	17.32	634	2.84
Non-Hodgkin's lymphoma	2280	74.63	8760	15.74	14	2.76	108	0.19
Multiple myeloma	2740	89.69	6640	30.92	84	16.54	614	2.86
Leukemia	1674	54.80	8803	9.18	2	0.39	21	0.02
Other and unspecified cancers	1022	33.45	5907	3.52	0	0.00	0	0.00

¹State economic area

²n/a = not available

³NOS = not otherwise specified

Table 4. Maps Included in the Atlas

	1950-69			1970-94			SEA ¹	No. of maps
	County			County				
	WM ²	WF ³	SEA ¹	WM ²	WF ³	SEA ¹		
Cancers								
All cancers	X	X	X	X	X	X	X	10
Lip			X					0
Salivary glands			X					4
Nasopharynx			X					6
Other oral cavity and pharynx	X	X	X	X	X	X	X	10
Esophagus	X	X	X	X	X	X	X	10
Stomach	X	X	X	X	X	X	X	10
Colon	X	X	X	X	X	X	X	10
Rectum	X	X	X	X	X	X	X	10
Liver, gallbladder, and other biliary tract	X	X	X	X	X	X	X	10
Liver			X					4
Gallbladder			X					4
Other biliary tract			X					2
Pancreas	X	X	X	X	X	X	X	10
Nose, nasal cavity, and sinuses			X					4
Larynx			X					6
Lung, trachea, bronchus, and pleura	X	X	X	X	X	X	X	10
Bones and joints			X					6
Connective tissue			X					6
Melanoma of skin			X					4
Other skin			X					6
Breast		X	X		X			7
Cervix uteri		X	X		X			5
Corpus uteri and uterus NOS ⁶		X	X		X			5
Ovary		X	X		X			5
Vagina			X					1
Vulva			X					1
Prostate gland	X		X	X		X	X	5
Testis			X					2
Penis			X					1
Bladder	X	X	X	X	X	X	X	10
Kidney, renal pelvis, and ureter	X	X	X	X	X	X	X	10
Eye			X					0
Brain and other nervous system	X	X	X	X	X	X	X	10
Thyroid gland			X					4
Other endocrine glands			X					4
Hodgkin's disease			X					6
Non-Hodgkin's lymphoma	X	X	X	X	X	X	X	10
Multiple myeloma	X	X	X	X	X	X	X	6
Leukemia	X	X	X	X	X	X	X	10
Other and unspecified cancers	X	X	X	X	X	X	X	10

Table 4. Maps Included in the Atlas (continued)

	1950-69			1970-94				No. of maps				
	County		SEA ¹	County		SEA ¹						
	WM ²	WF ³	WM ²	WF ³	WM ²	WF ³	BM ⁴		BF ⁵	Other		
Appendix maps												
Boundaries of counties, SEAs, and states												
1980 Population: Whites by county									X	1		
1980 Population: Whites by SEA									X	1		
1980 Population: Blacks by SEA									X	1		
Total numbers of maps	16	19	30	31	16	19	34	36	25	28	4	258

¹State economic area

²WM = white males

³WF = white females

⁴BM = black males

⁵BF = black females

⁶NOS = not otherwise specified

Table 5. Relative Risk Standard Deviation as a Summary Measure of Geographic Variation in State Economic Area Mortality Rates, 1970-94

	White males		White females		Black males		Black females	
	RRSD ¹	SE ²	RRSD ¹	SE ²	RRSD ¹	SE ²	RRSD ¹	SE ²
All cancers	0.132	0.004	0.085	0.003	0.123	0.006	0.106	0.005
Salivary glands	0.125	0.019	0.047	0.036				
Nasopharynx	0.244	0.019	0.232	0.027	0.255	0.044		
Other oral cavity and pharynx	0.255	0.009	0.253	0.011	0.297	0.017	0.275	0.023
Esophagus	0.185	0.007	0.236	0.010	0.258	0.014	0.318	0.020
Stomach	0.197	0.007	0.203	0.008	0.145	0.010	0.142	0.012
Colon	0.162	0.005	0.148	0.005	0.176	0.010	0.165	0.010
Rectum	0.290	0.010	0.247	0.009	0.214	0.018	0.197	0.019
Liver, gallbladder, and other biliary tract	0.160	0.007	0.162	0.007	0.212	0.015	0.145	0.015
Liver	0.209	0.008	0.183	0.008	0.231	0.016	0.187	0.019
Gallbladder	0.254	0.015	0.302	0.012	0.250	0.056	0.248	0.032
Other biliary tract	0.154	0.011	0.189	0.012				
Pancreas	0.076	0.004	0.087	0.004	0.096	0.010	0.126	0.011
Nose, nasal cavity, and sinuses	0.129	0.022	0.038	0.046				
Larynx	0.215	0.009	0.268	0.016	0.277	0.019	0.423	0.040
Lung, trachea, bronchus, and pleura	0.196	0.006	0.224	0.007	0.162	0.008	0.291	0.013
Bones and joints	0.157	0.013	0.165	0.015	0.197	0.040	0.232	0.048
Connective tissue	0.106	0.010	0.114	0.009	0.106	0.037	0.141	0.026
Melanoma of skin	0.171	0.008	0.143	0.008				
Other skin	0.235	0.011	0.186	0.014	0.337	0.035	0.101	0.059
Breast	0.190	0.019	0.124	0.004	0.223	0.060	0.116	0.007
Cervix uteri			0.221	0.008			0.194	0.013
Corpus uteri and uterus NOS ⁵			0.254	0.010			0.159	0.018
Ovary			0.112	0.005			0.111	0.013
Vagina			0.120	0.022				
Vulva			0.191	0.014				
Prostate gland	0.073	0.003			0.123	0.007		
Testis	0.146	0.015						
Penis	0.213	0.023						
Bladder	0.177	0.007	0.157	0.007	0.173	0.017	0.170	0.018
Kidney, renal pelvis, and ureter	0.085	0.005	0.107	0.007	0.152	0.016	0.124	0.022
Brain and other nervous system	0.102	0.005	0.102	0.006	0.118	0.019	0.112	0.022
Thyroid gland	0.132	0.017	0.165	0.014				
Other endocrine glands			0.063	0.031				
Hodgkin's disease	0.151	0.010	0.176	0.012	0.166	0.039	0.200	0.048
Non-Hodgkin's lymphoma	0.085	0.004	0.084	0.005	0.135	0.016	0.163	0.017
Multiple myeloma	0.080	0.006	0.070	0.006	0.116	0.013	0.098	0.013
Leukemia	0.065	0.004	0.055	0.004	0.065	0.011	0.065	0.012
Other and unspecified cancers	0.205	0.007	0.175	0.006	0.194	0.011	0.190	0.011

¹Relative Risk Standard Deviation

²Standard Error

³Data inadequate to prepare a map

⁴RRSD and SE estimates not computable

⁵NOS = not otherwise specified

Figures

Figure 1a. Male/Female Ratios of Cancer Mortality Rates among Whites in the United States, 1970-94

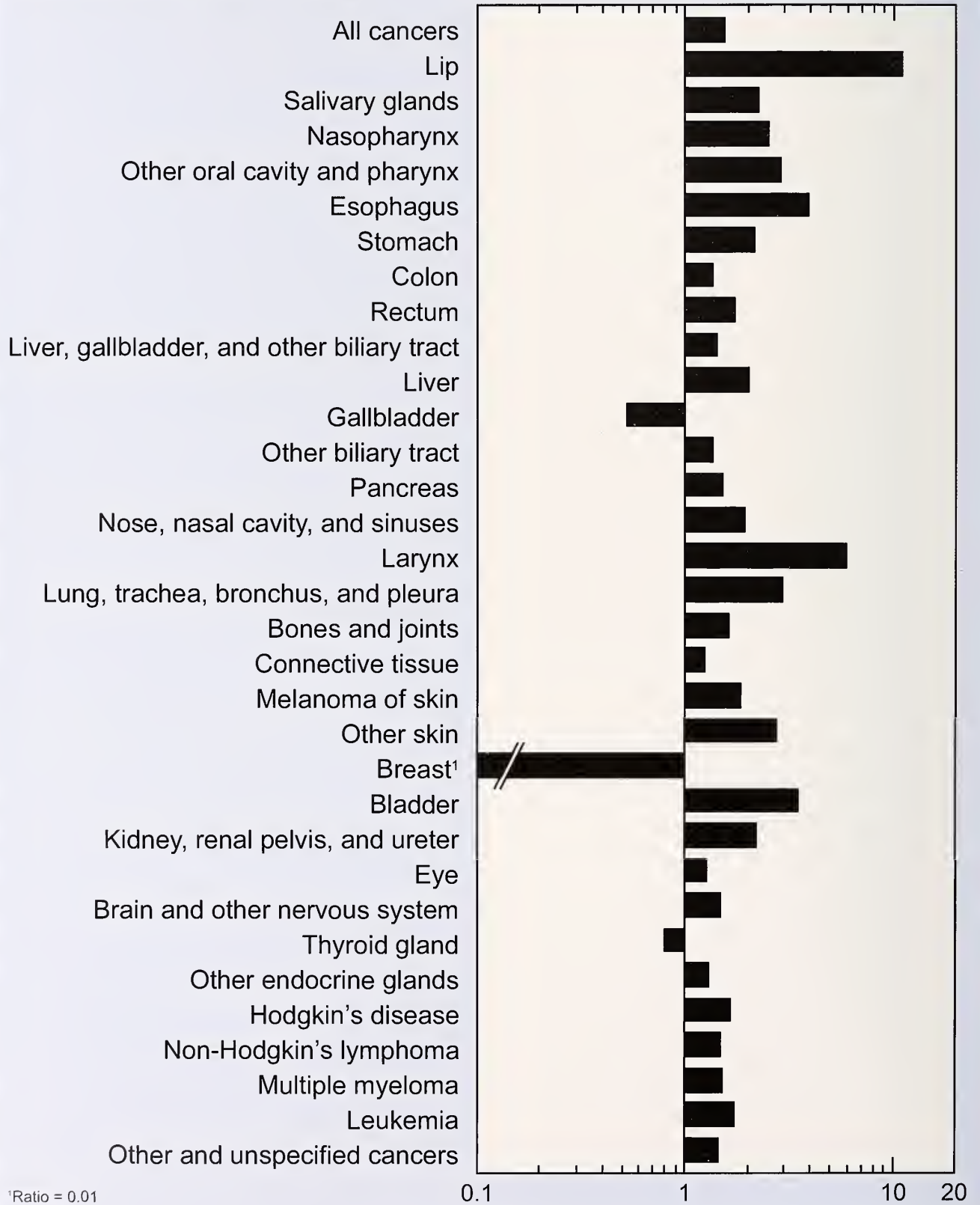
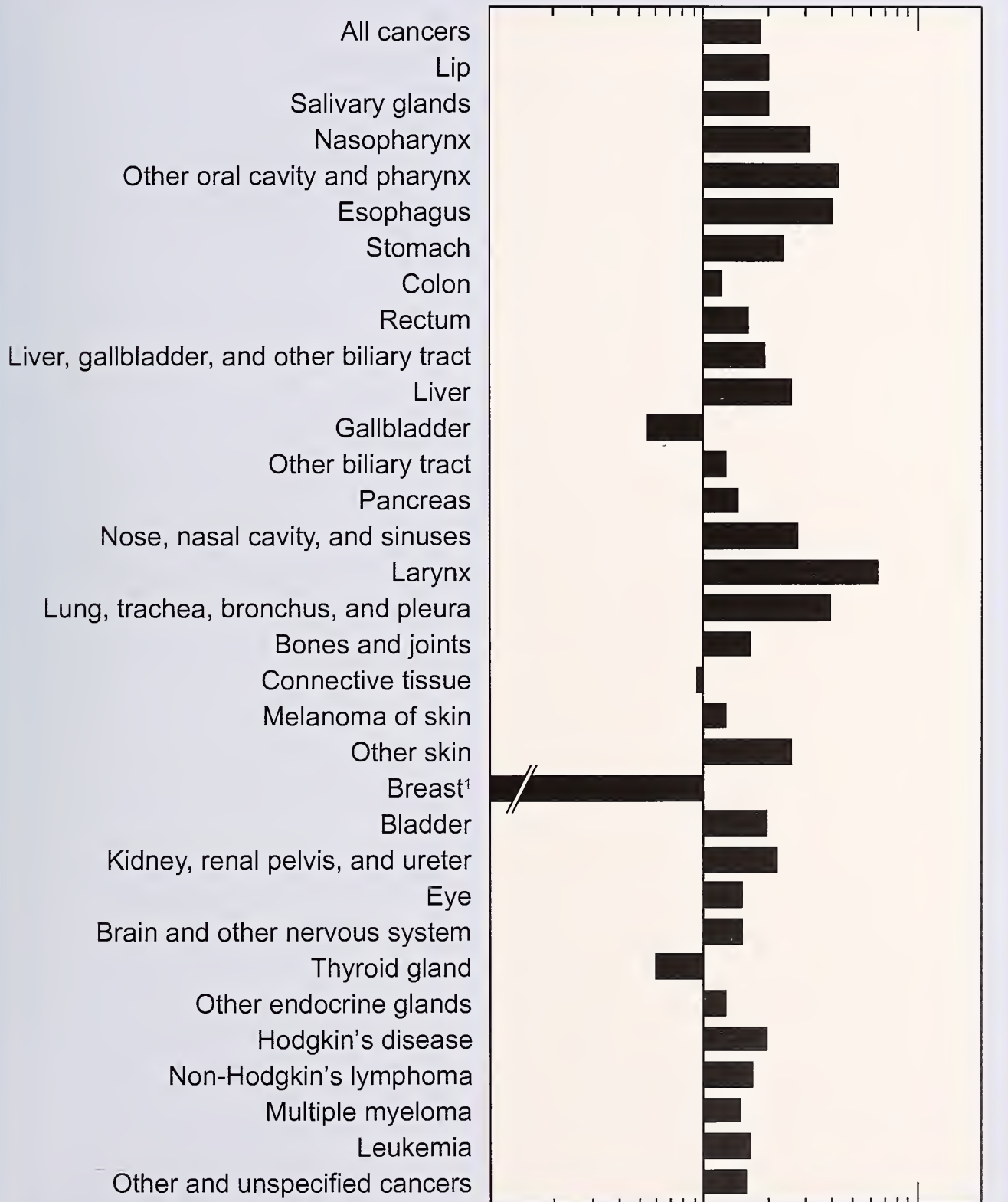


Figure 1b. Male/Female Ratios of Cancer Mortality Rates among Blacks in the United States, 1970-94



¹Ratio = 0.01

Figure 2a. Black/White Ratios of Cancer Mortality Rates among Males in the United States, 1970-94

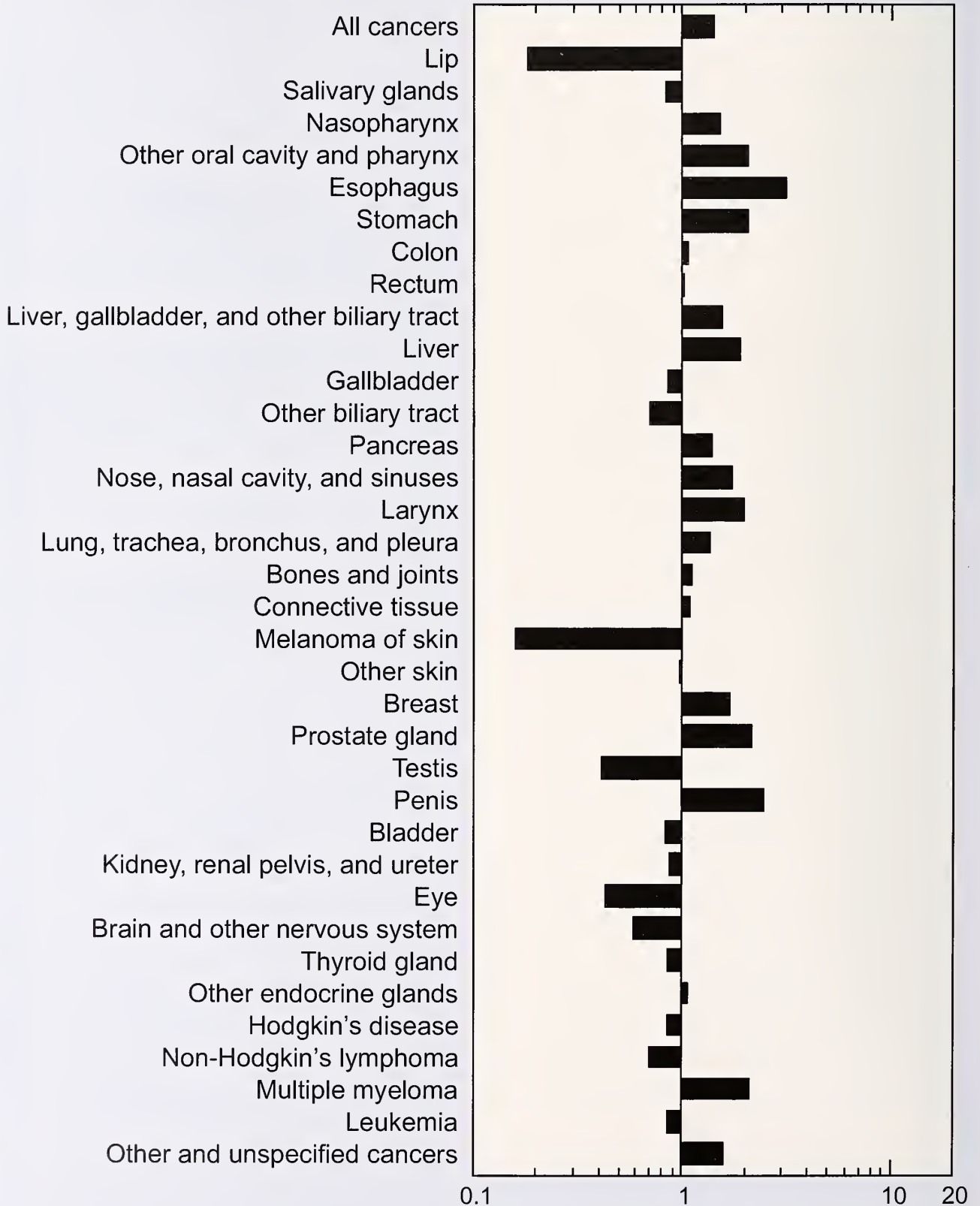


Figure 2b. Black/White Ratios of Cancer Mortality Rates among Females in the United States, 1970-94

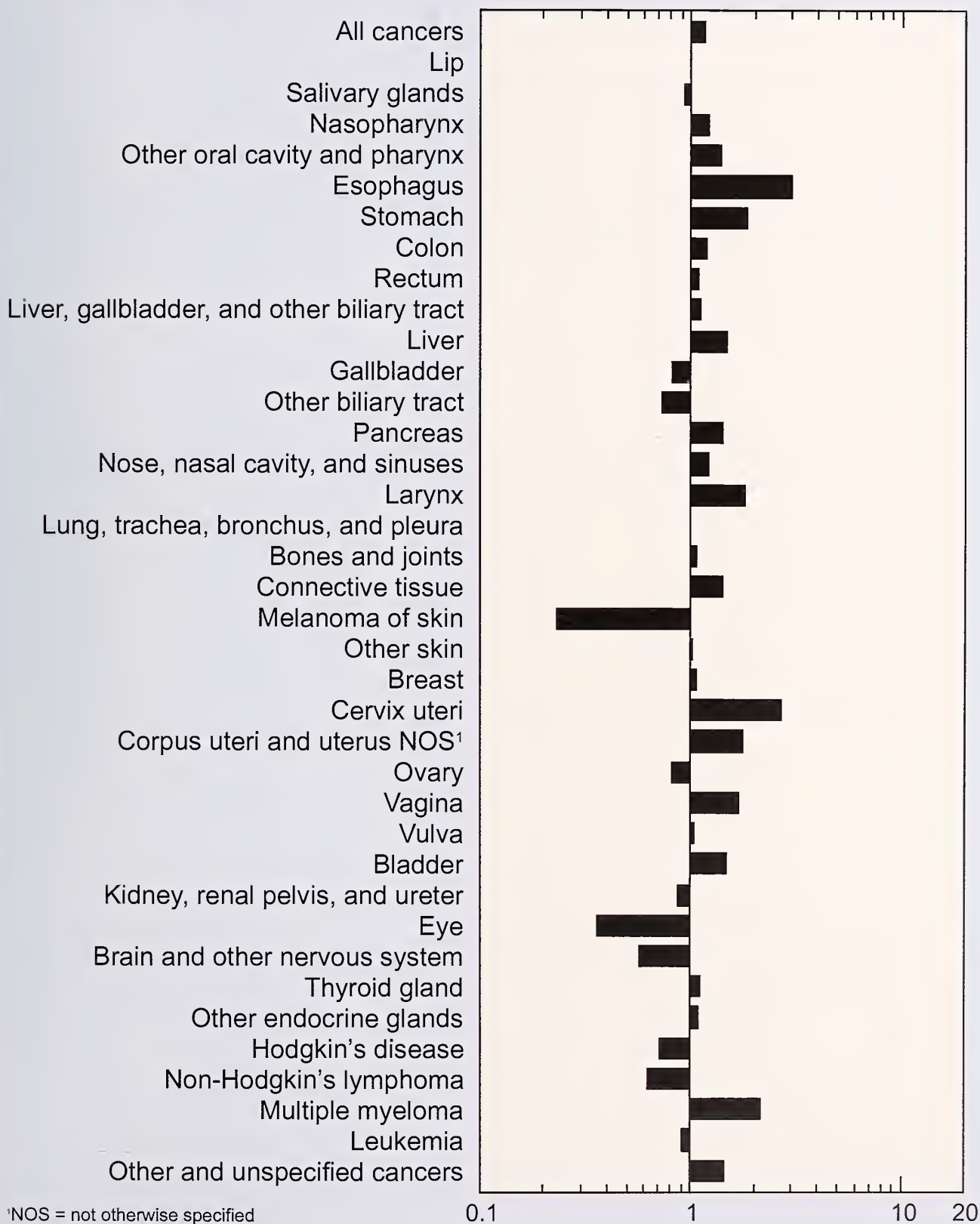


Figure 3. Annual Age-Specific Mortality Rates for Specific Cancers by Race and Sex, United States, 1970-94

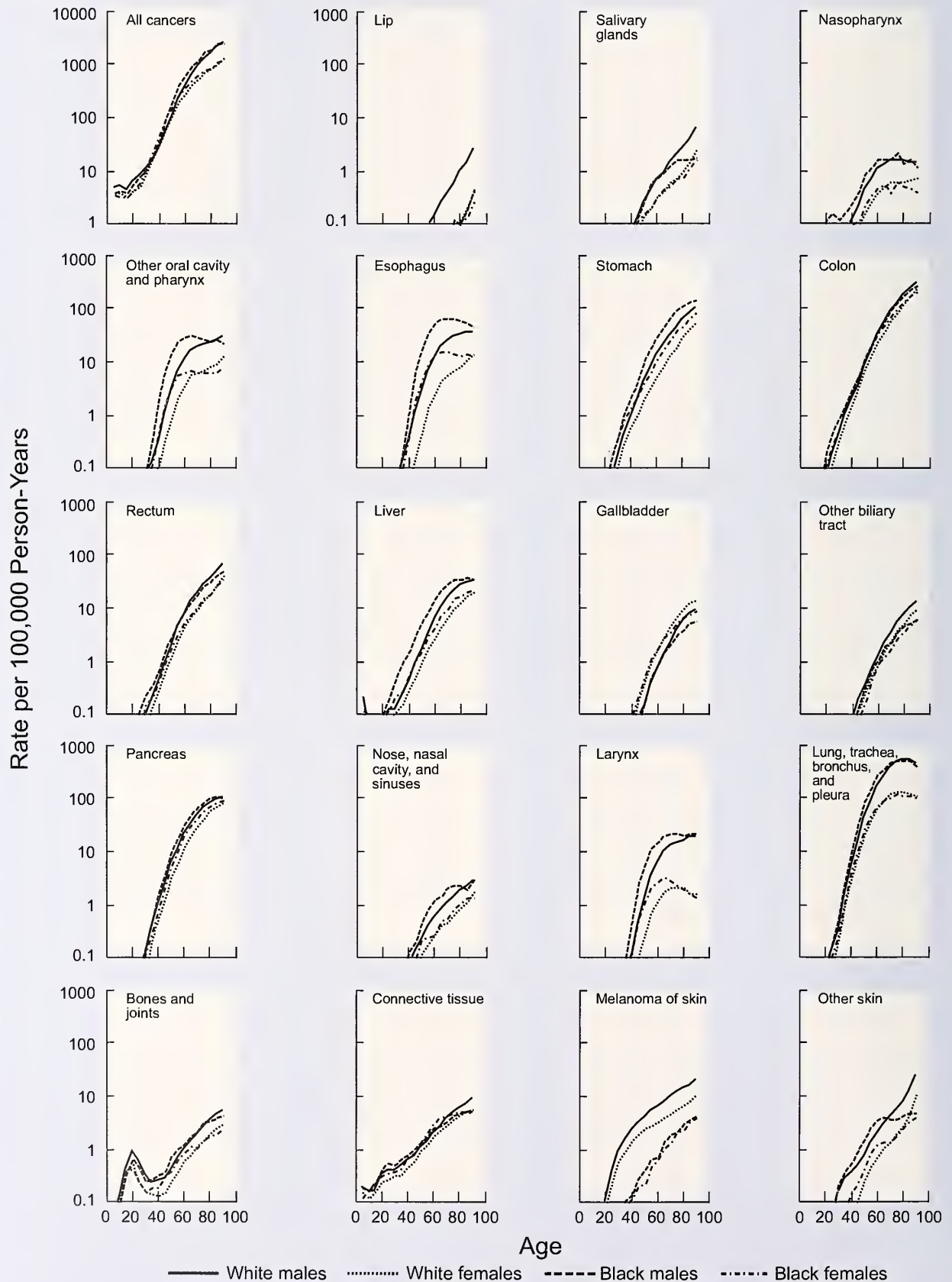
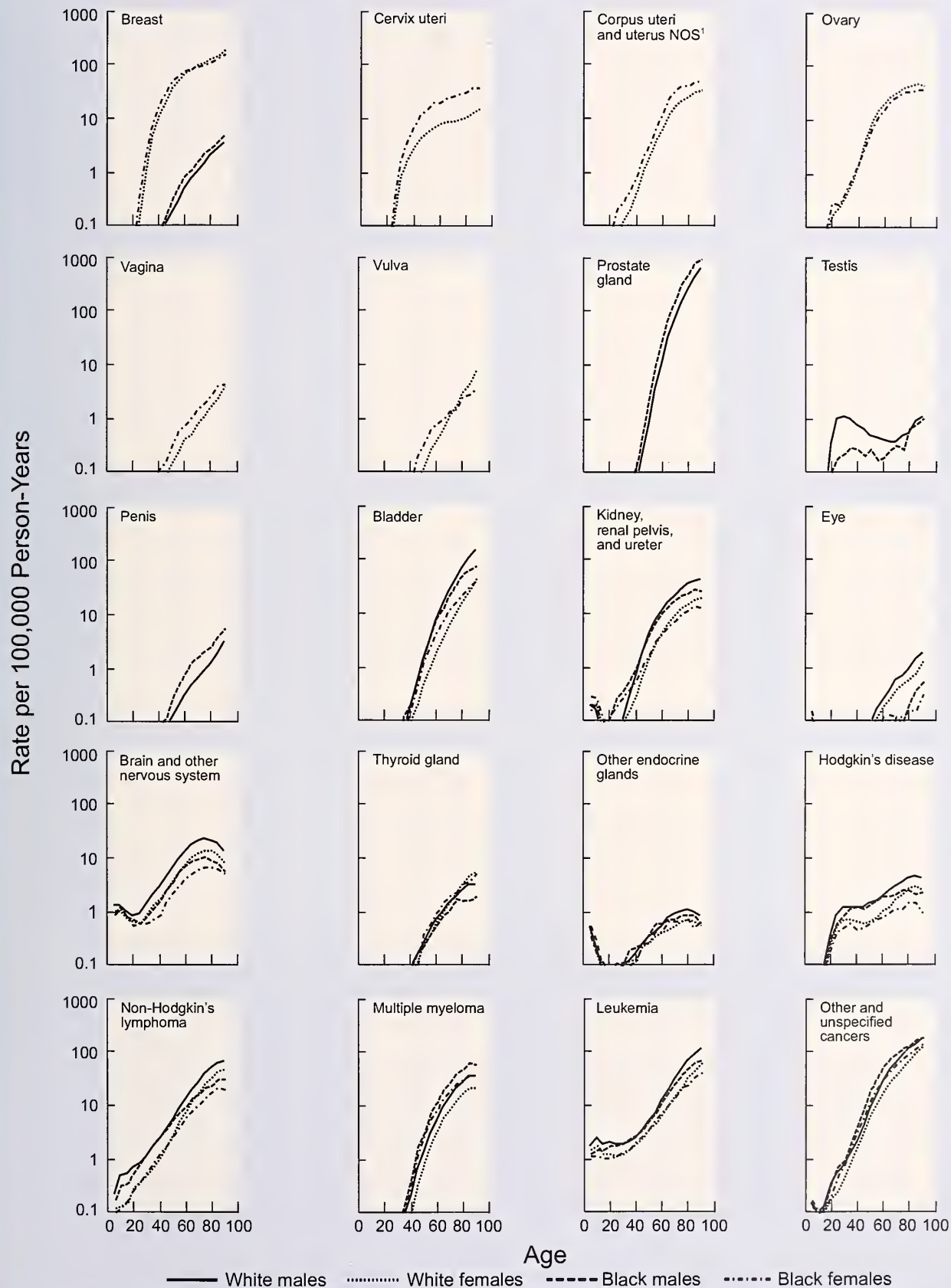
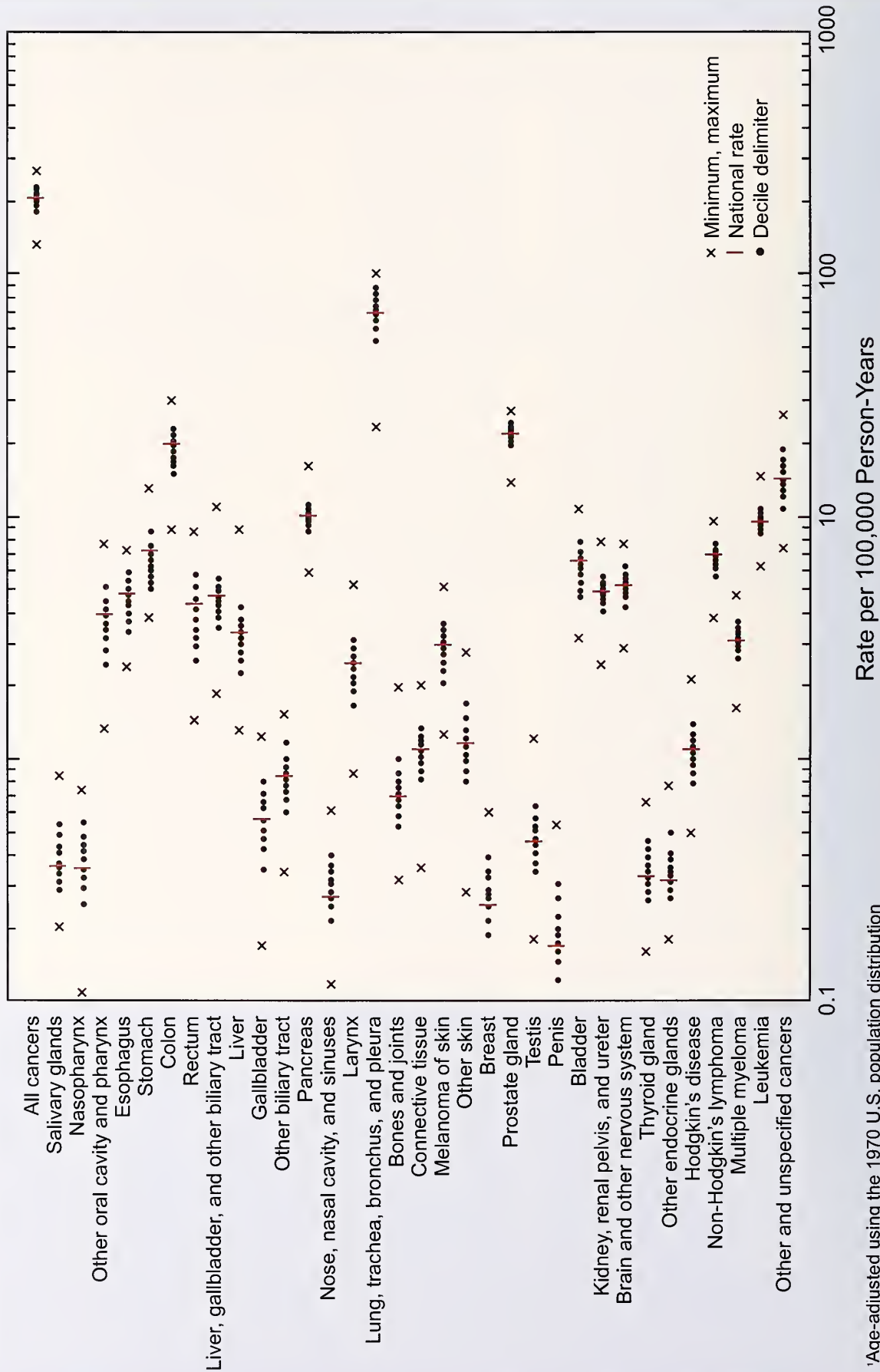


Figure 3. Annual Age-Specific Mortality Rates for Specific Cancers by Race and Sex, United States, 1970-94 (continued)



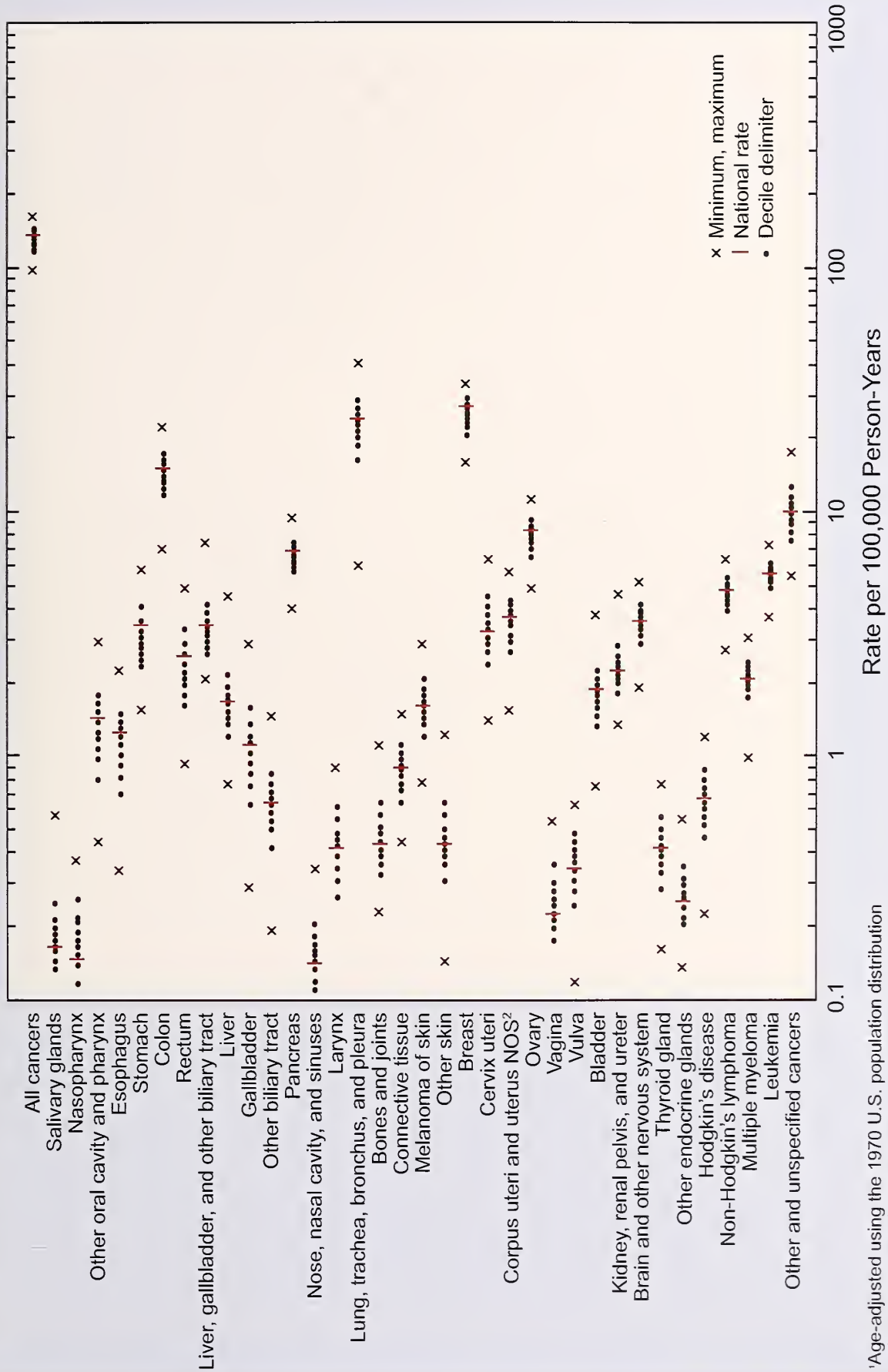
¹NOS = not otherwise specified

Figure 4a. Range and Decile Distribution across SEAs of Annual Mortality Rates¹ for Mapped Cancers among White Males, United States, 1970-94



¹Age-adjusted using the 1970 U.S. population distribution
 Note: Rates < 0.1/100,000 person-years not shown

Figure 4b. Range and Decile Distribution across SEAs of Annual Mortality Rates¹ for Mapped Cancers among White Females, United States, 1970-94

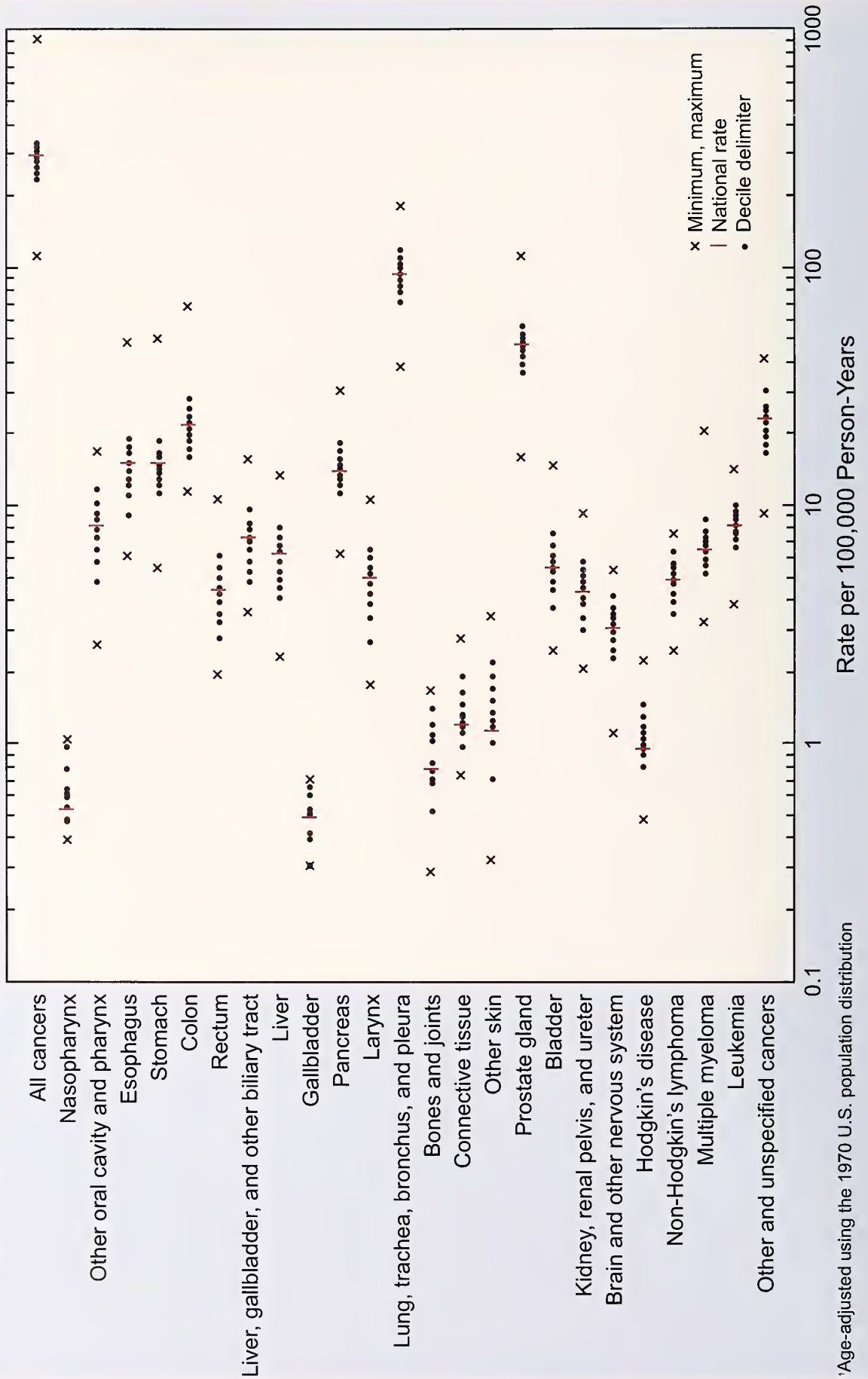


¹Age-adjusted using the 1970 U.S. population distribution

²NOS = not otherwise specified

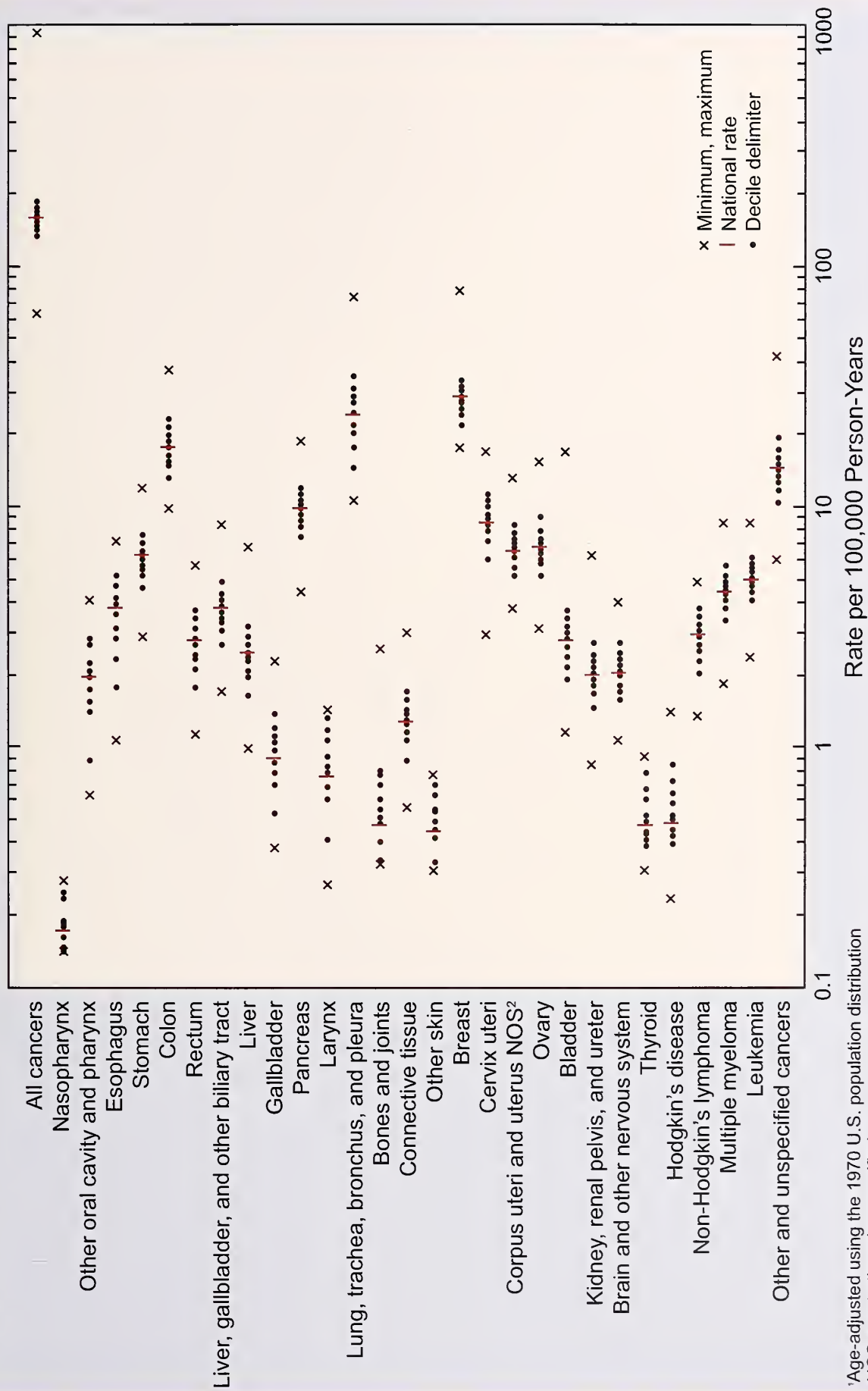
Note: Rates < 0.1/100,000 person-years not shown

Figure 4c. Range and Decile Distribution across SEAs of Annual Mortality Rates¹ for Mapped Cancers among Black Males, United States, 1970-94



¹Age-adjusted using the 1970 U.S. population distribution

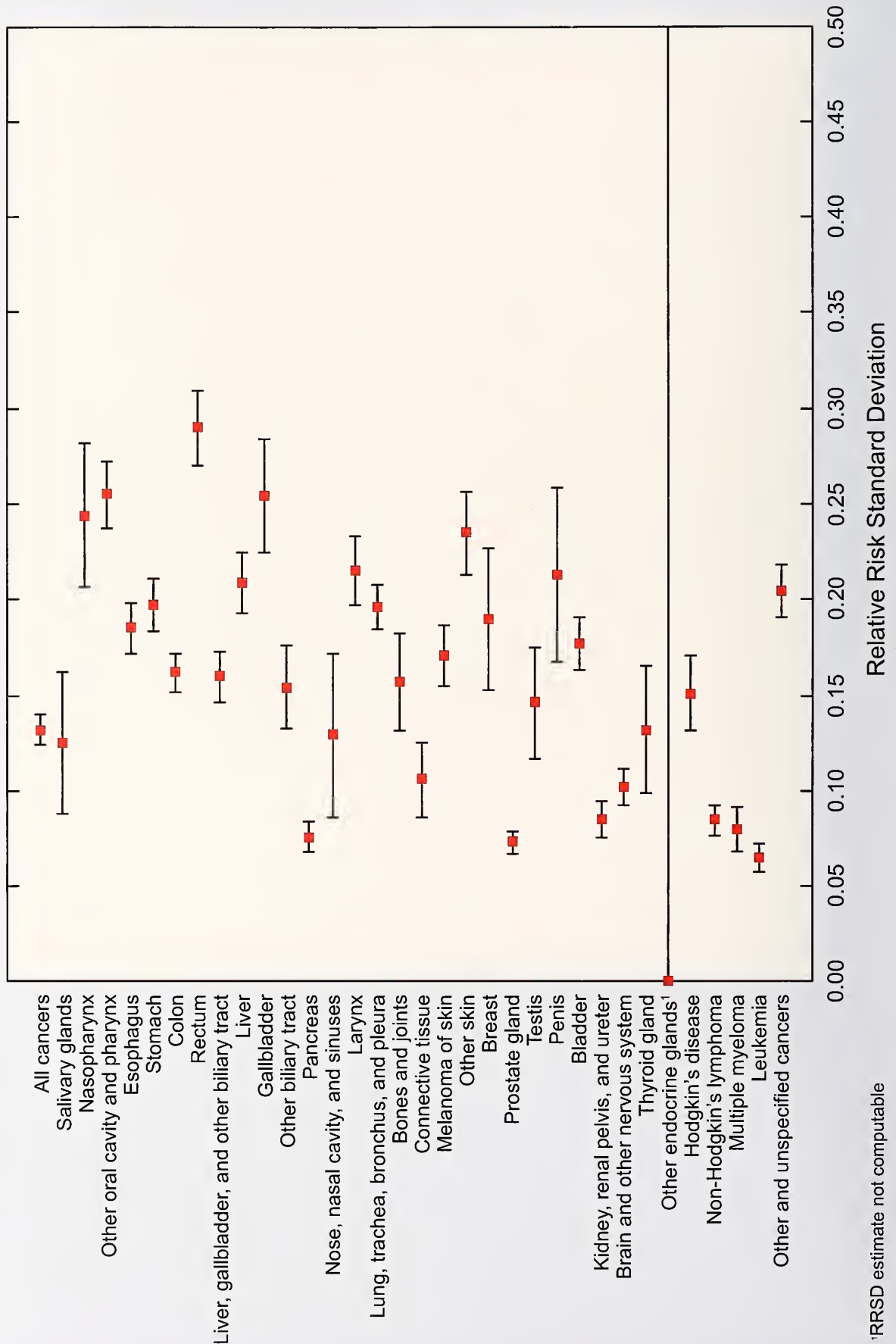
Figure 4d. Range and Decile Distribution across SEAs of Annual Mortality Rates¹ for Mapped Cancers among Black Females, United States, 1970-94



¹Age-adjusted using the 1970 U.S. population distribution

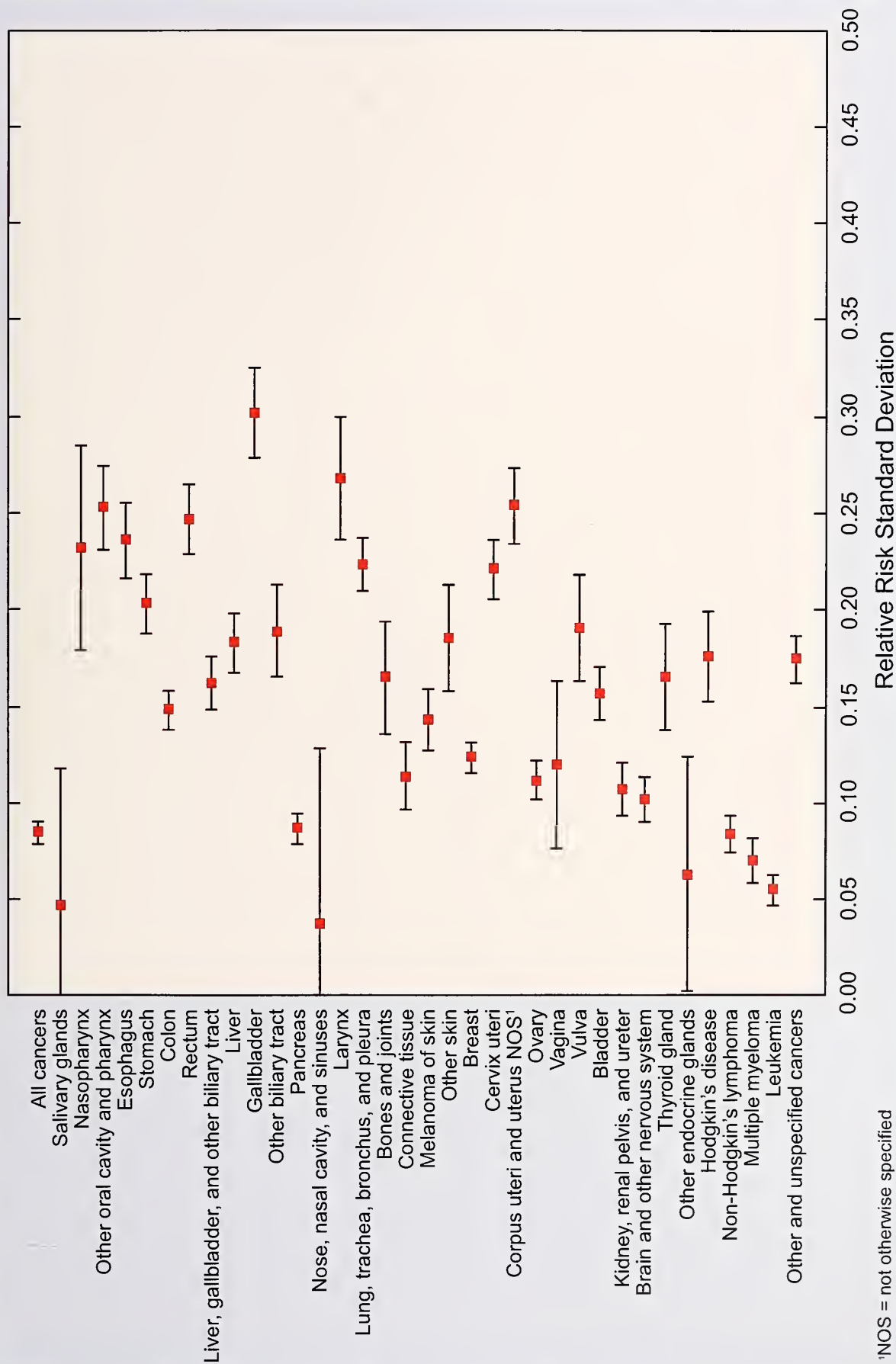
²NOS = not otherwise specified

Figure 5a. Relative Risk Standard Deviations and 95% Confidence Intervals for SEA Mortality Rates for Mapped Cancers among White Males, United States, 1970-94



¹RRSD estimate not computable

Figure 5b. Relative Risk Standard Deviations and 95% Confidence Intervals for SEA Mortality Rates for Mapped Cancers among White Females, United States, 1970-94



¹NOS = not otherwise specified

Figure 5c. Relative Risk Standard Deviations and 95% Confidence Intervals for SEA Mortality Rates for Mapped Cancers among Black Males, United States, 1970-94

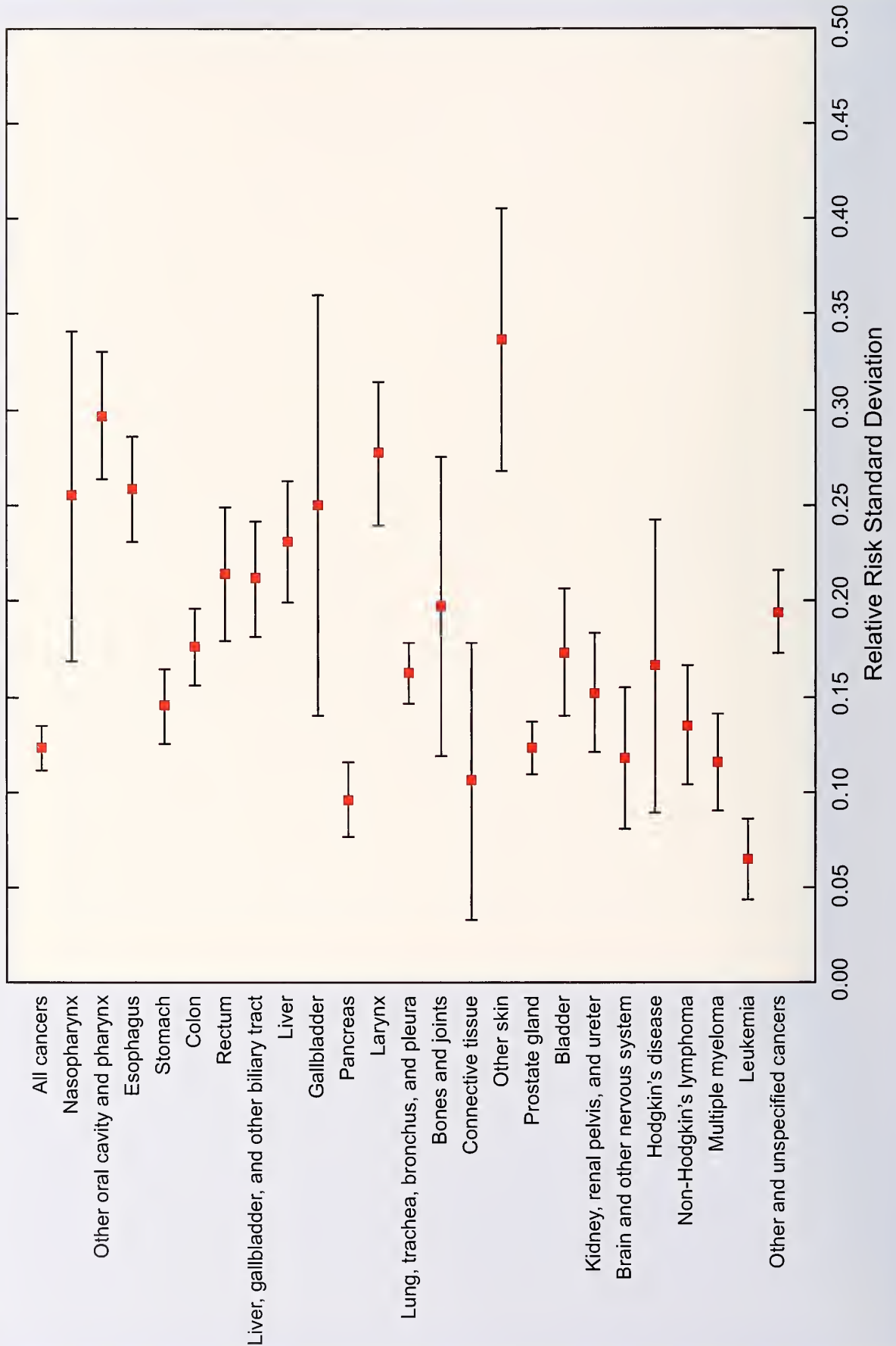
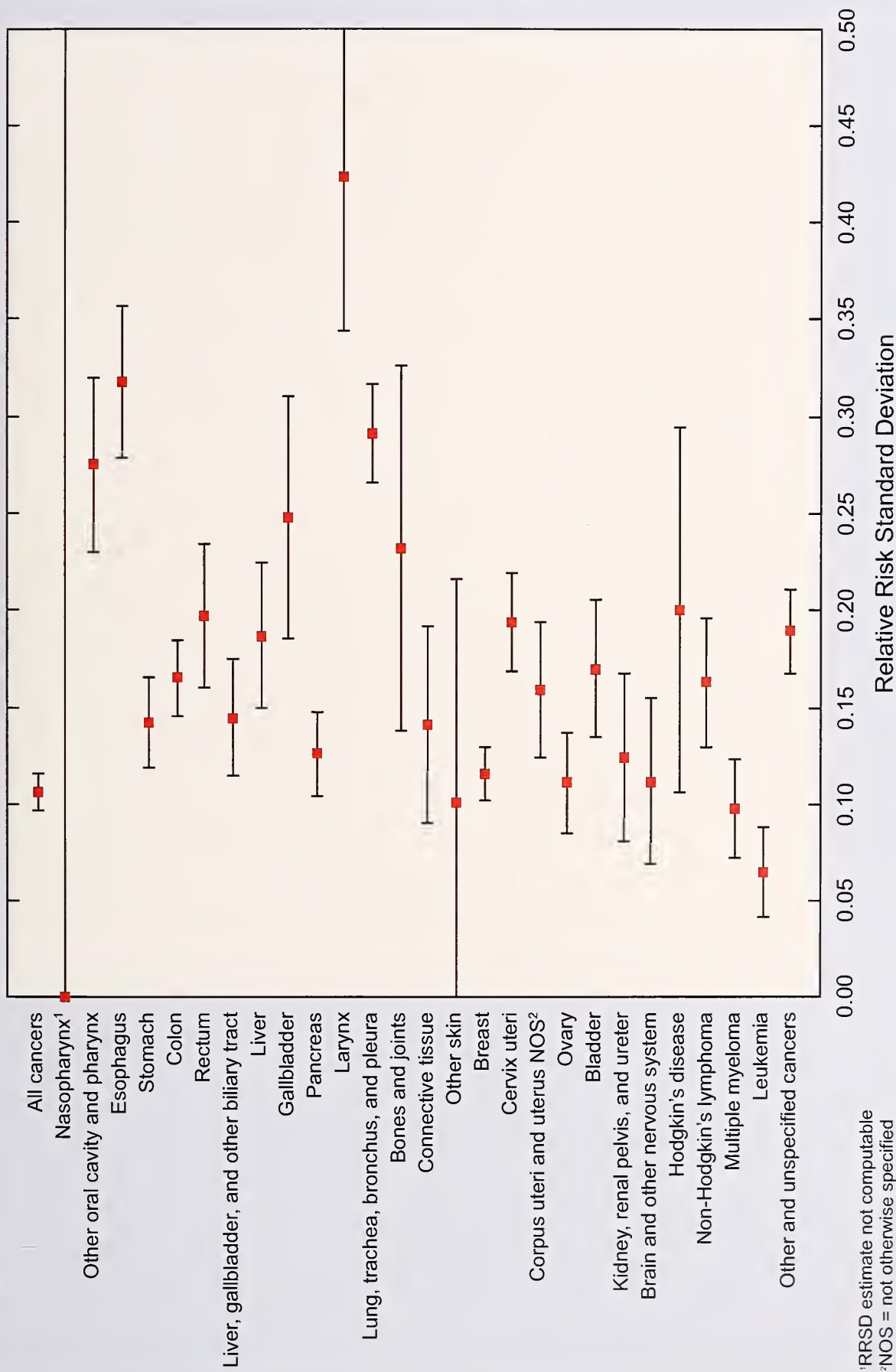


Figure 5d. Relative Risk Standard Deviations and 95% Confidence Intervals for SEA Mortality Rates for Mapped Cancers among Black Females, United States, 1970-94

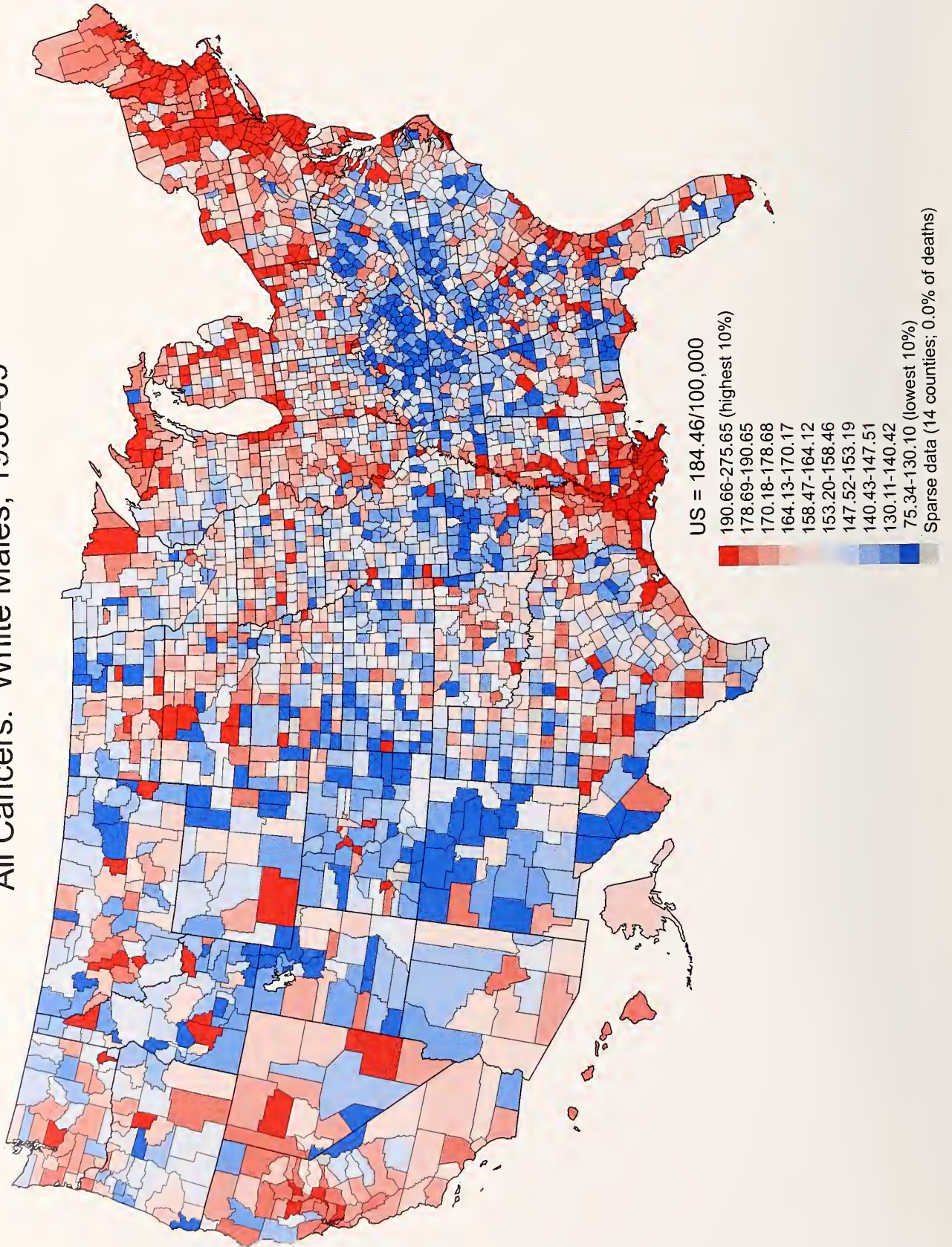


¹RRSD estimate not computable
²NOS = not otherwise specified

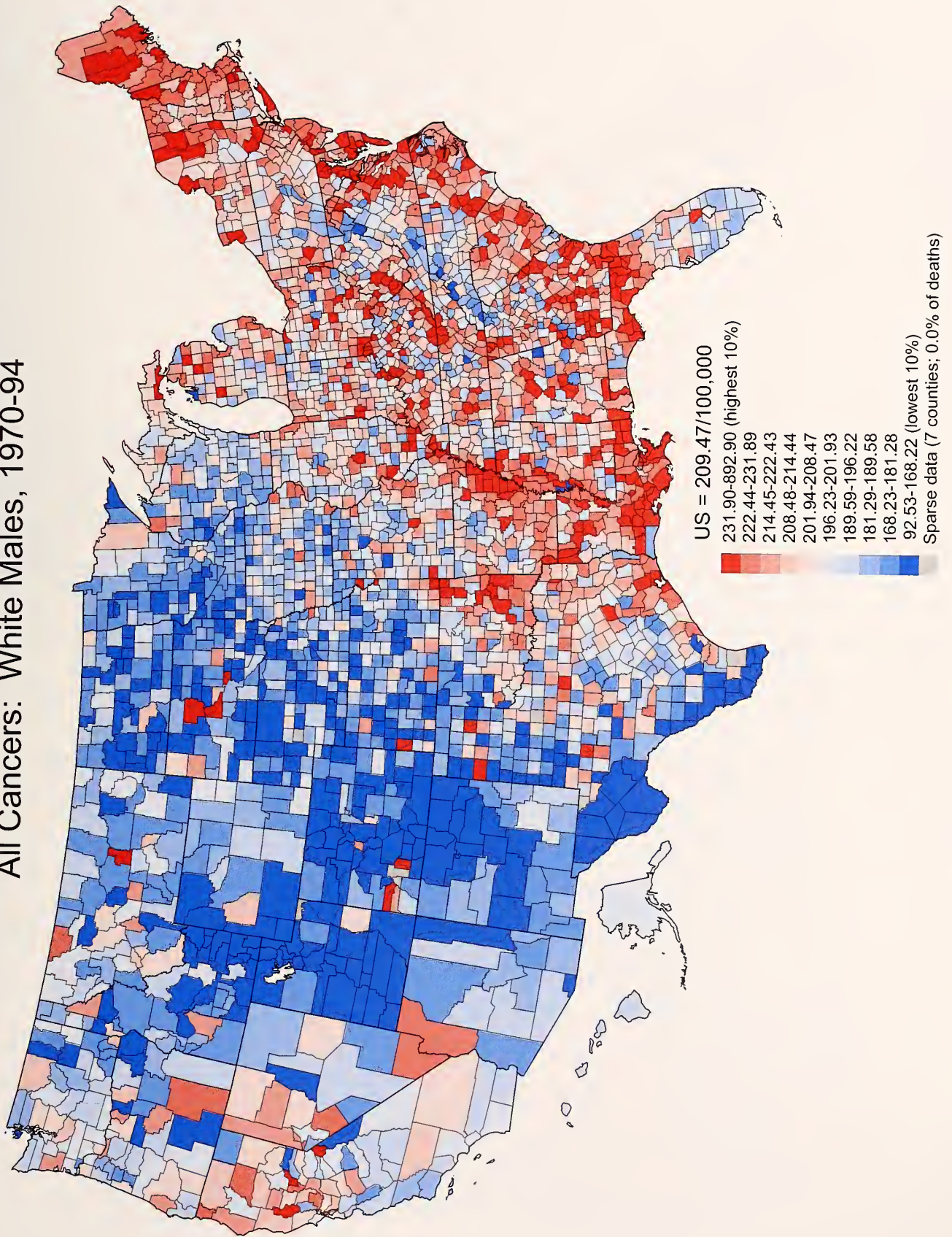


Maps

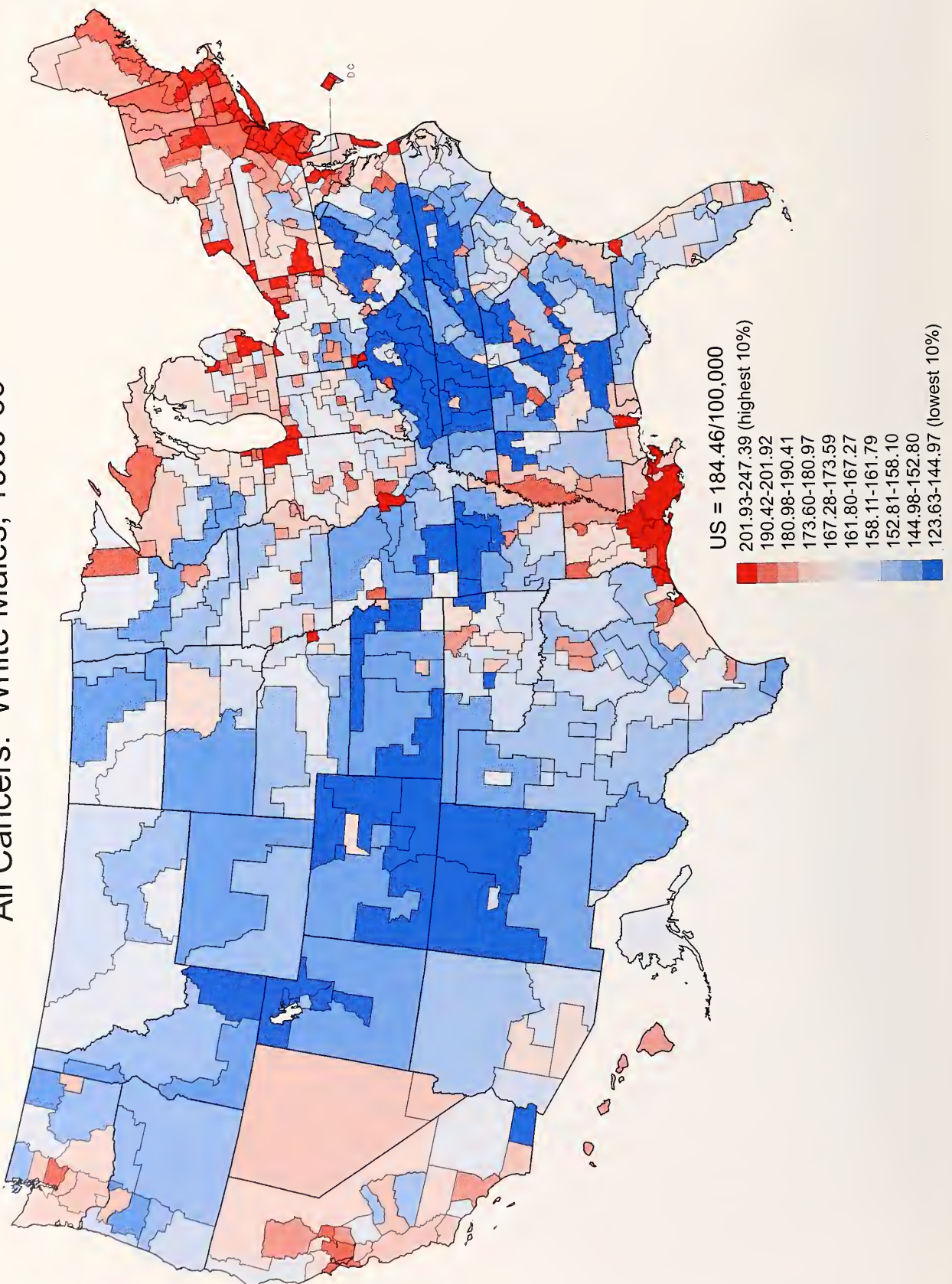
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
All Cancers: White Males, 1950-69



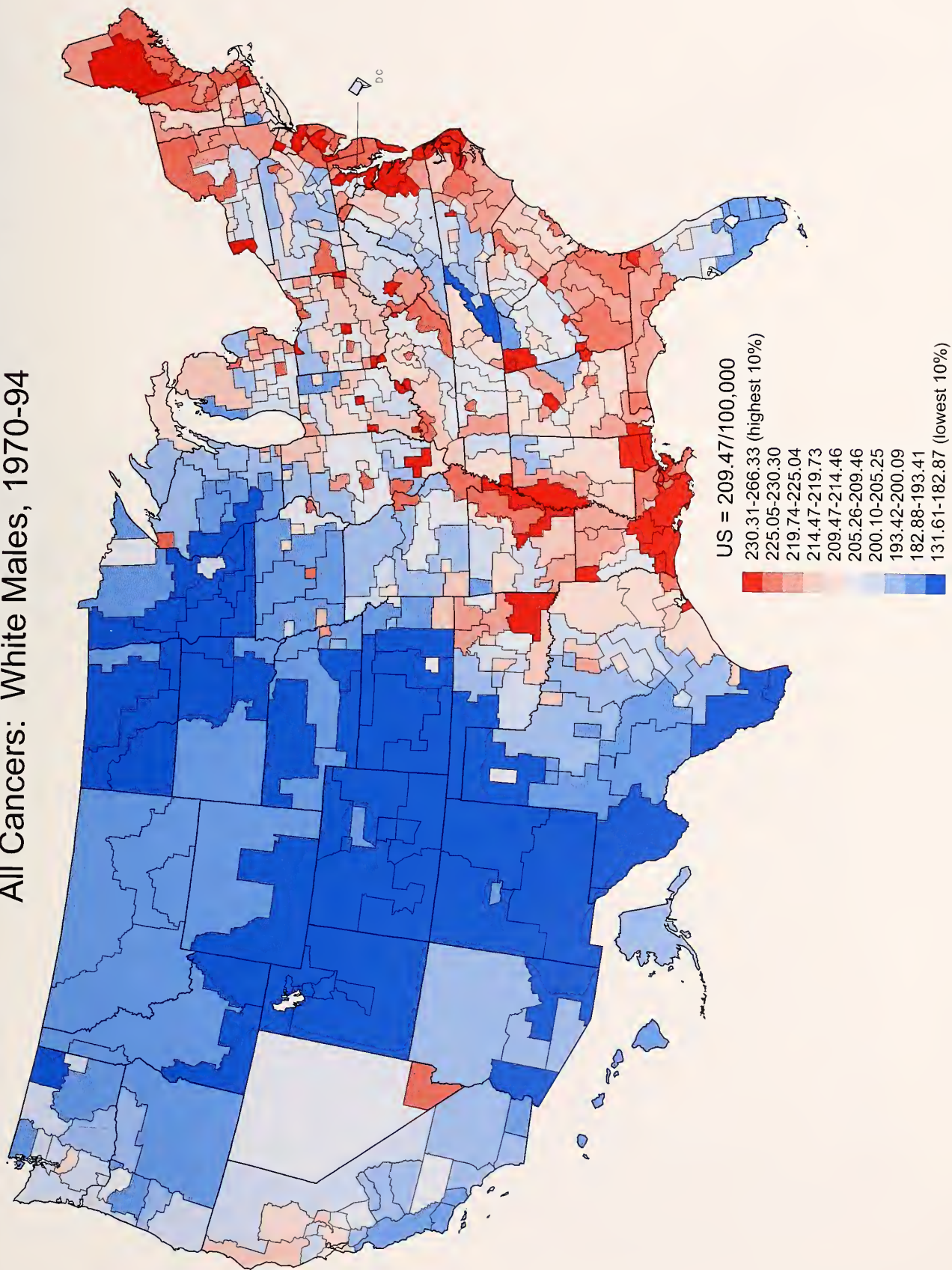
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) All Cancers: White Males, 1970-94



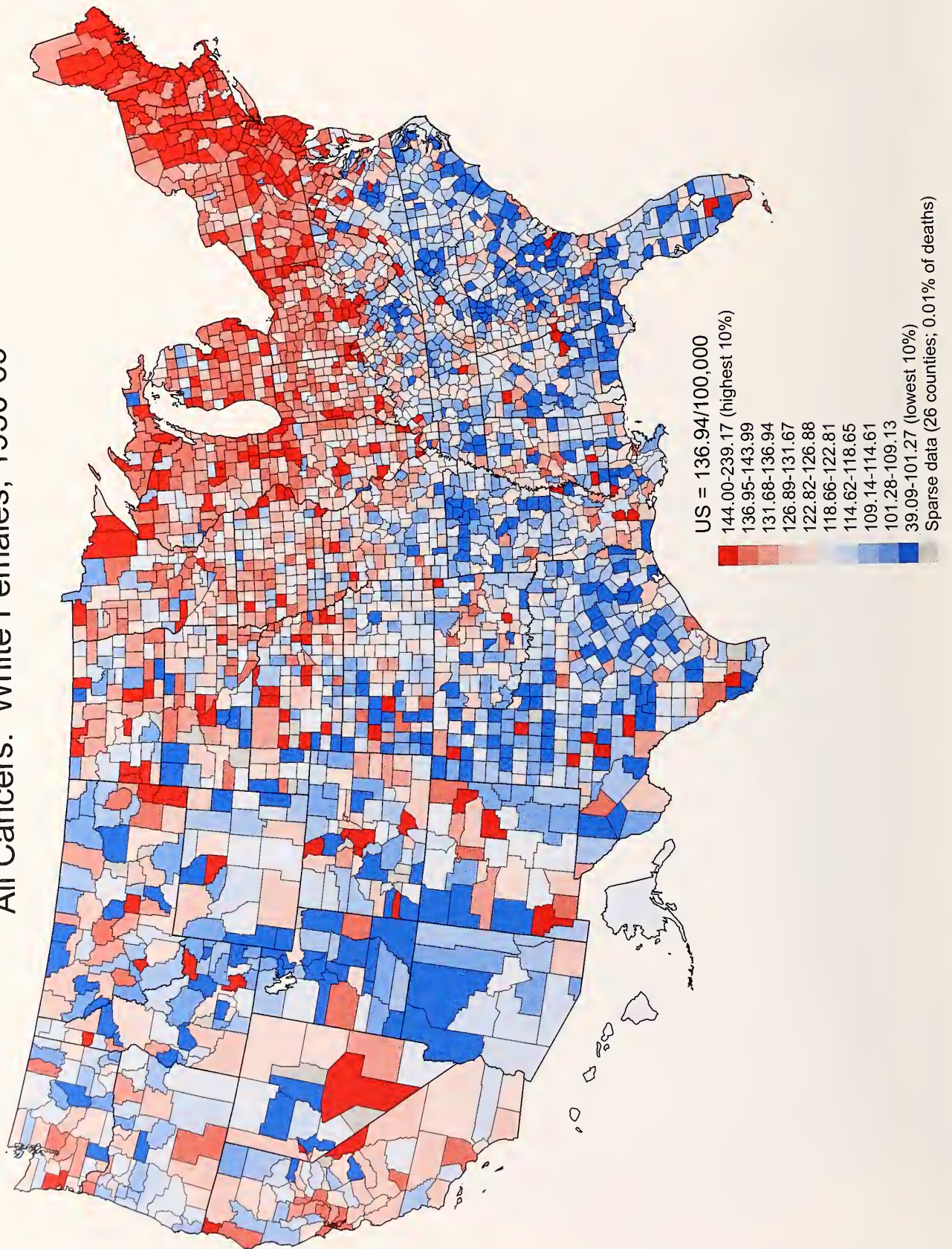
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
All Cancers: White Males, 1950-69



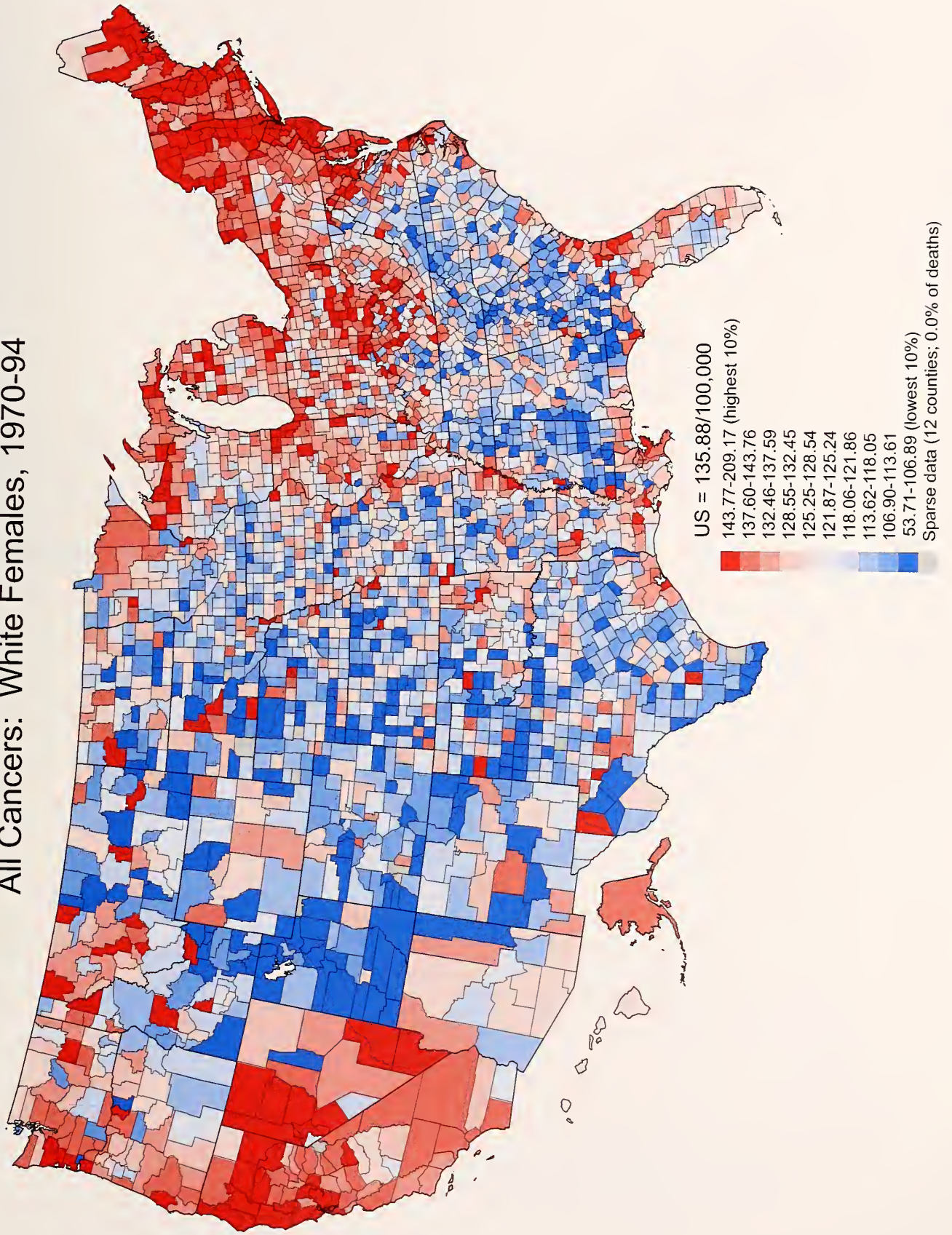
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
All Cancers: White Males, 1970-94



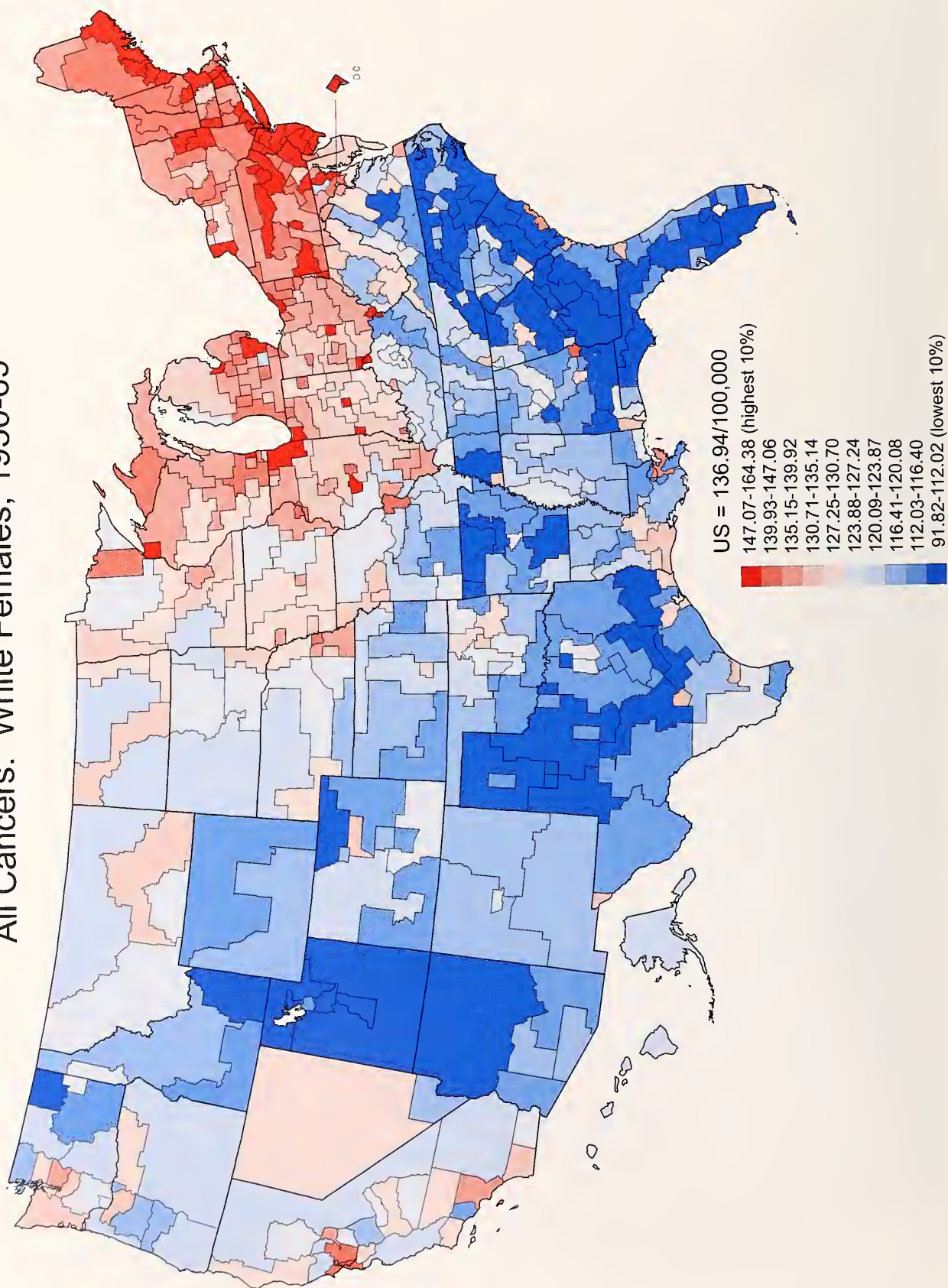
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
All Cancers: White Females, 1950-69



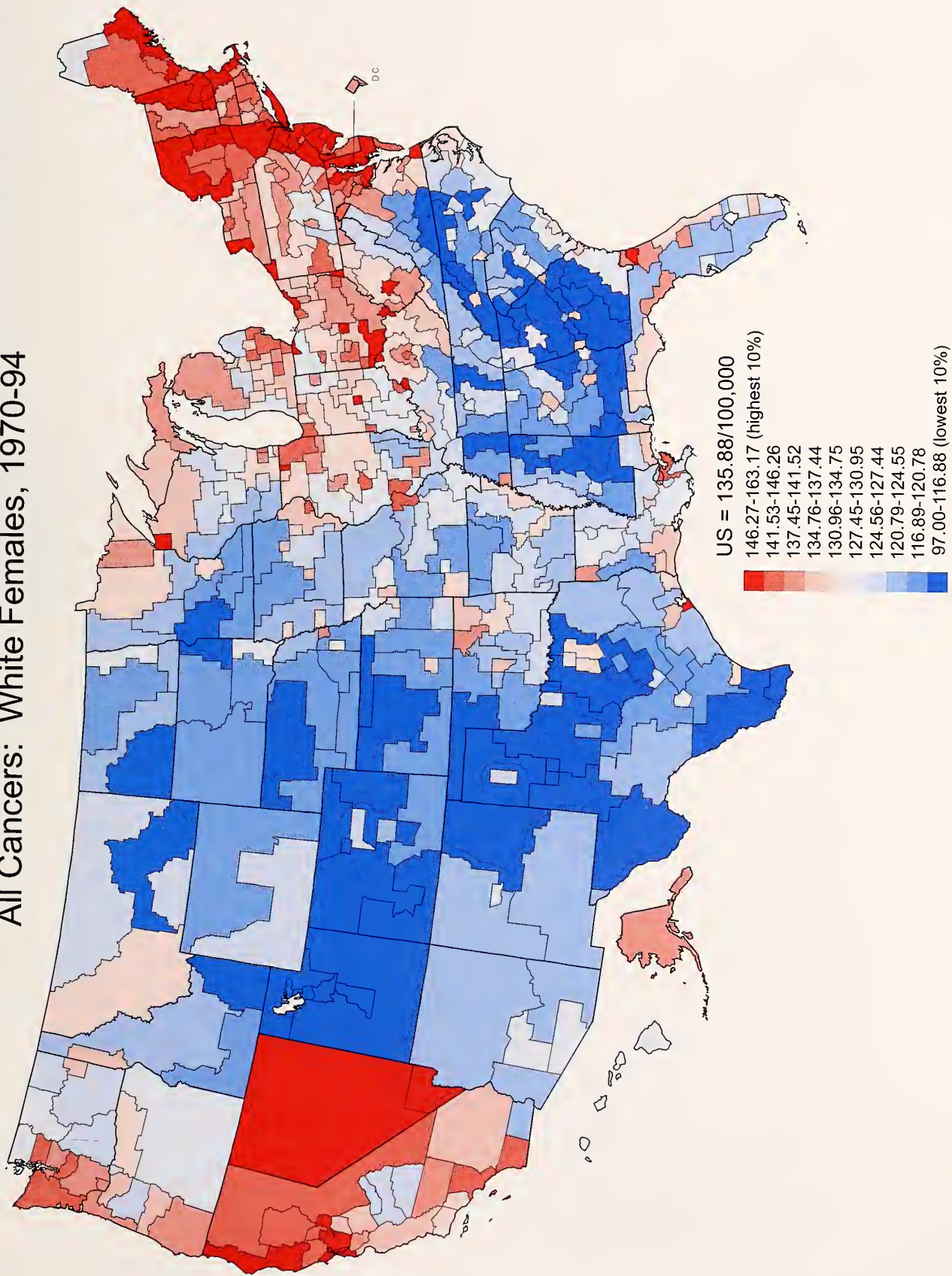
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
All Cancers: White Females, 1970-94



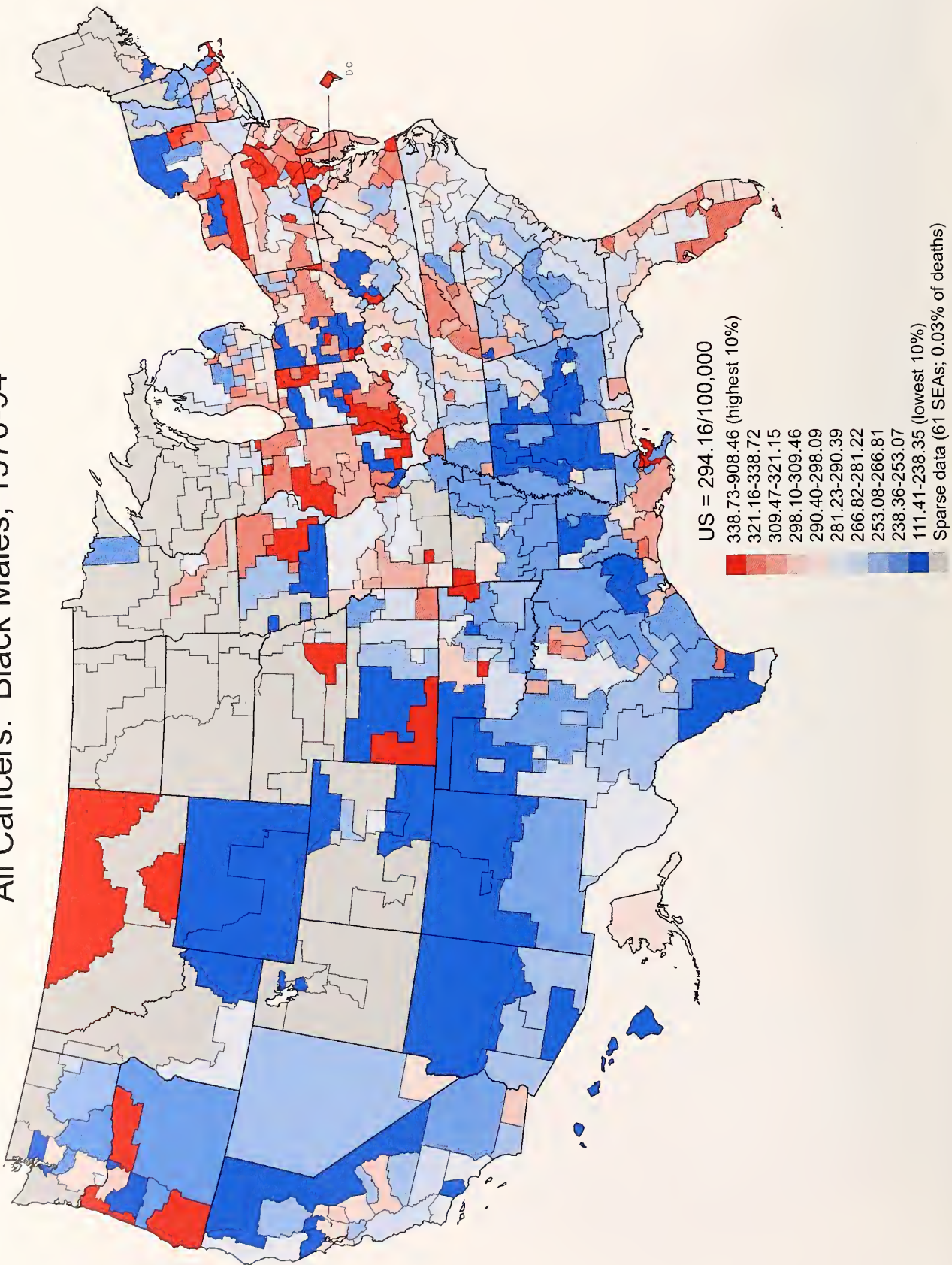
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
All Cancers: White Females, 1950-69



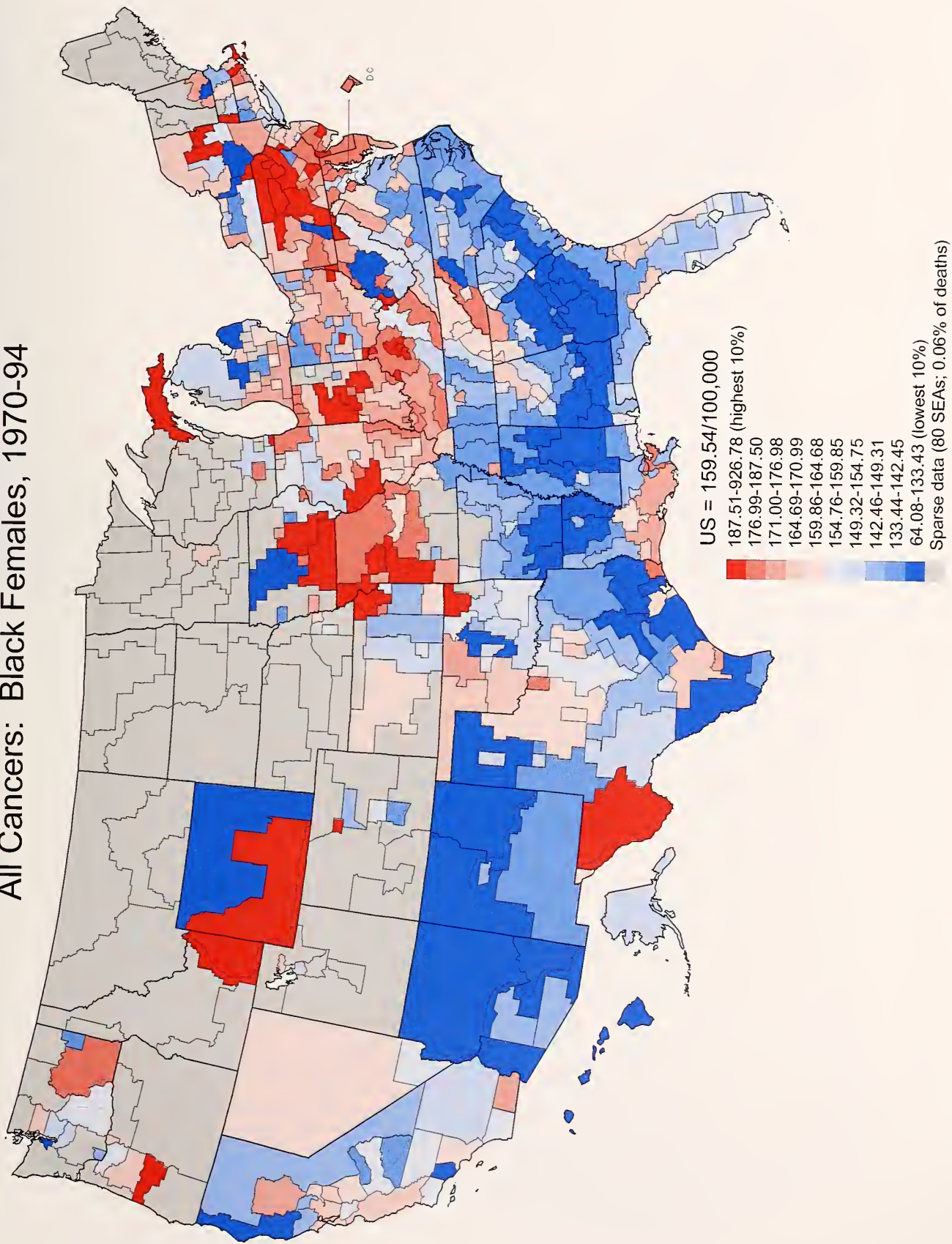
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
All Cancers: White Females, 1970-94



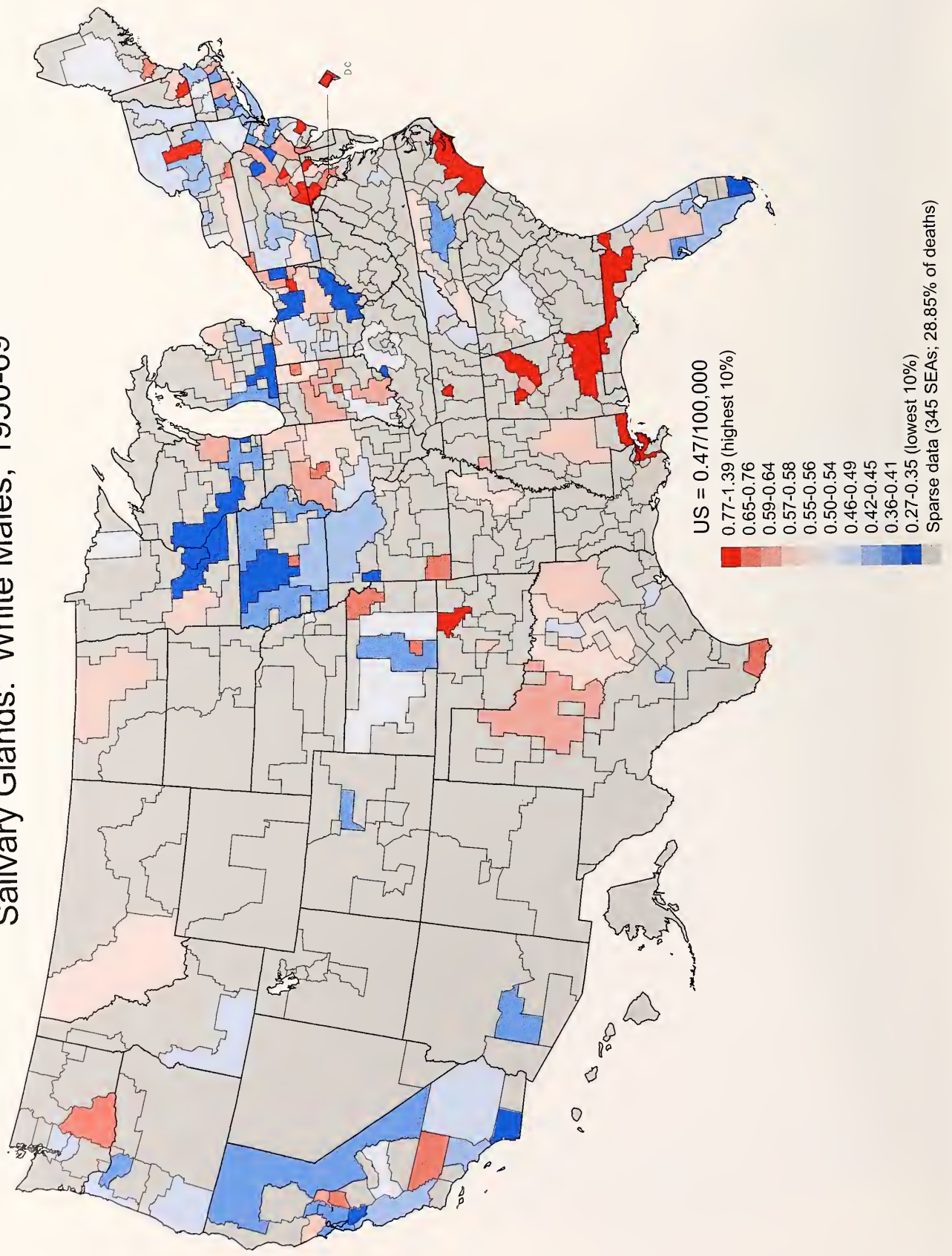
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 All Cancers: Black Males, 1970-94



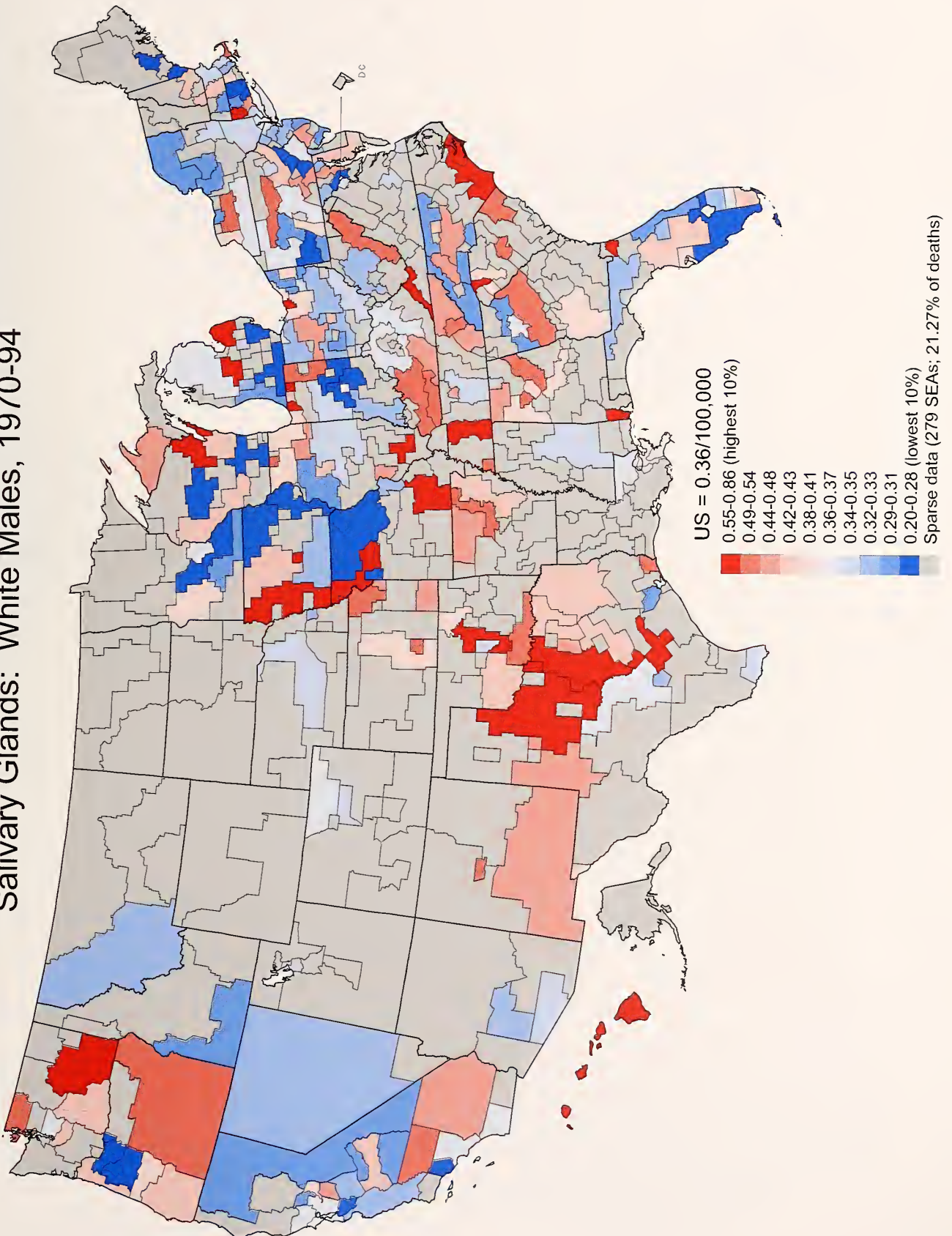
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) All Cancers: Black Females, 1970-94



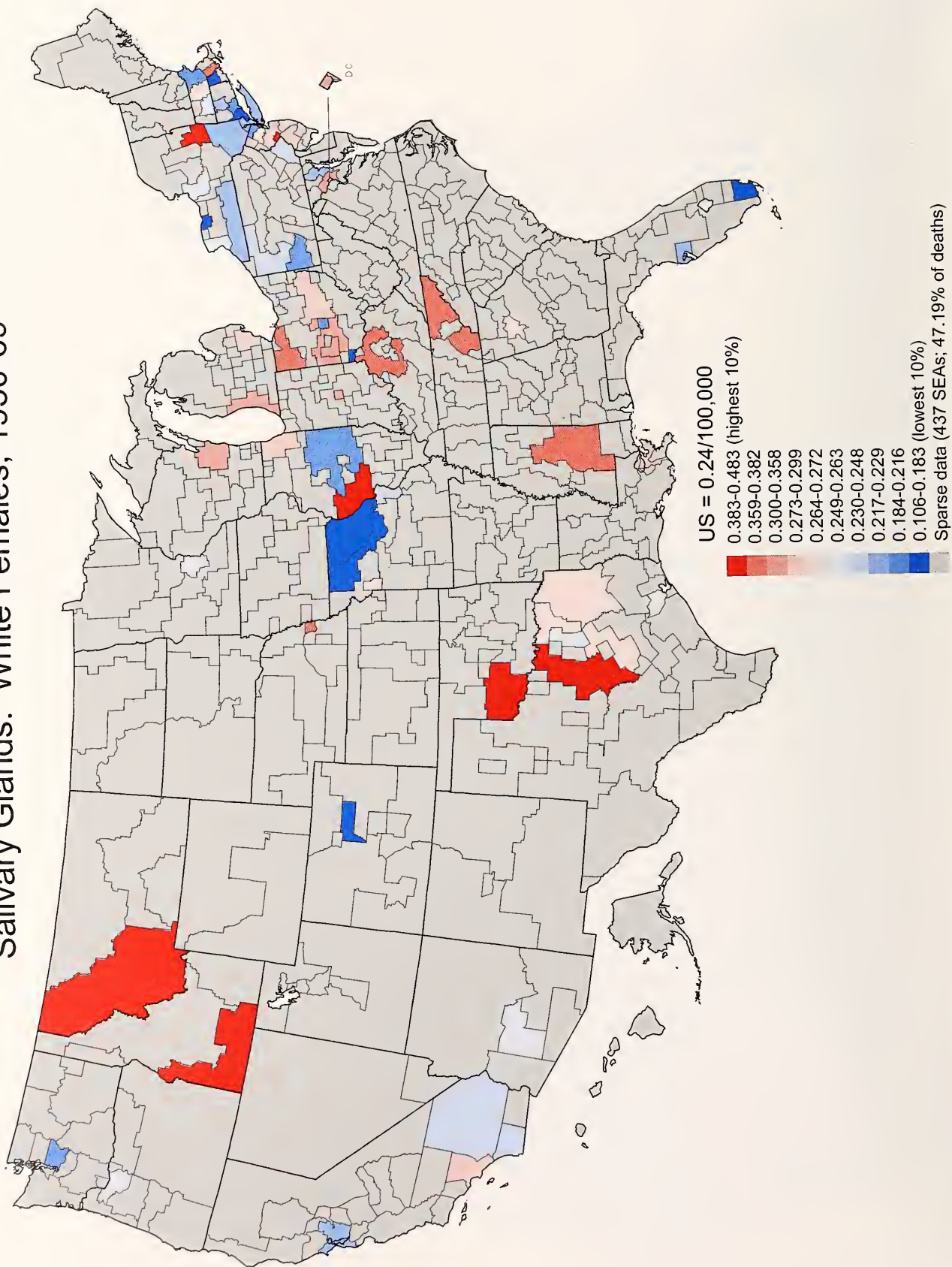
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Salivary Glands: White Males, 1950-69



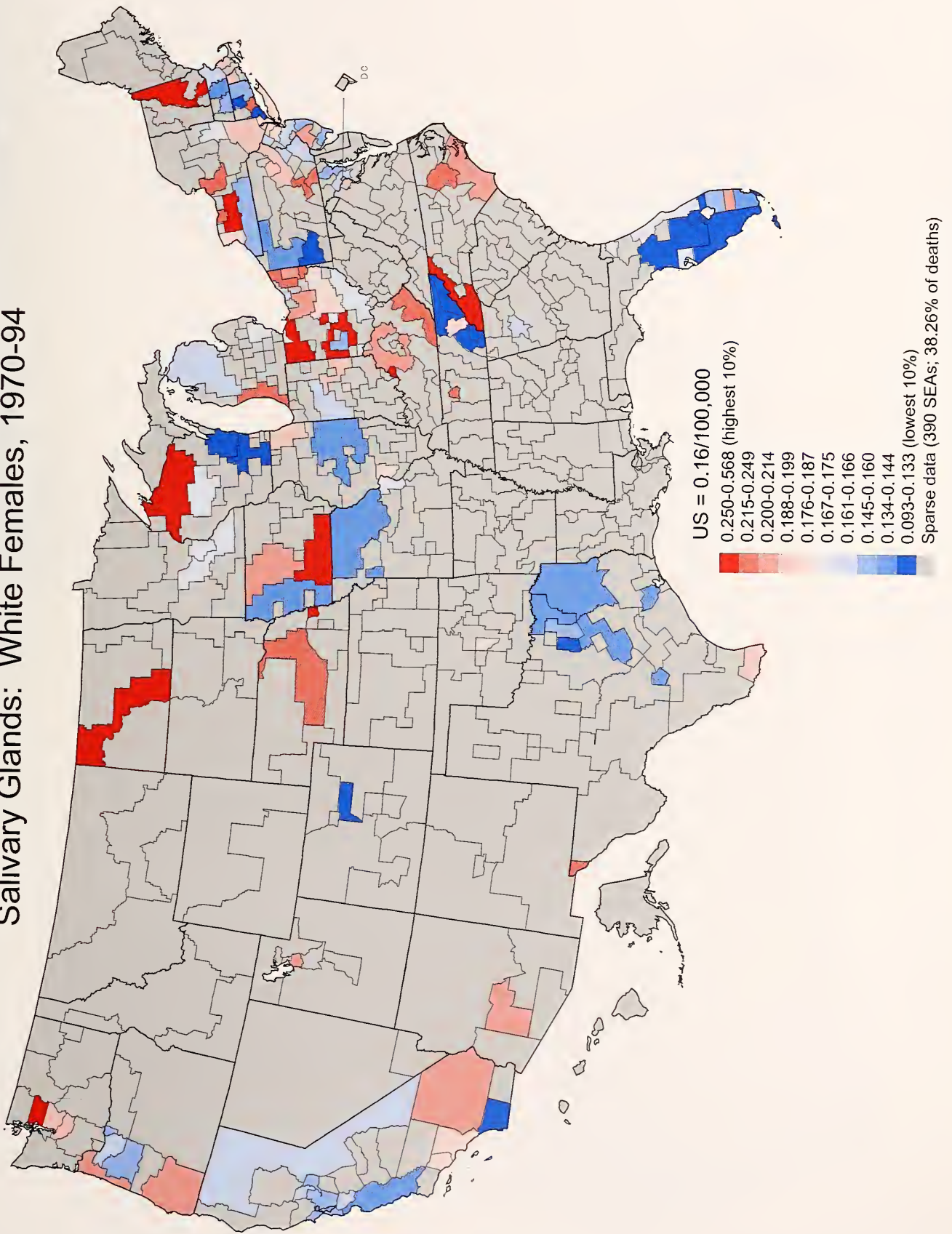
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Salivary Glands: White Males, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Salivary Glands: White Females, 1950-69

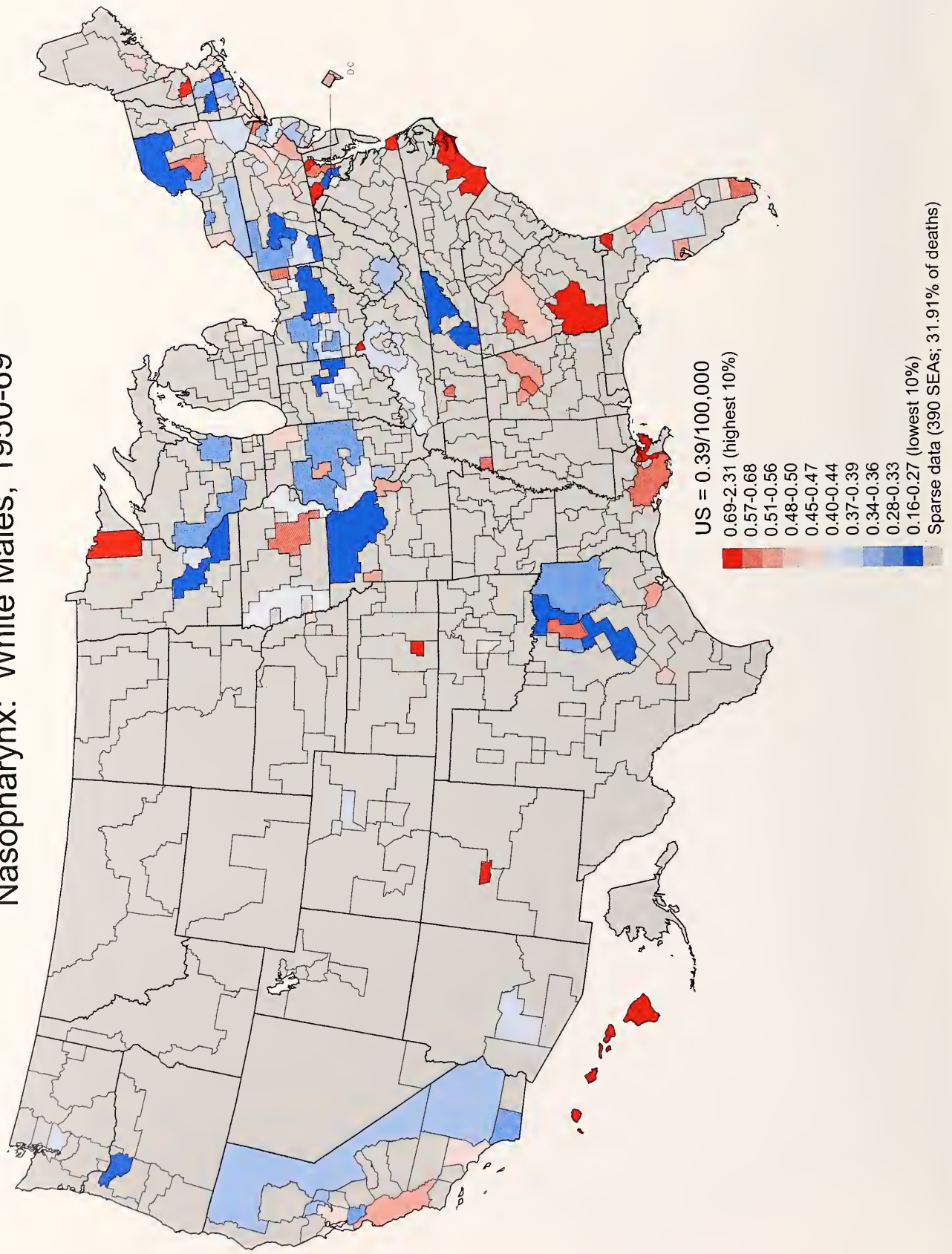


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Salivary Glands: White Females, 1970-94

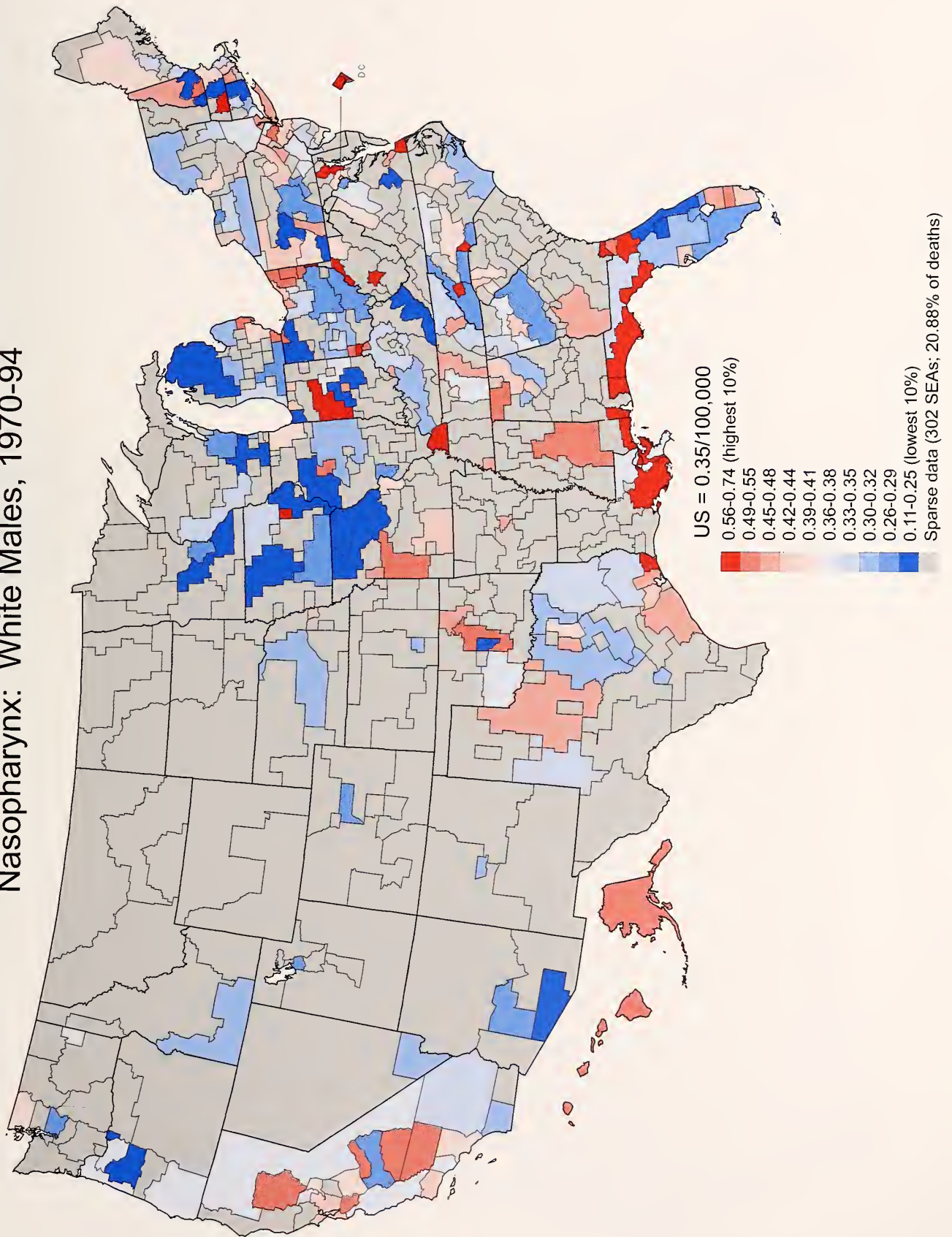


Nasopharynx

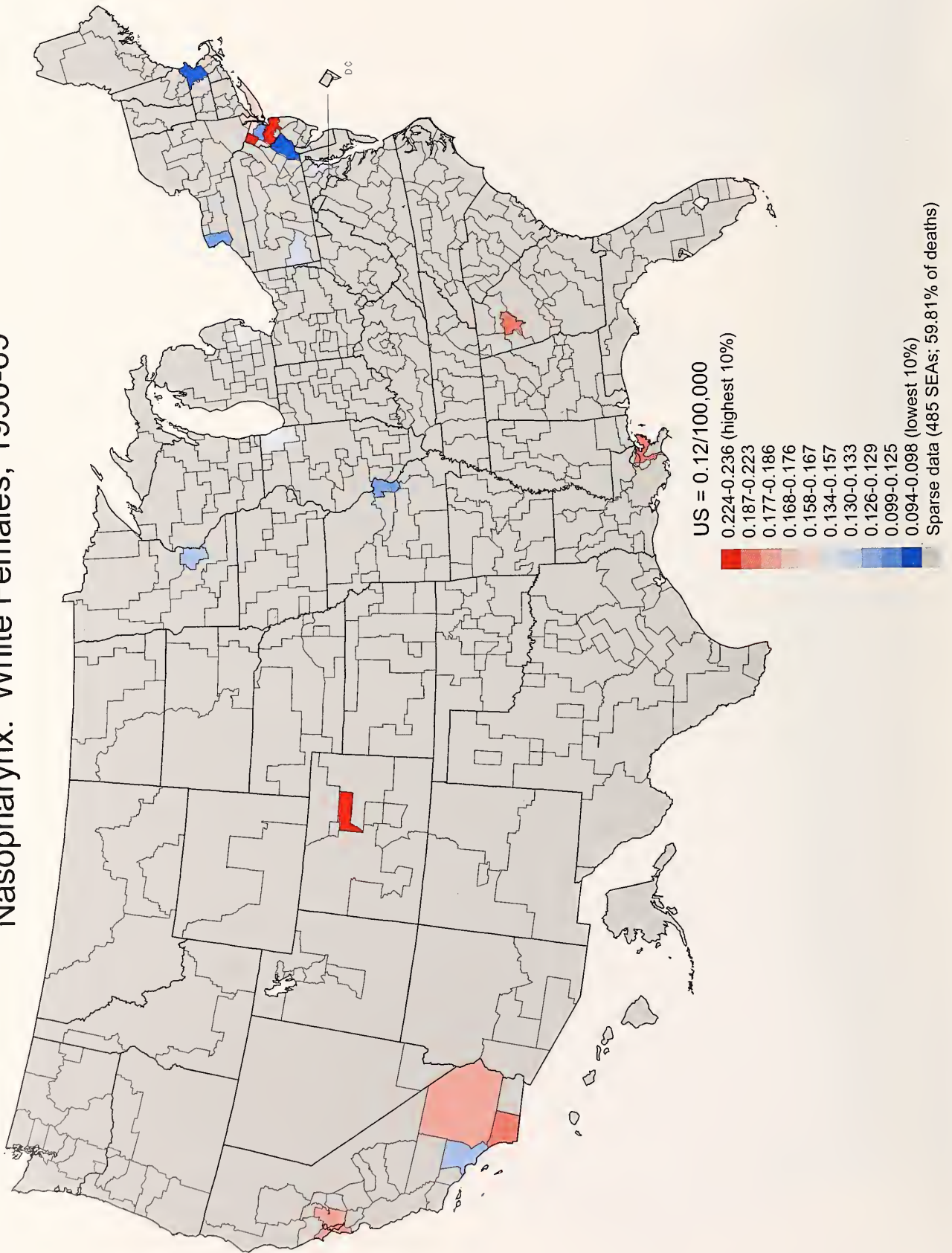
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Nasopharynx: White Males, 1950-69



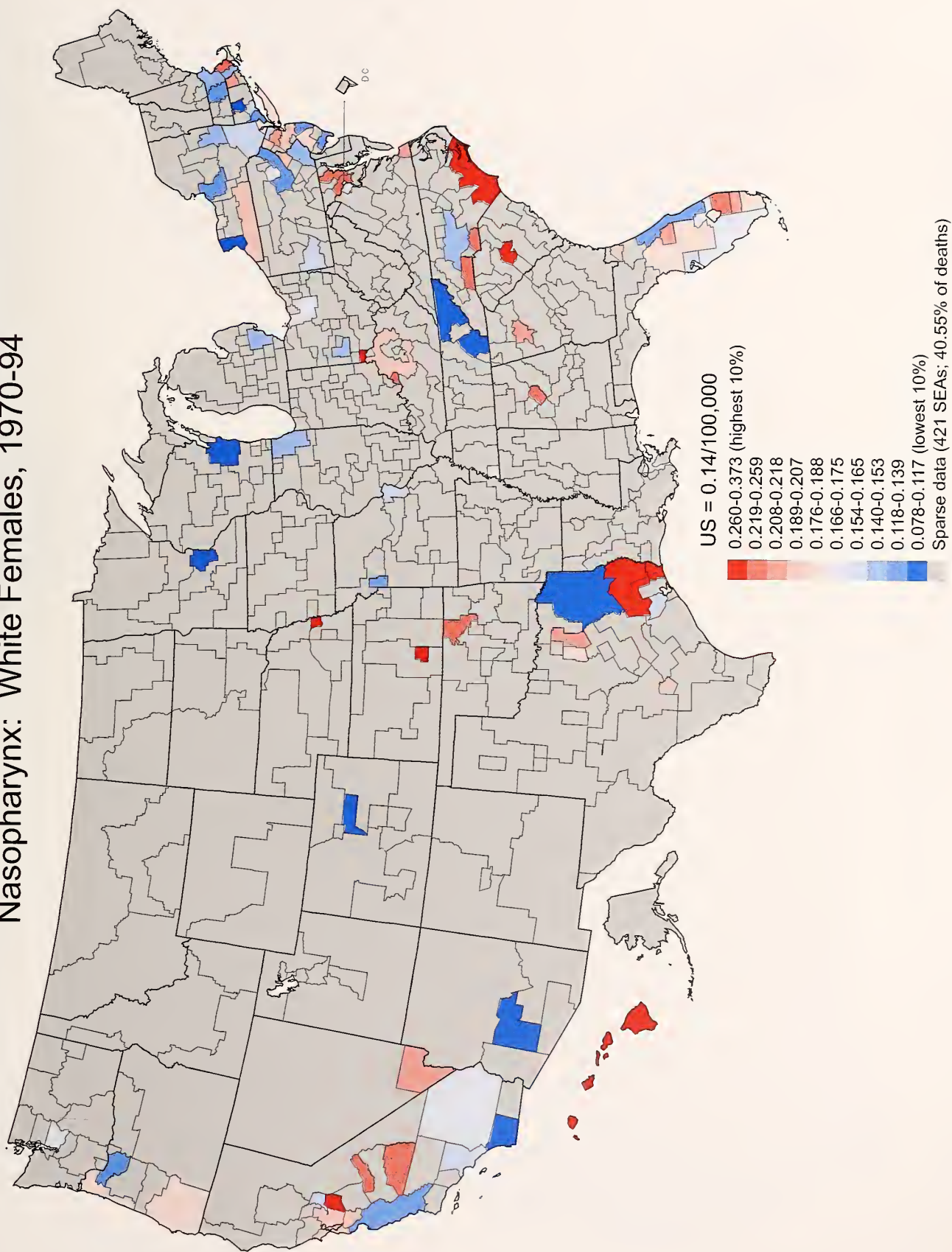
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Nasopharynx: White Males, 1970-94



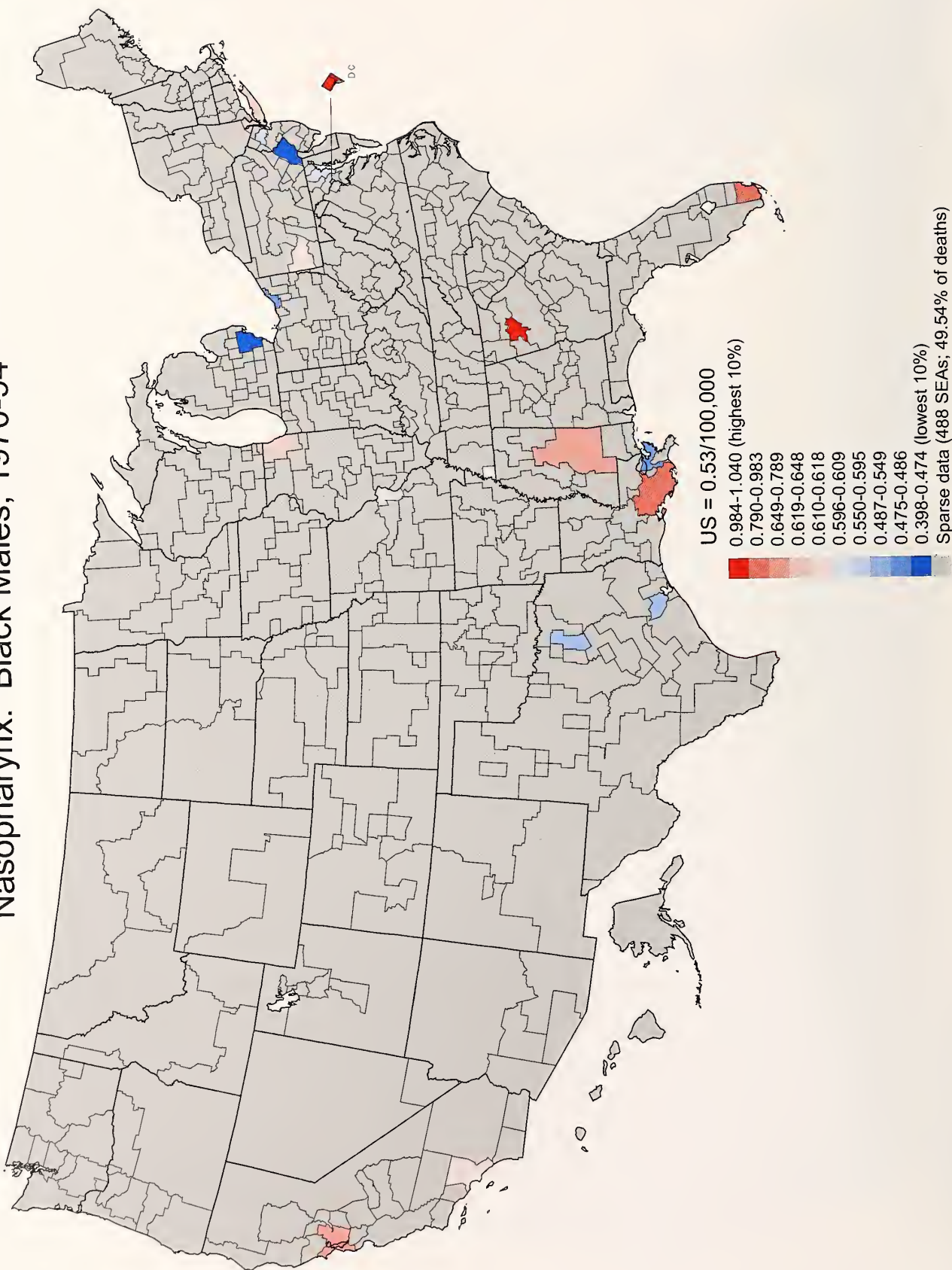
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Nasopharynx: White Females, 1950-69



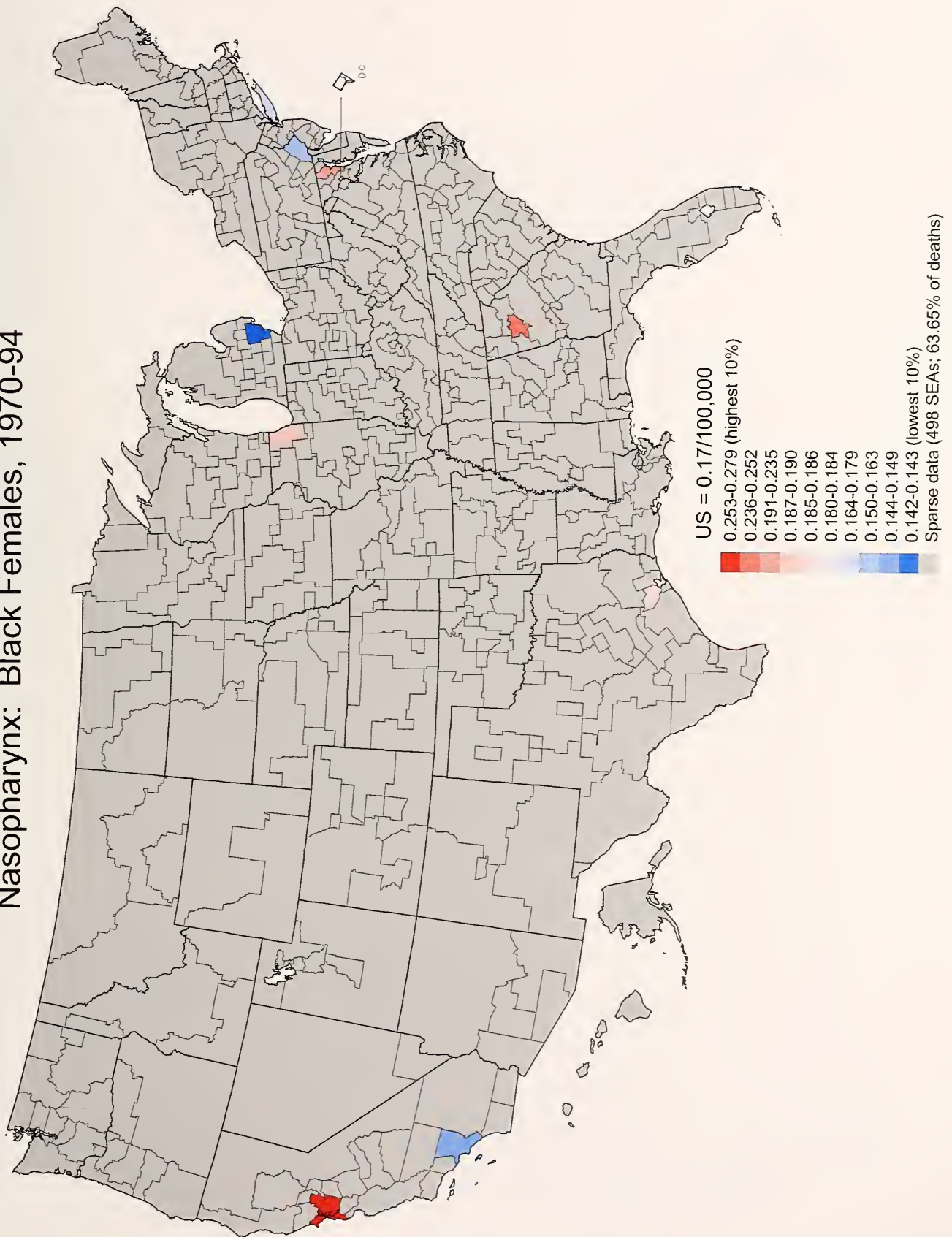
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Nasopharynx: White Females, 1970-94



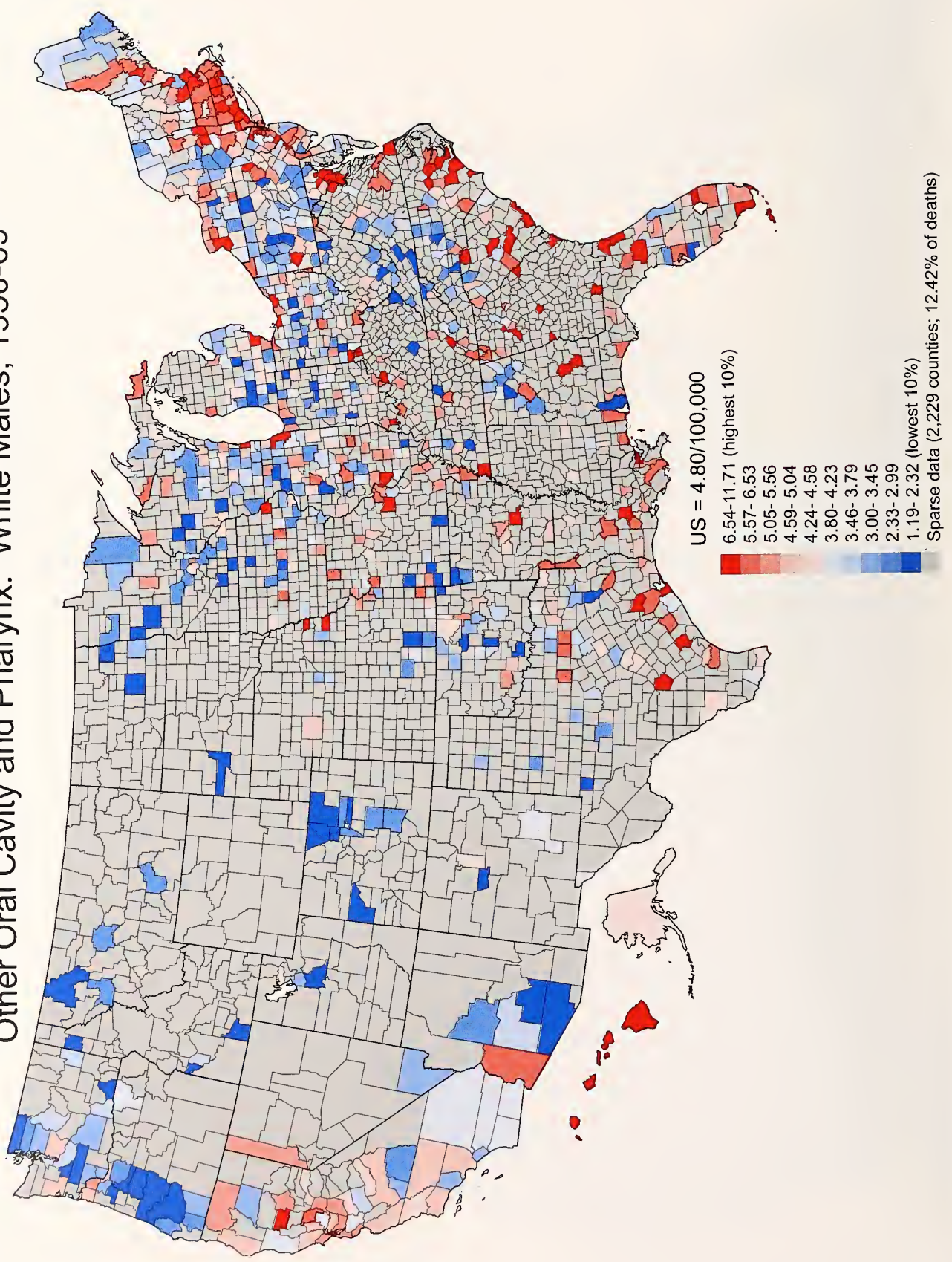
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Nasopharynx: Black Males, 1970-94



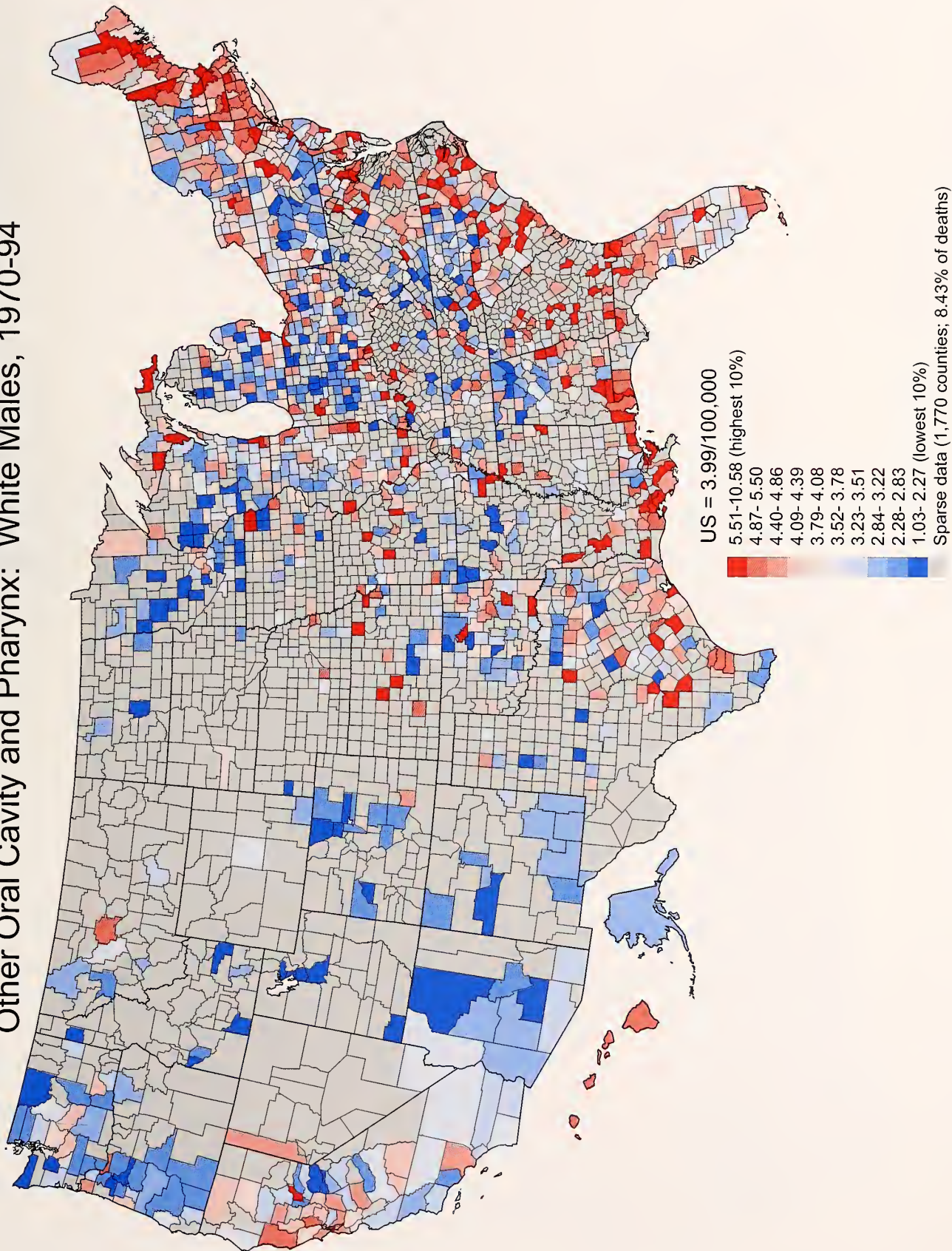
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Nasopharynx: Black Females, 1970-94



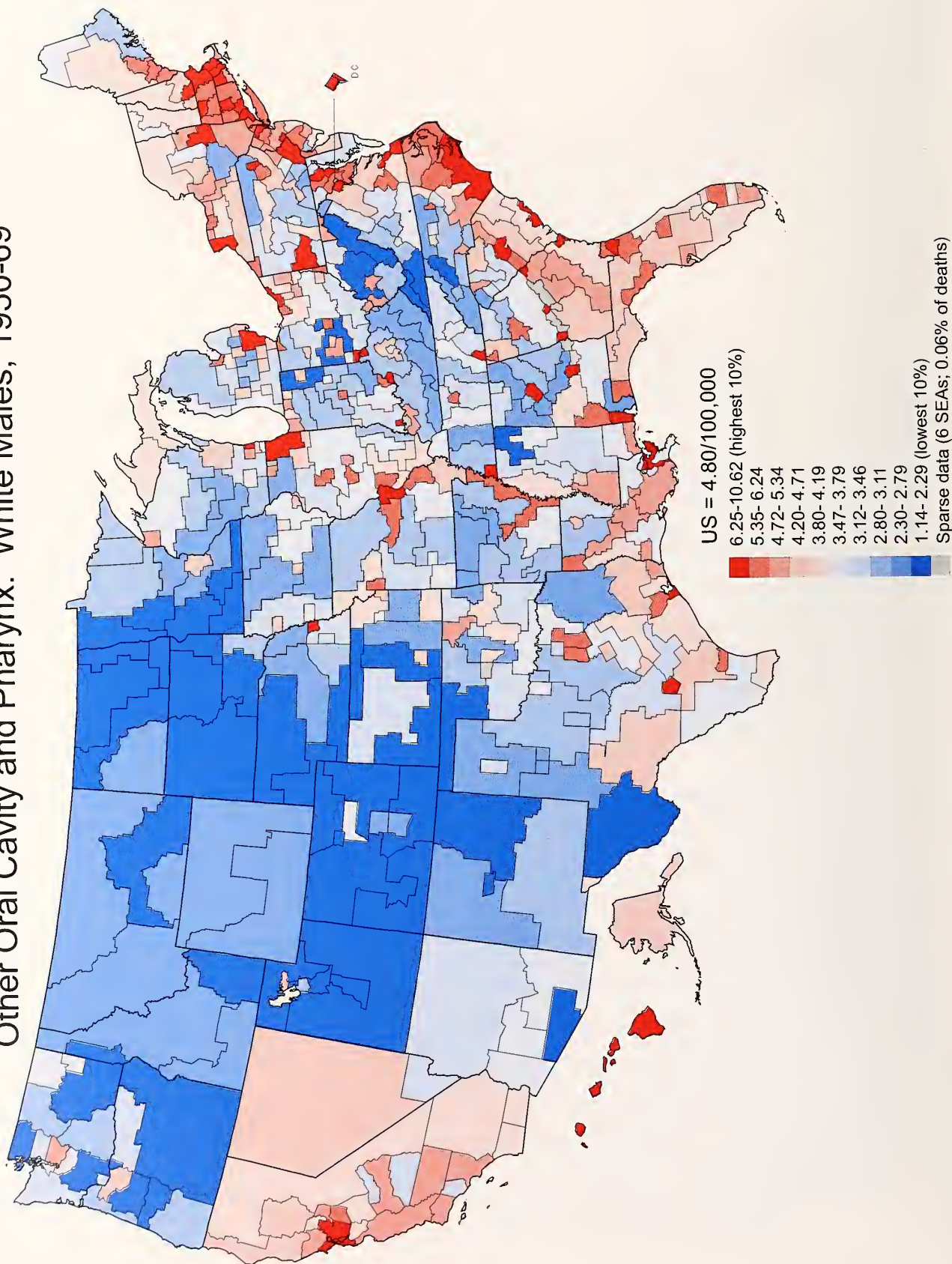
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Other Oral Cavity and Pharynx: White Males, 1950-69



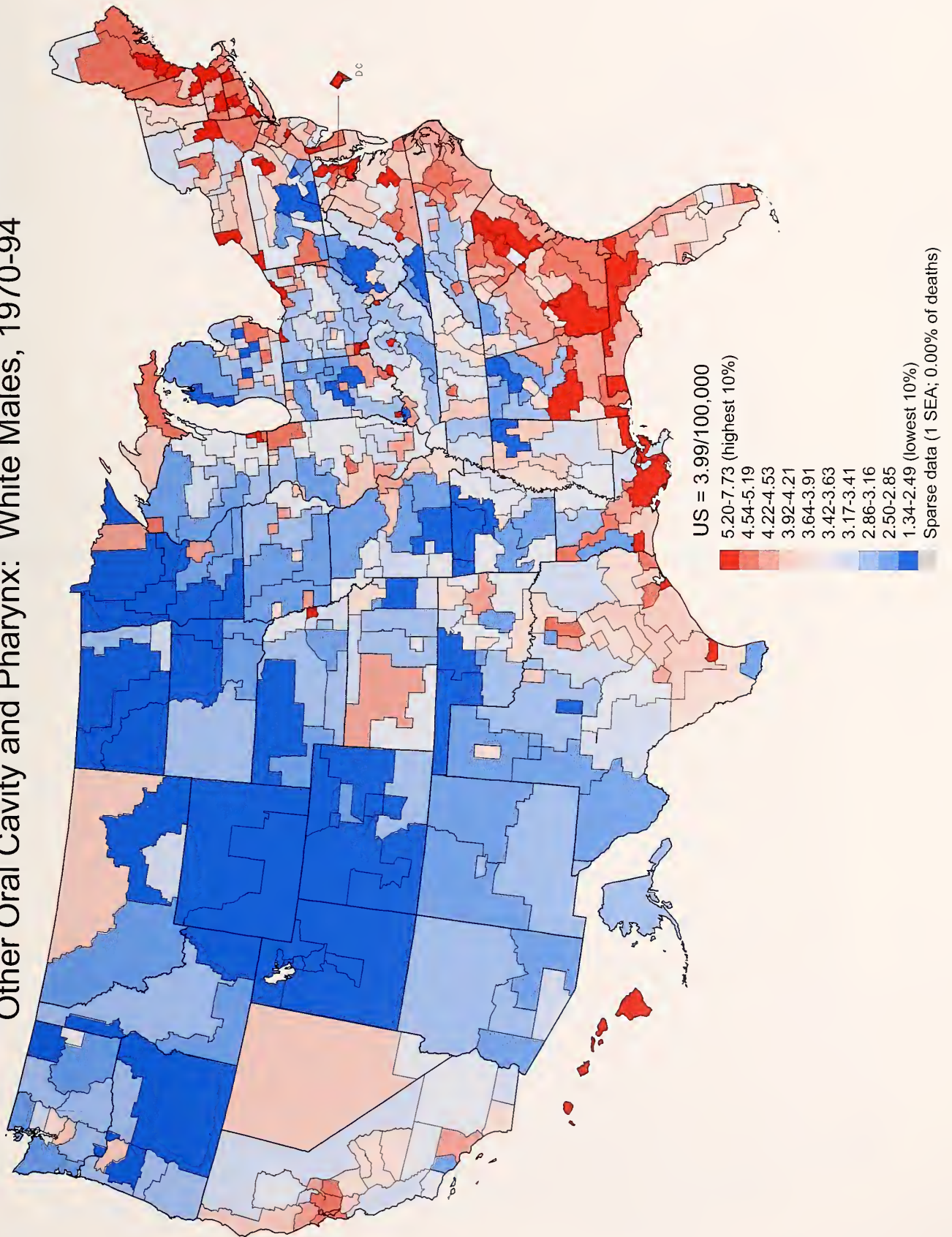
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Other Oral Cavity and Pharynx: White Males, 1970-94



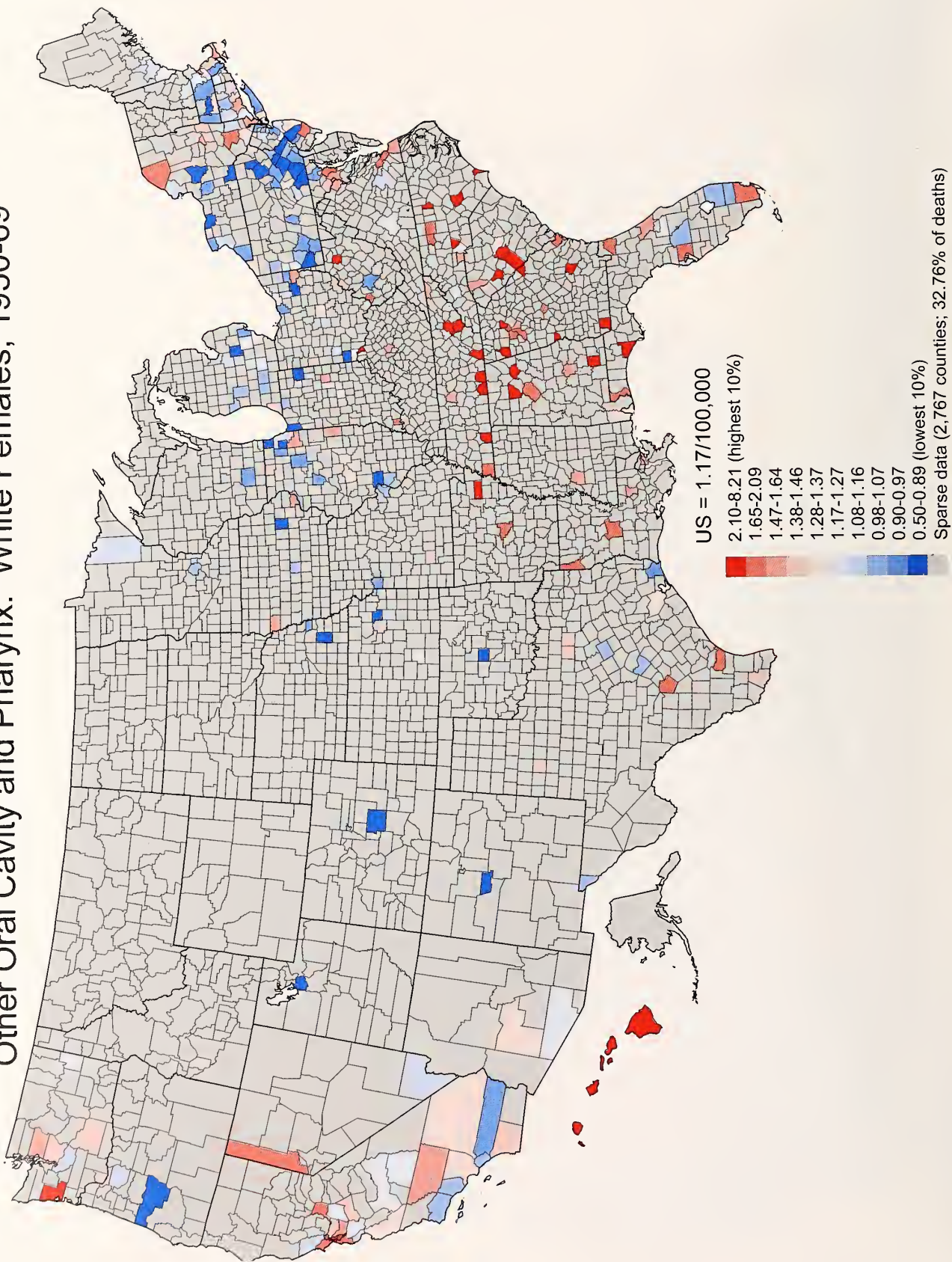
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Oral Cavity and Pharynx: White Males, 1950-69



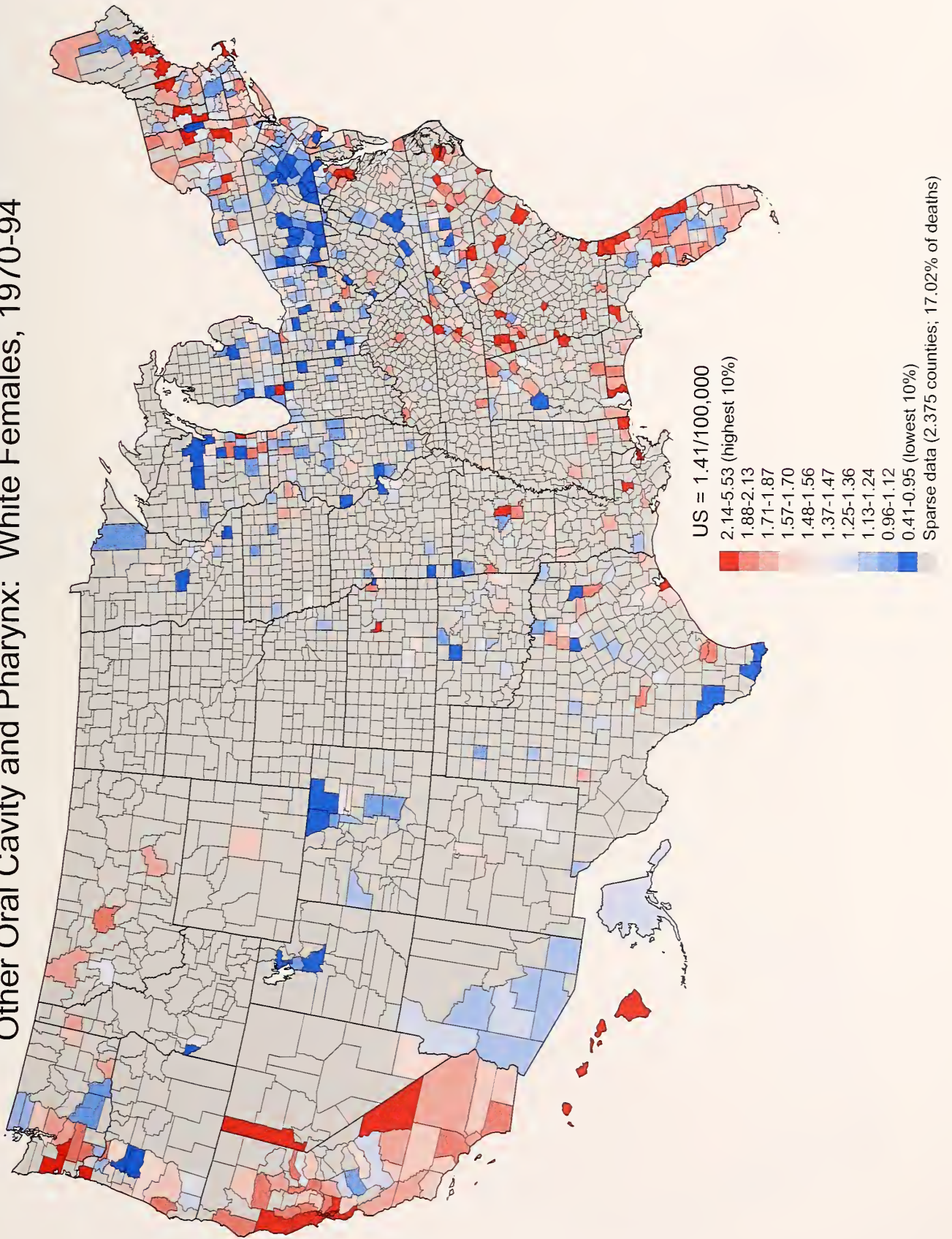
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Oral Cavity and Pharynx: White Males, 1970-94



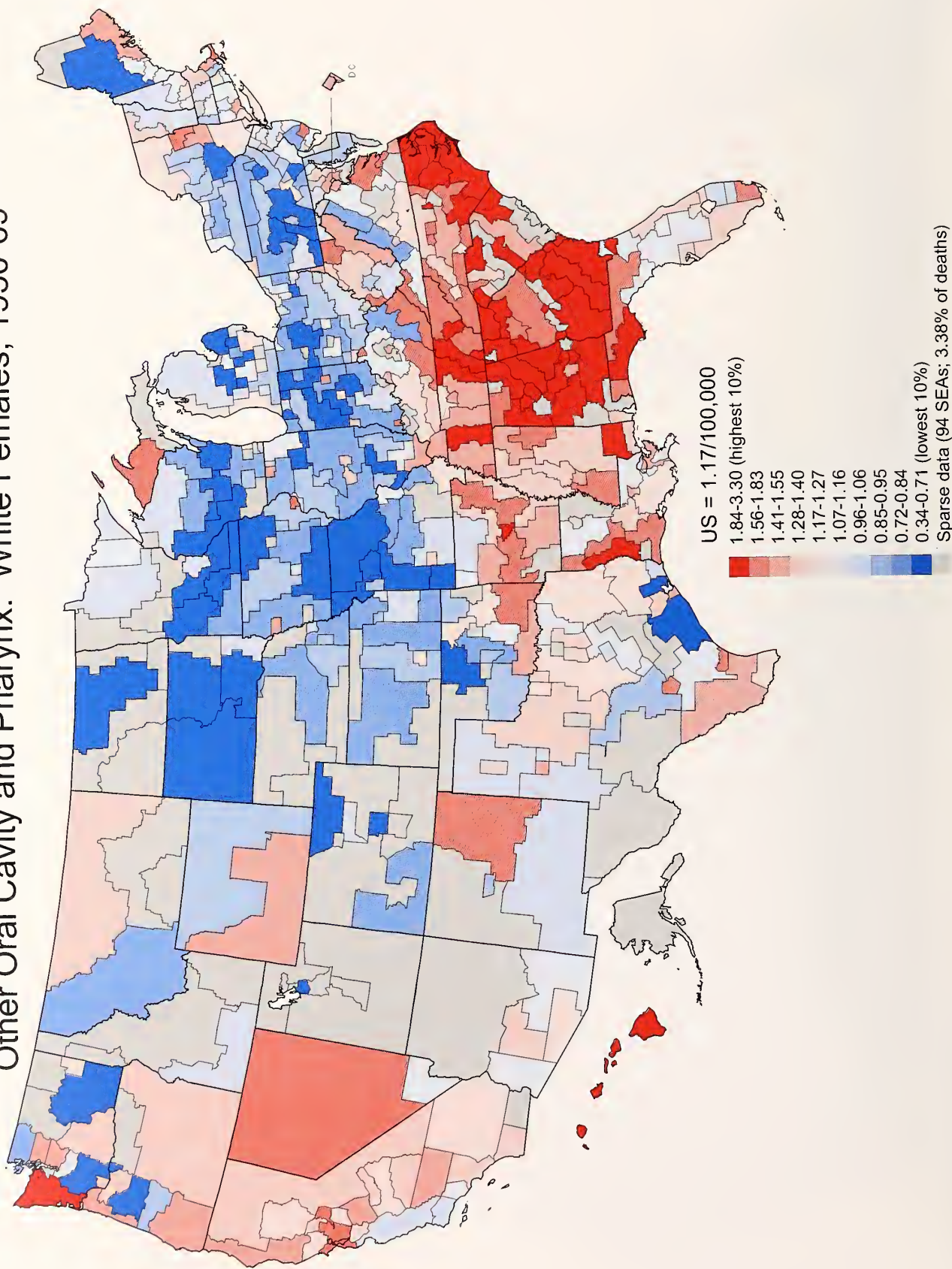
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
 Other Oral Cavity and Pharynx: White Females, 1950-69



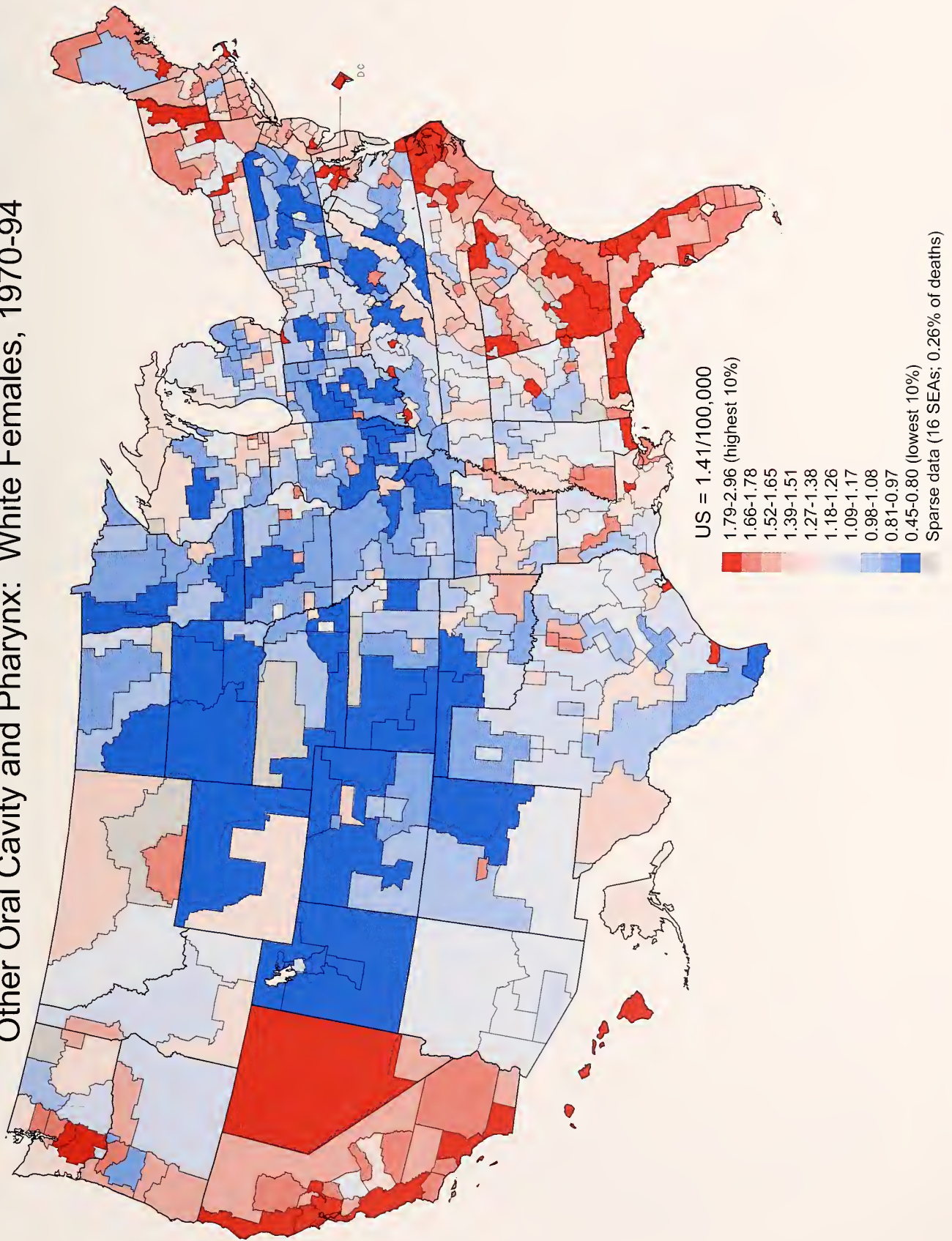
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Other Oral Cavity and Pharynx: White Females, 1970-94



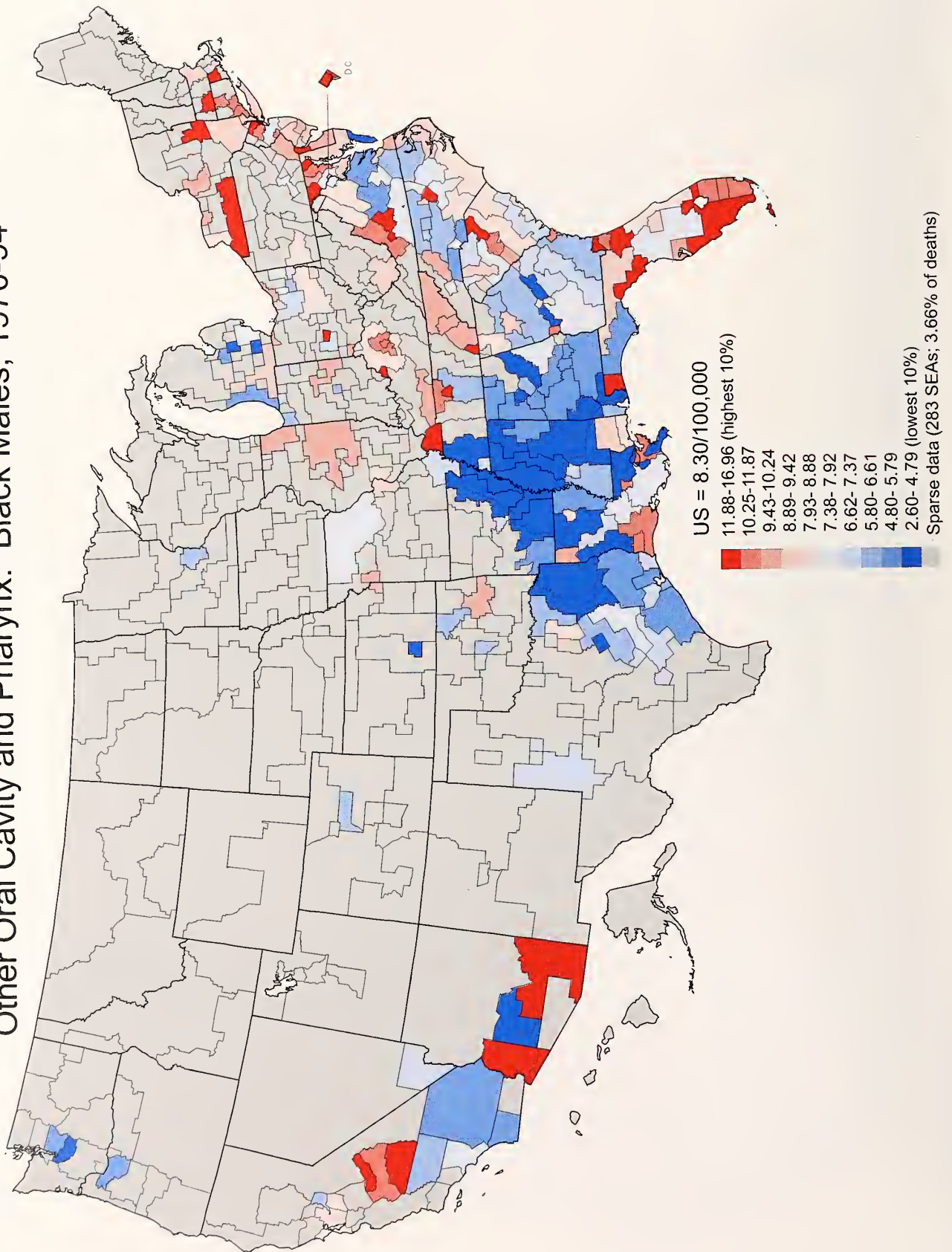
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Oral Cavity and Pharynx: White Females, 1950-69



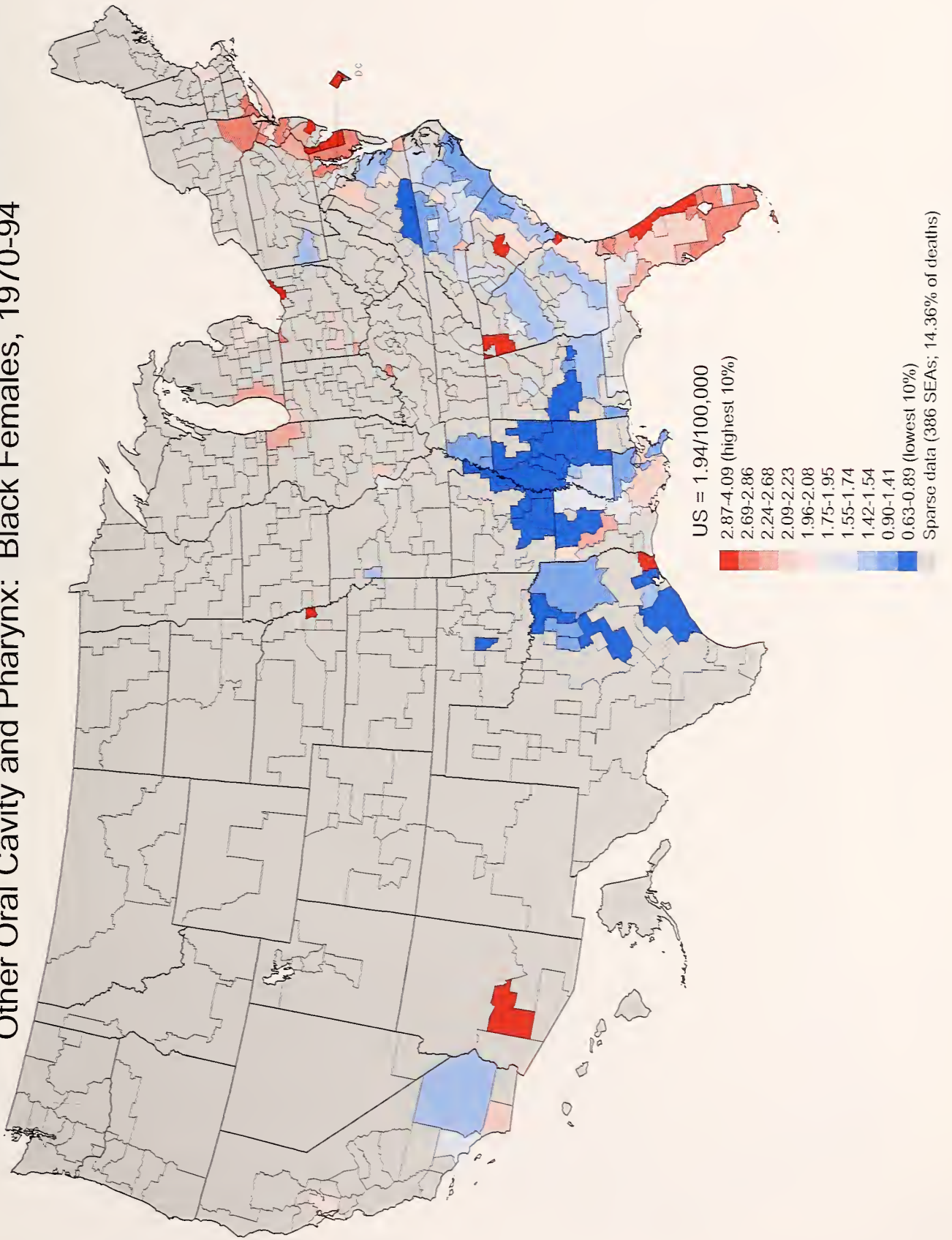
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Oral Cavity and Pharynx: White Females, 1970-94



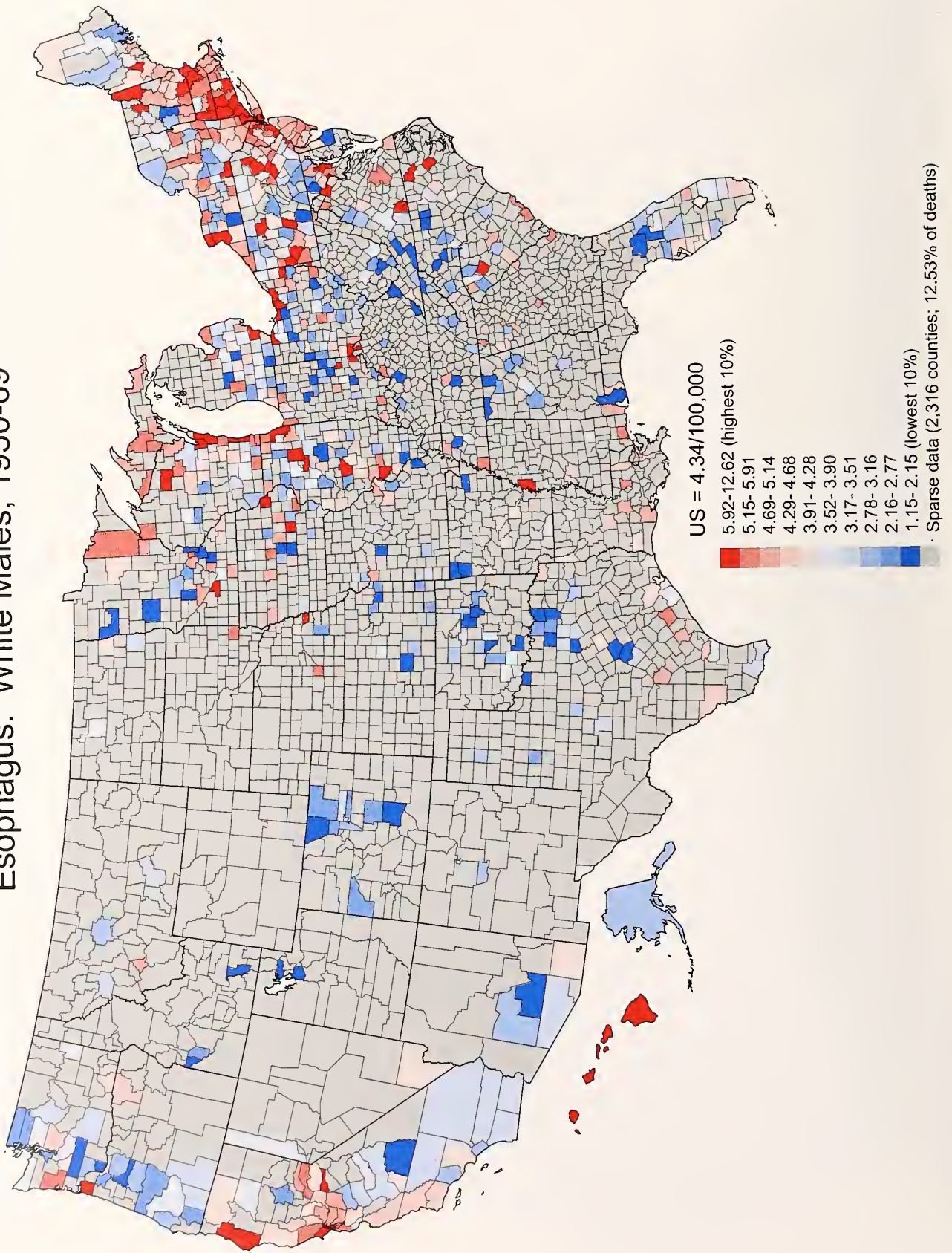
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Oral Cavity and Pharynx: Black Males, 1970-94



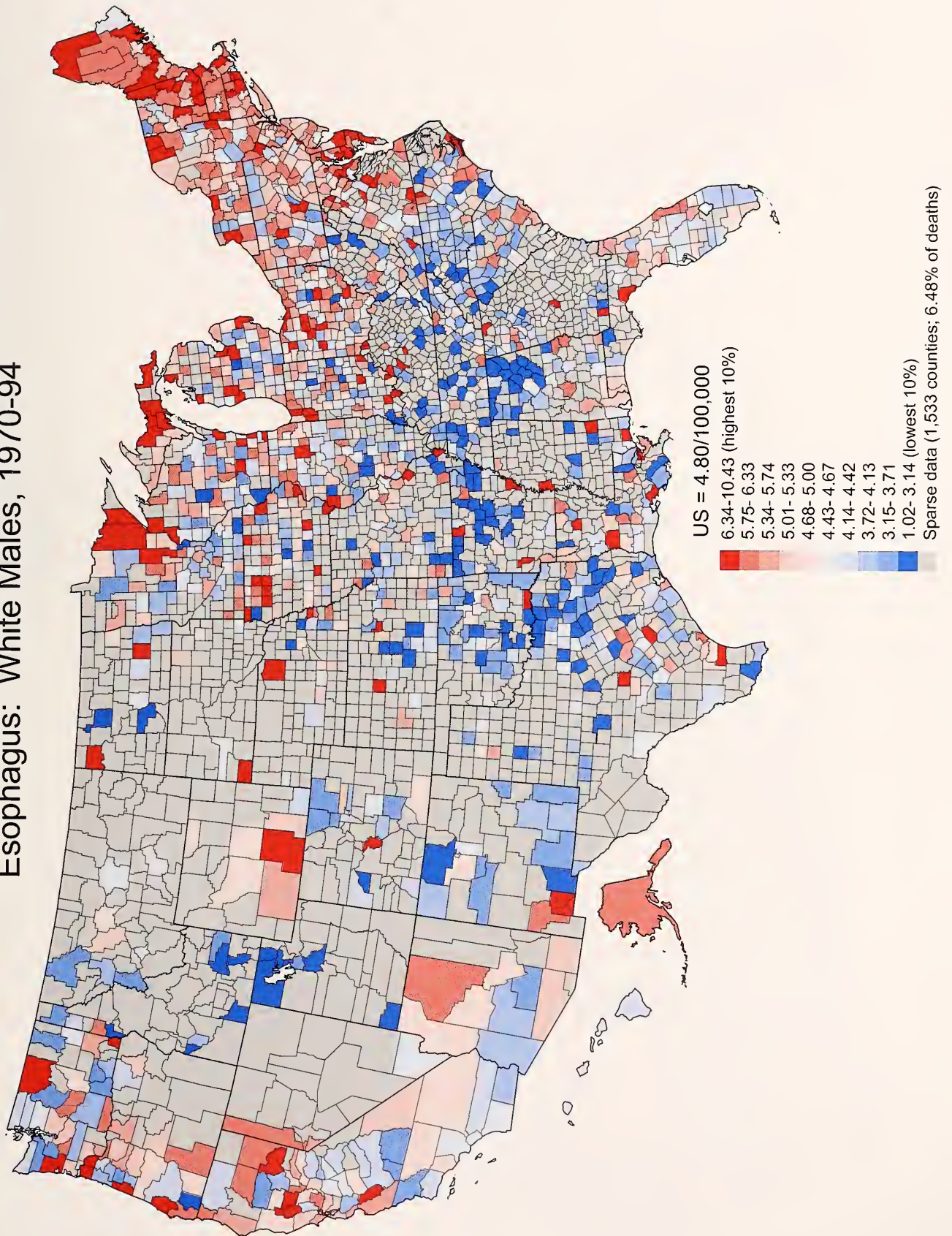
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Oral Cavity and Pharynx: Black Females, 1970-94



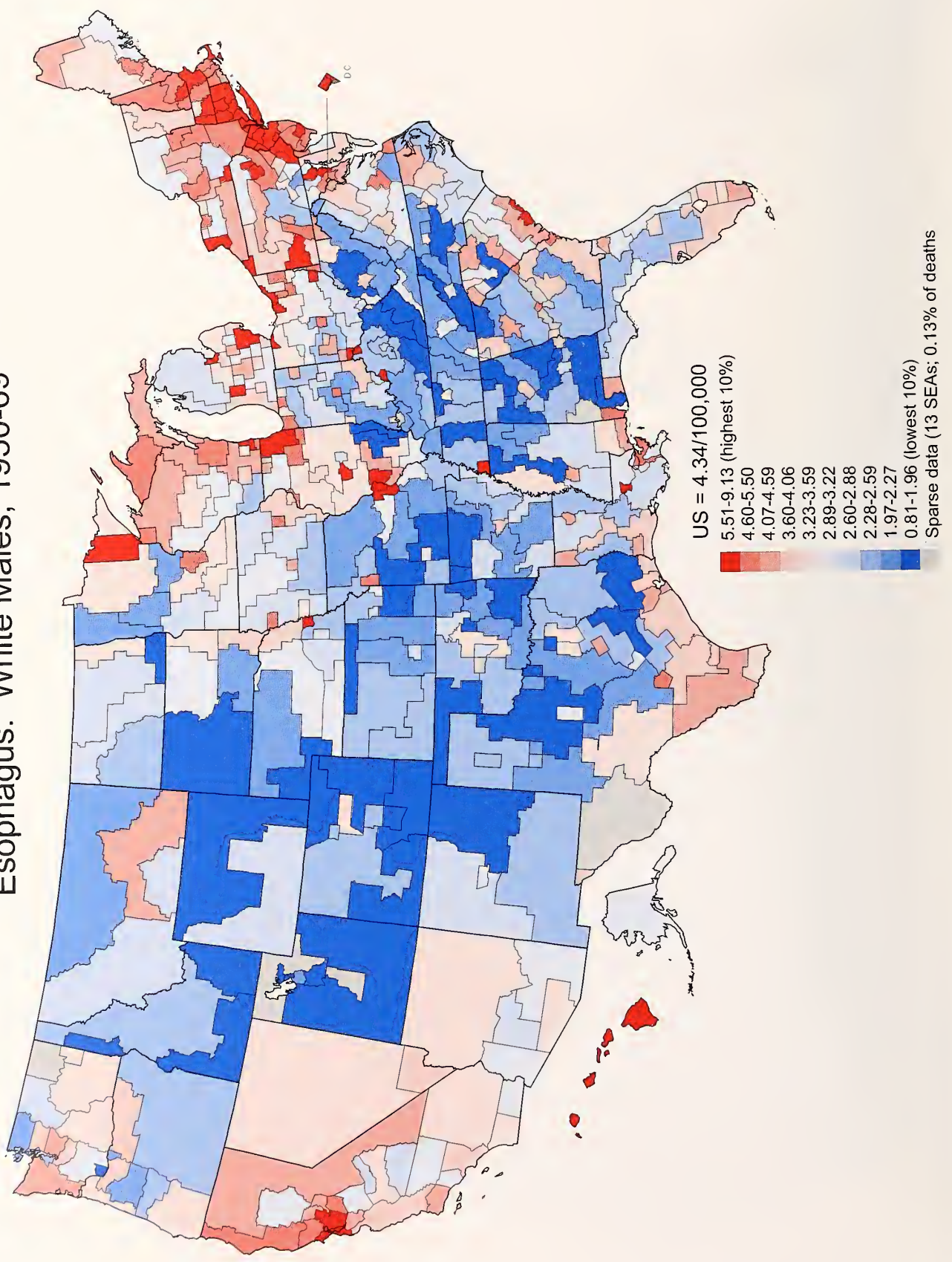
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Esophagus: White Males, 1950-69



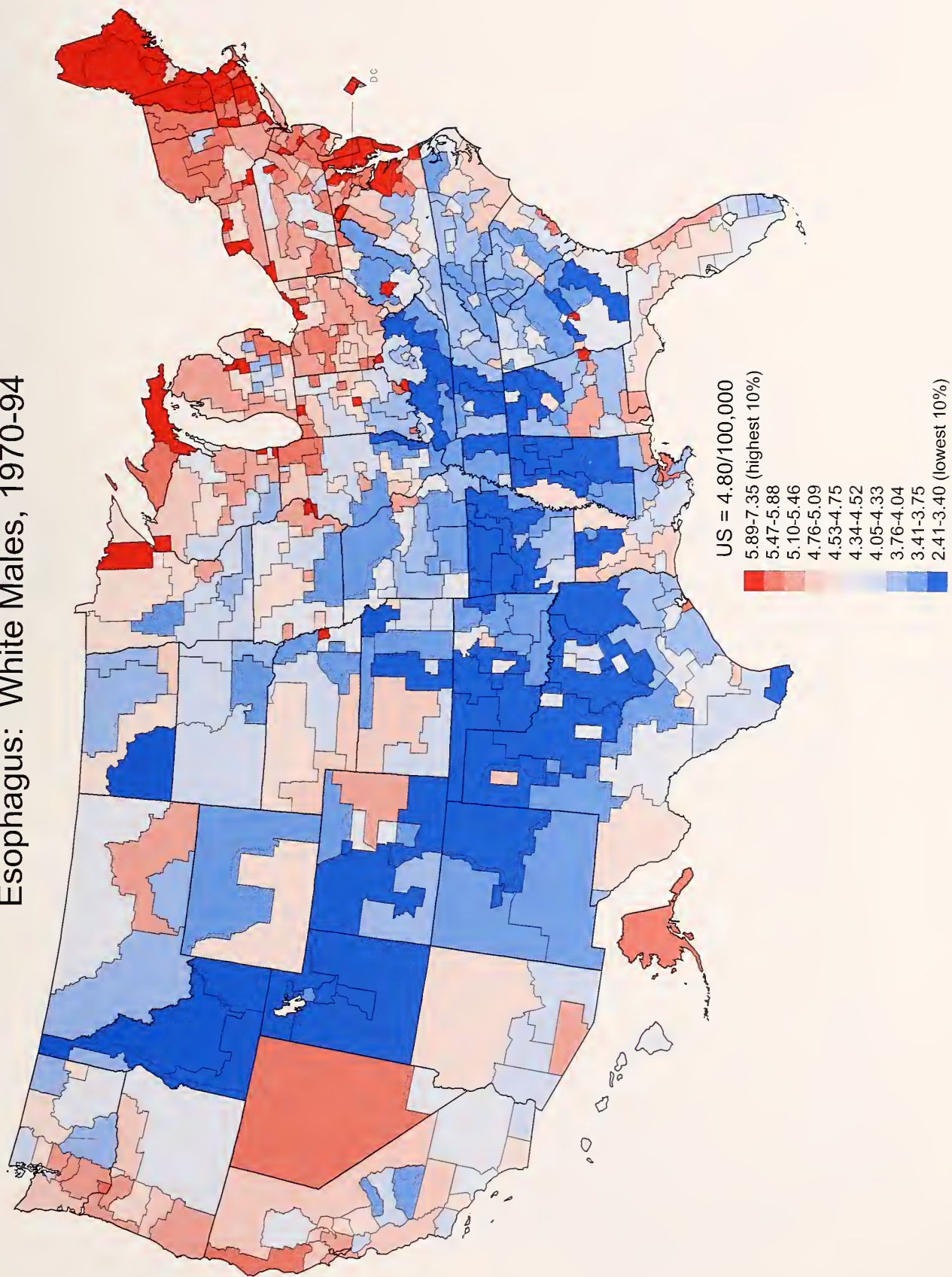
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Esophagus: White Males, 1970-94



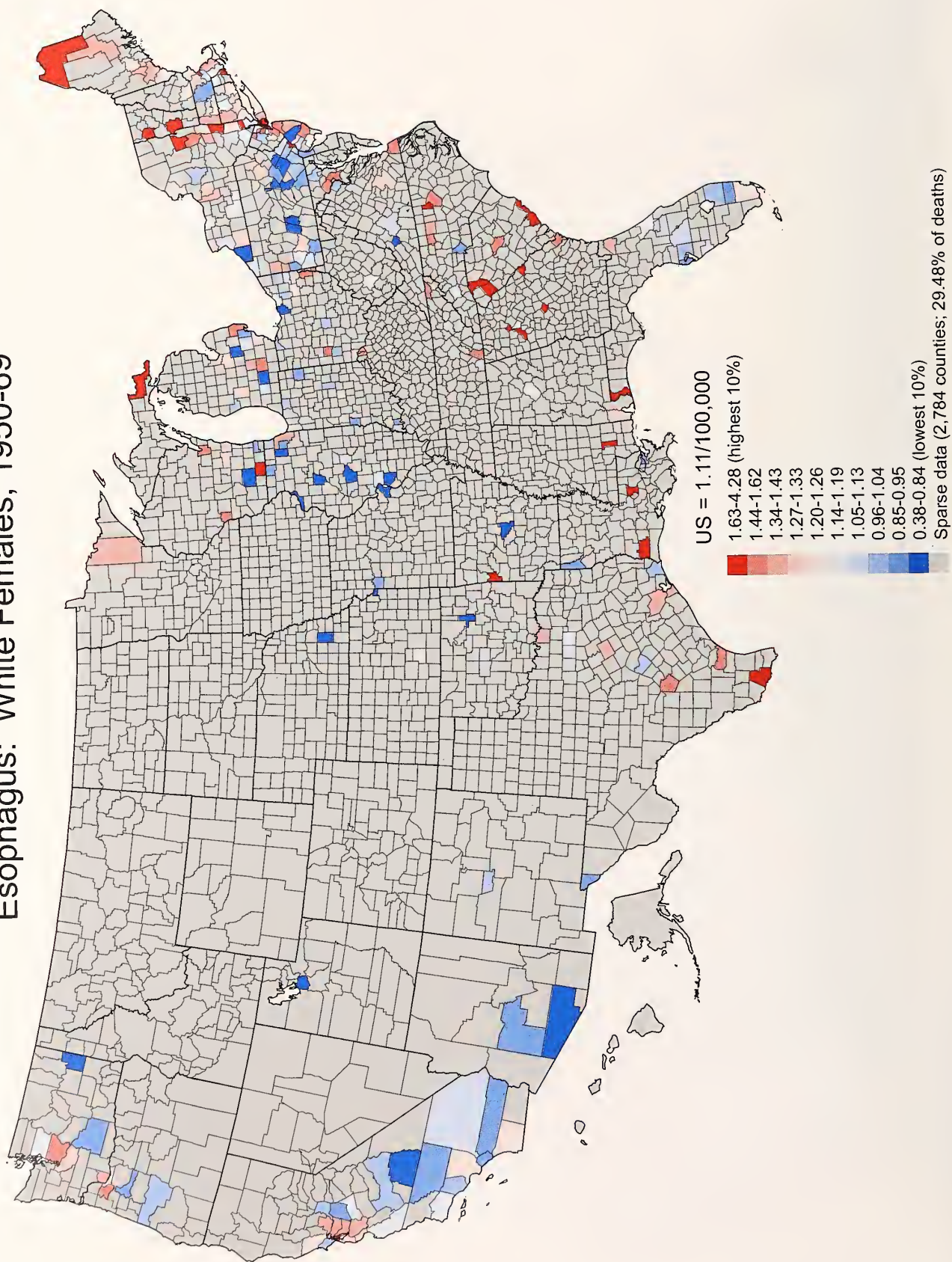
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Esophagus: White Males, 1950-69



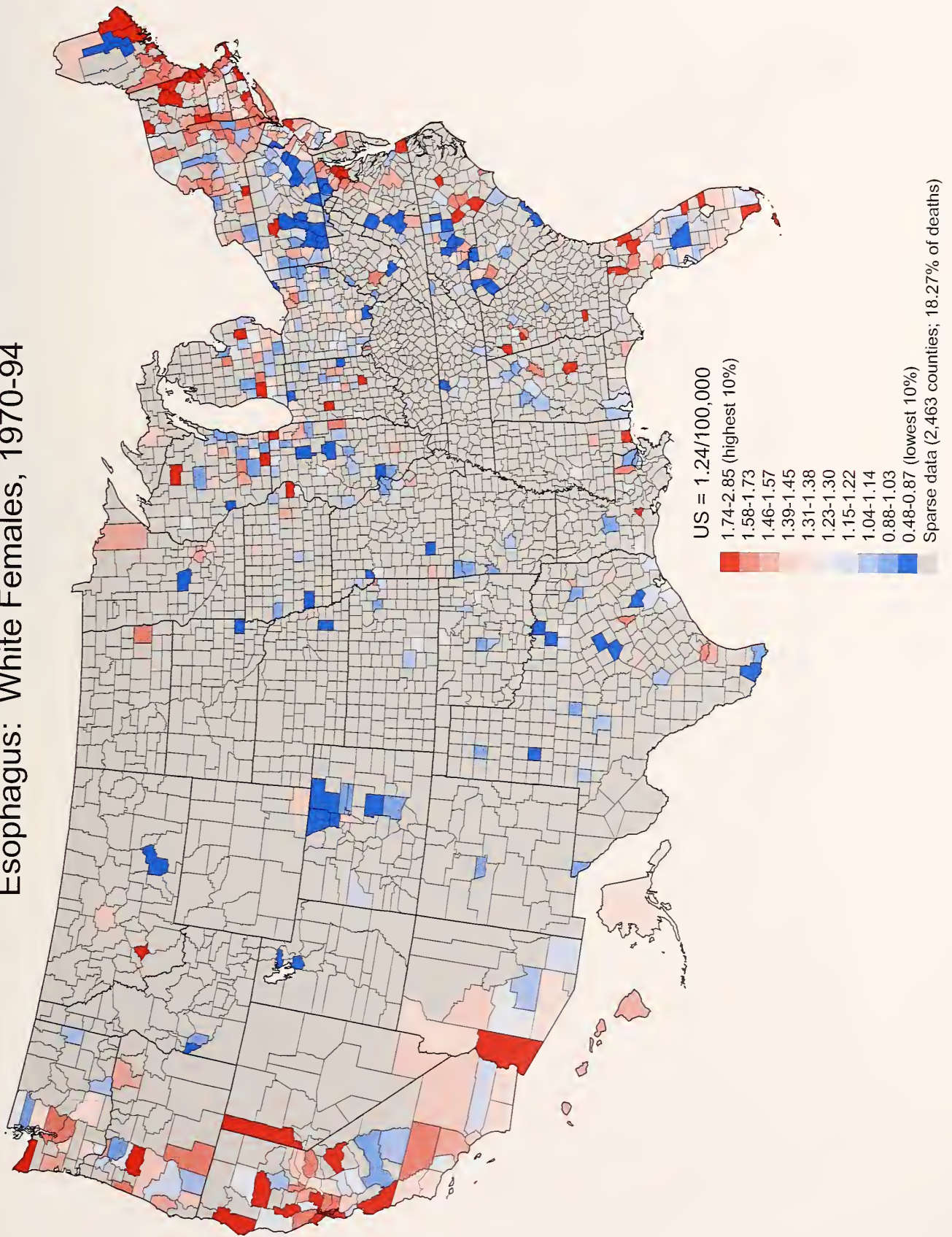
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Esophagus: White Males, 1970-94



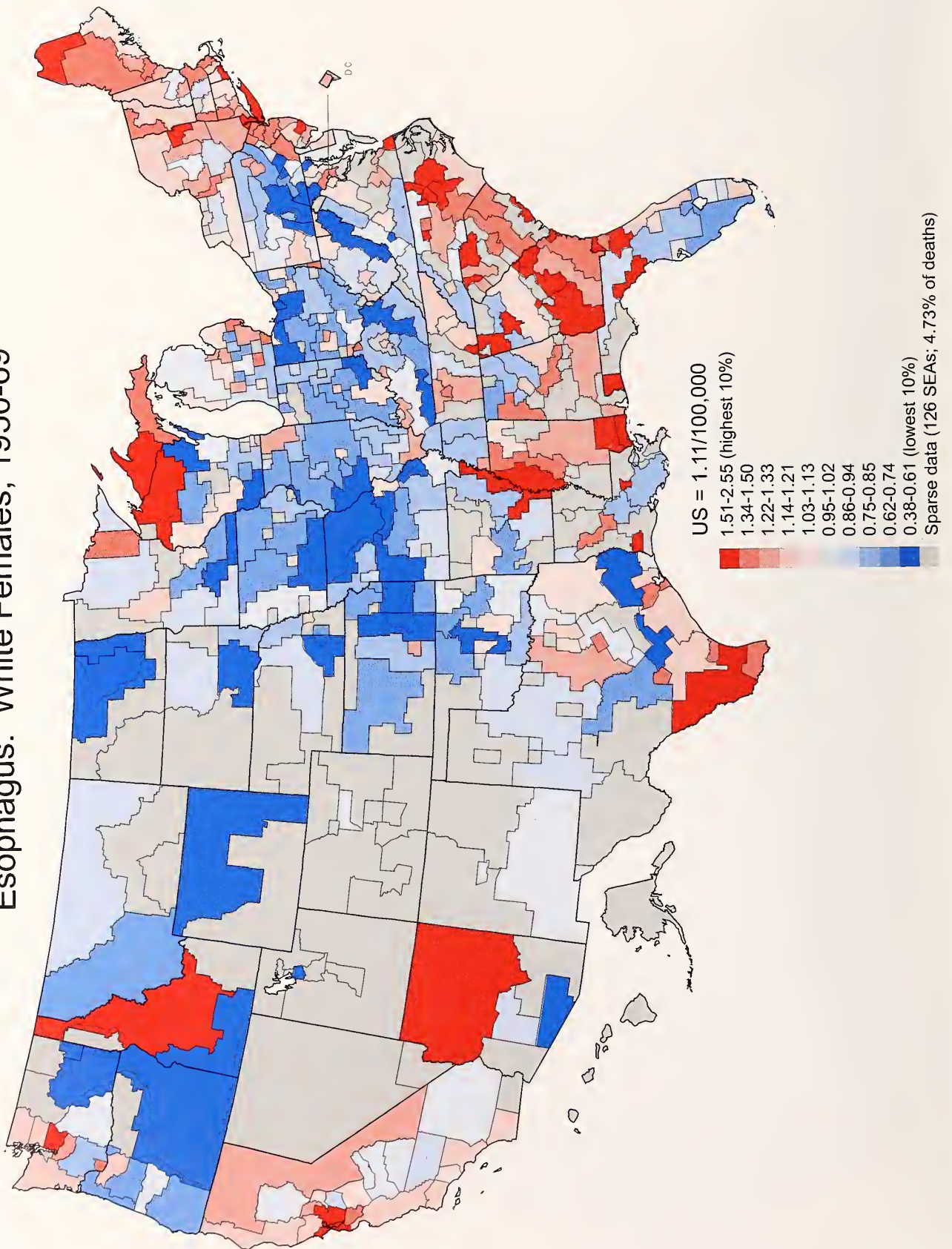
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 Esophagus: White Females, 1950-69



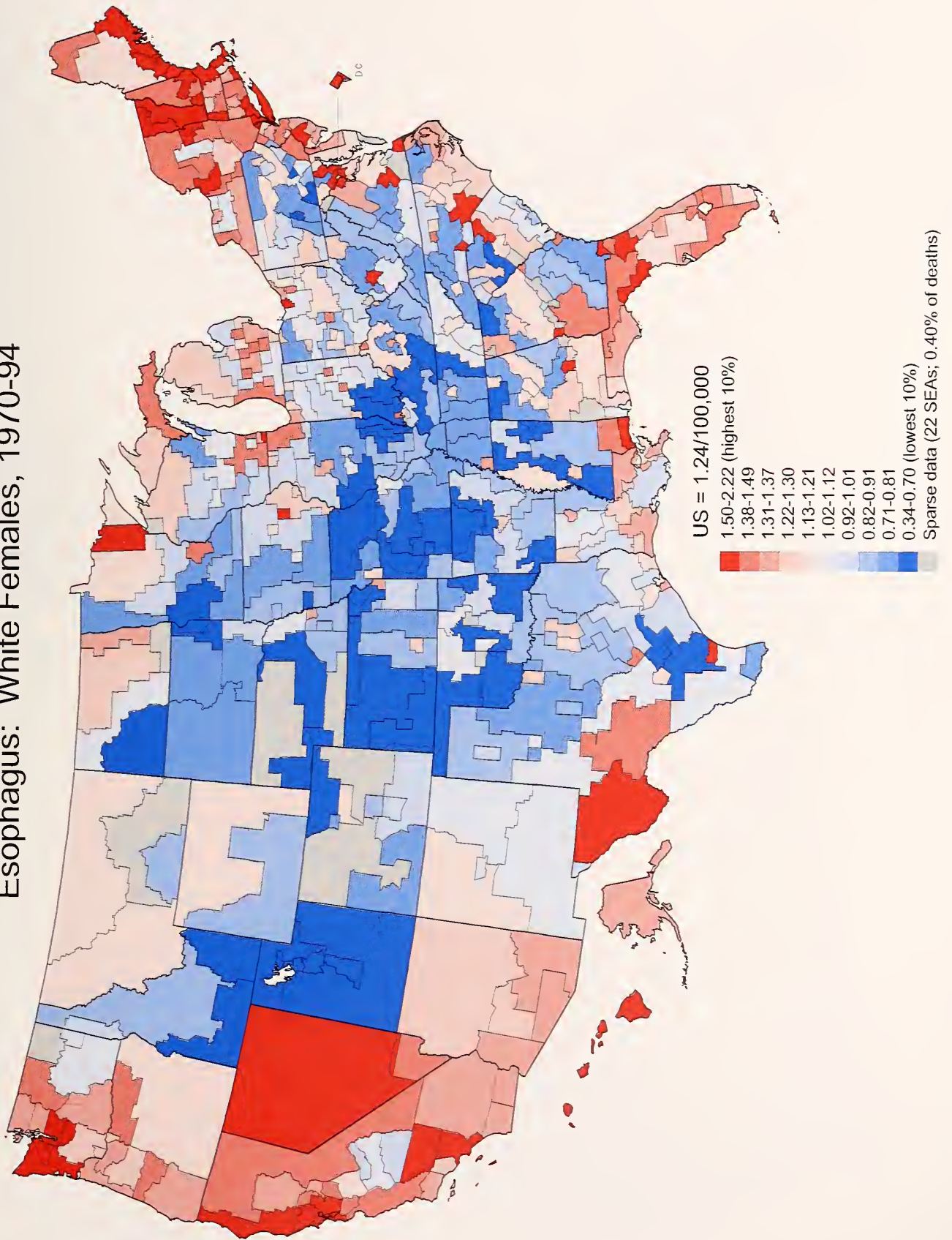
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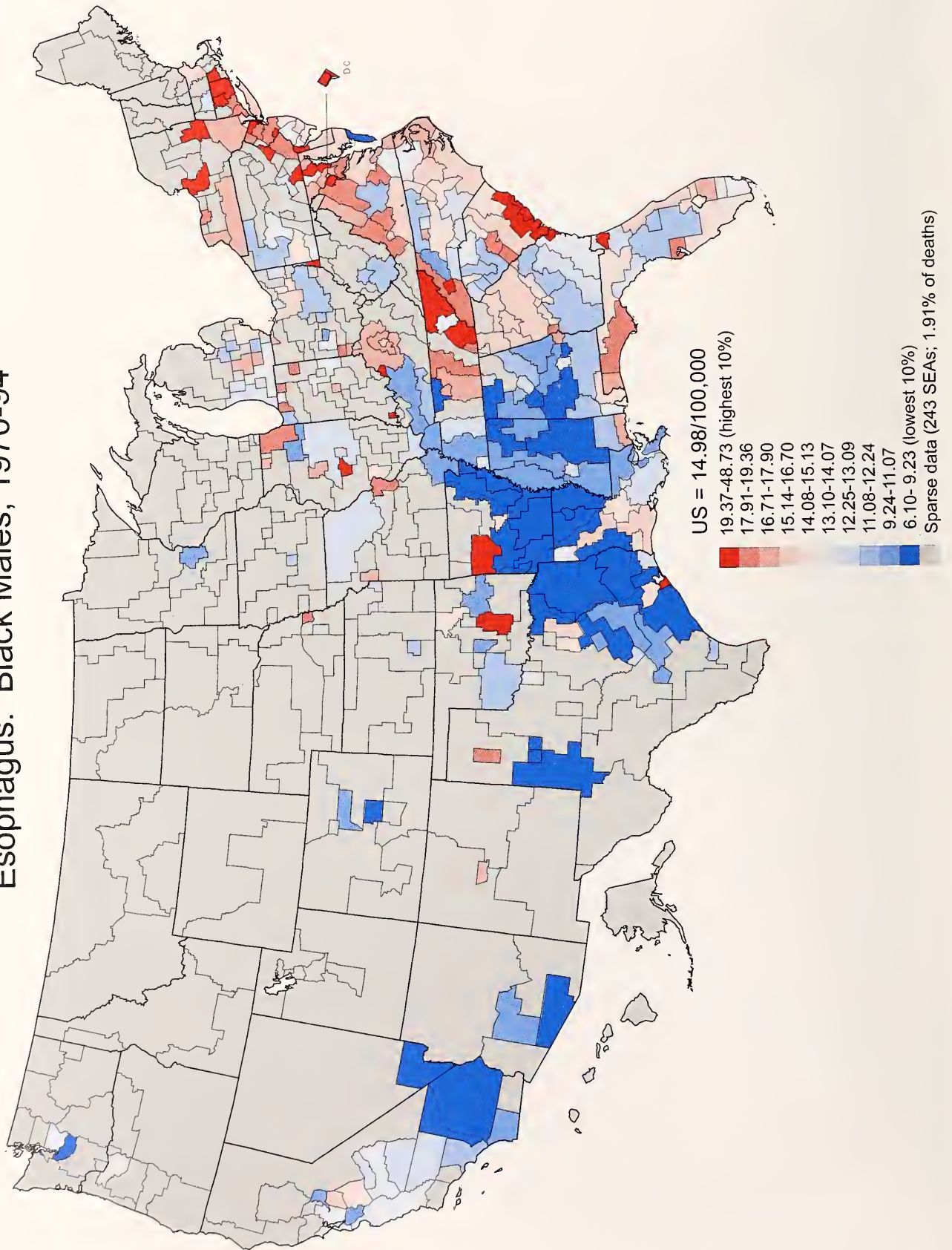
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 Esophagus: White Females, 1950-69



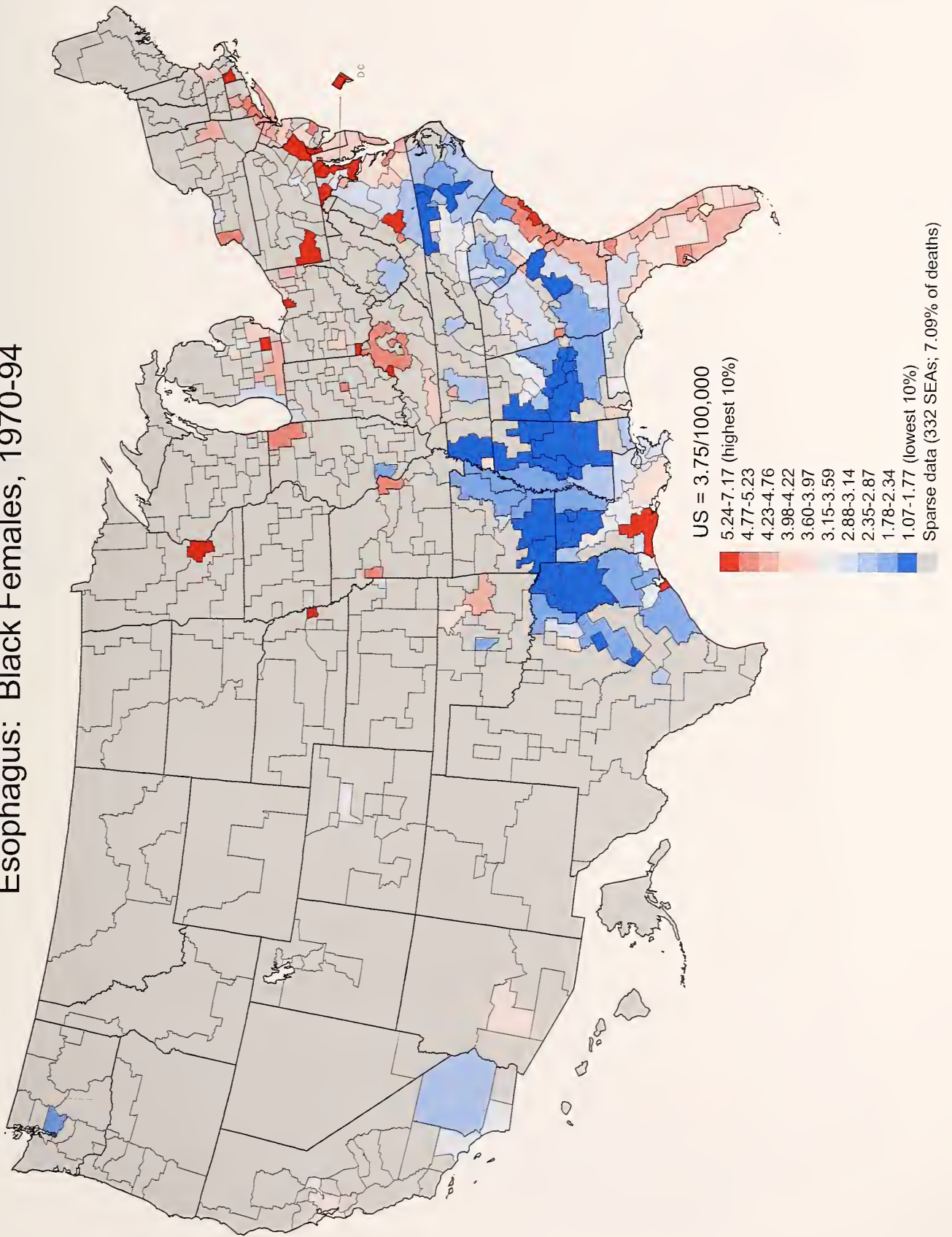
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Esophagus: White Females, 1970-94



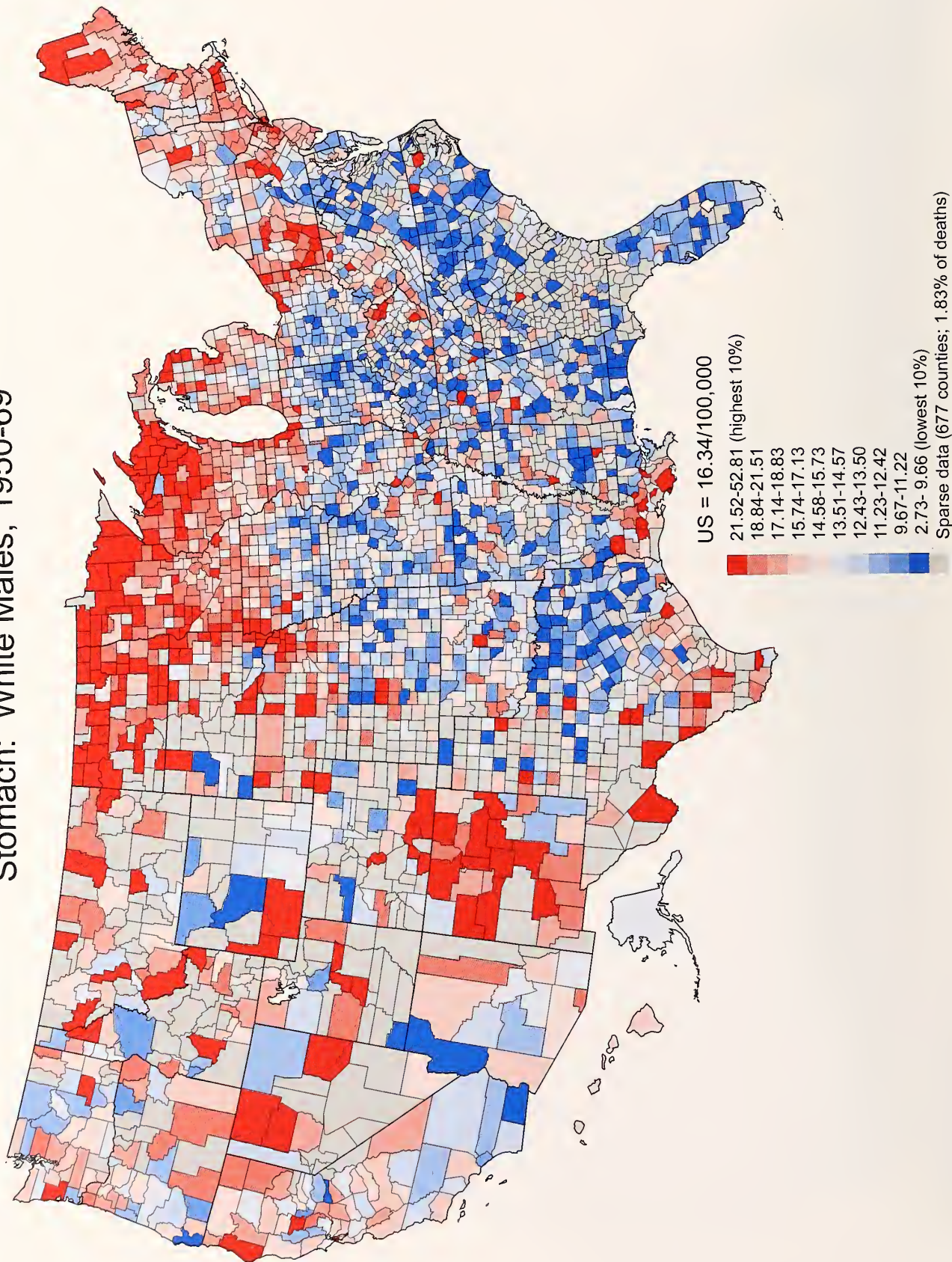
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Esophagus: Black Males, 1970-94



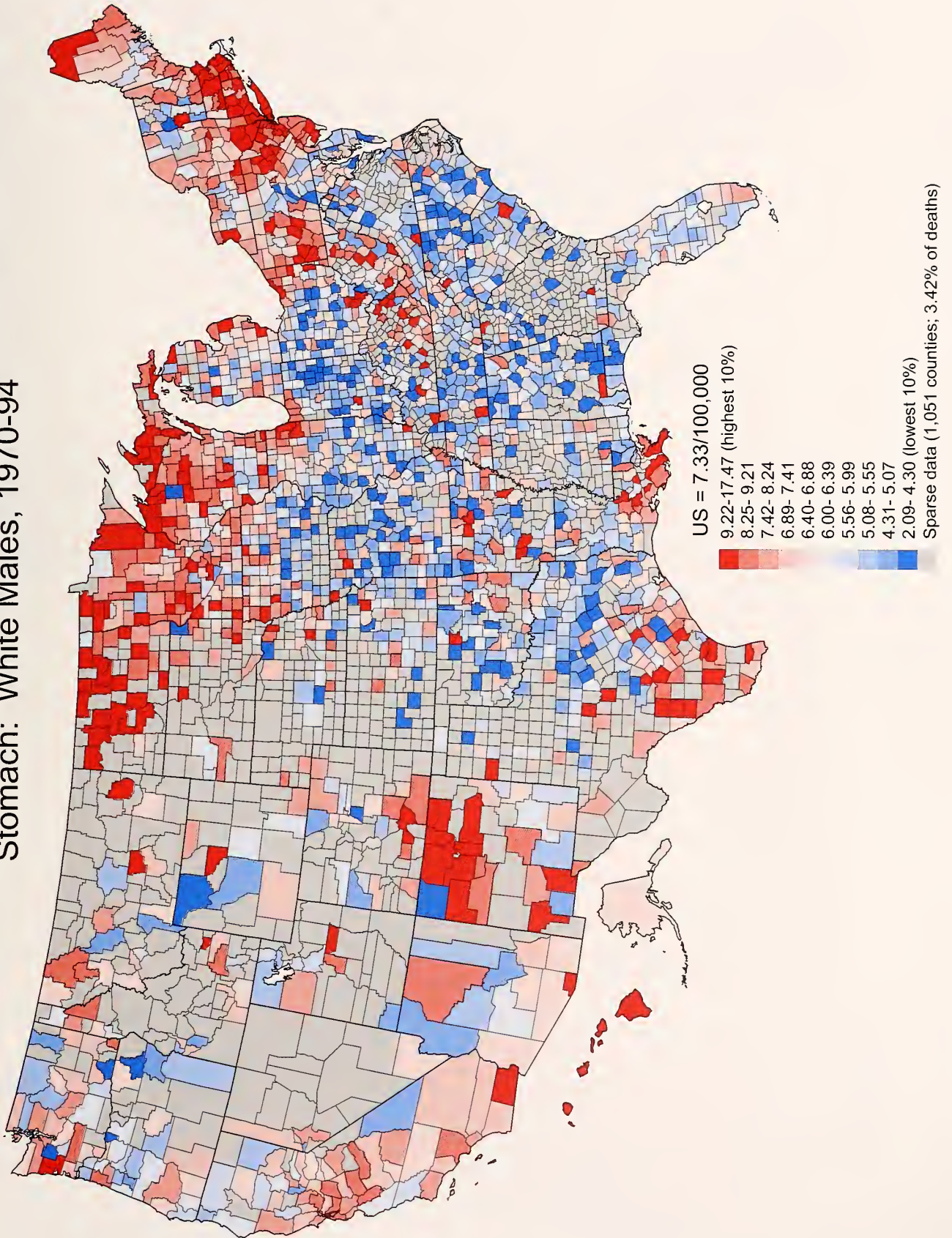
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Esophagus: Black Females, 1970-94



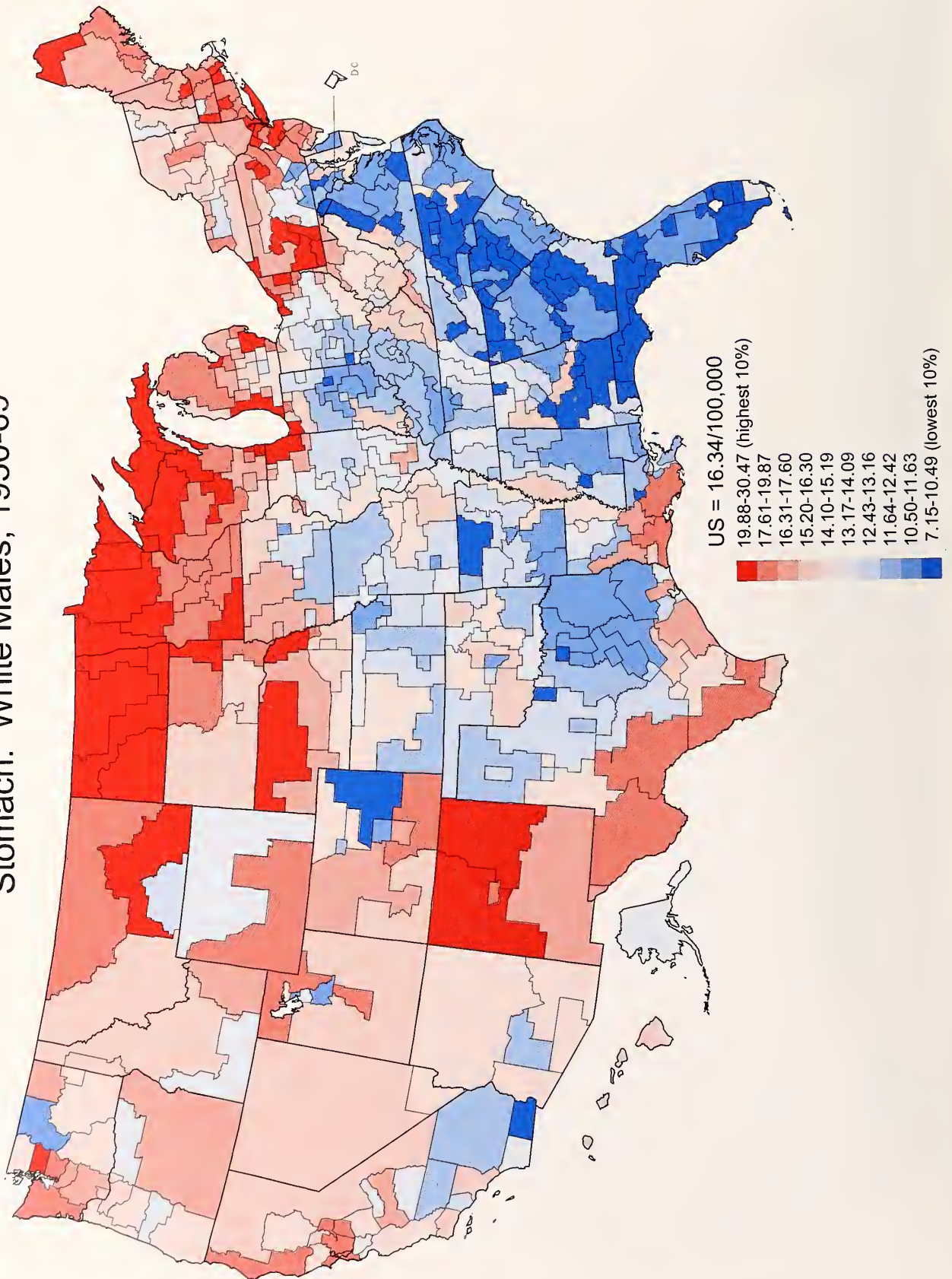
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Stomach: White Males, 1950-69



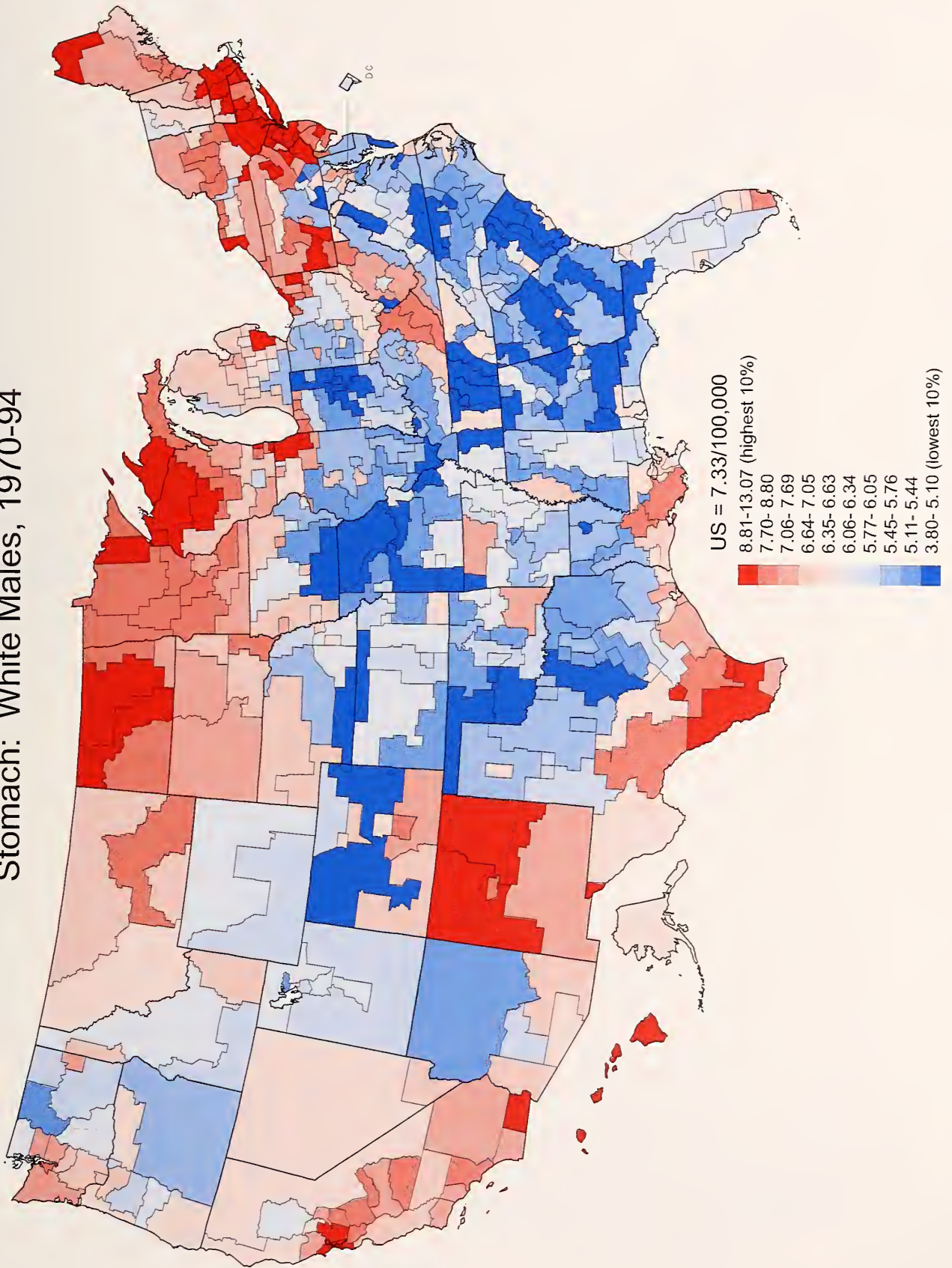
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Stomach: White Males, 1970-94



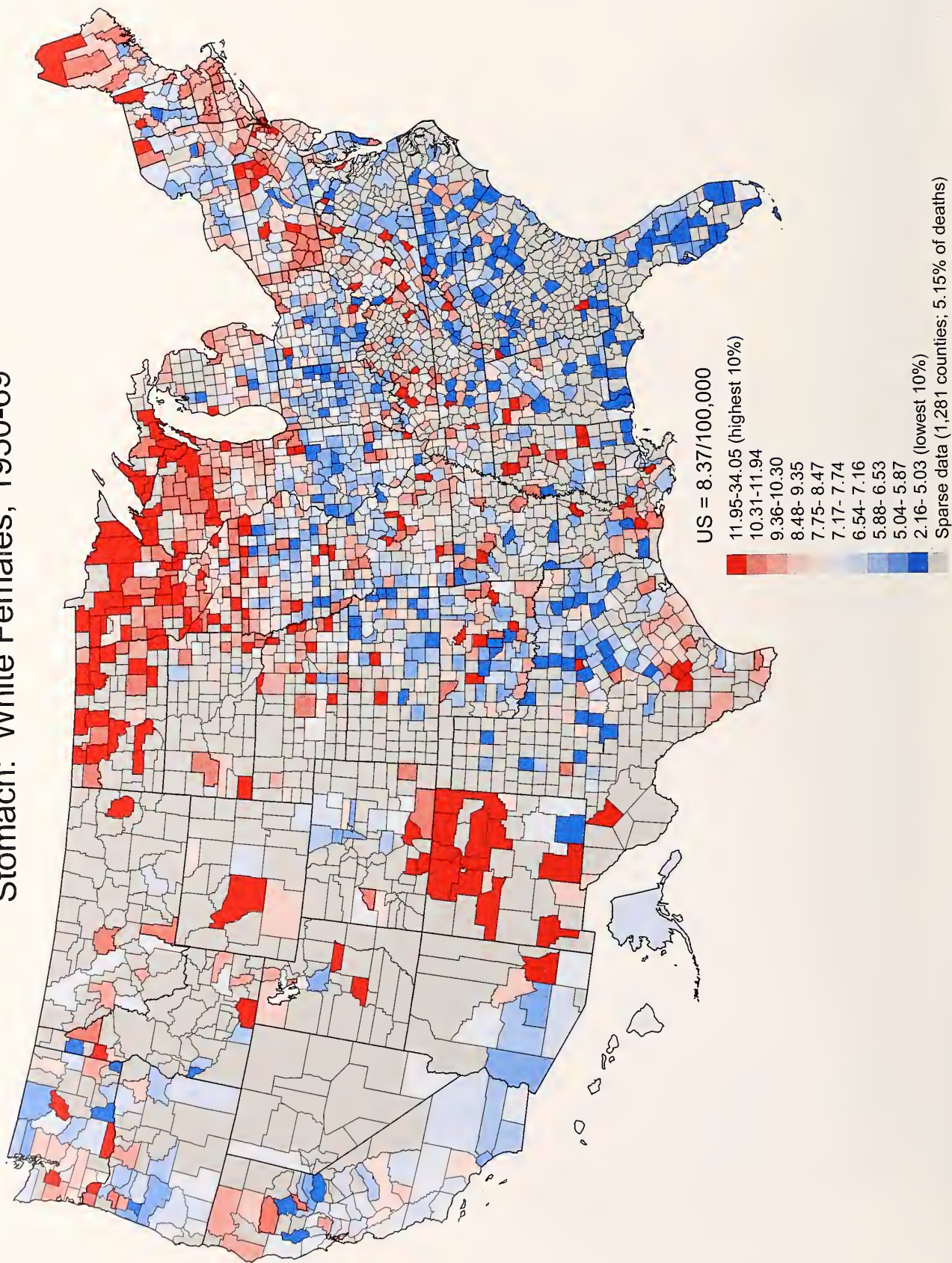
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Stomach: White Males, 1950-69



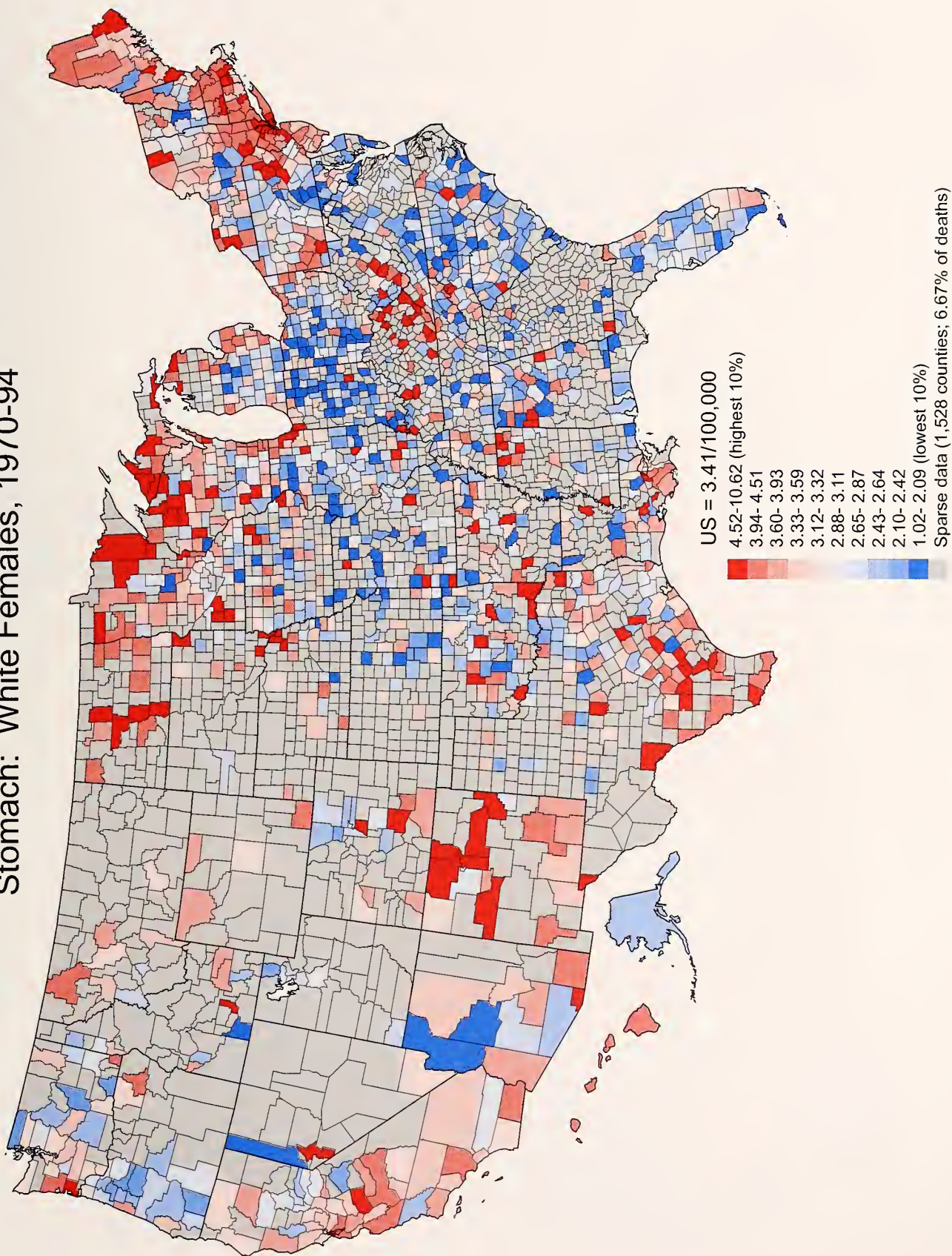
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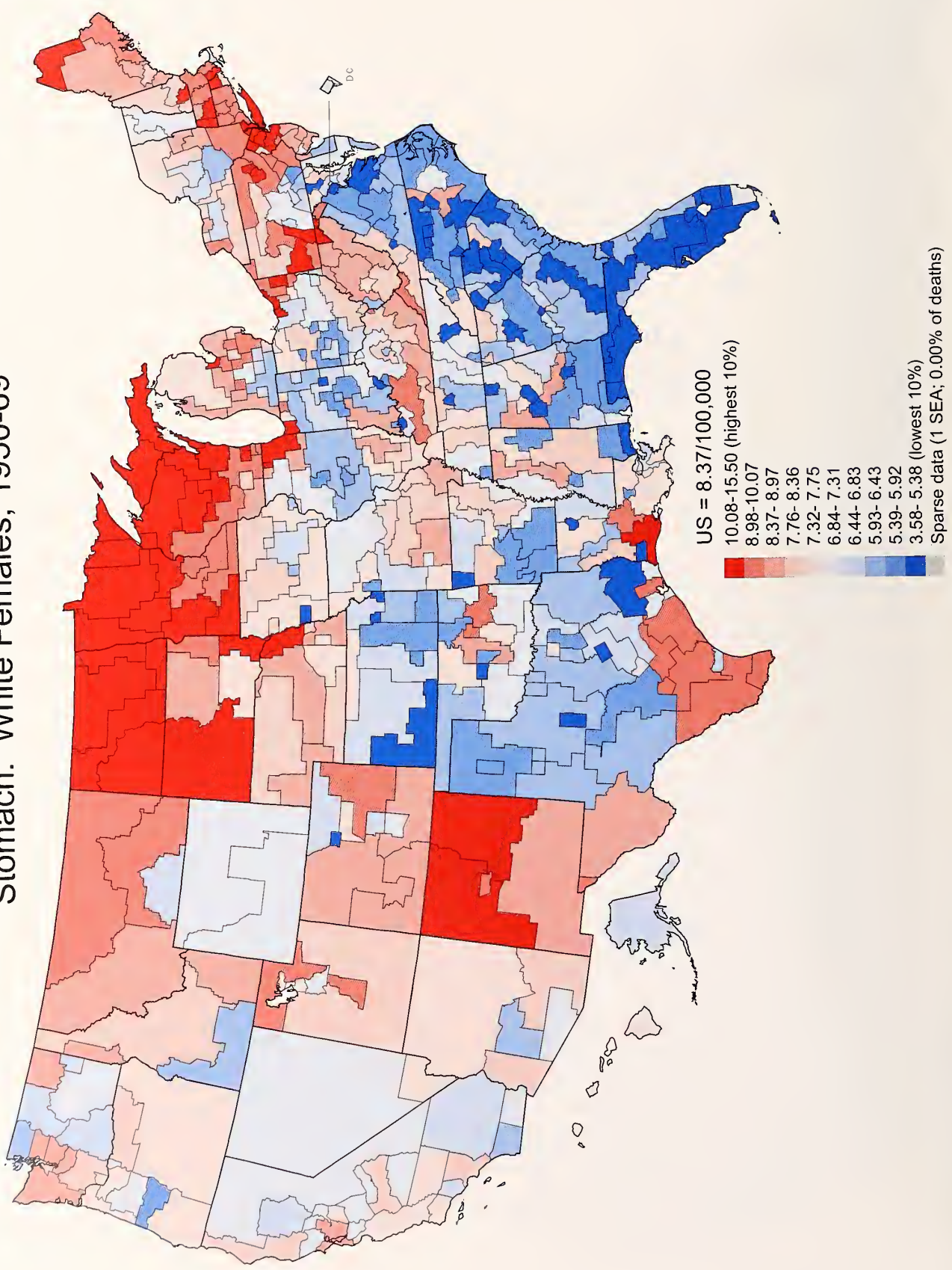
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Stomach: White Females, 1950-69



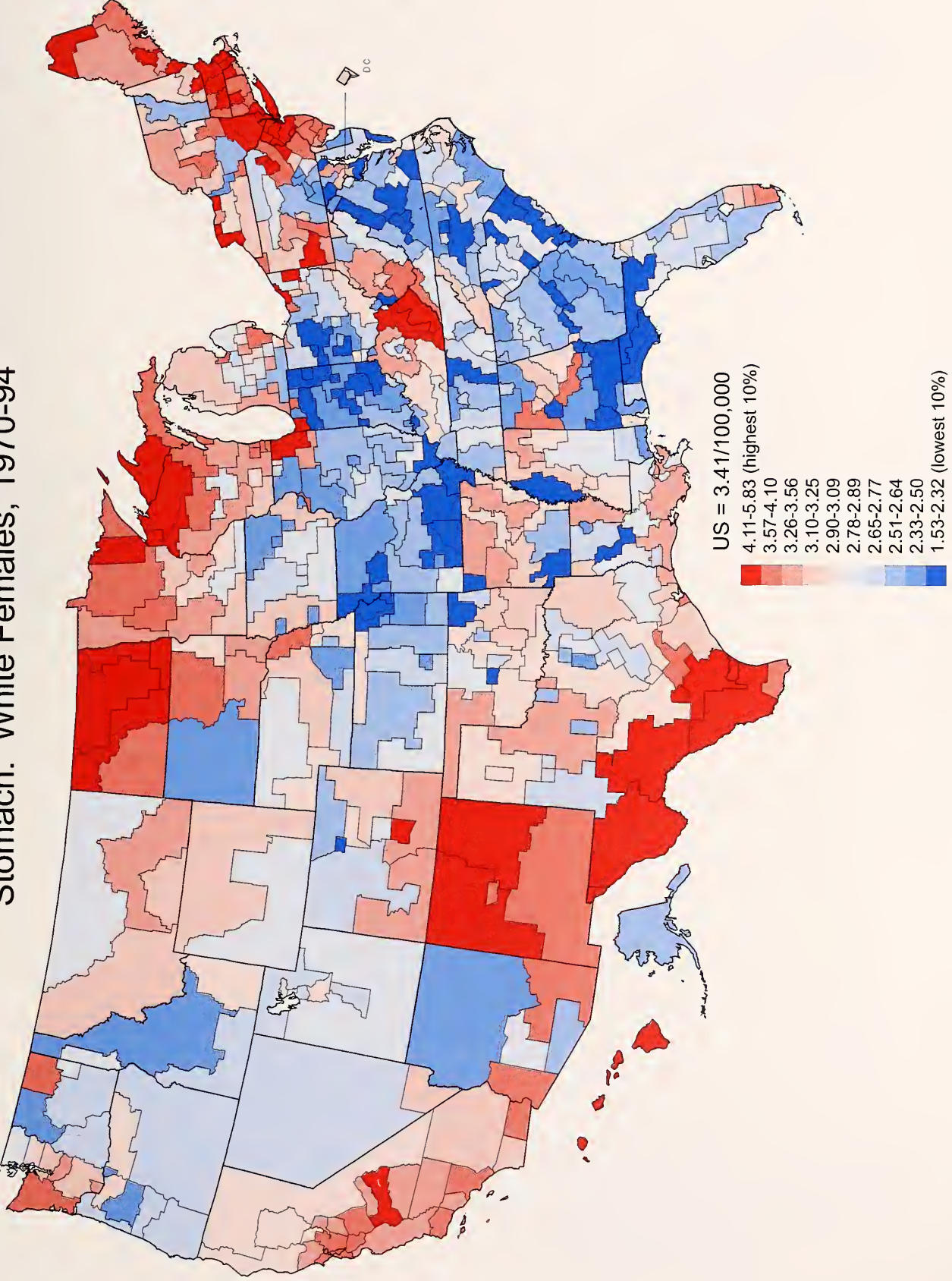
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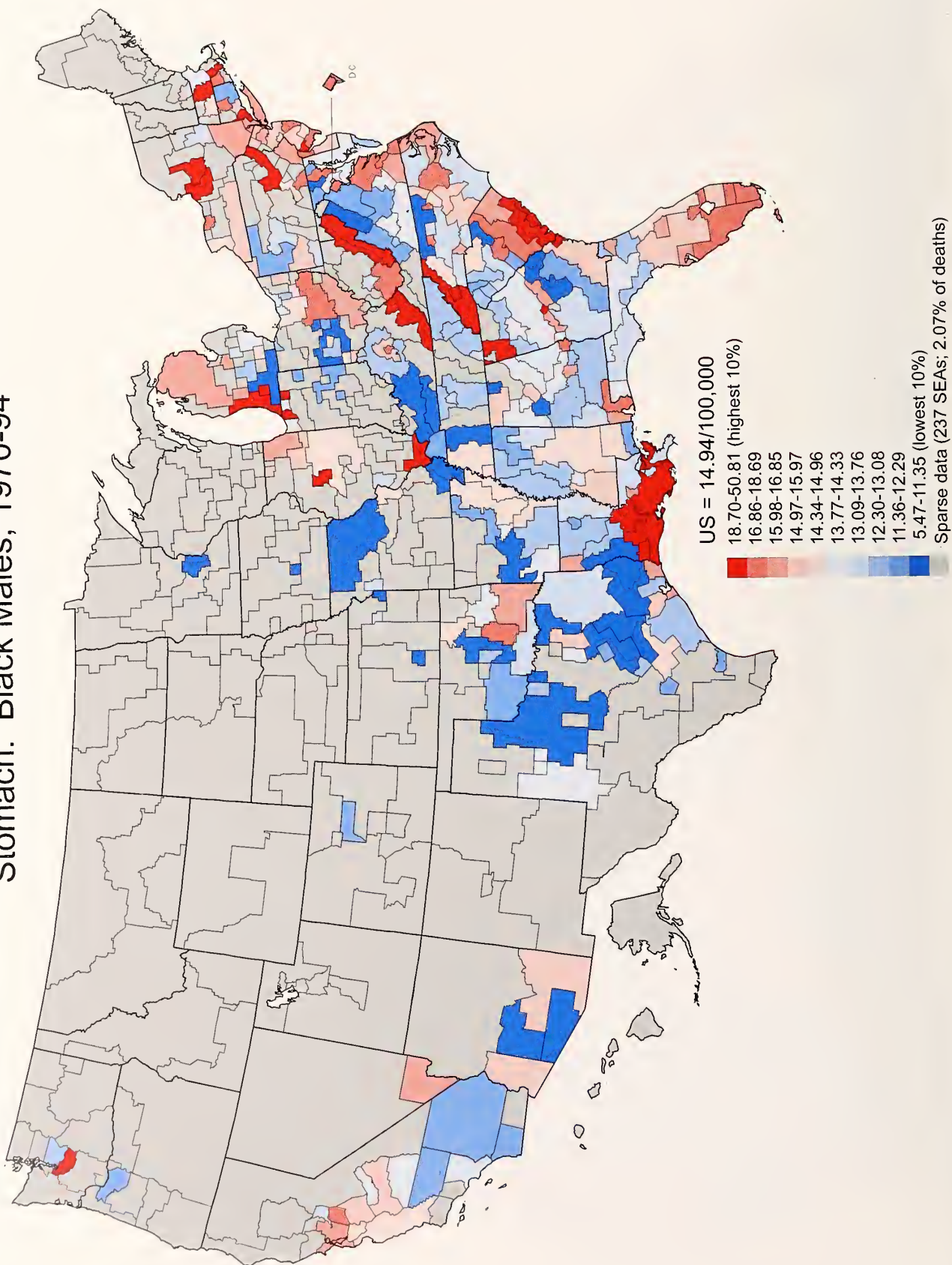
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Stomach: White Females, 1950-69



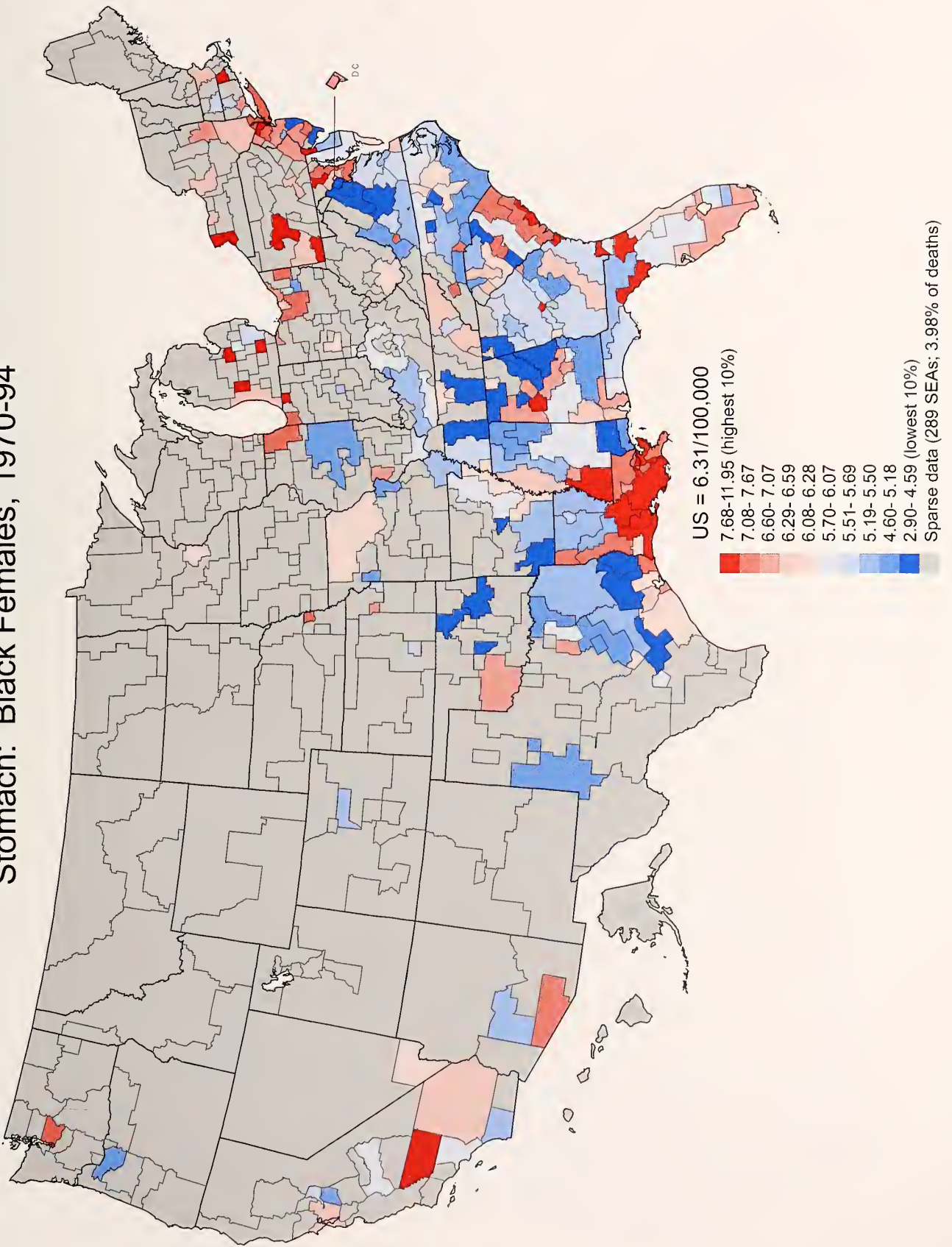
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Stomach: White Females, 1970-94



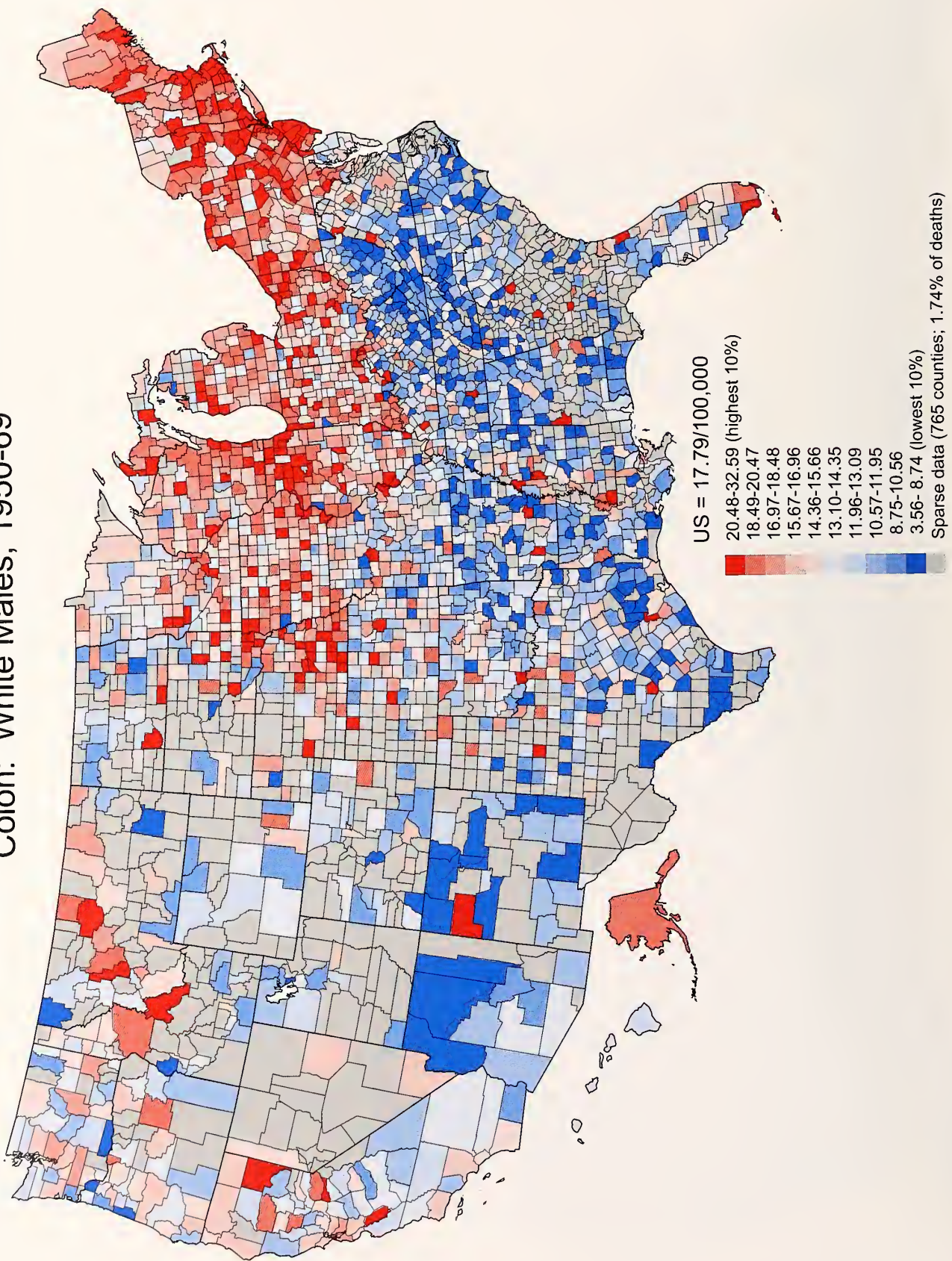
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Stomach: Black Males, 1970-94



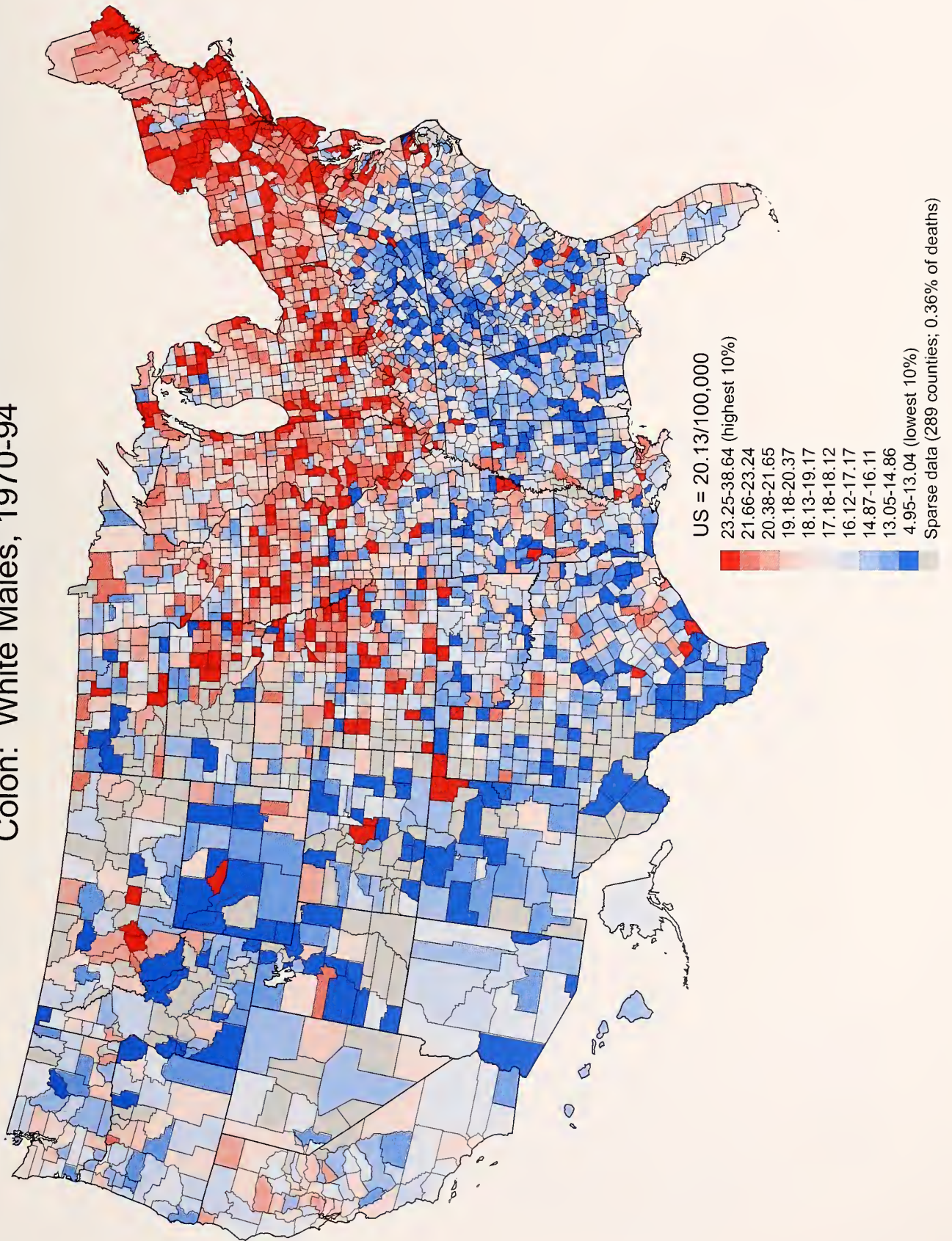
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Stomach: Black Females, 1970-94



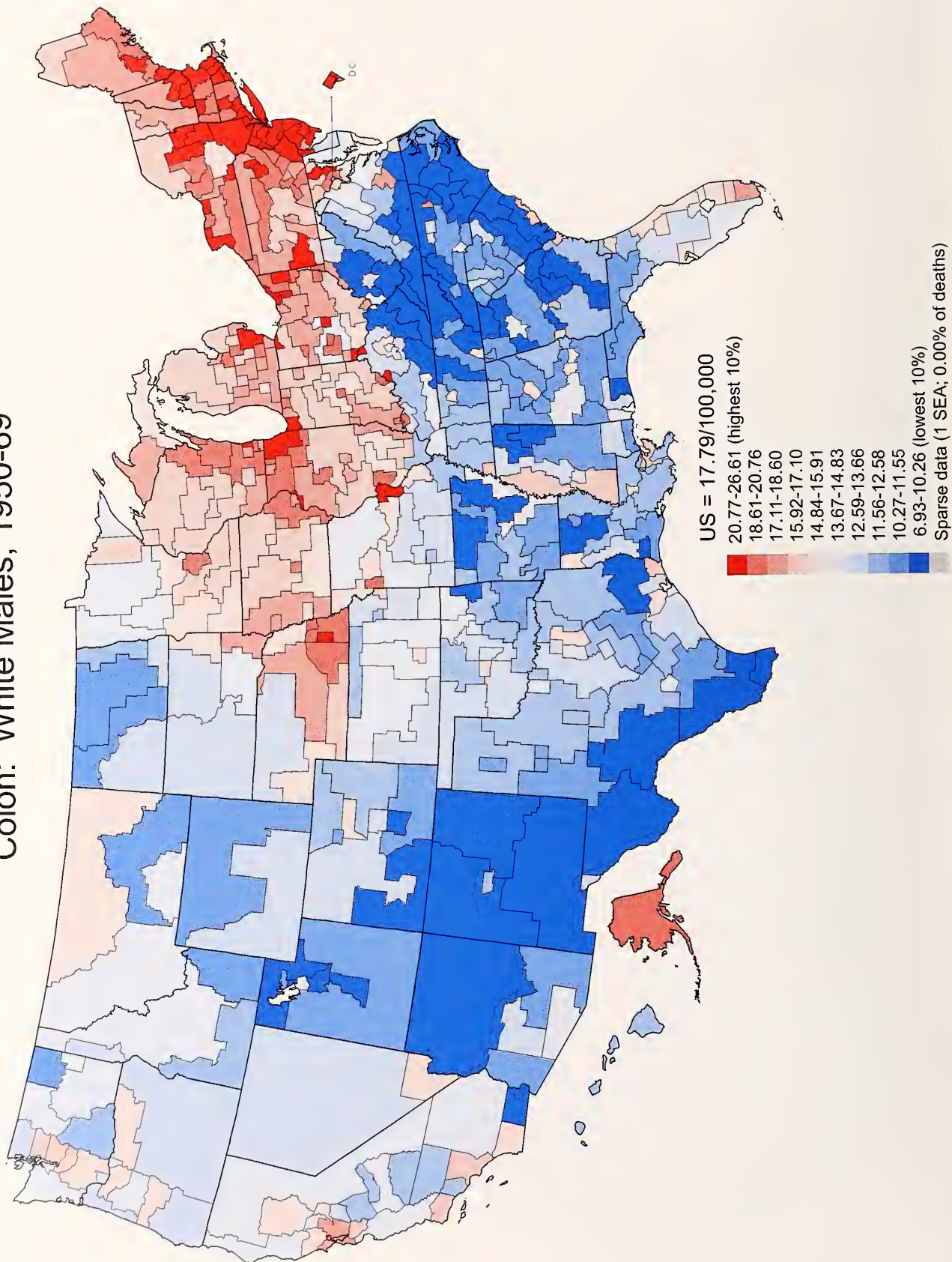
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Colon: White Males, 1950-69



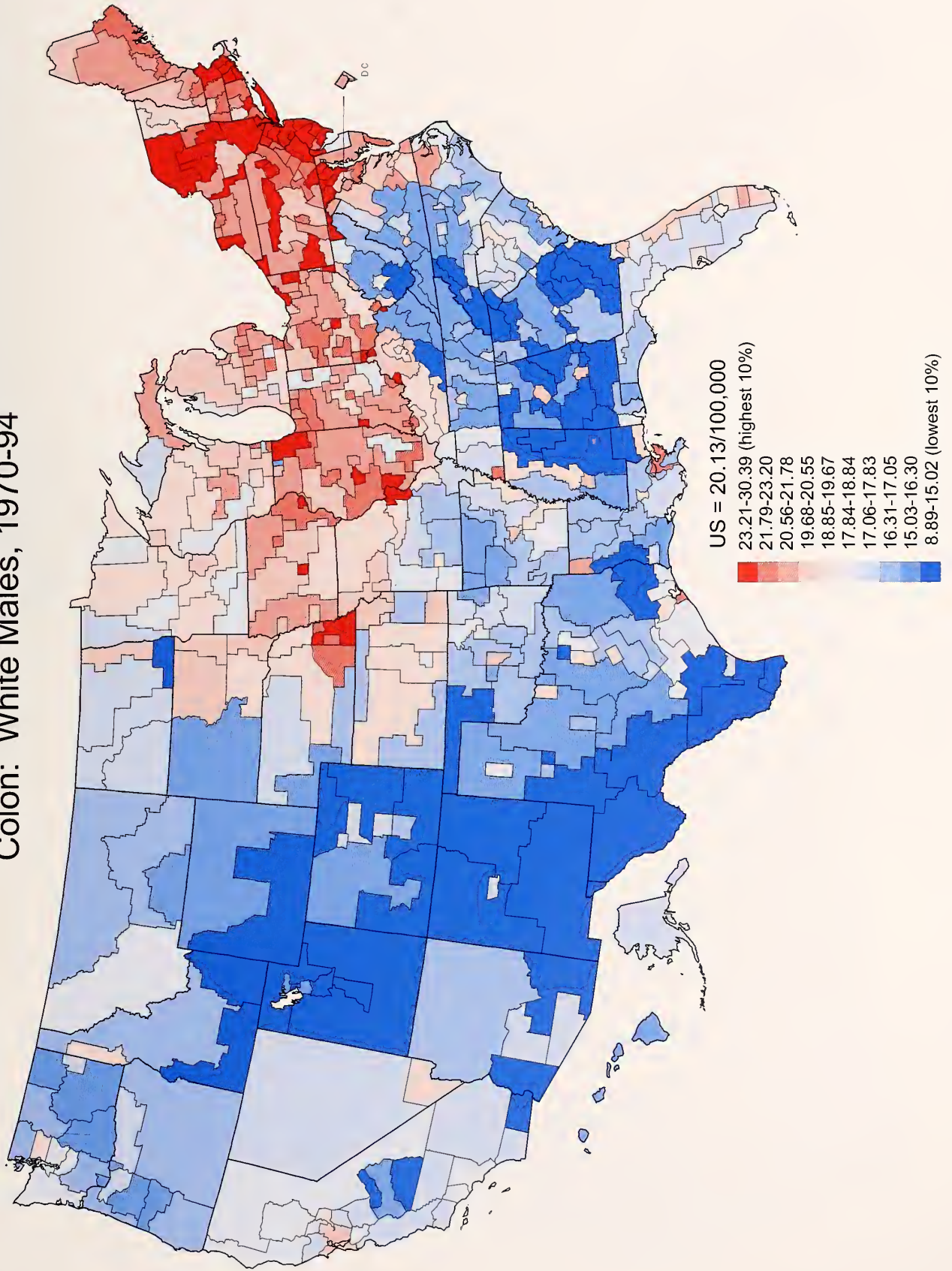
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Colon: White Males, 1970-94



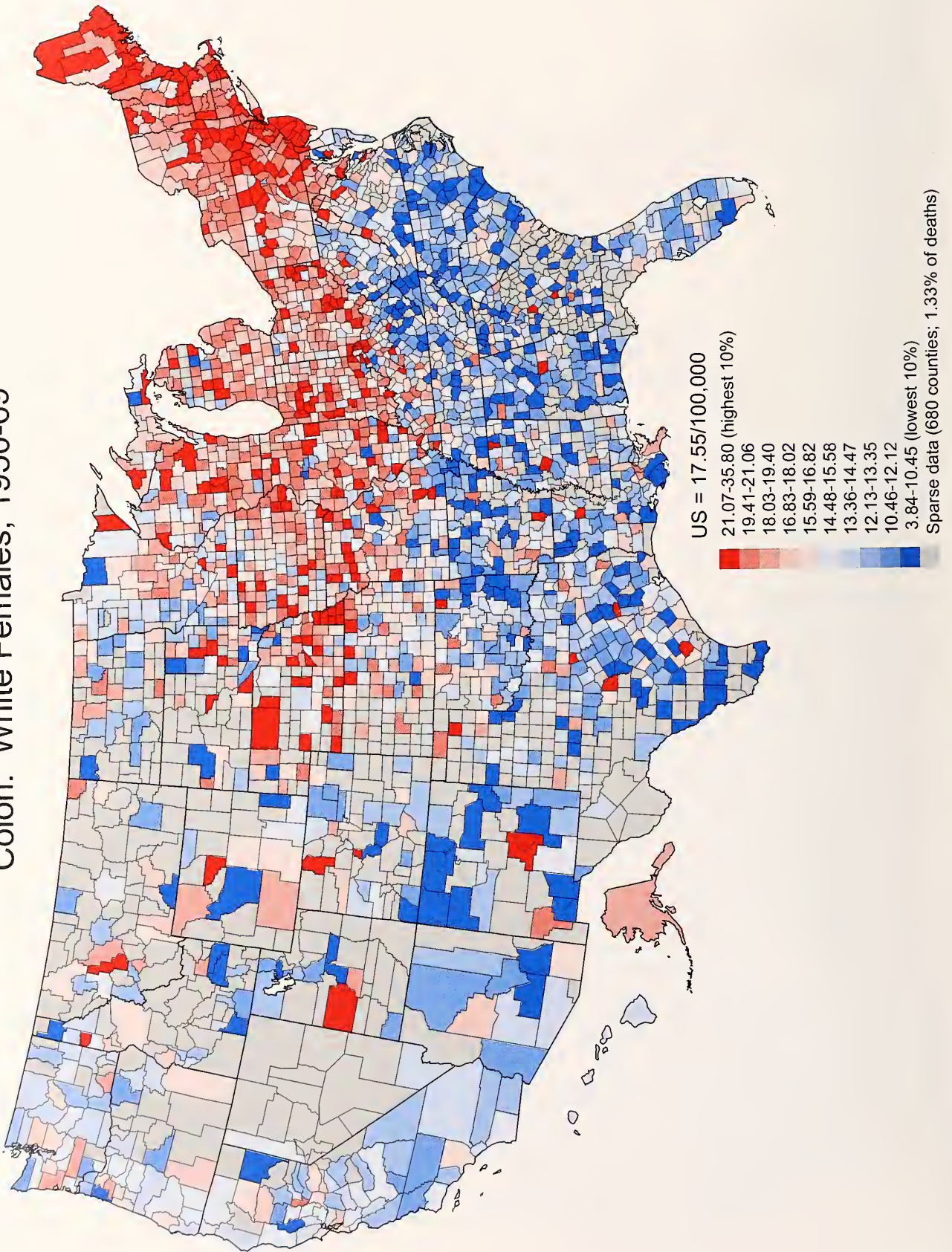
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Colon: White Males, 1950-69



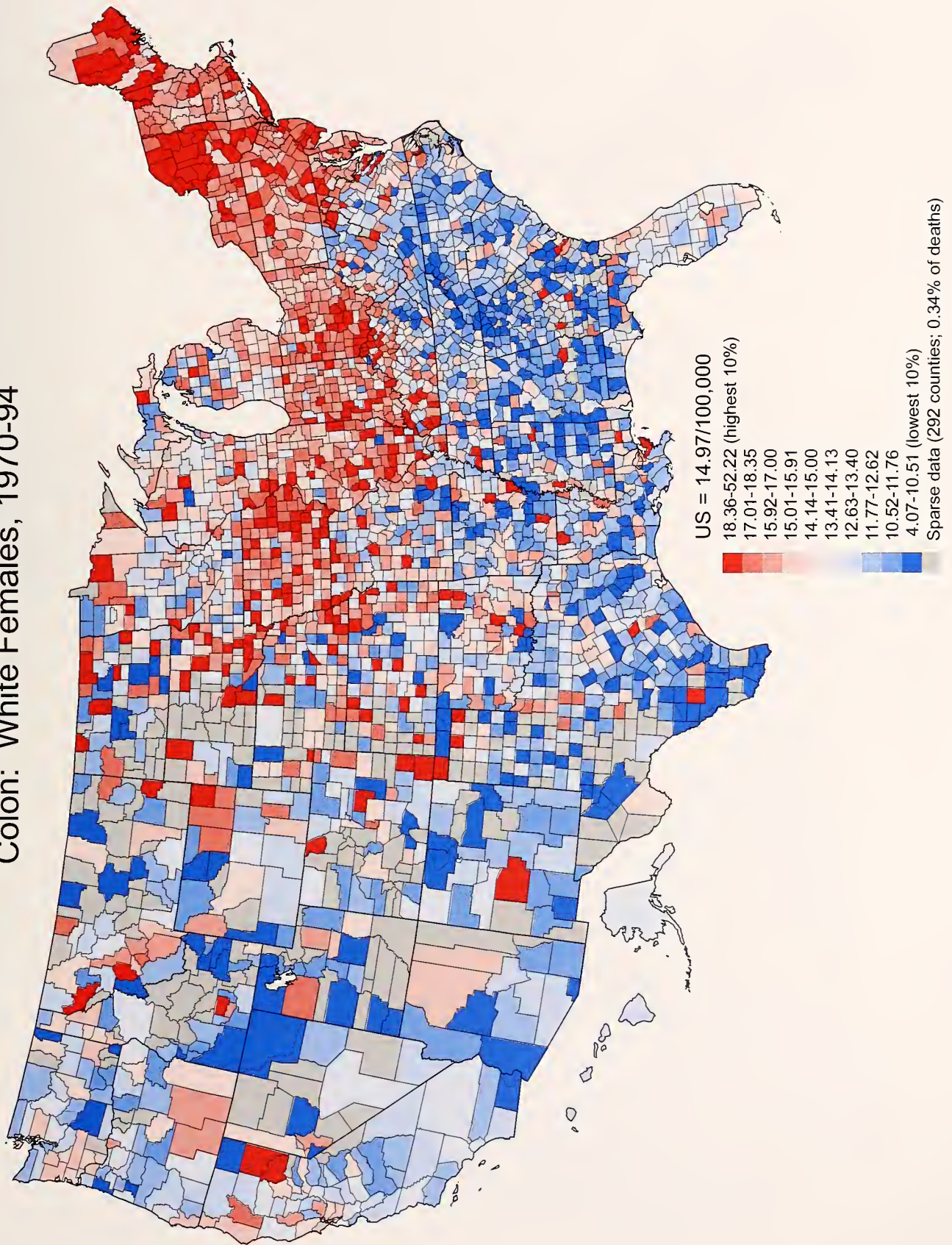
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Colon: White Males, 1970-94



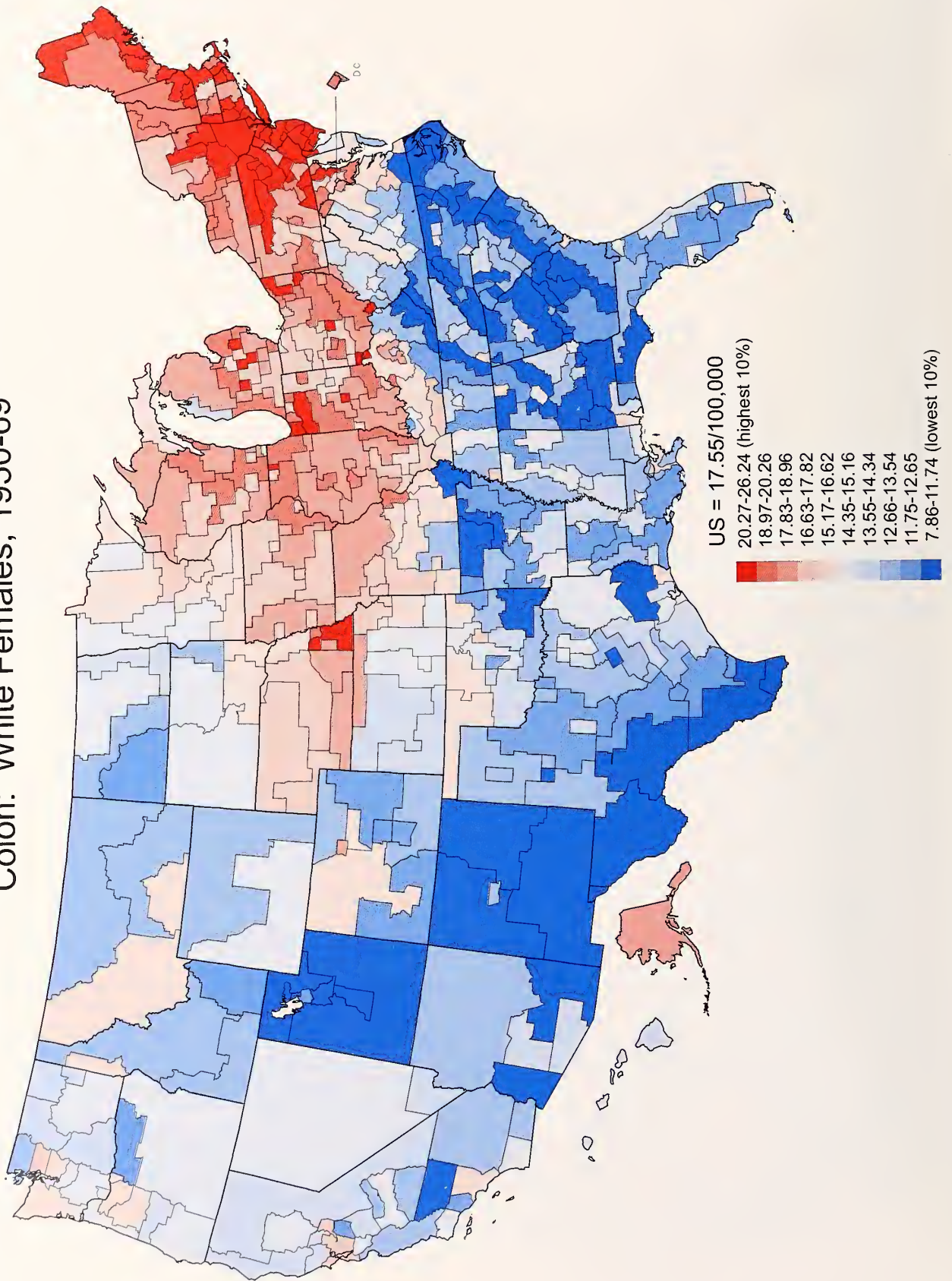
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Colon: White Females, 1950-69



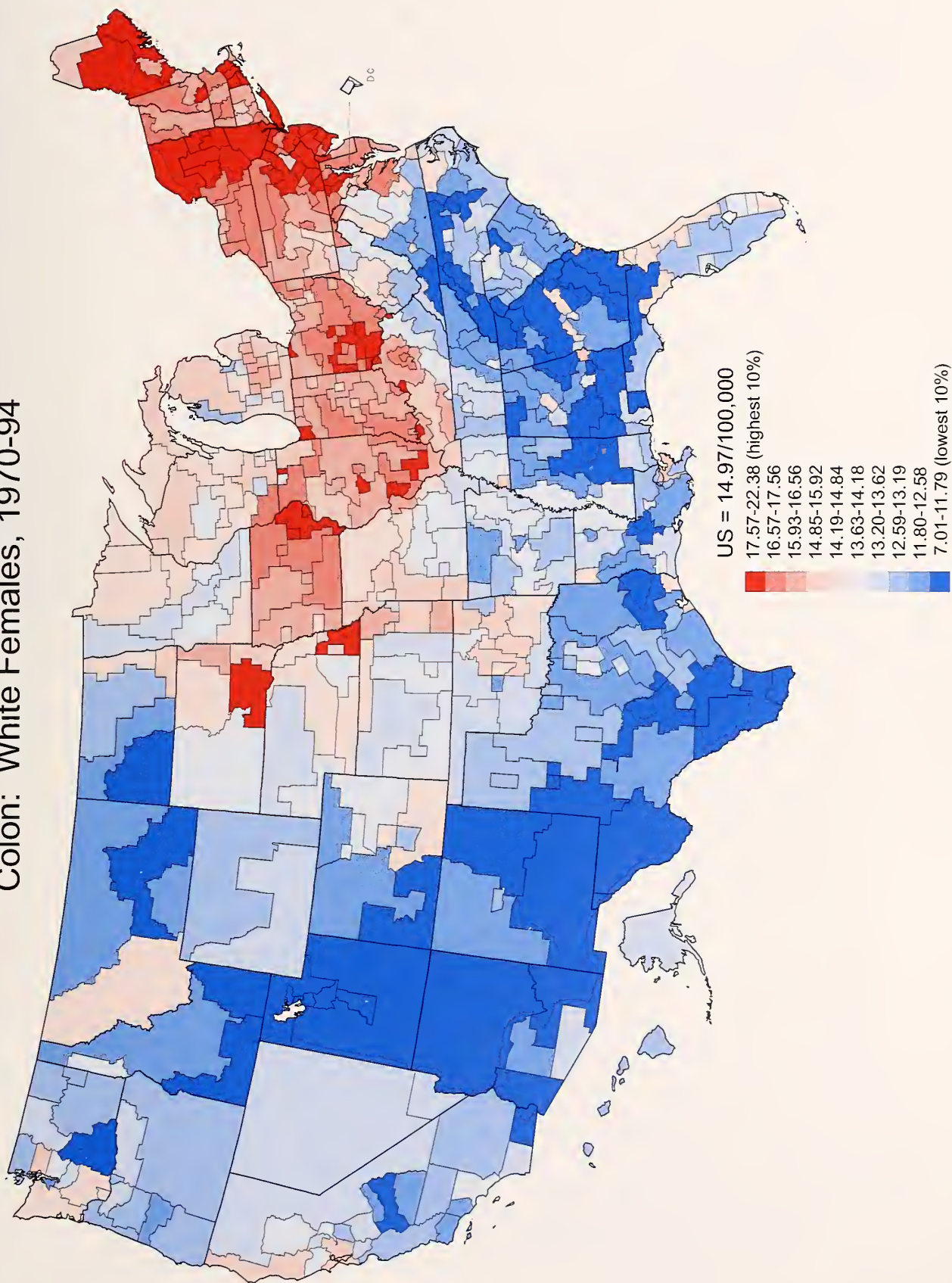
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Colon: White Females, 1970-94



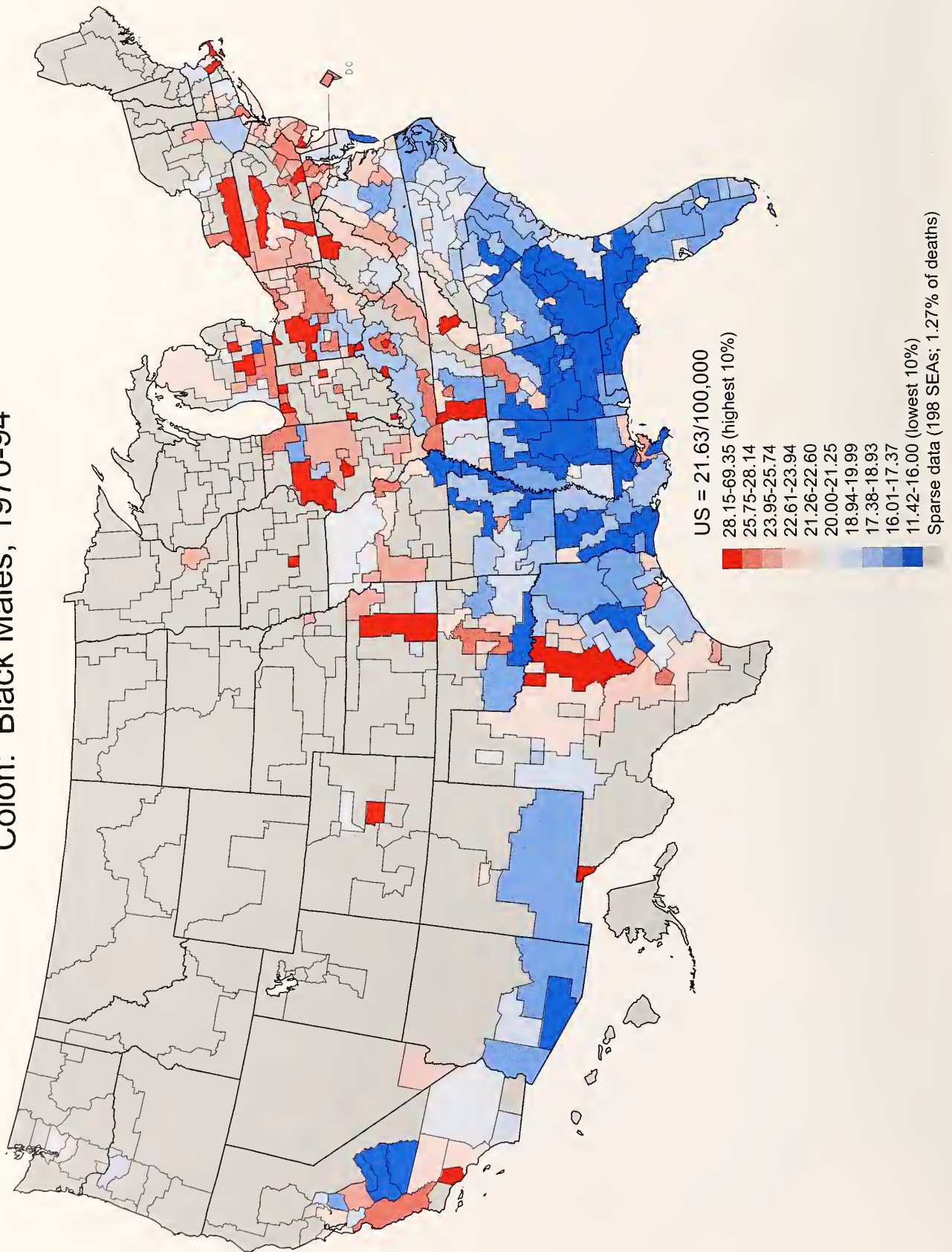
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Colon: White Females, 1950-69



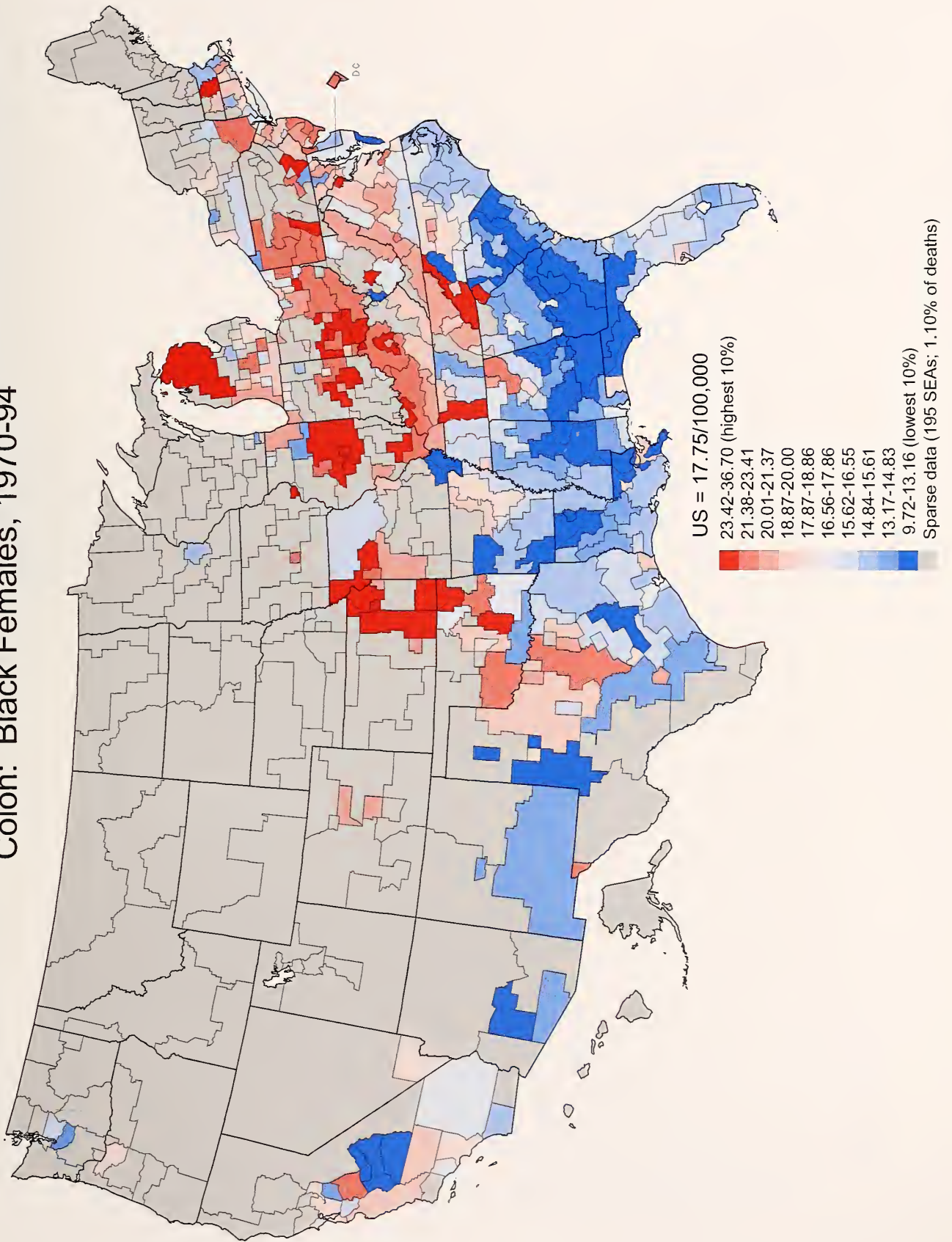
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Colon: White Females, 1970-94



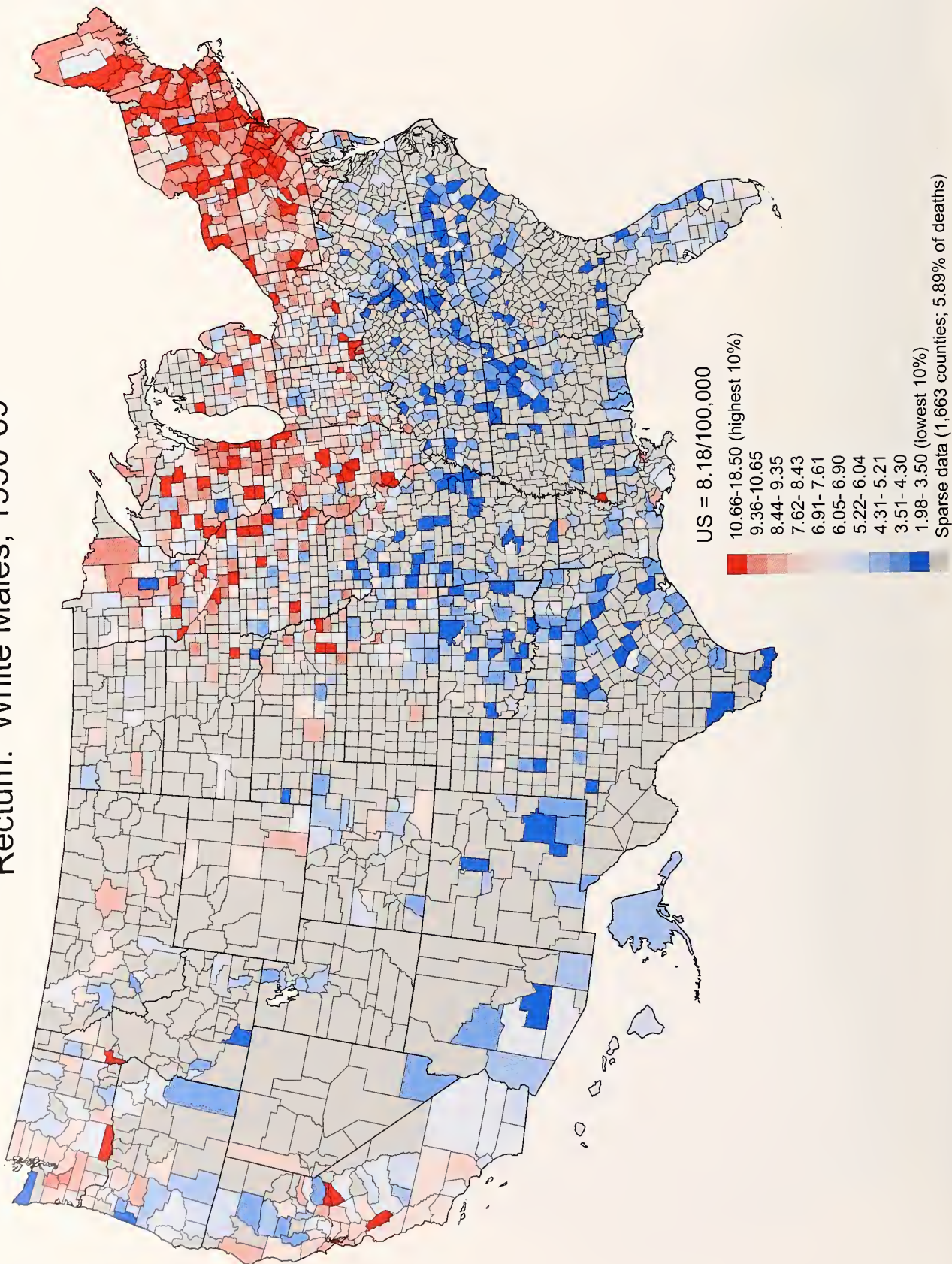
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Colon: Black Males, 1970-94



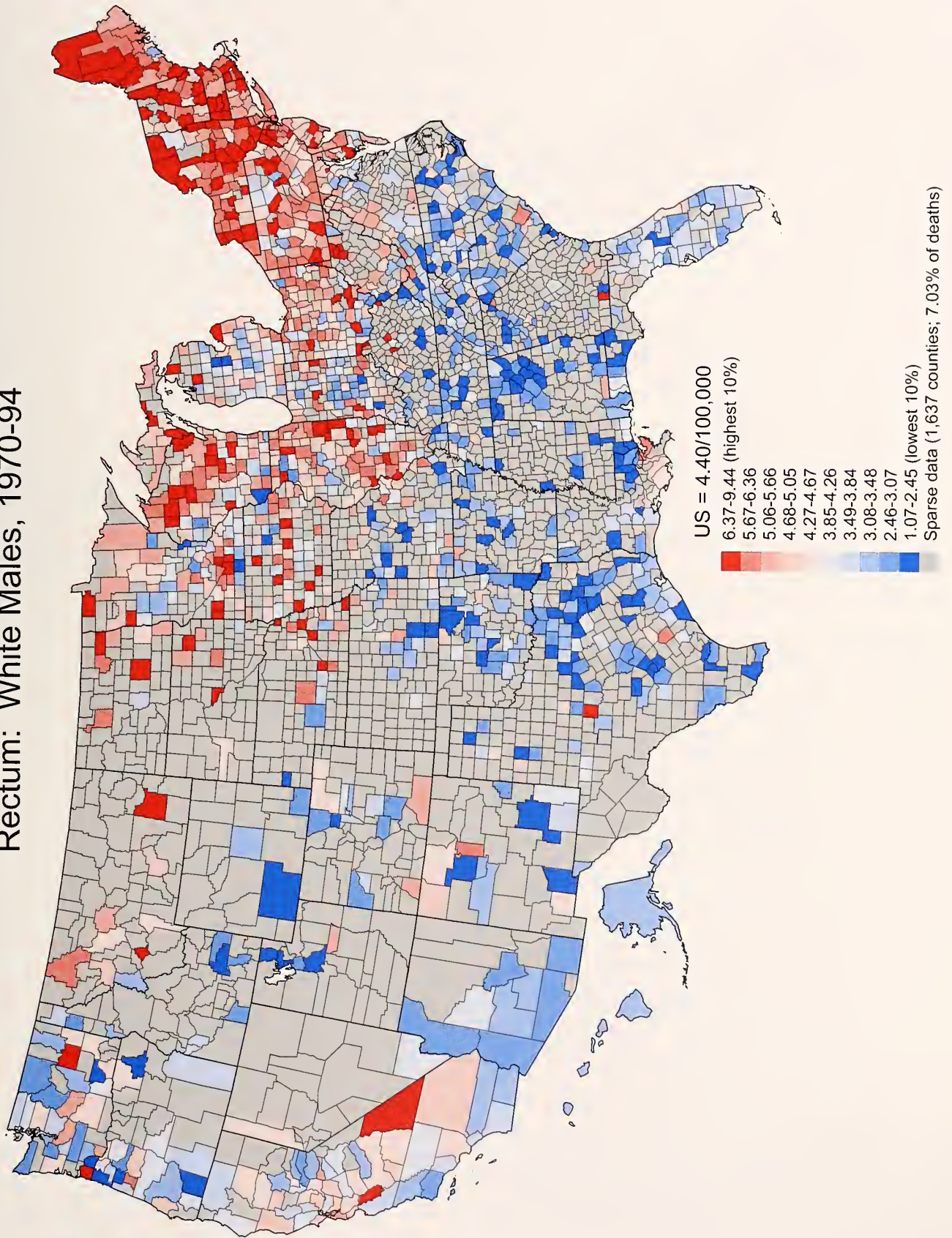
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Colon: Black Females, 1970-94



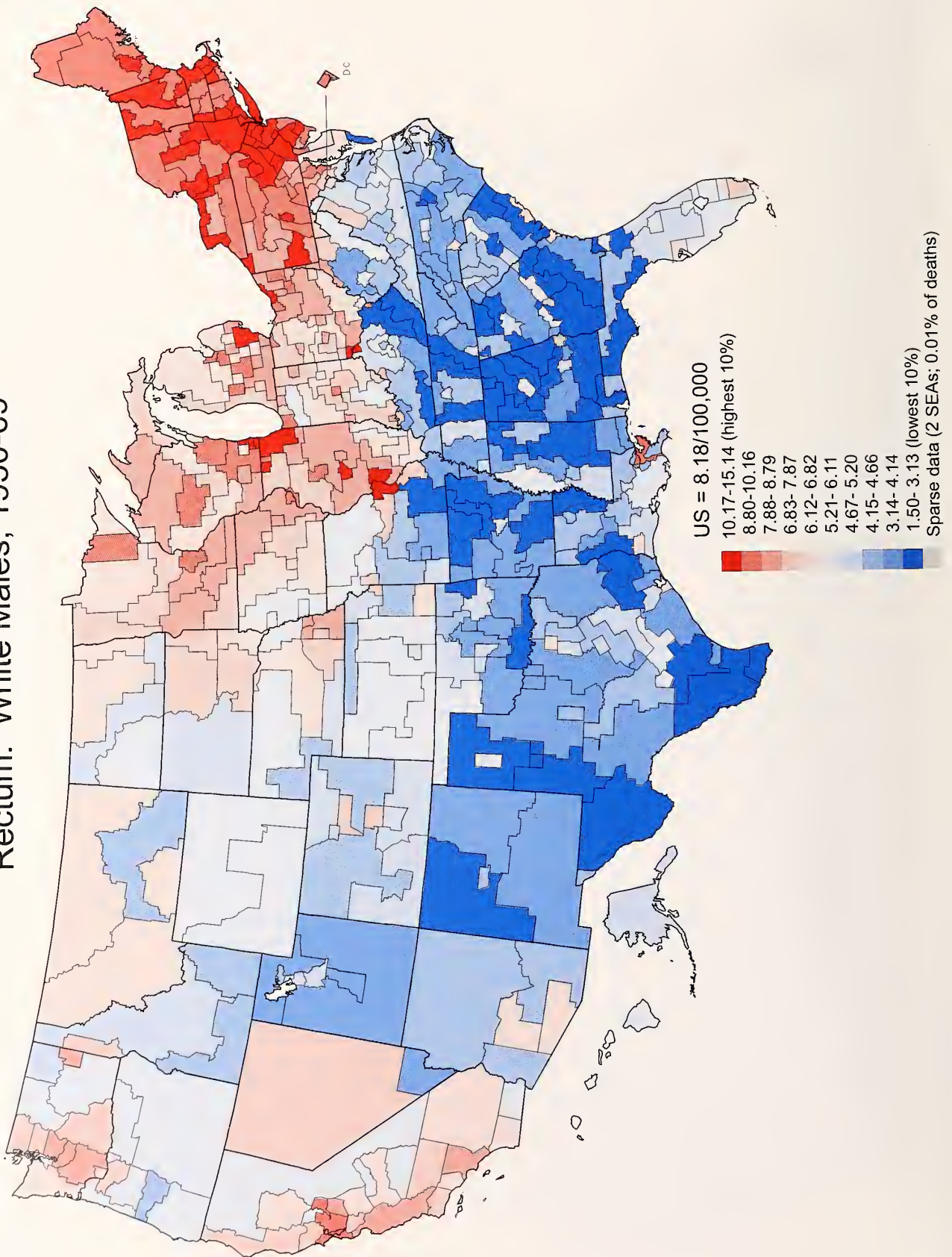
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Rectum: White Males, 1950-69



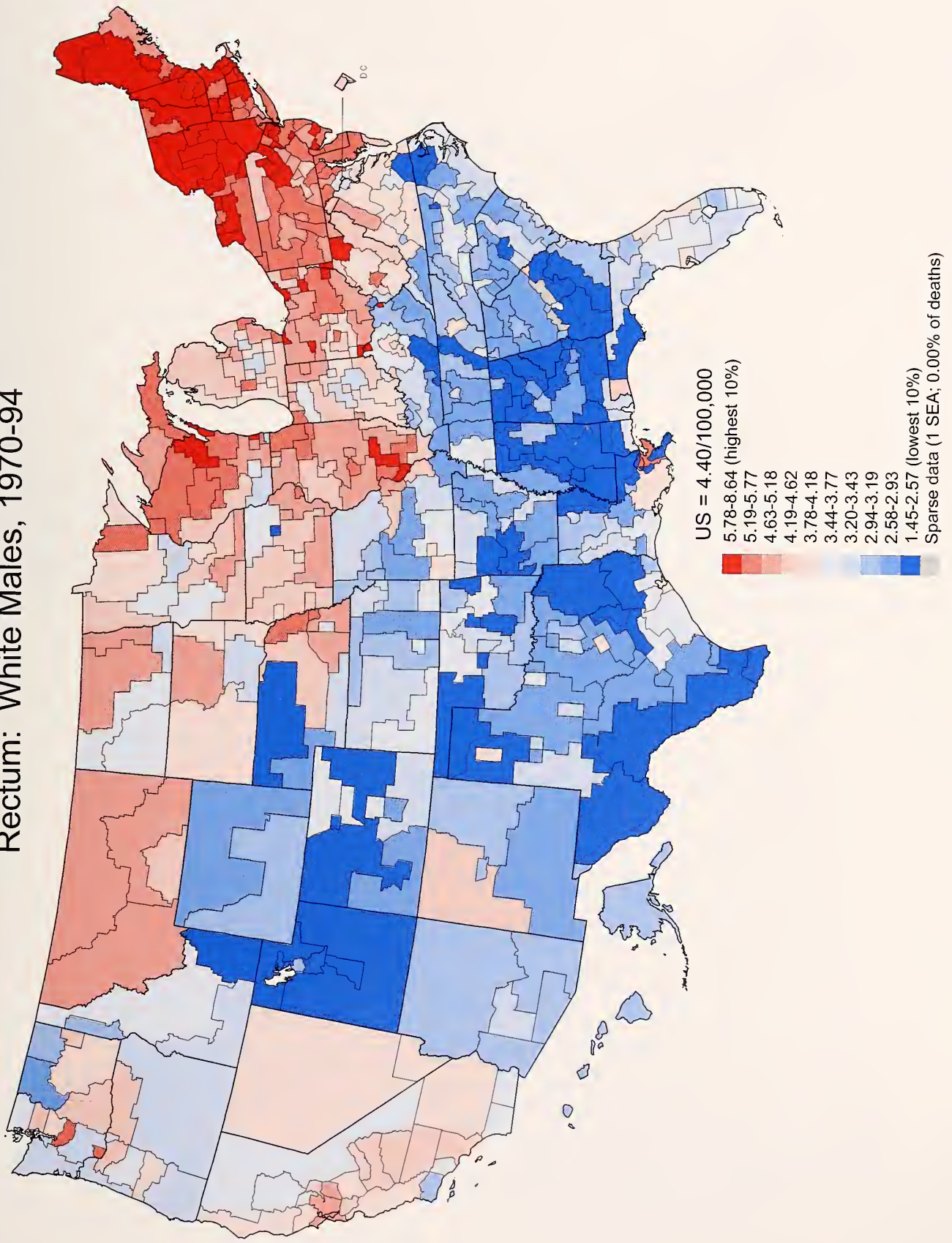
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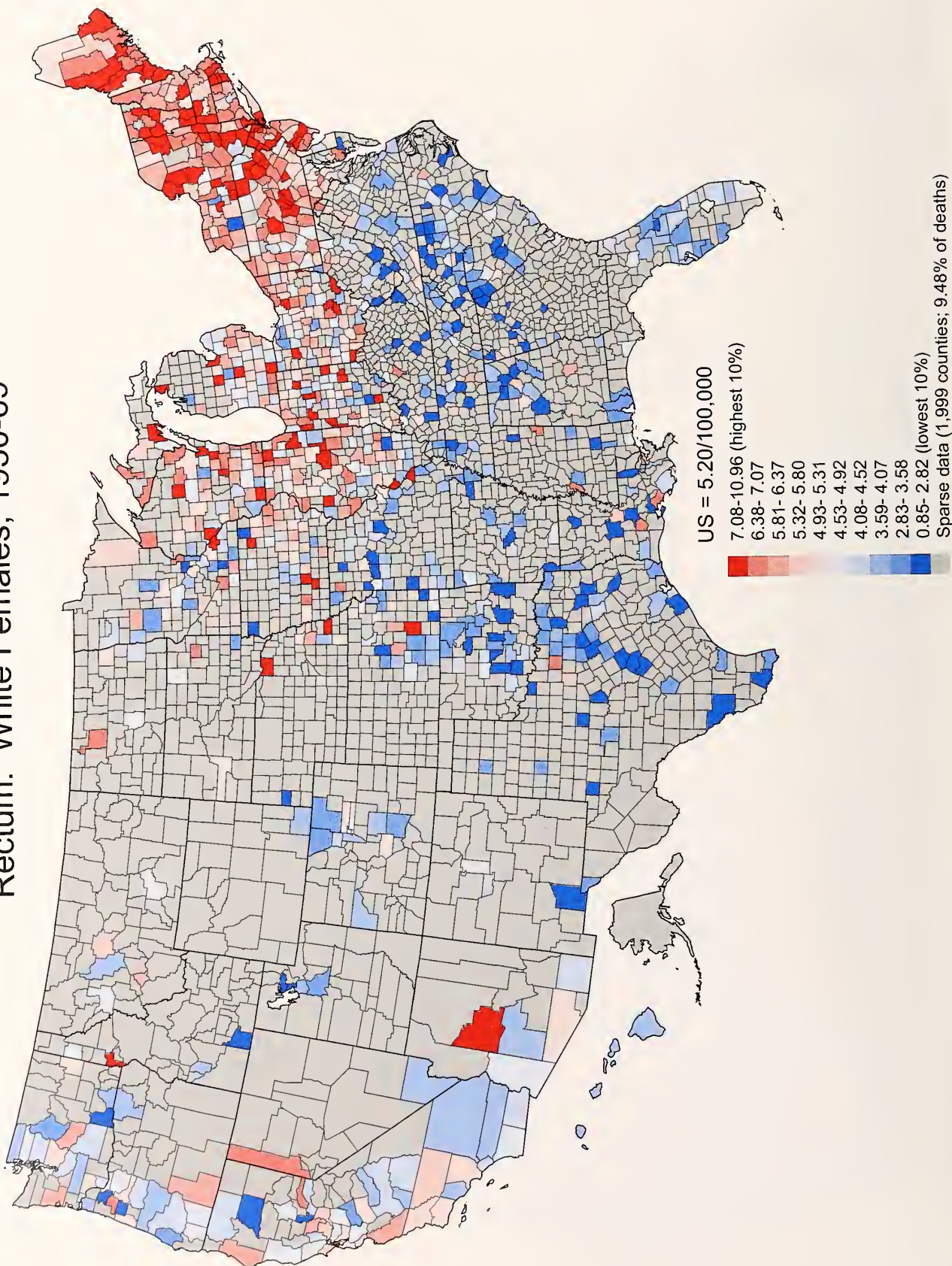
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Rectum: White Males, 1950-69



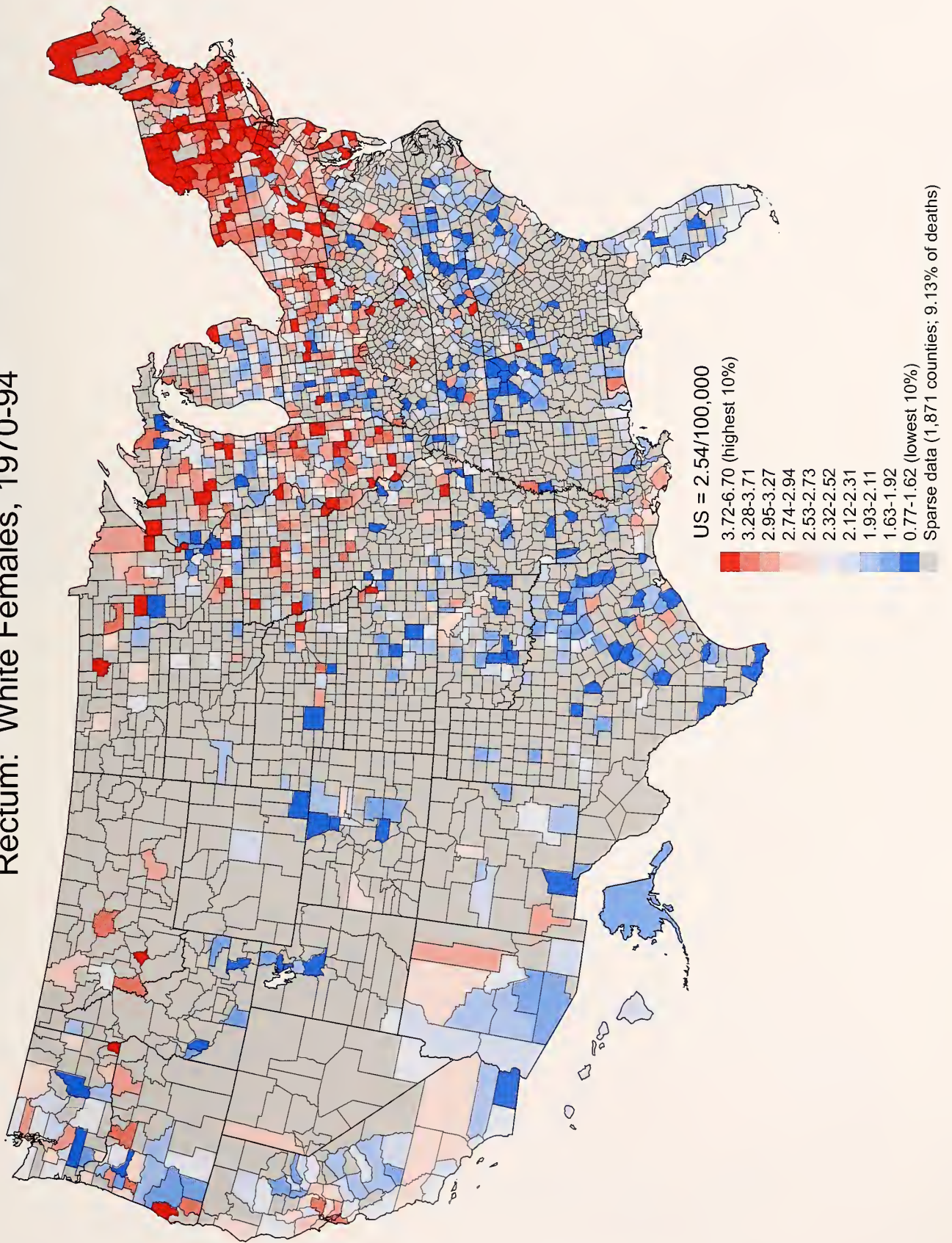
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Rectum: White Males, 1970-94



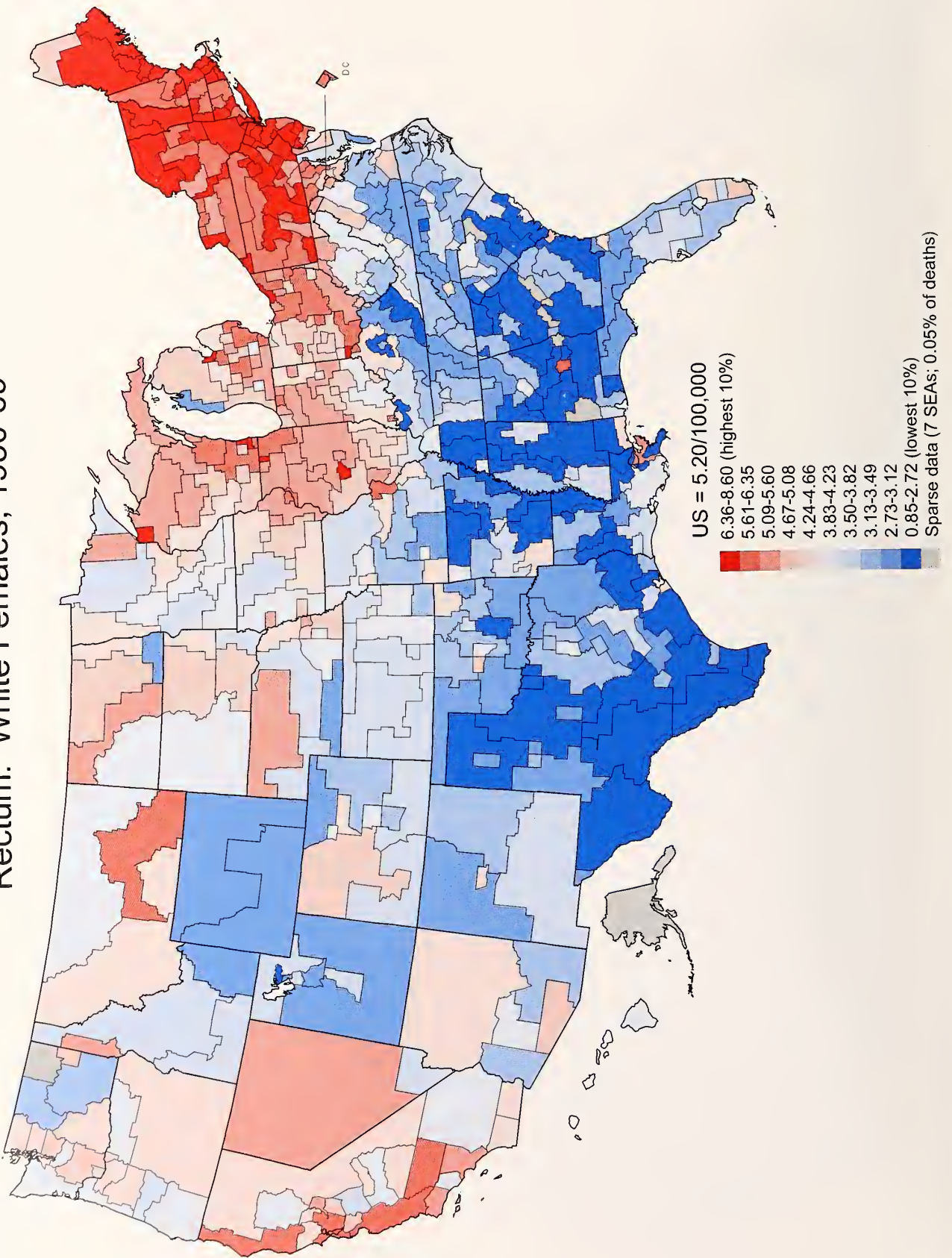
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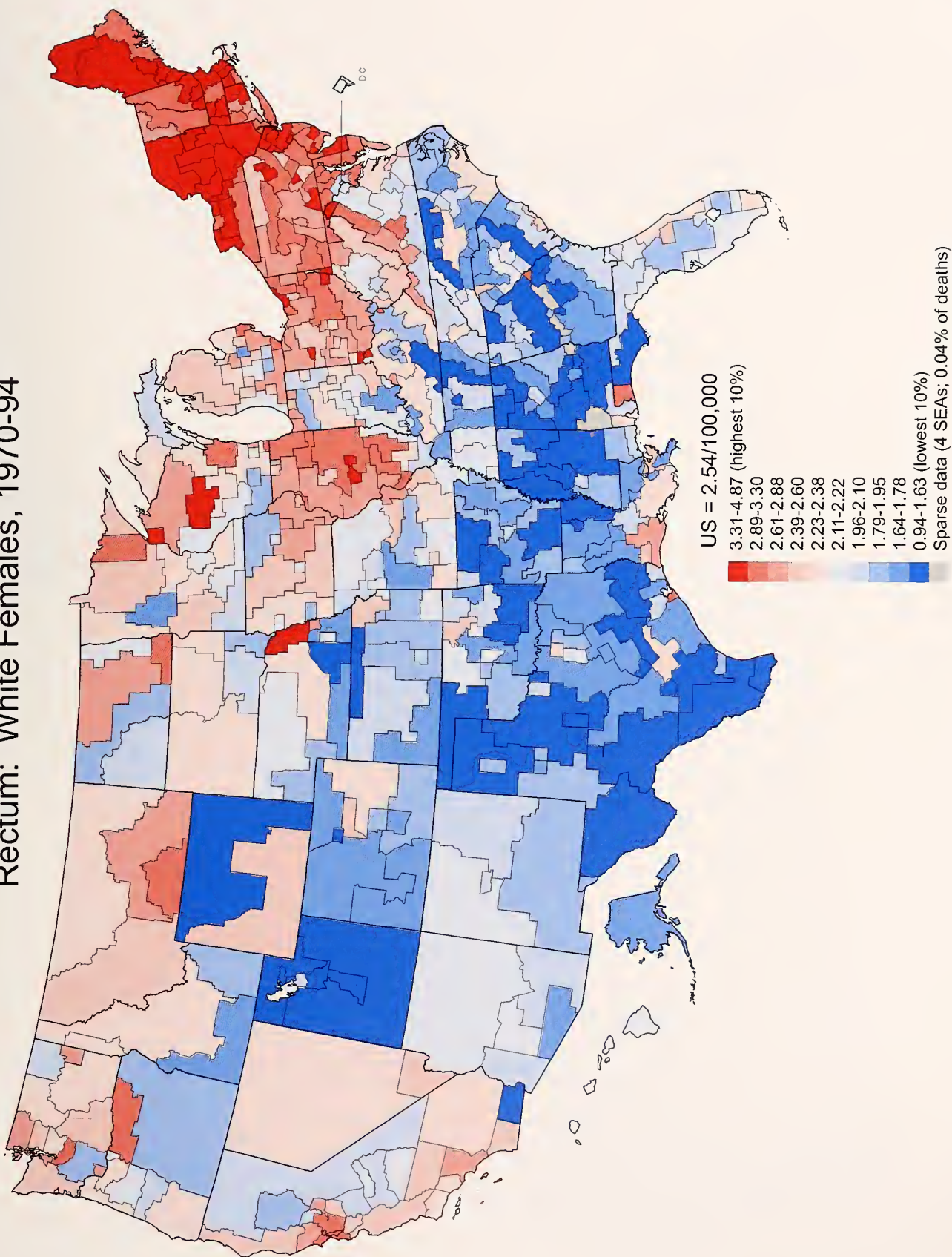
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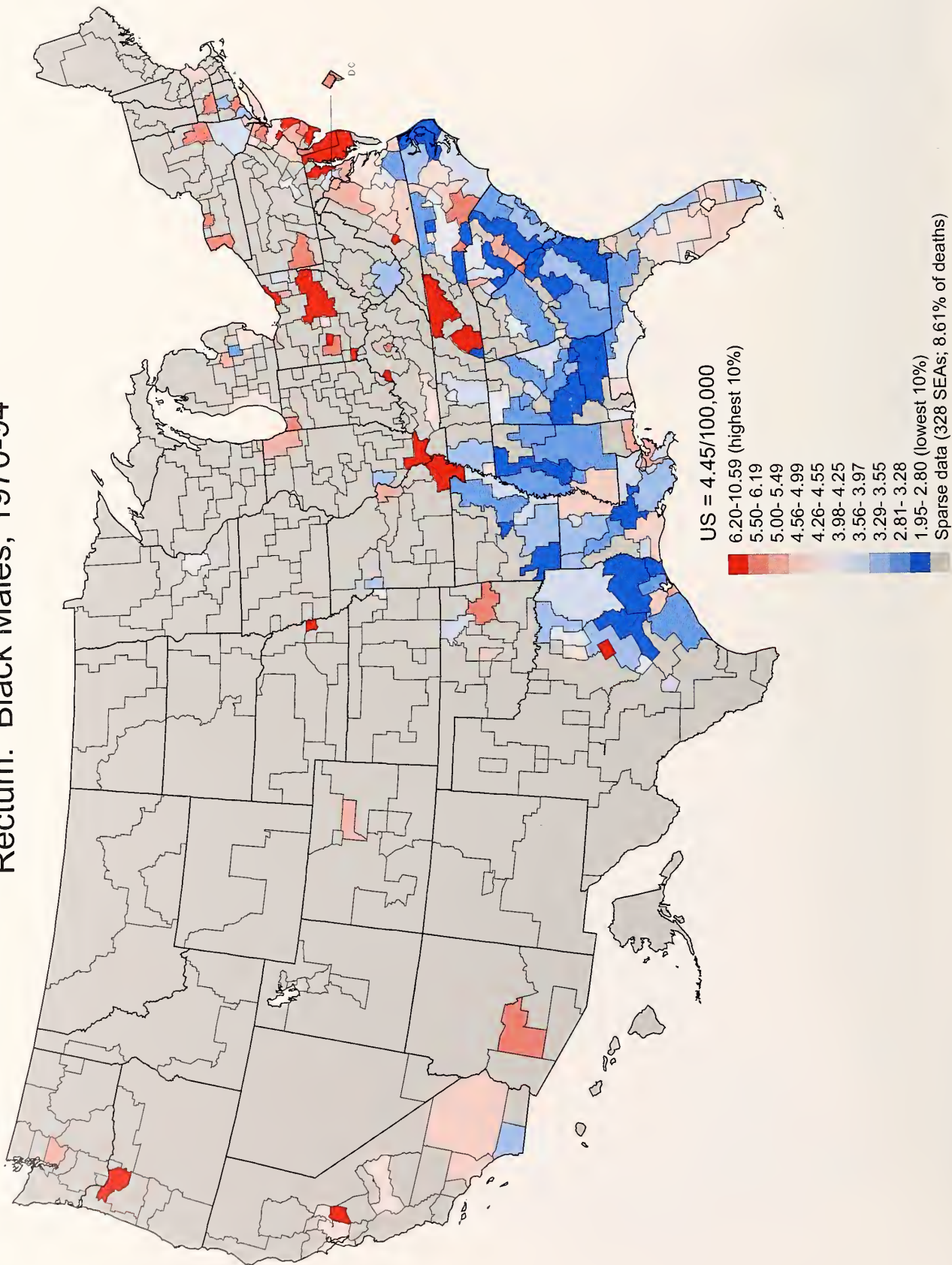
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Rectum: White Females, 1950-69



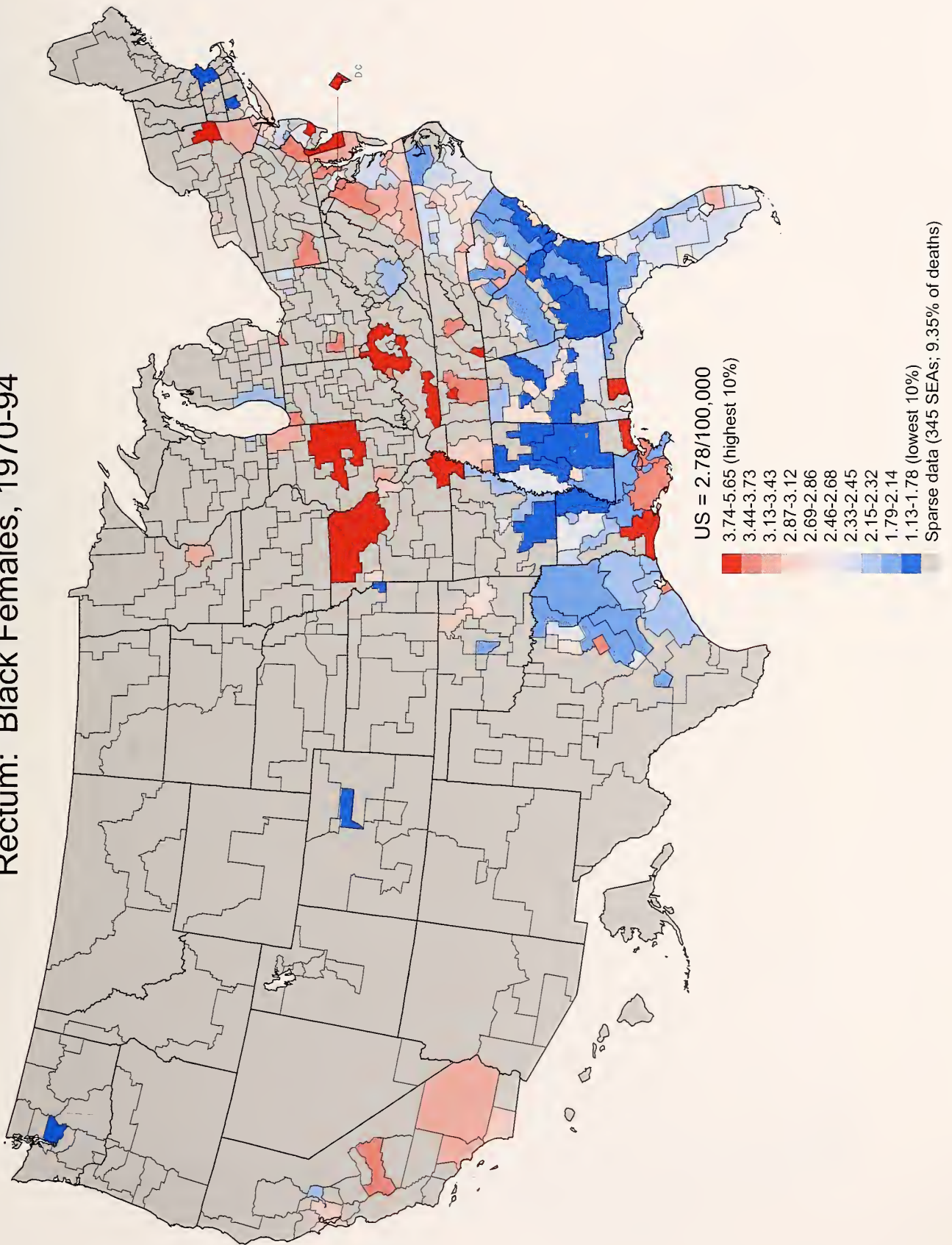
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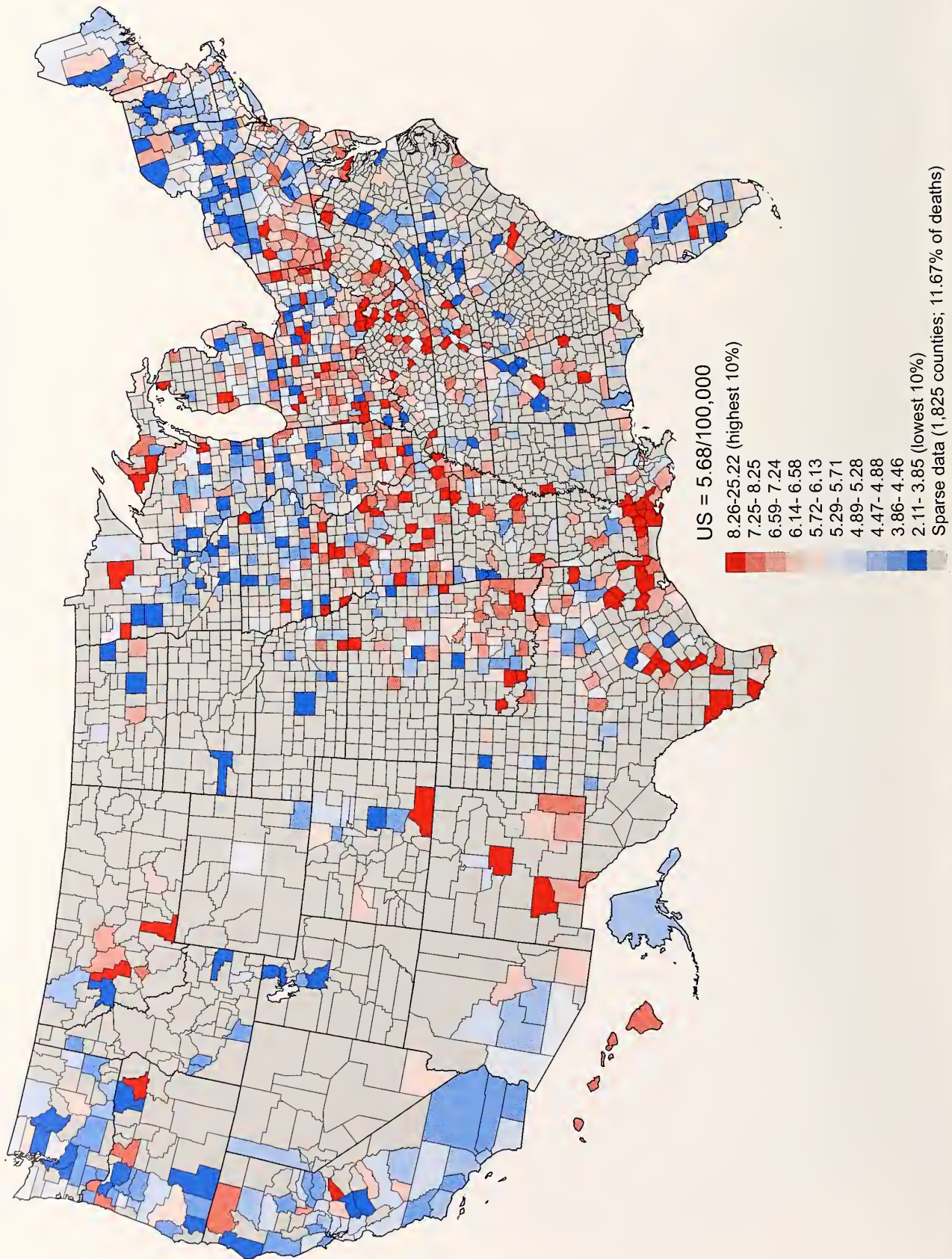
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Rectum: Black Males, 1970-94



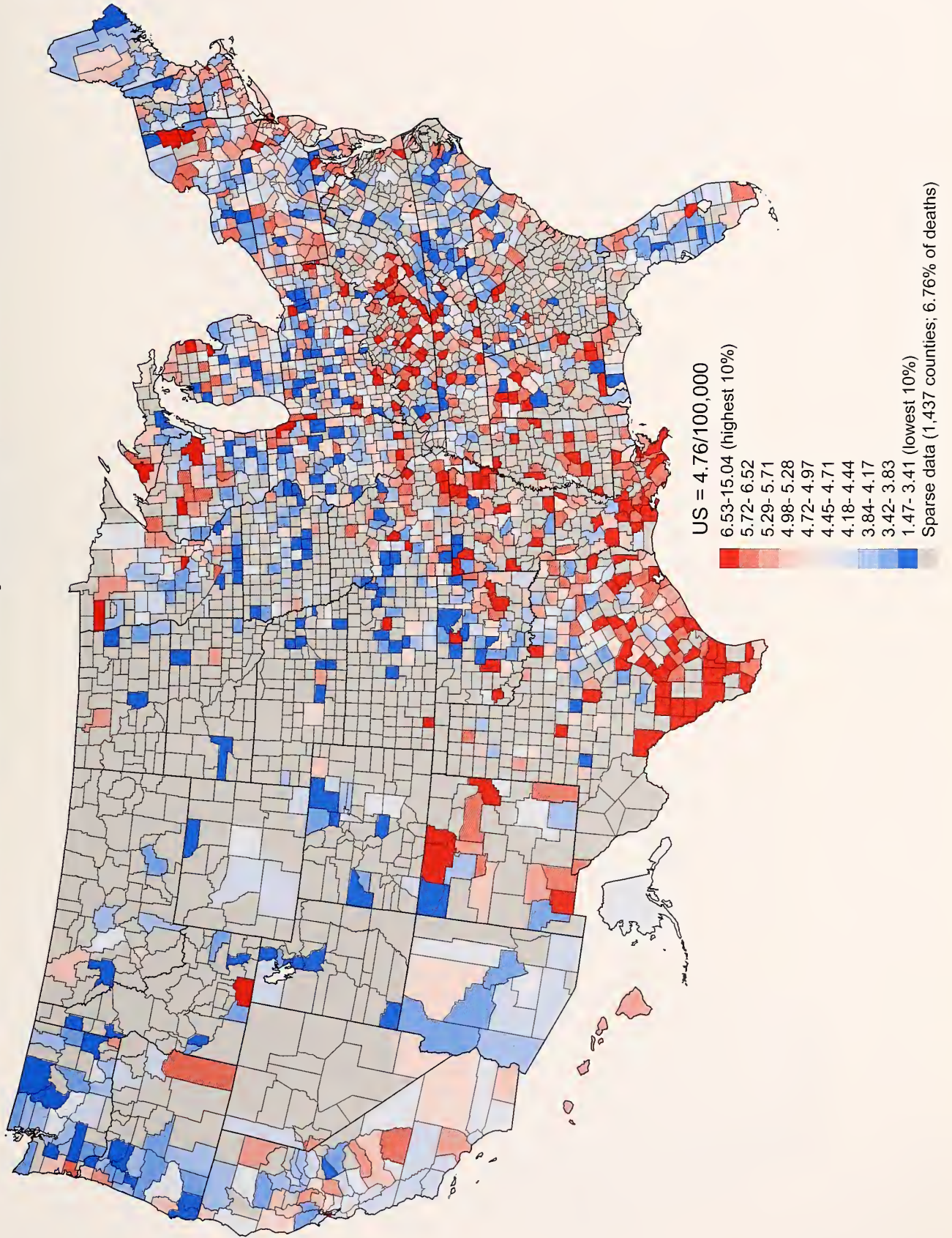
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Rectum: Black Females, 1970-94



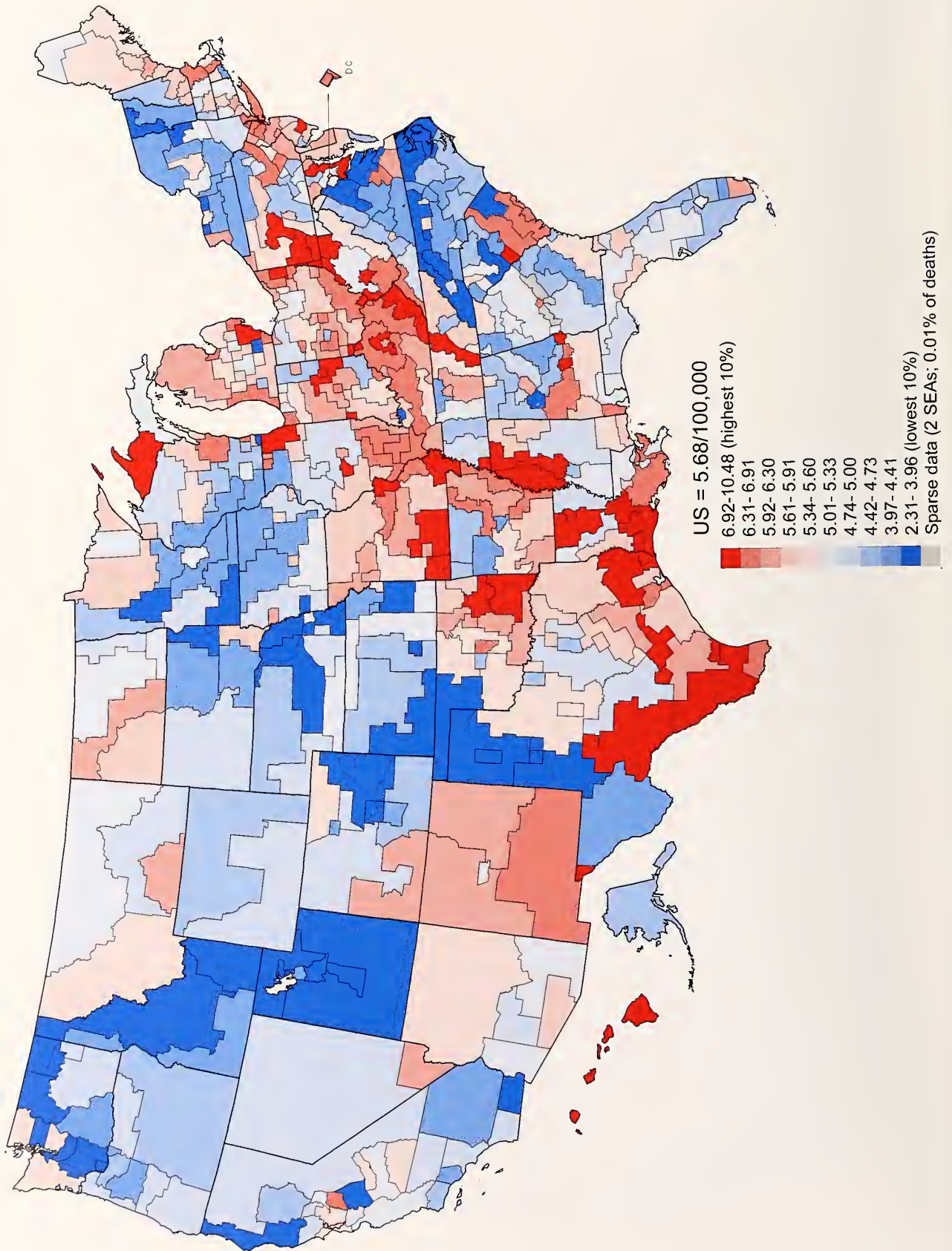
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Liver, Gallbladder, and Other Biliary Tract: White Males, 1950-69



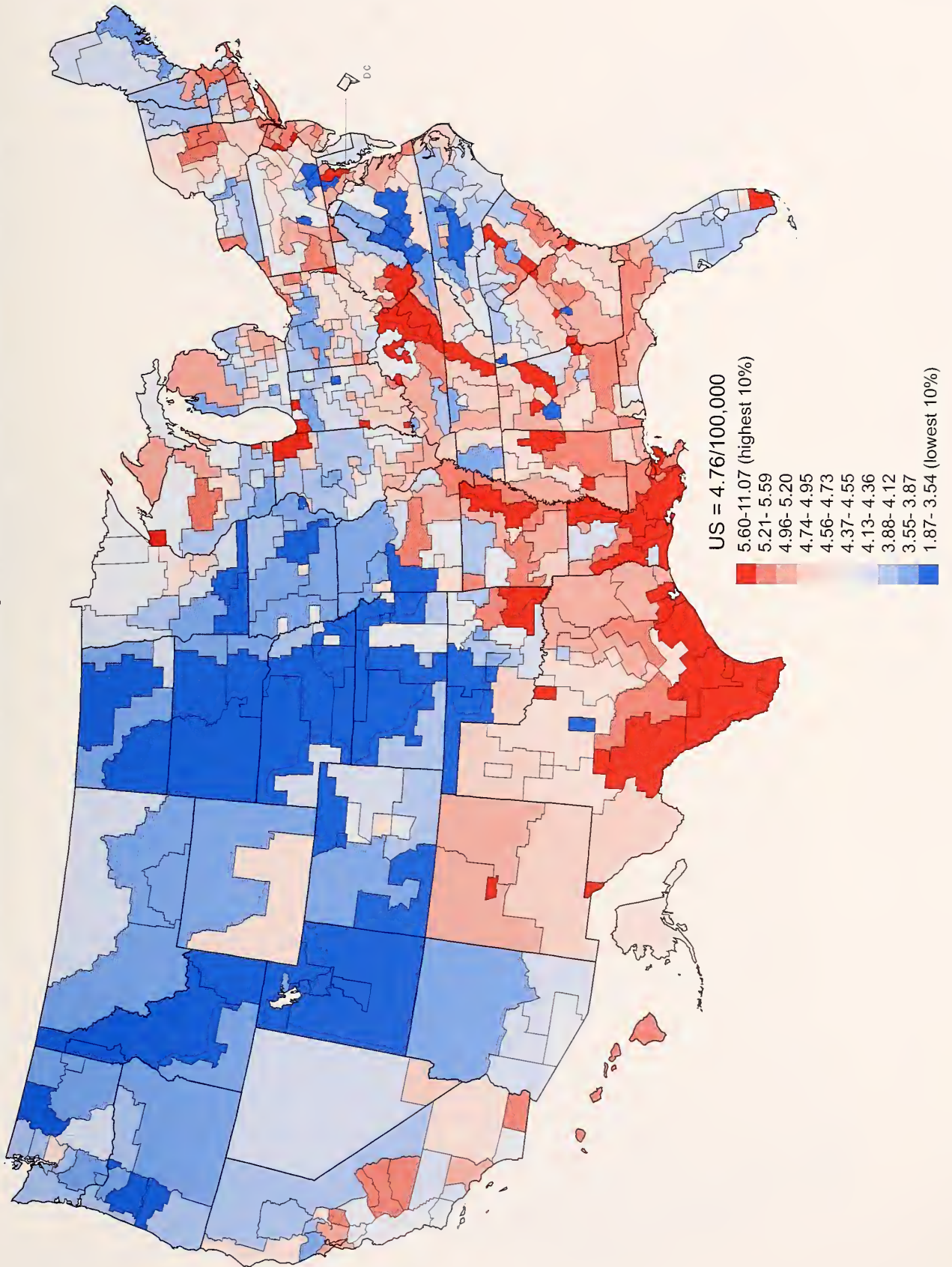
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Liver, Gallbladder, and Other Biliary Tract: White Males, 1970-94



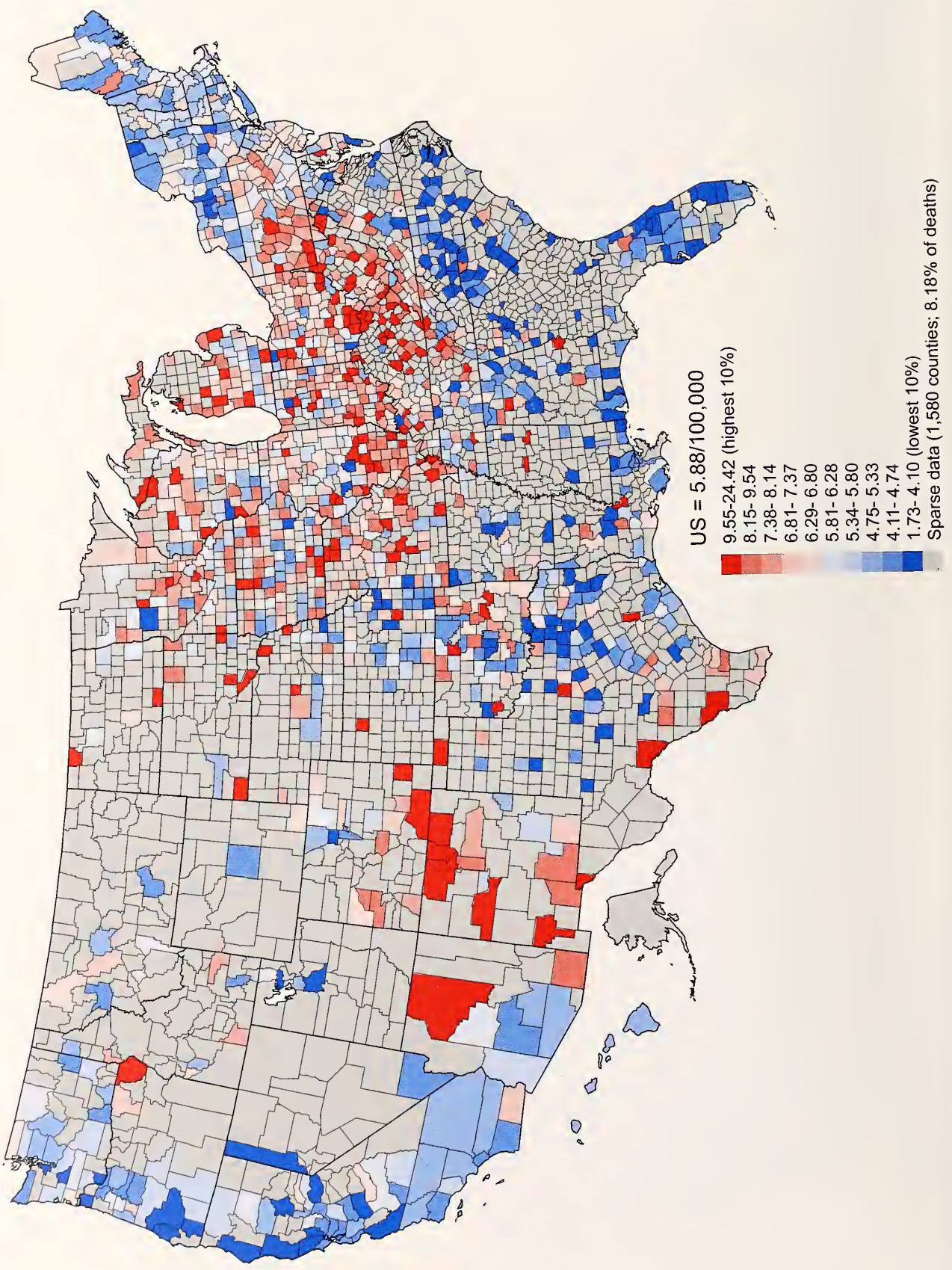
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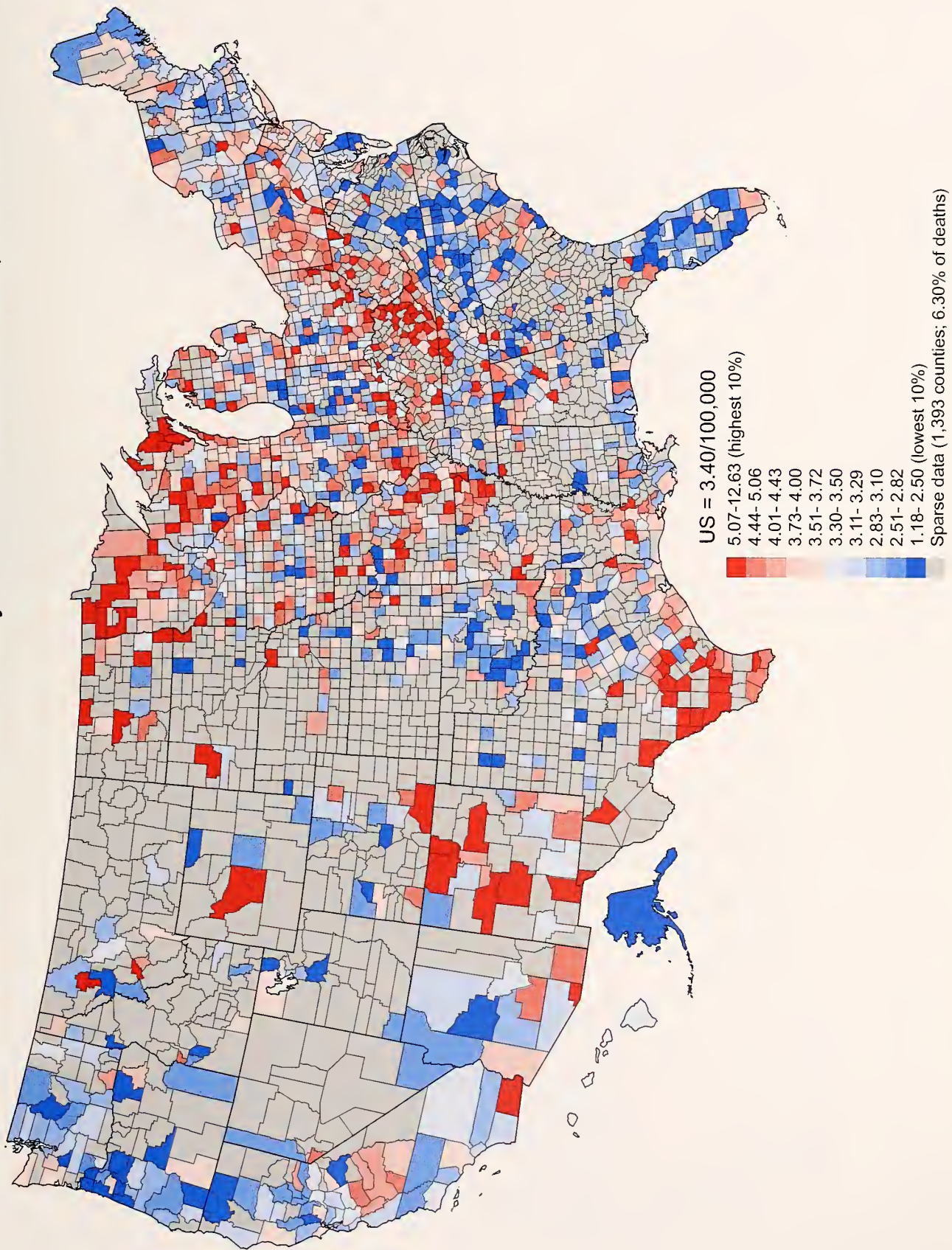
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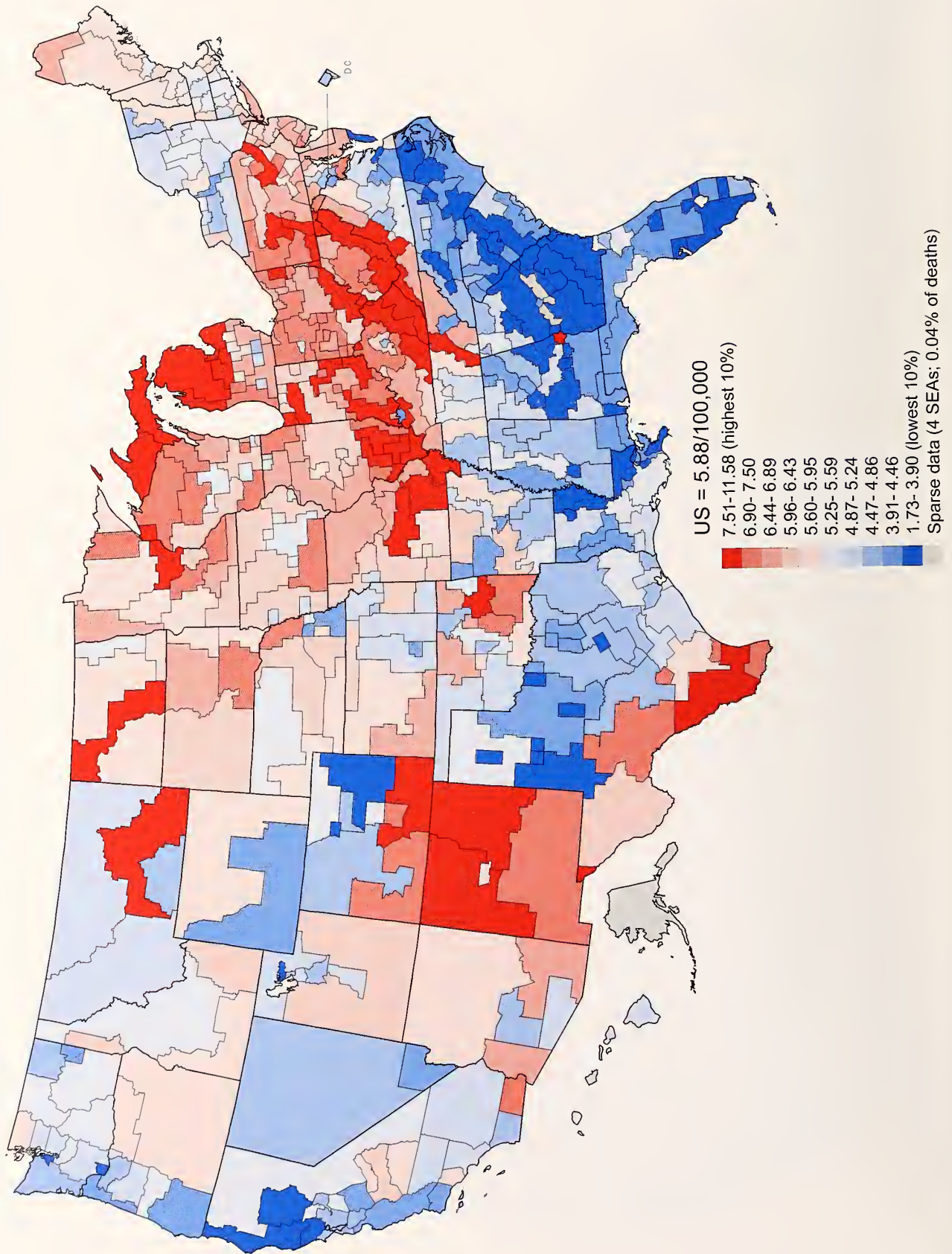
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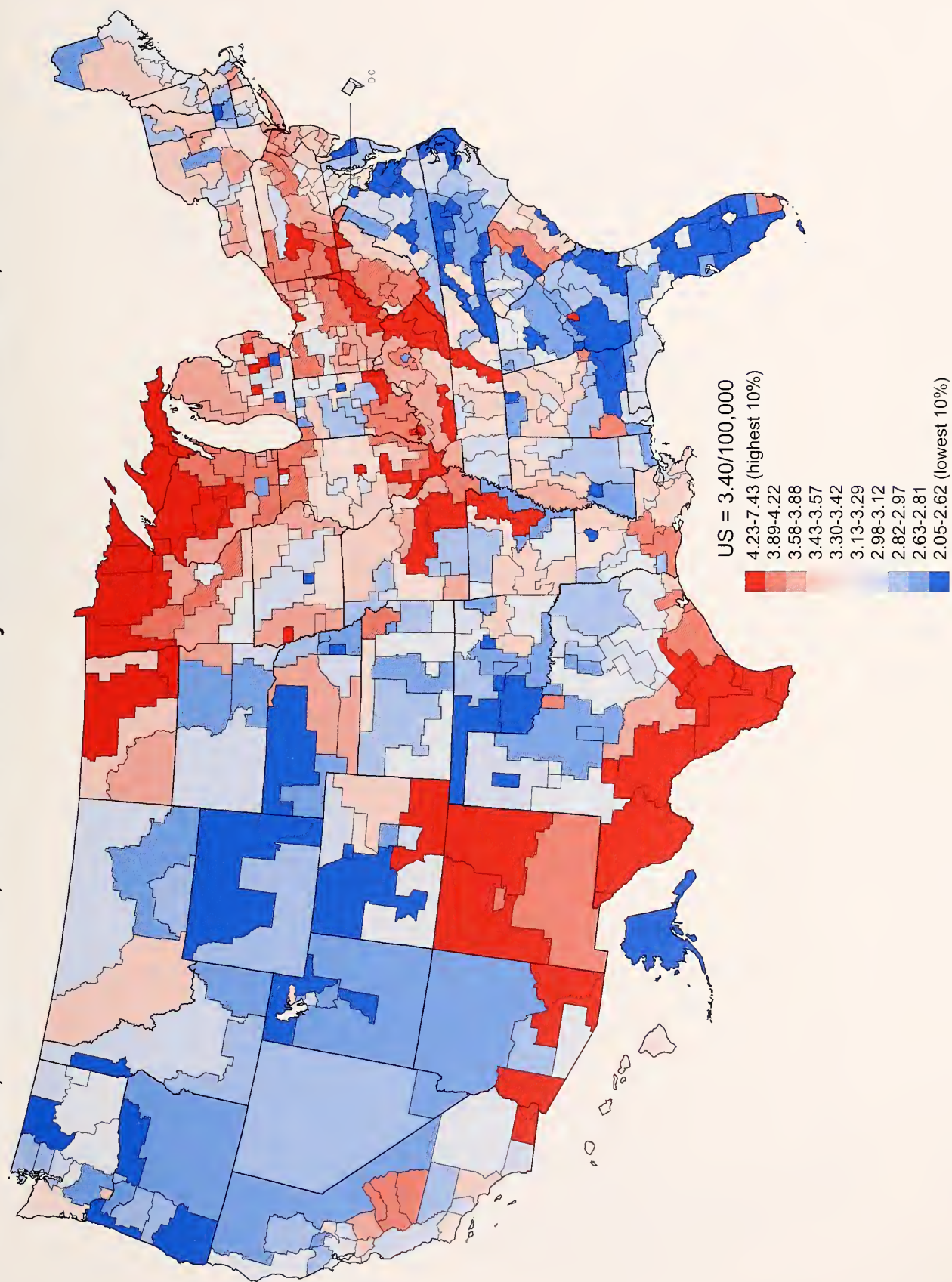
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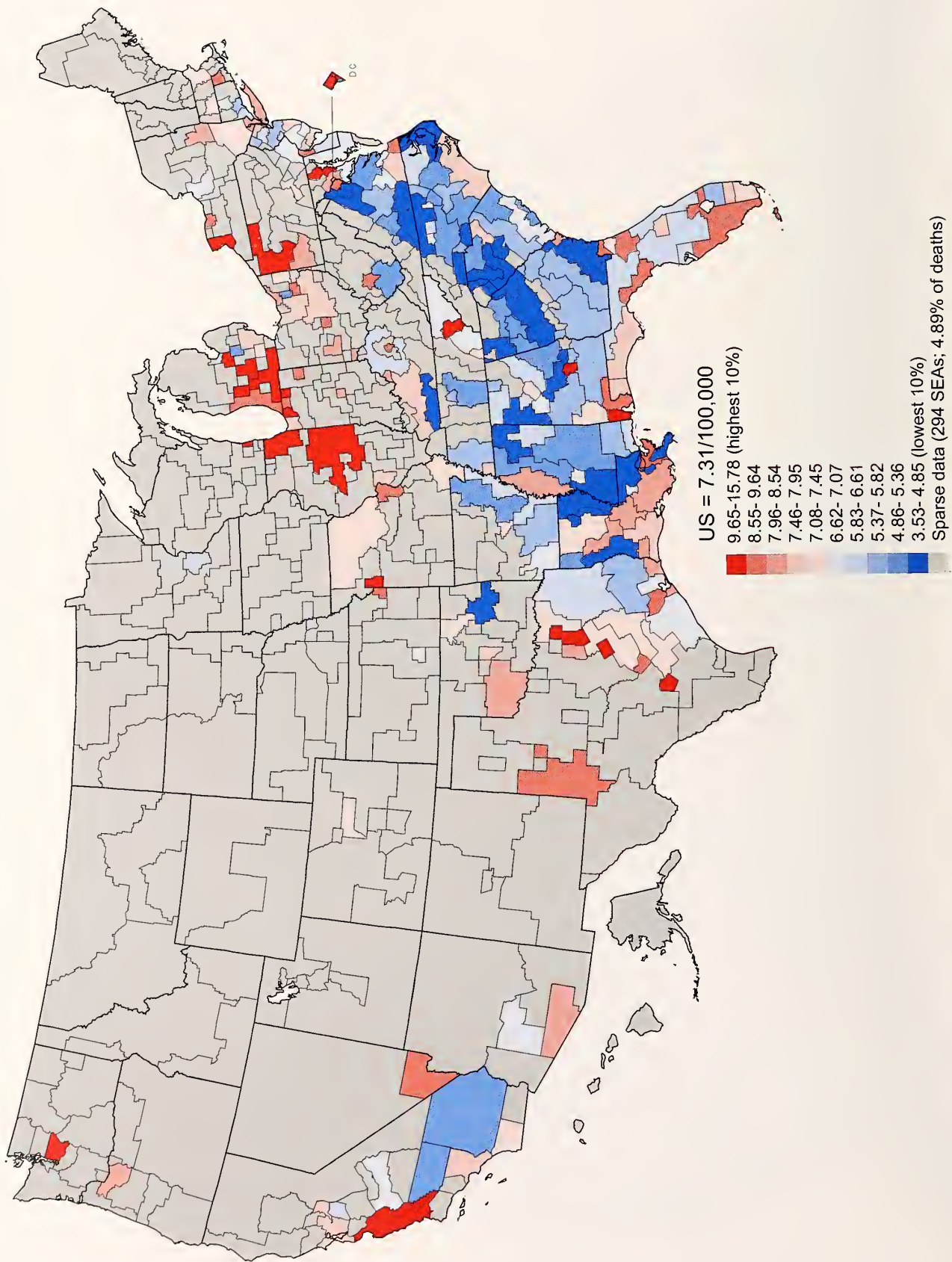
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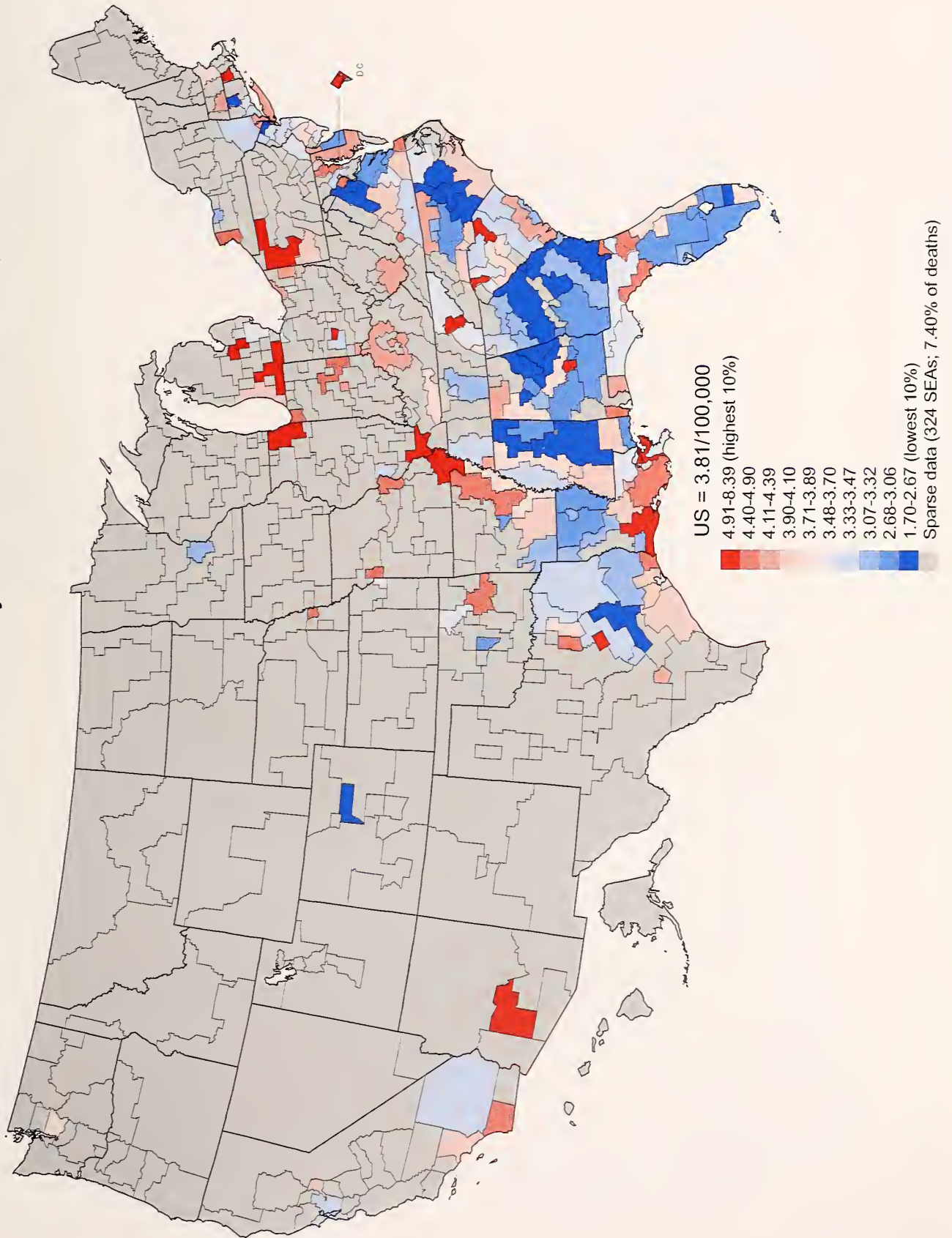
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Liver, Gallbladder, and Other Biliary Tract: White Females, 1970-94



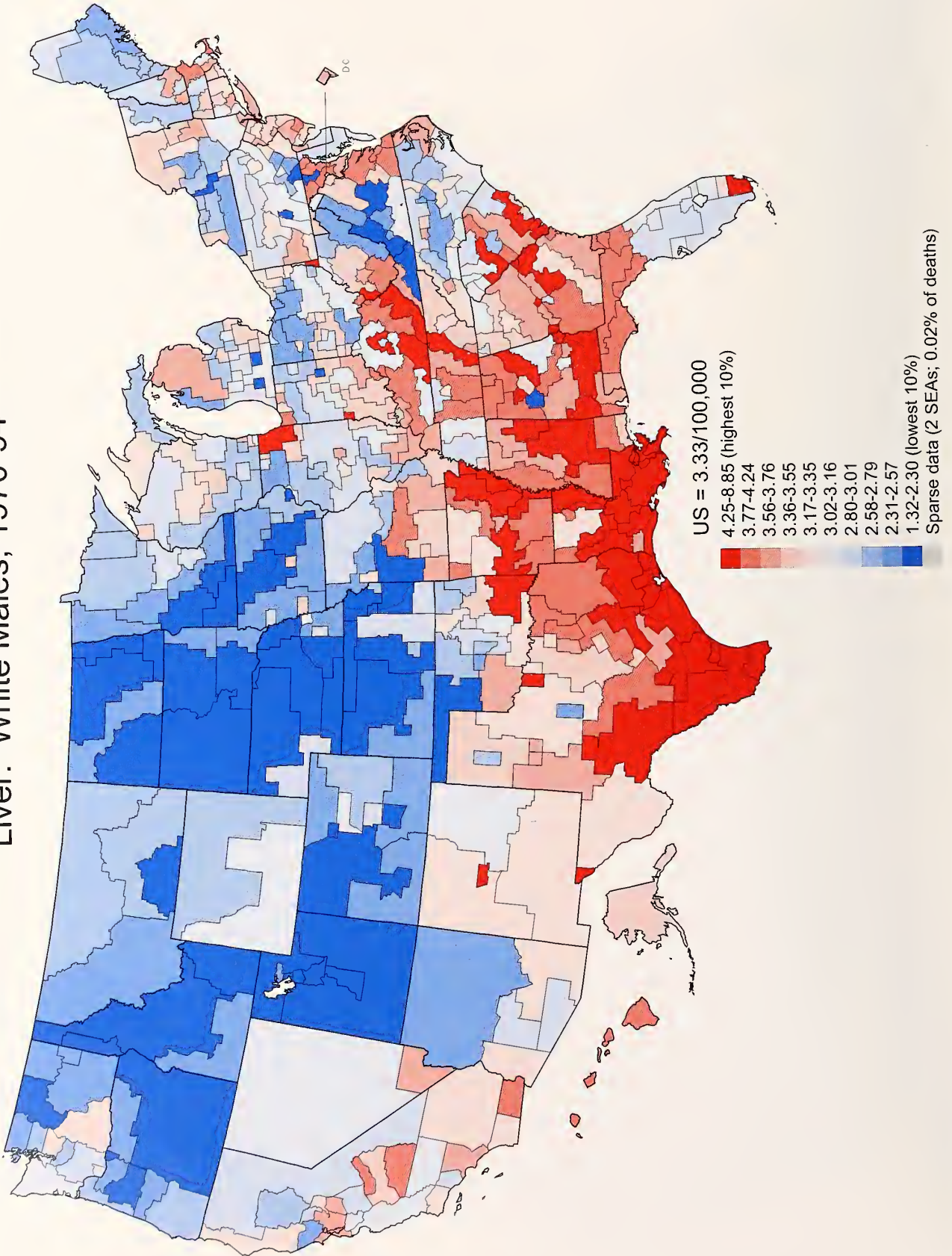
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Liver, Gallbladder, and Other Biliary Tract: Black Males, 1970-94



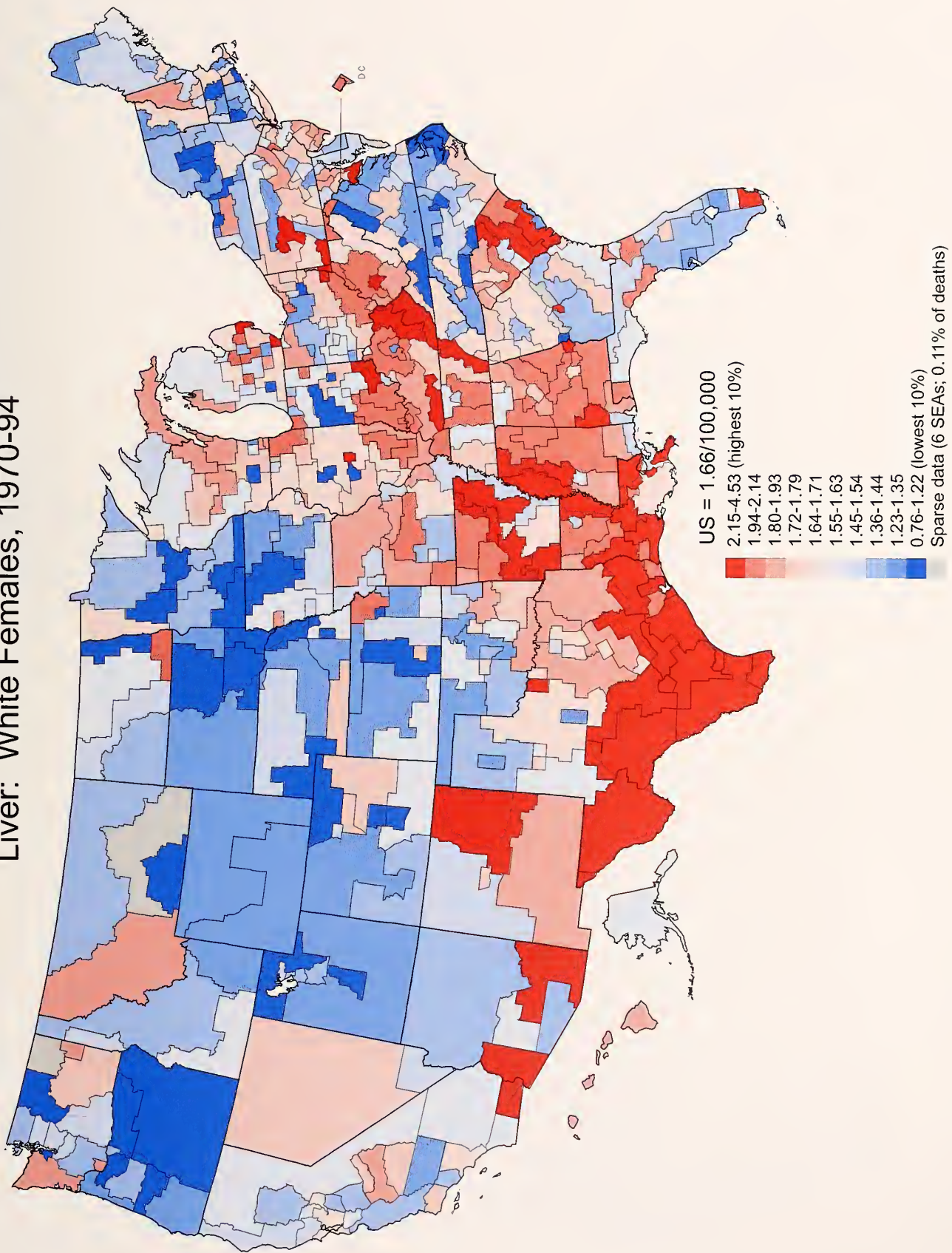
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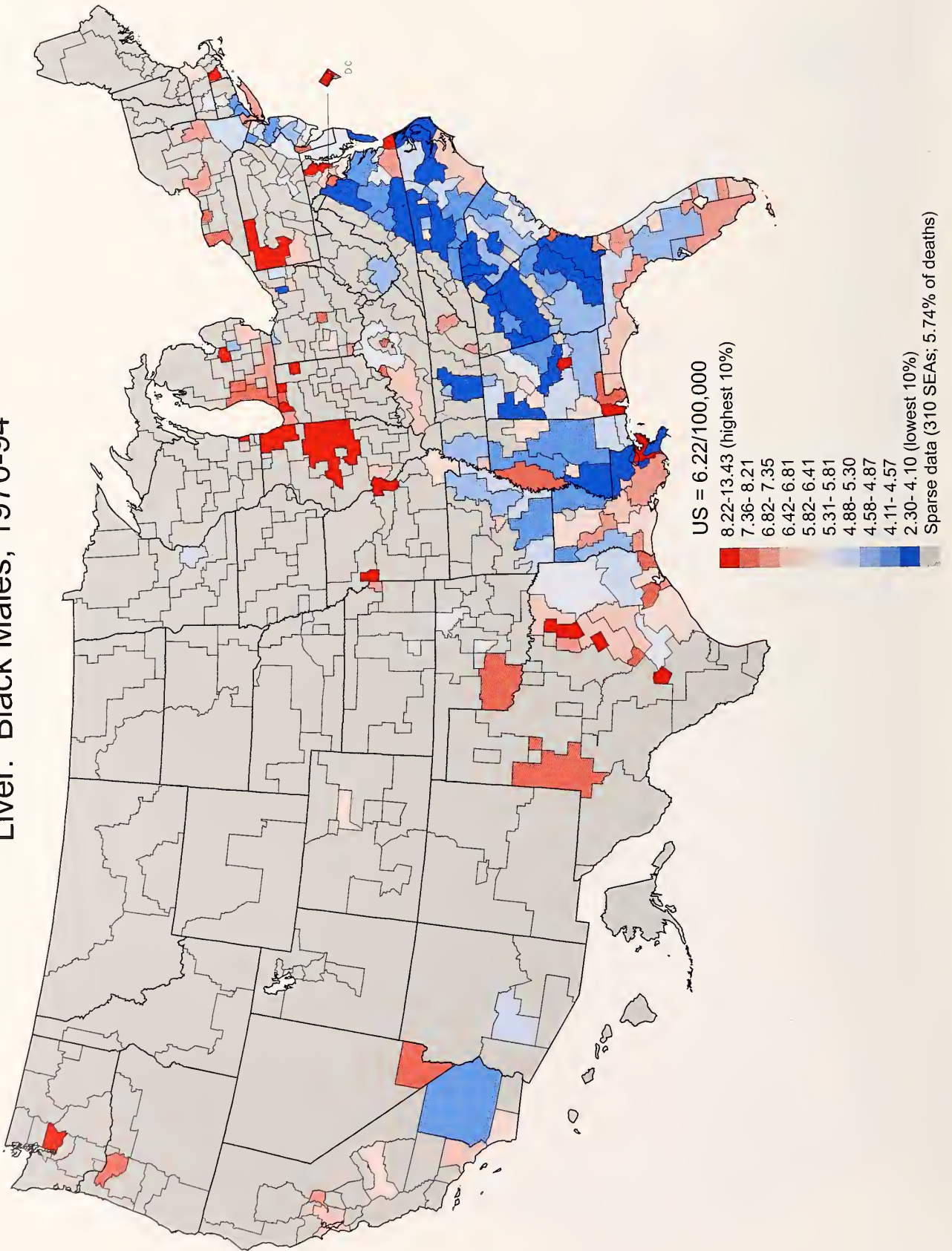
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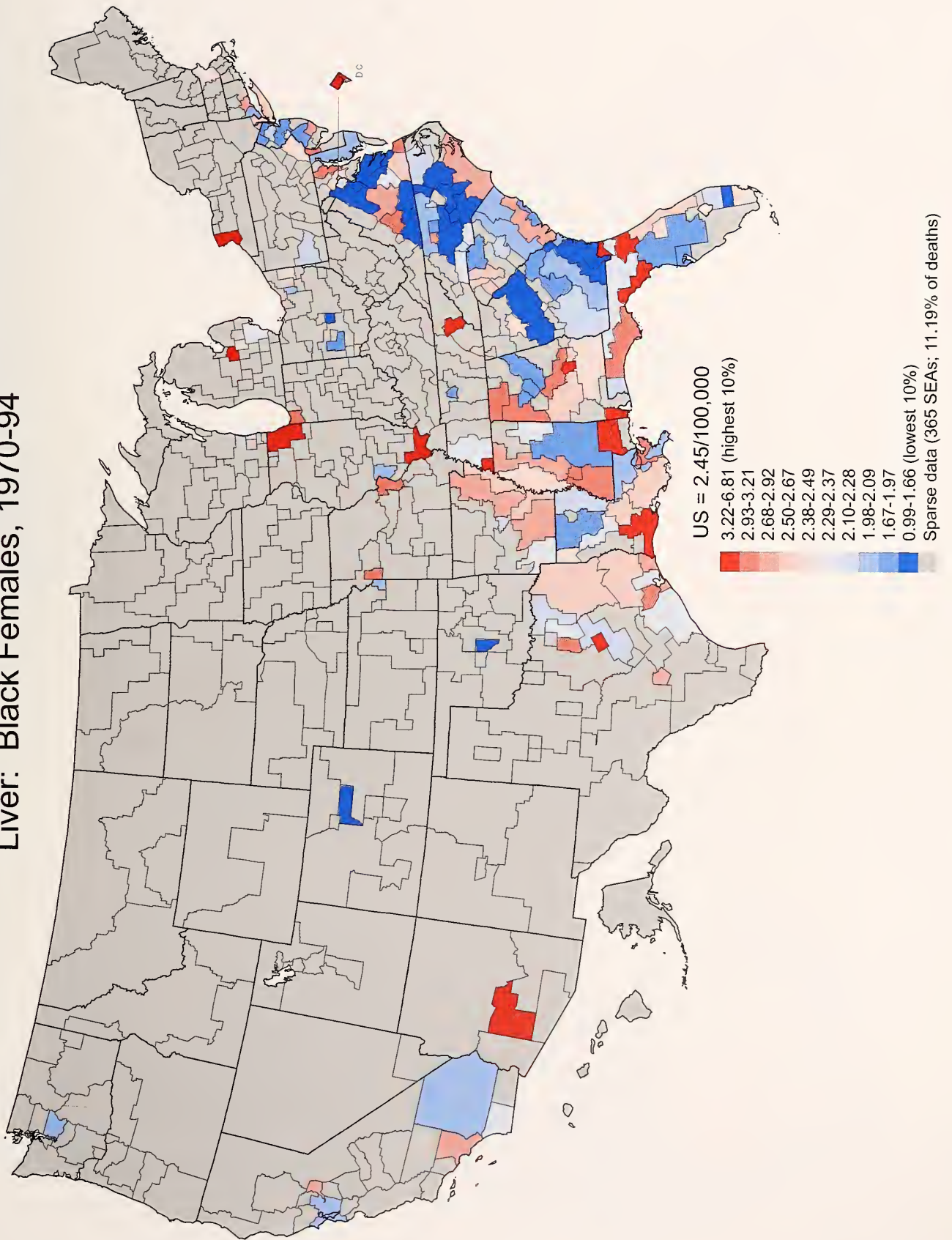
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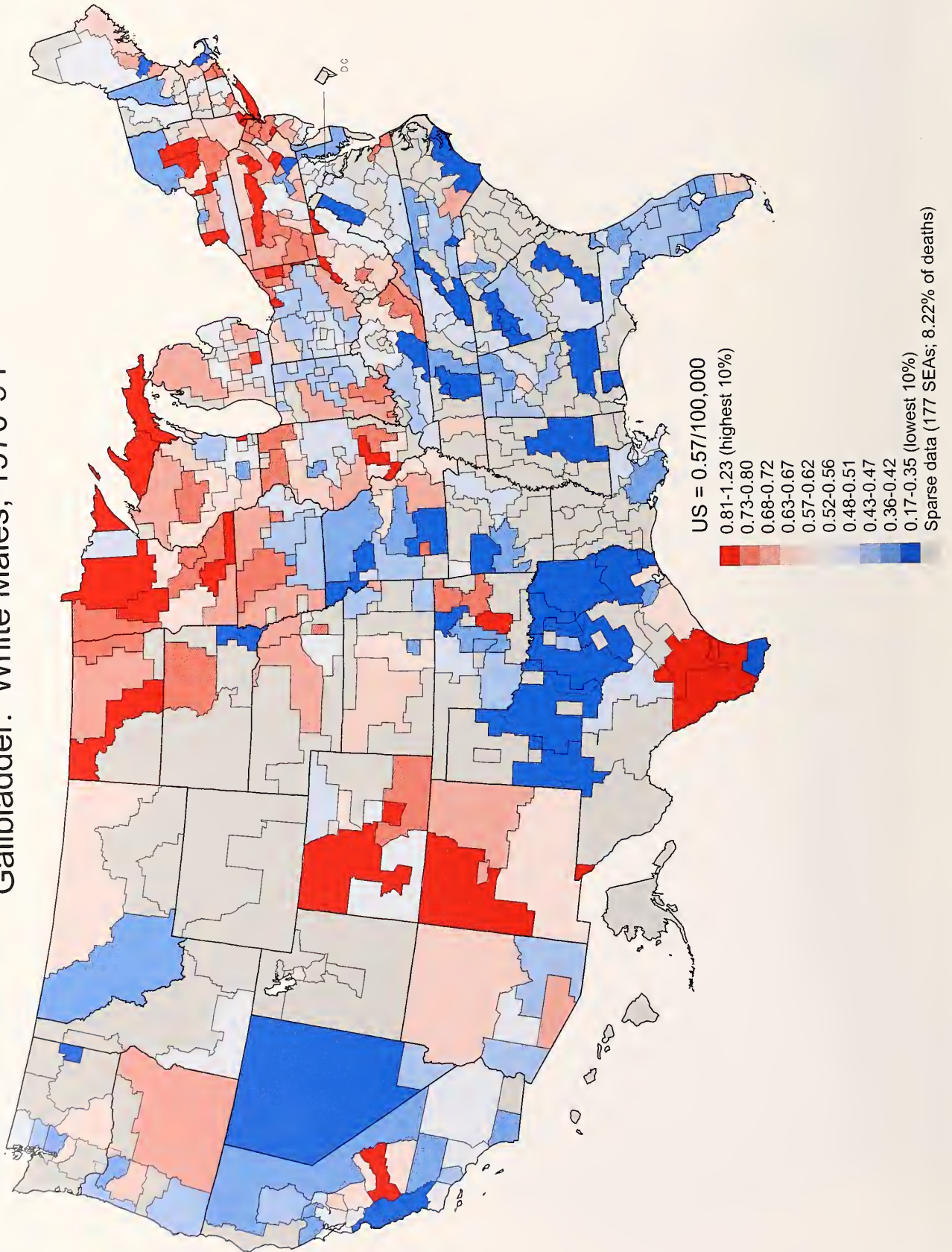
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 Liver: Black Males, 1970-94



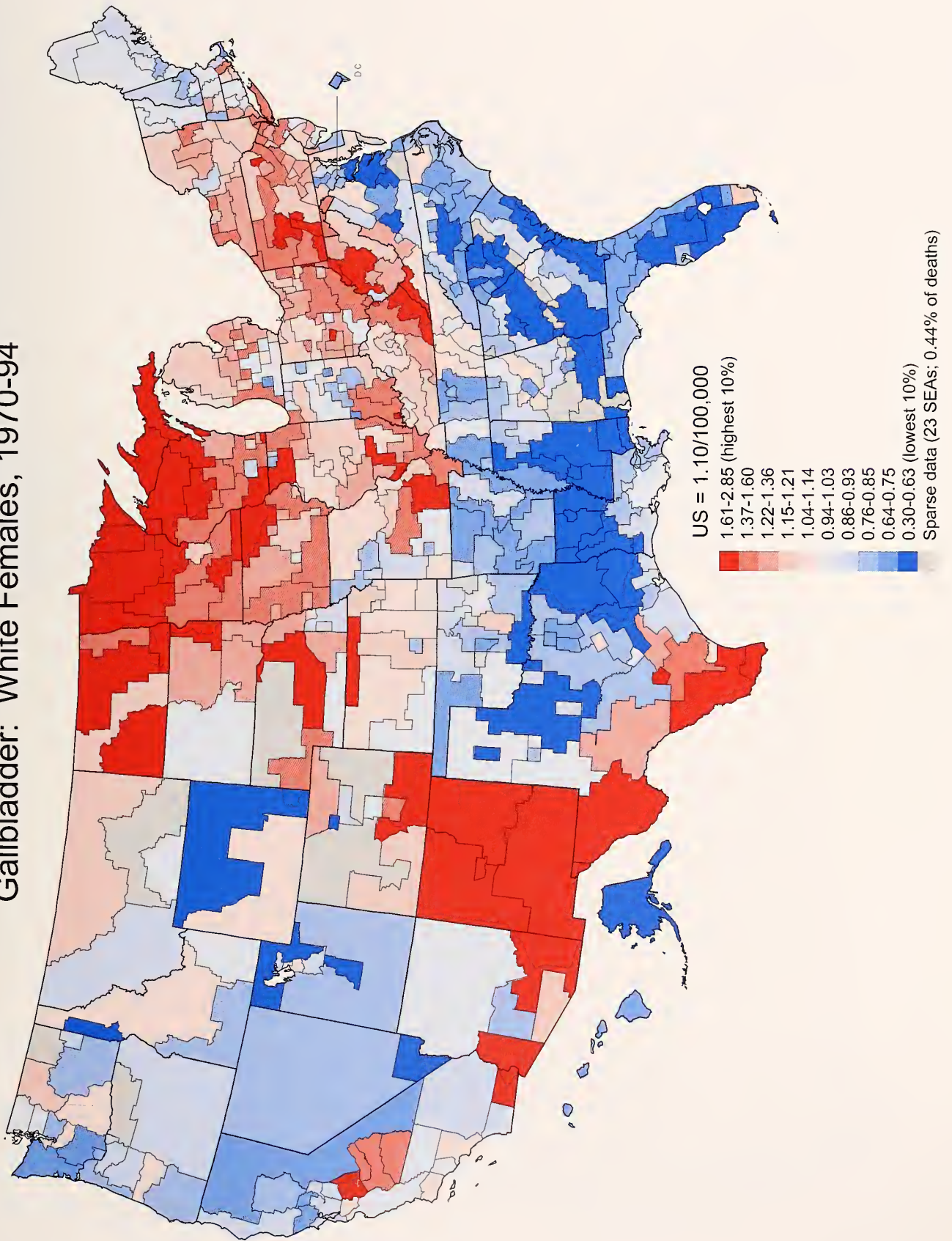
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Liver: Black Females, 1970-94



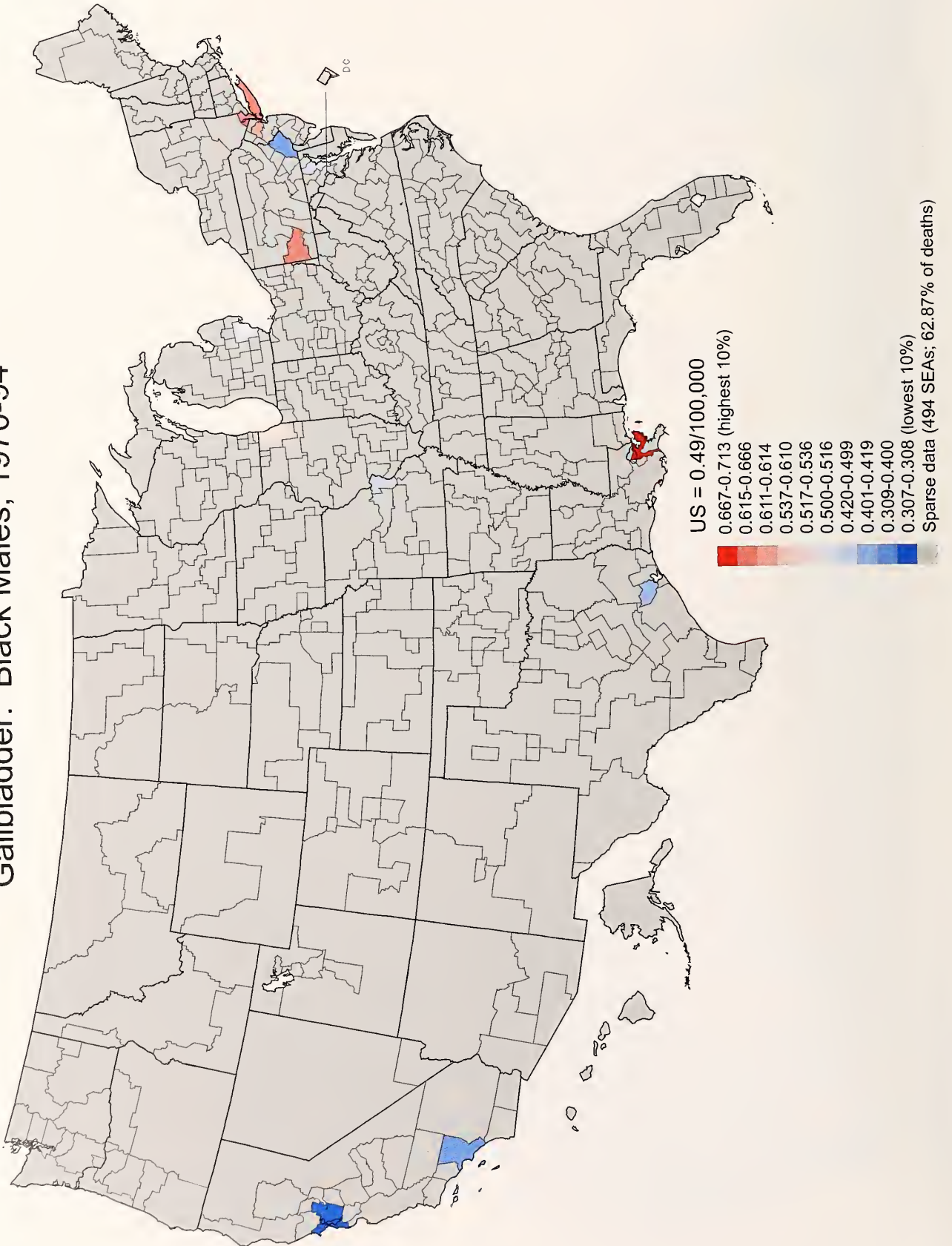
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Gallbladder: White Males, 1970-94



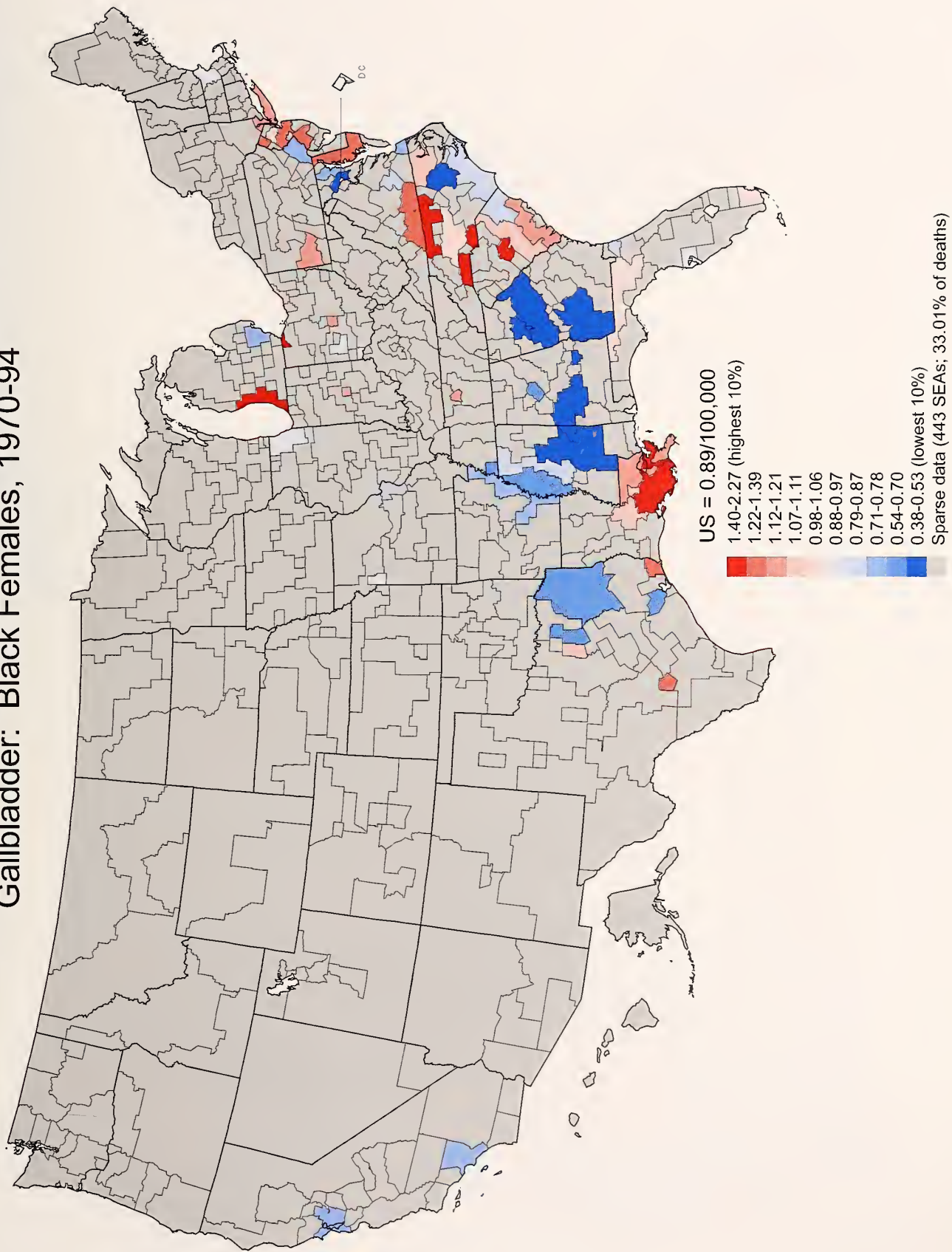
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Gallbladder: White Females, 1970-94



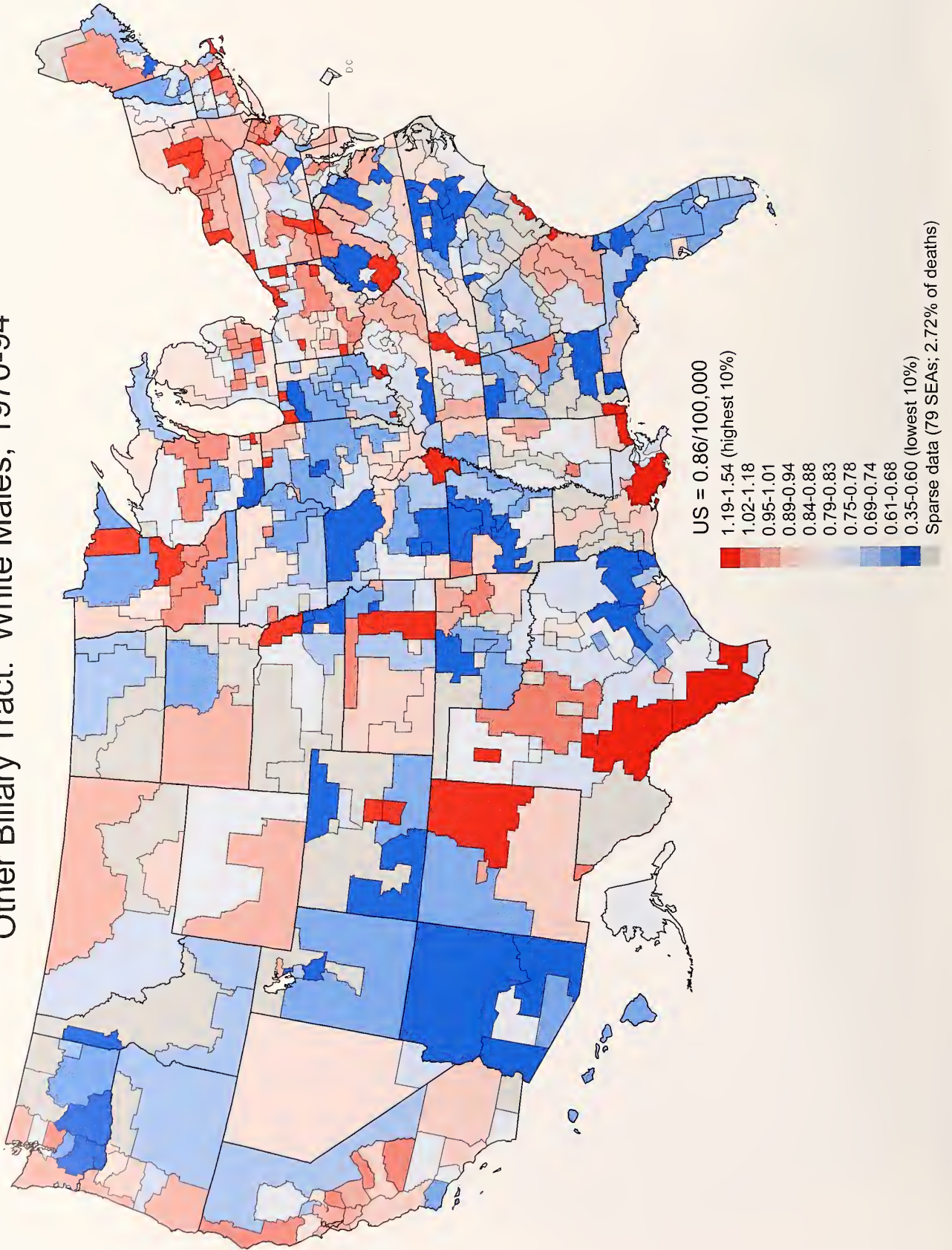
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Gallbladder: Black Males, 1970-94



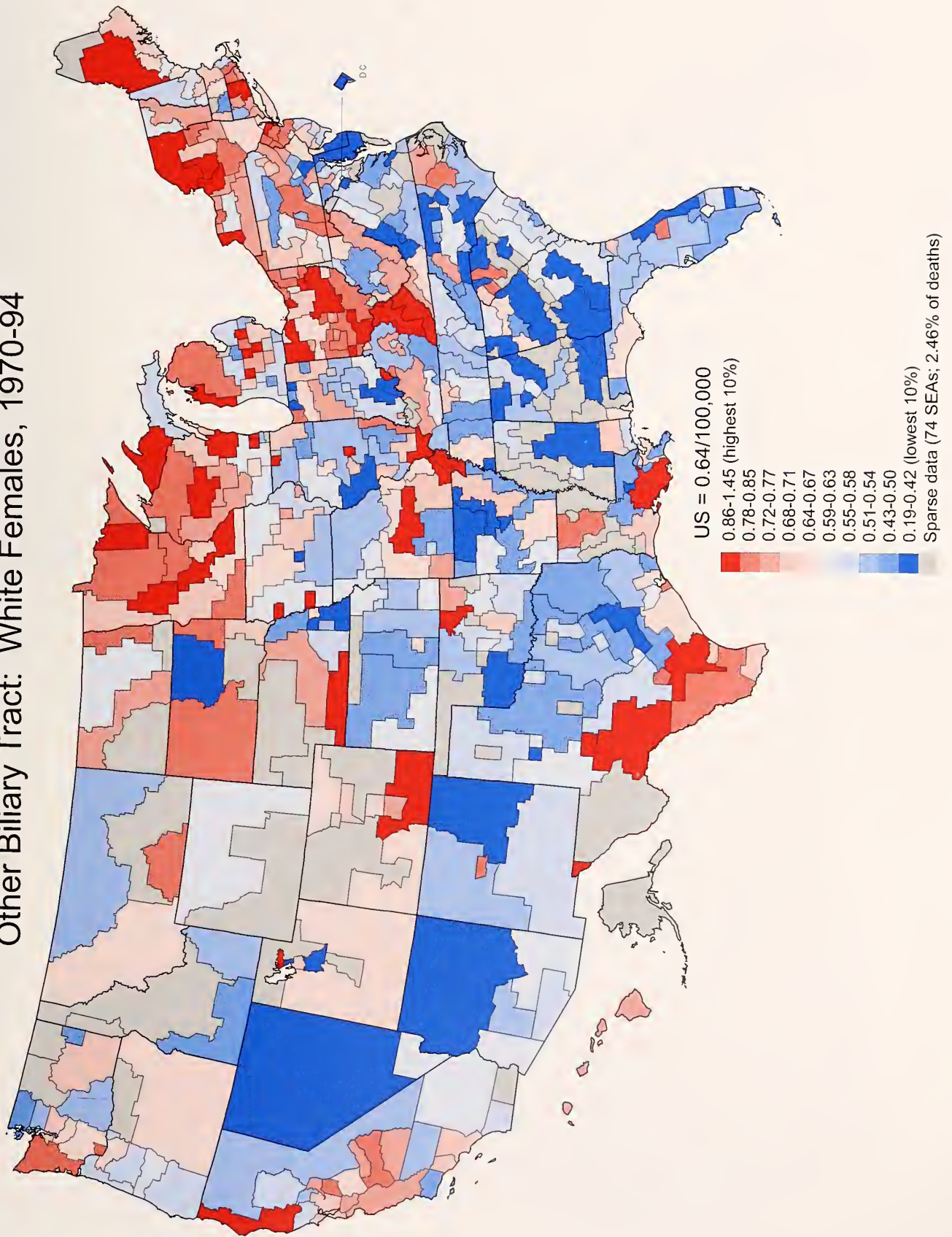
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Gallbladder: Black Females, 1970-94



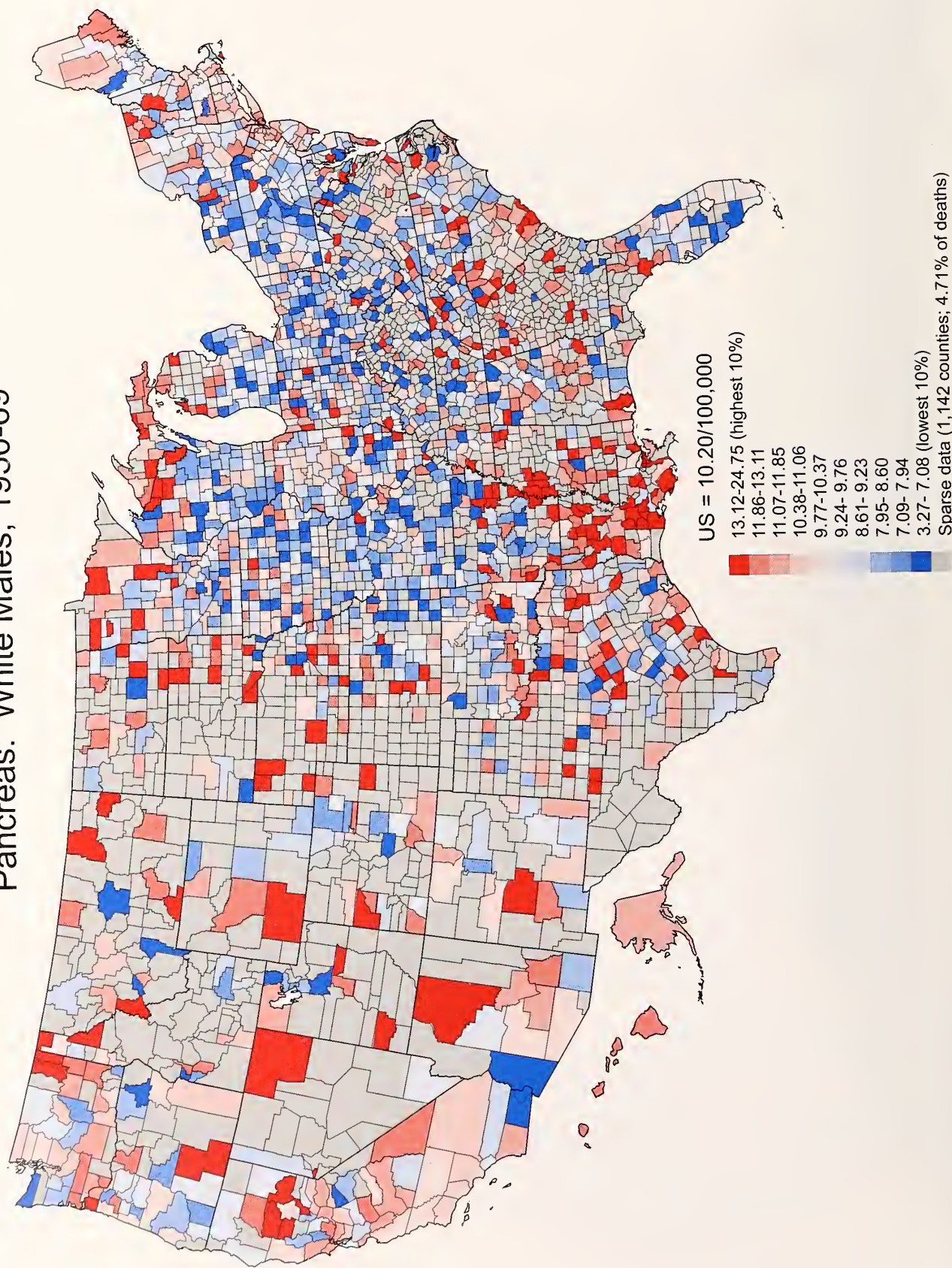
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Biliary Tract: White Males, 1970-94



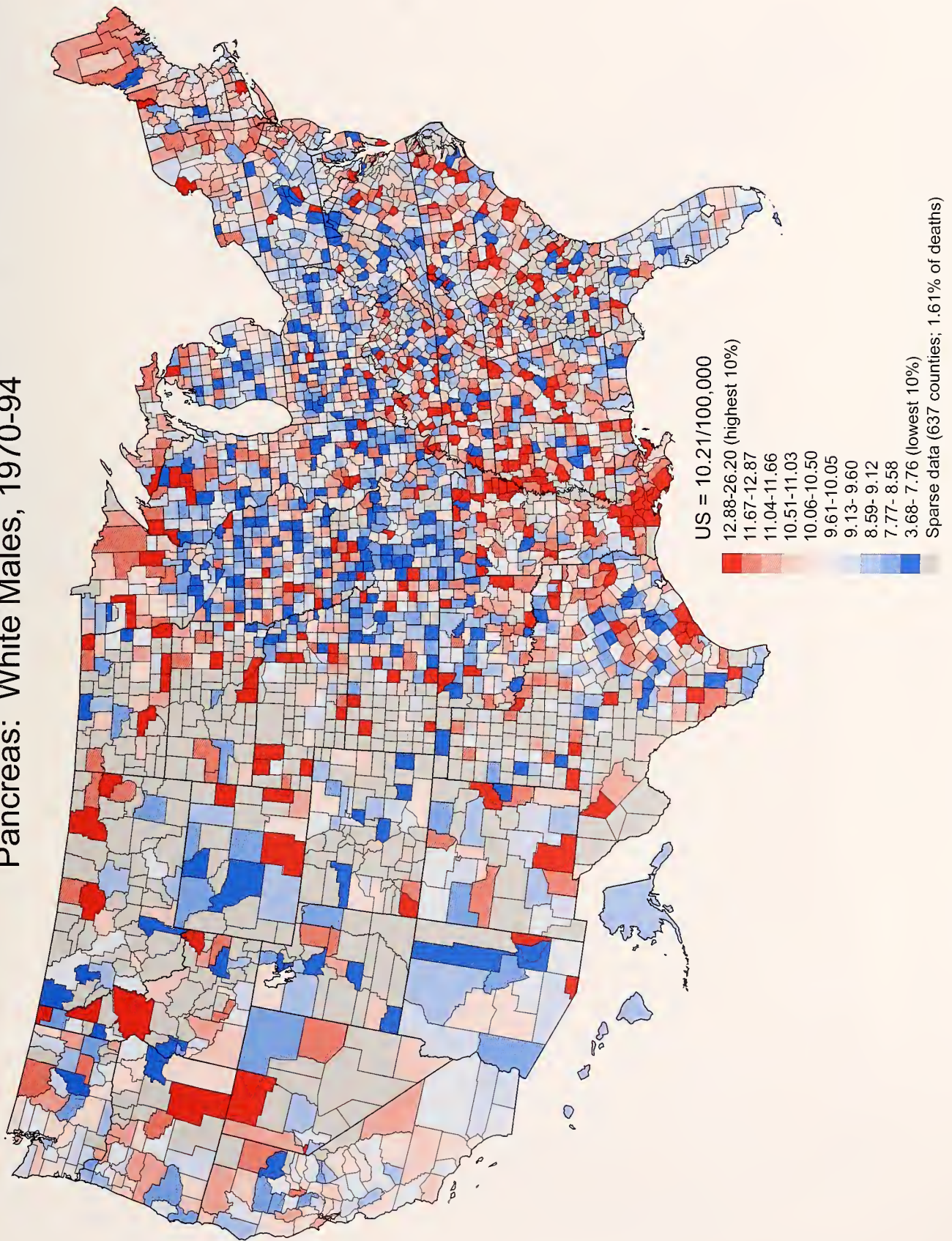
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Biliary Tract: White Females, 1970-94



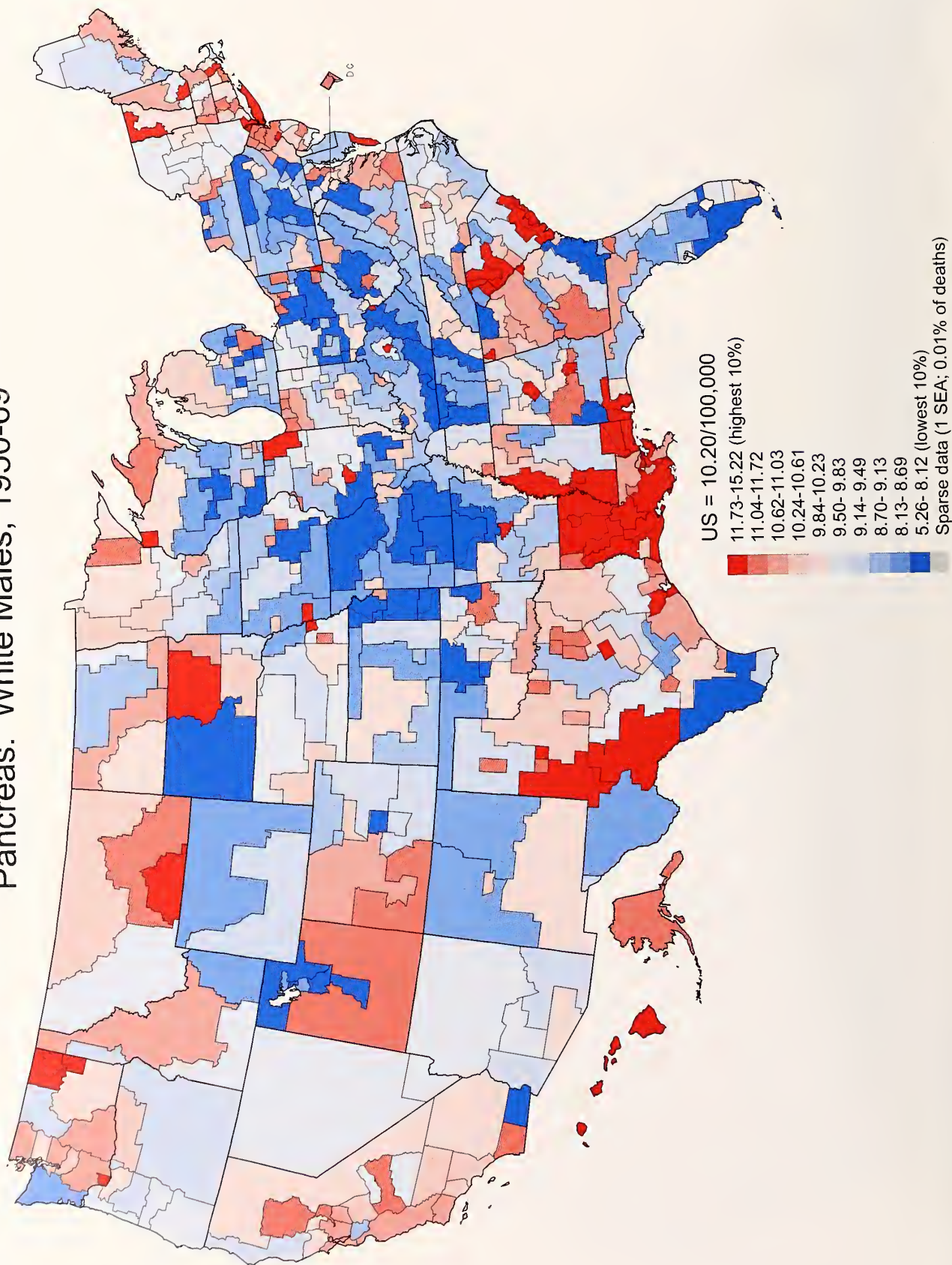
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Pancreas: White Males, 1950-69



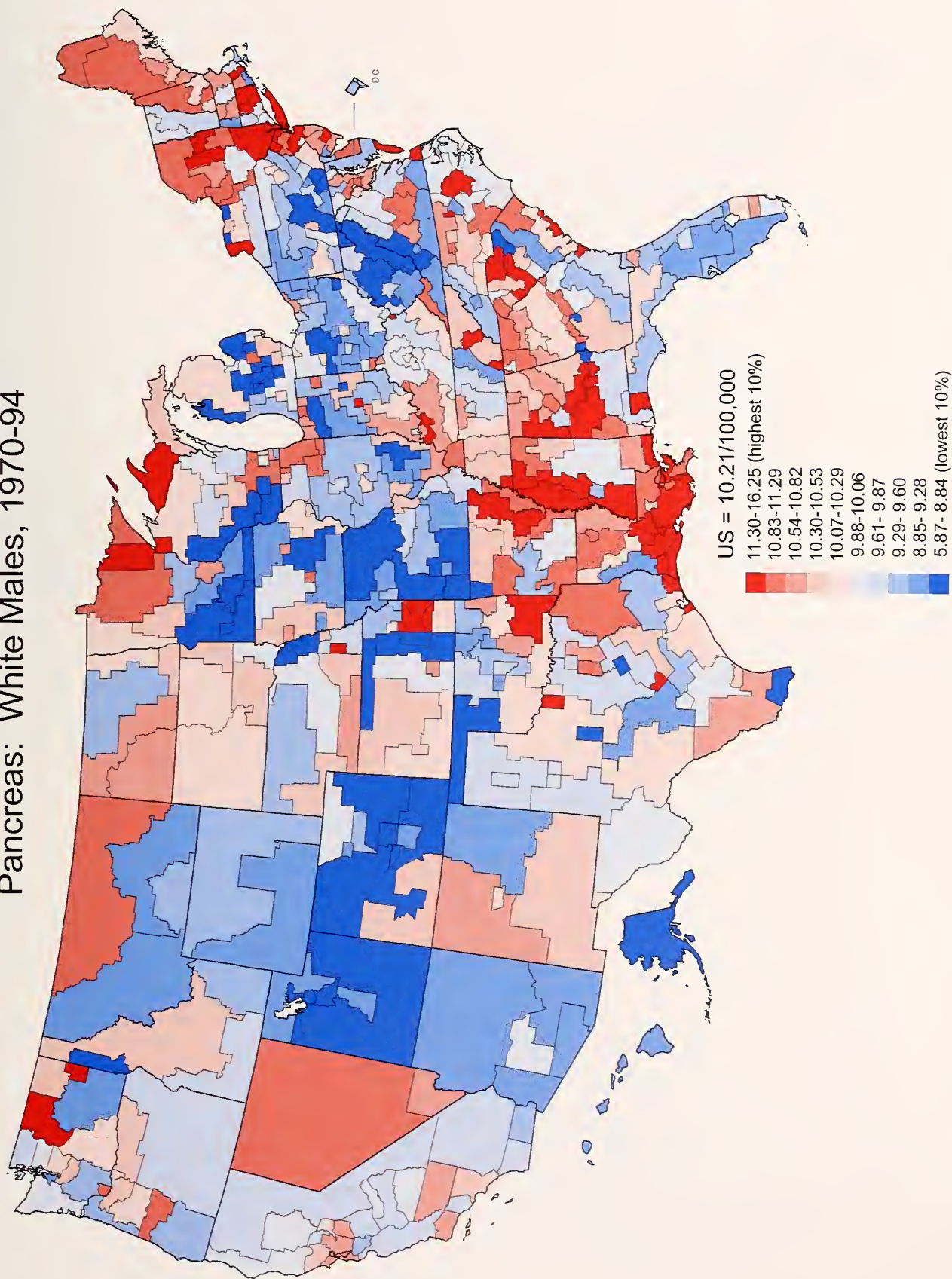
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Pancreas: White Males, 1970-94



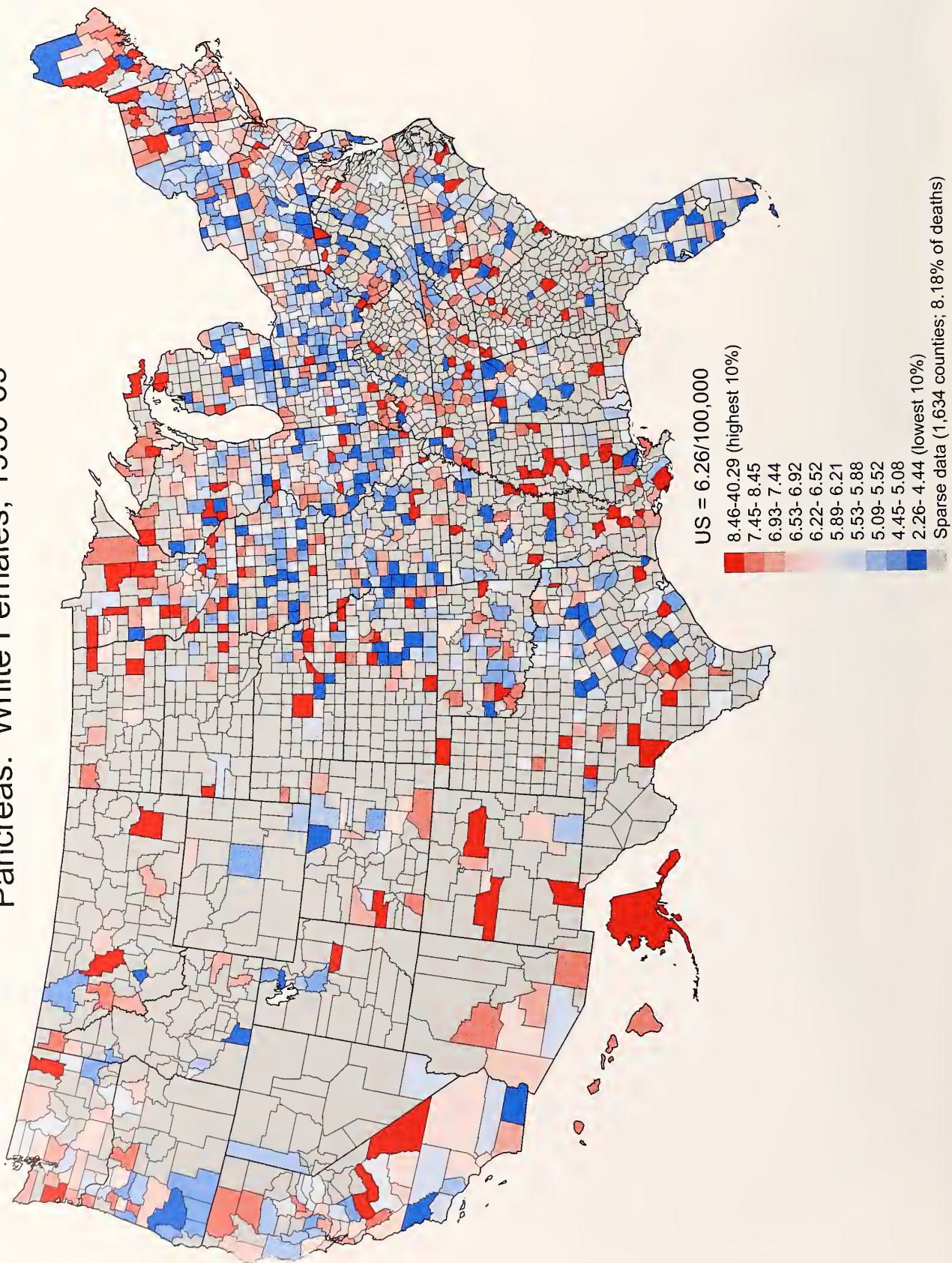
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Pancreas: White Males, 1950-69



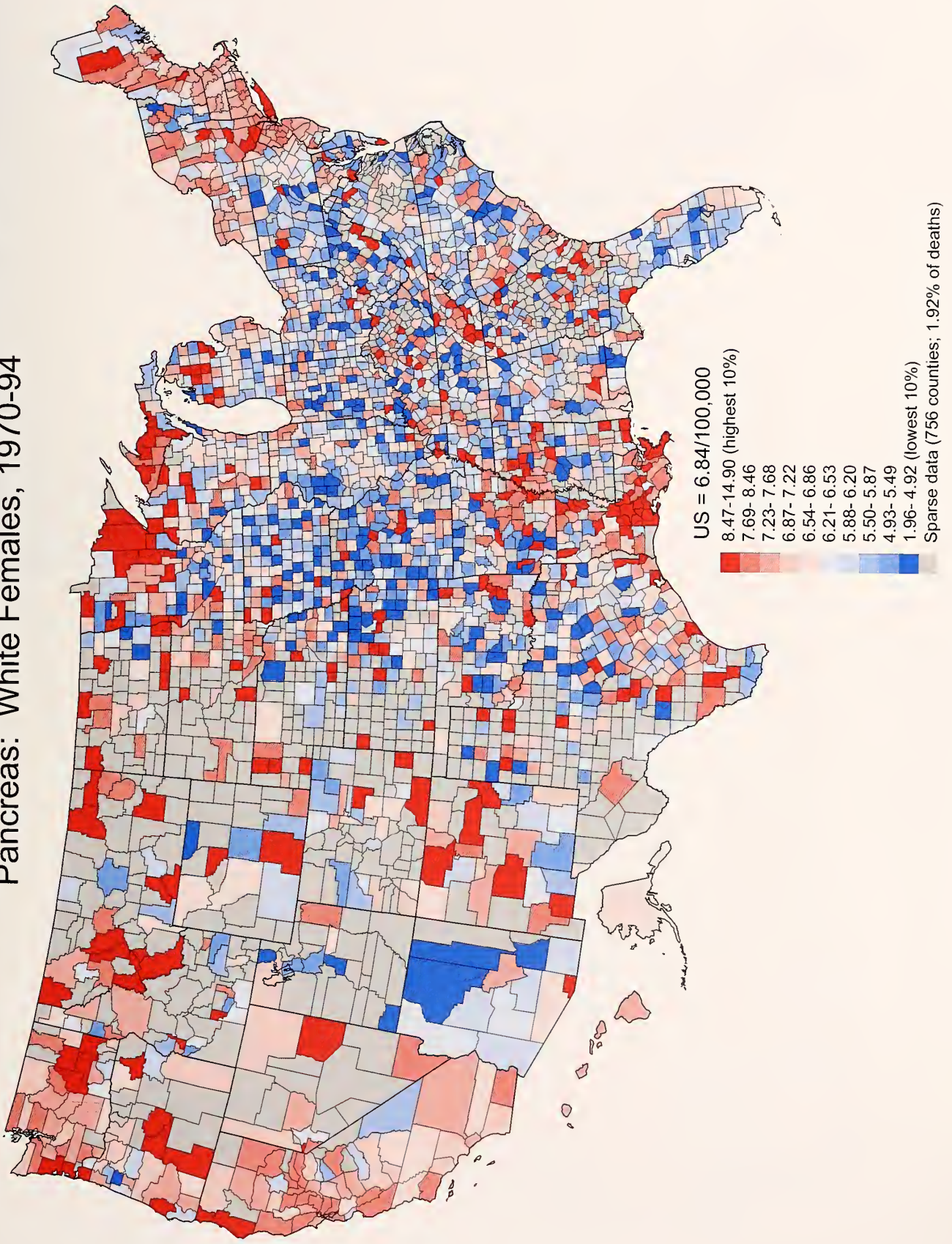
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Pancreas: White Males, 1970-94



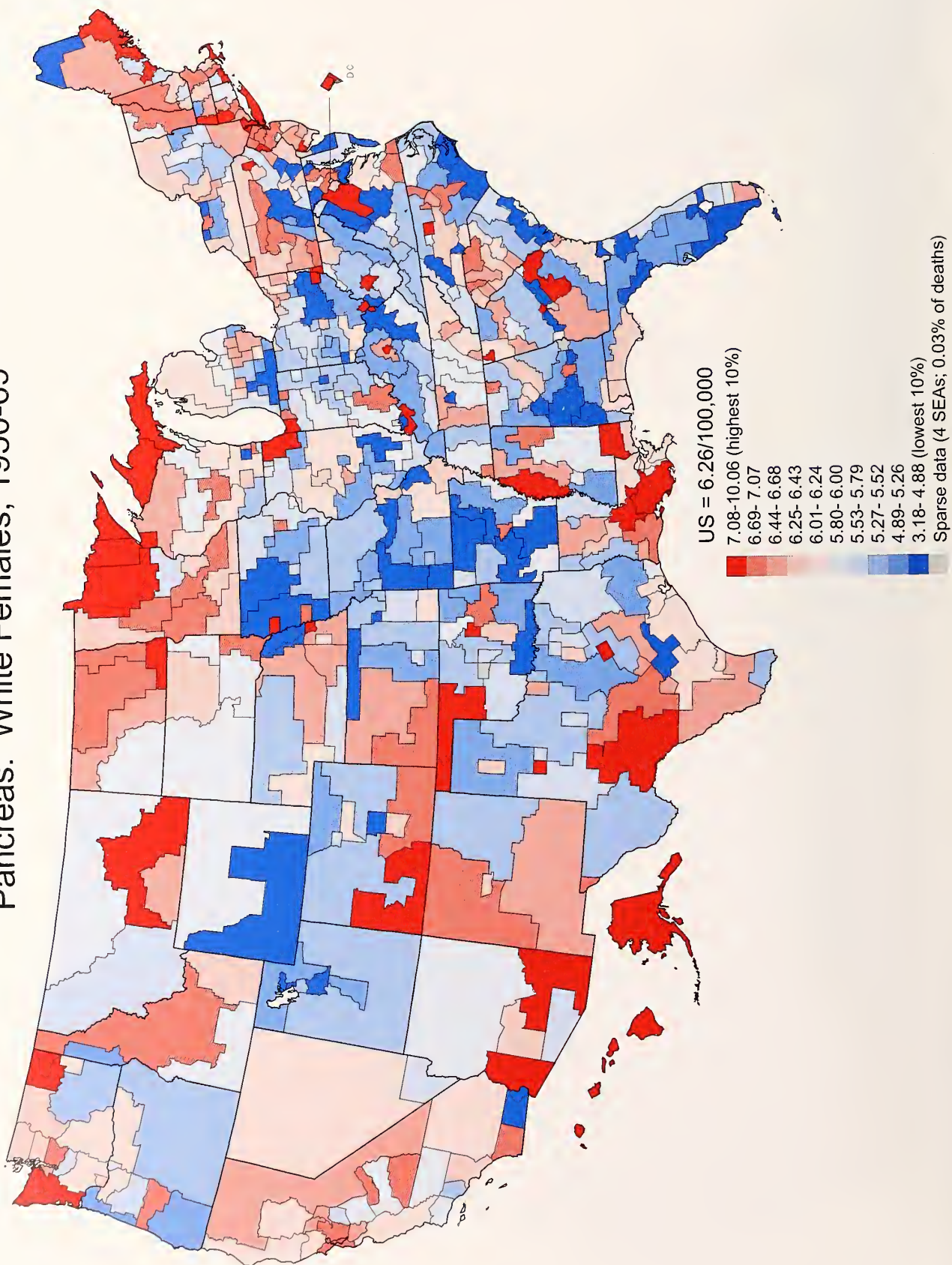
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Pancreas: White Females, 1950-69



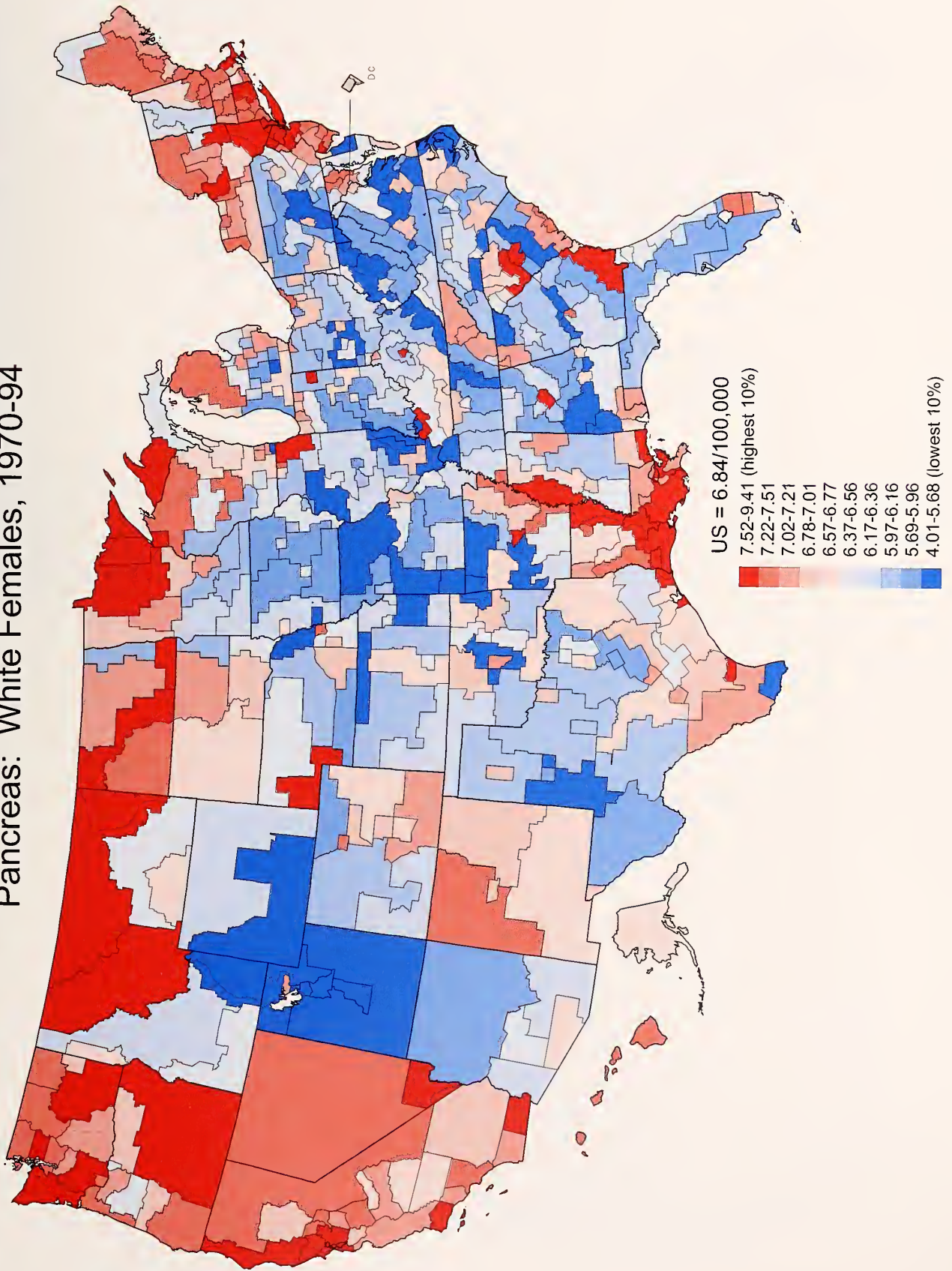
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Pancreas: White Females, 1970-94



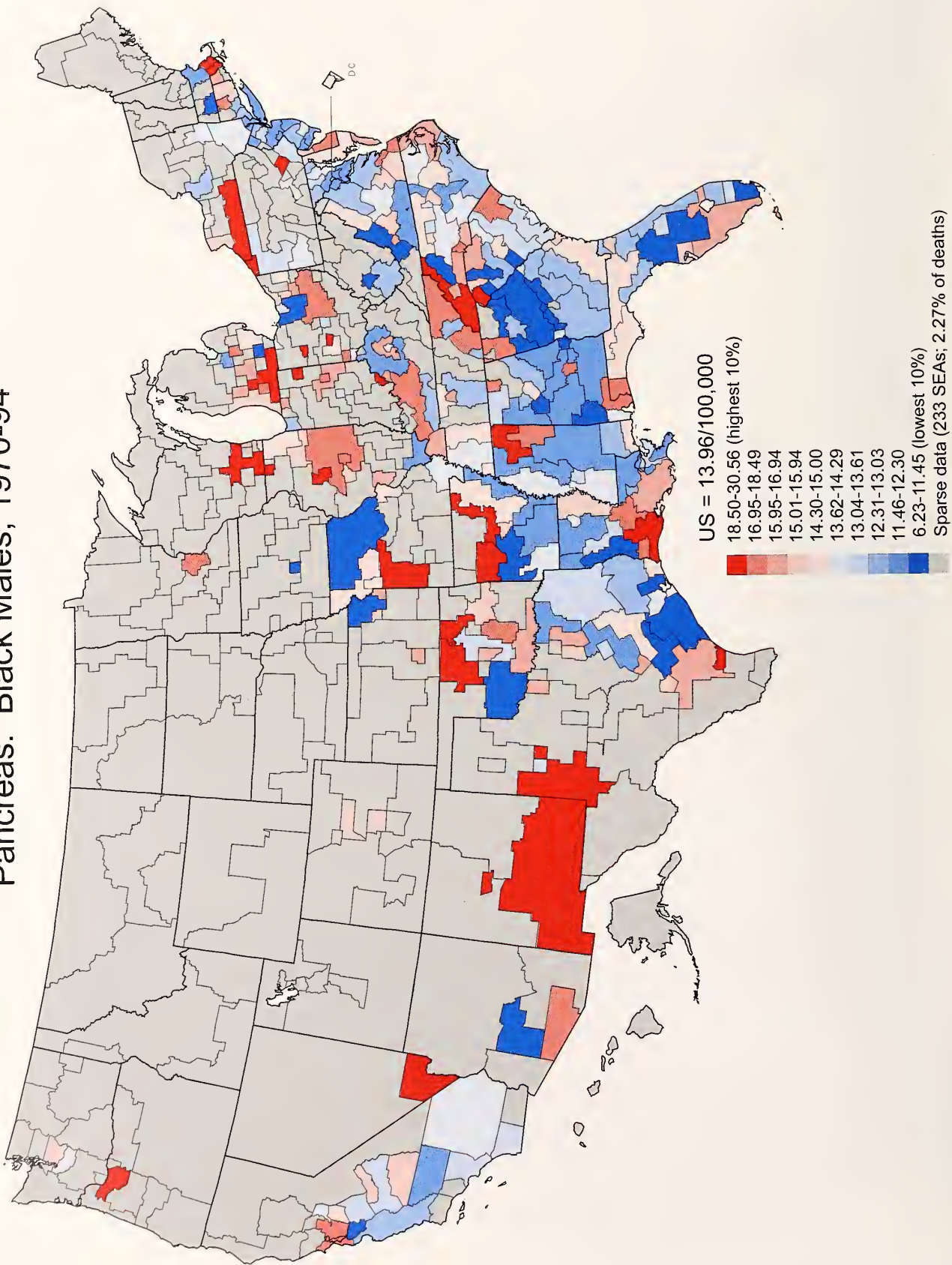
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Pancreas: White Females, 1950-69



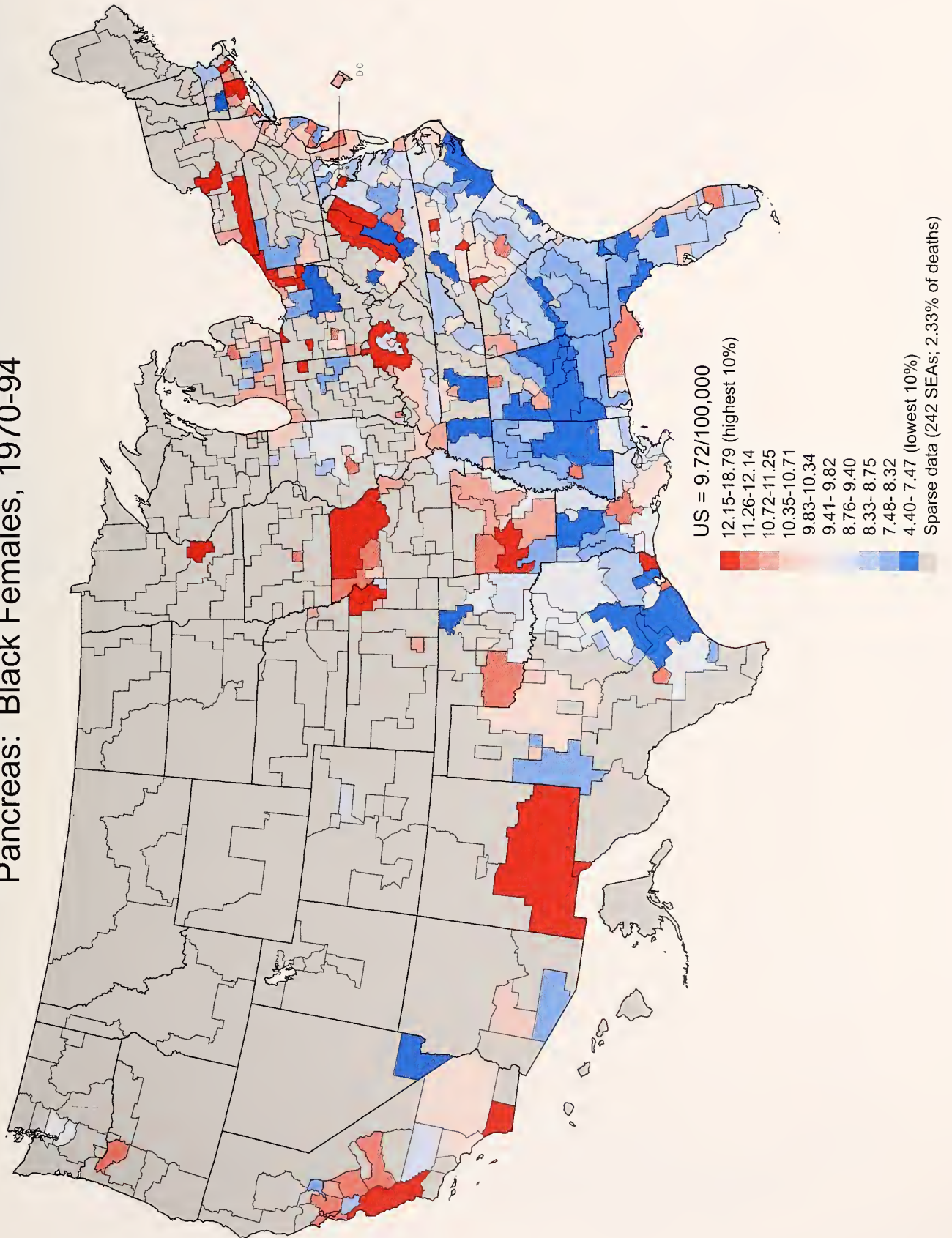
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Pancreas: White Females, 1970-94



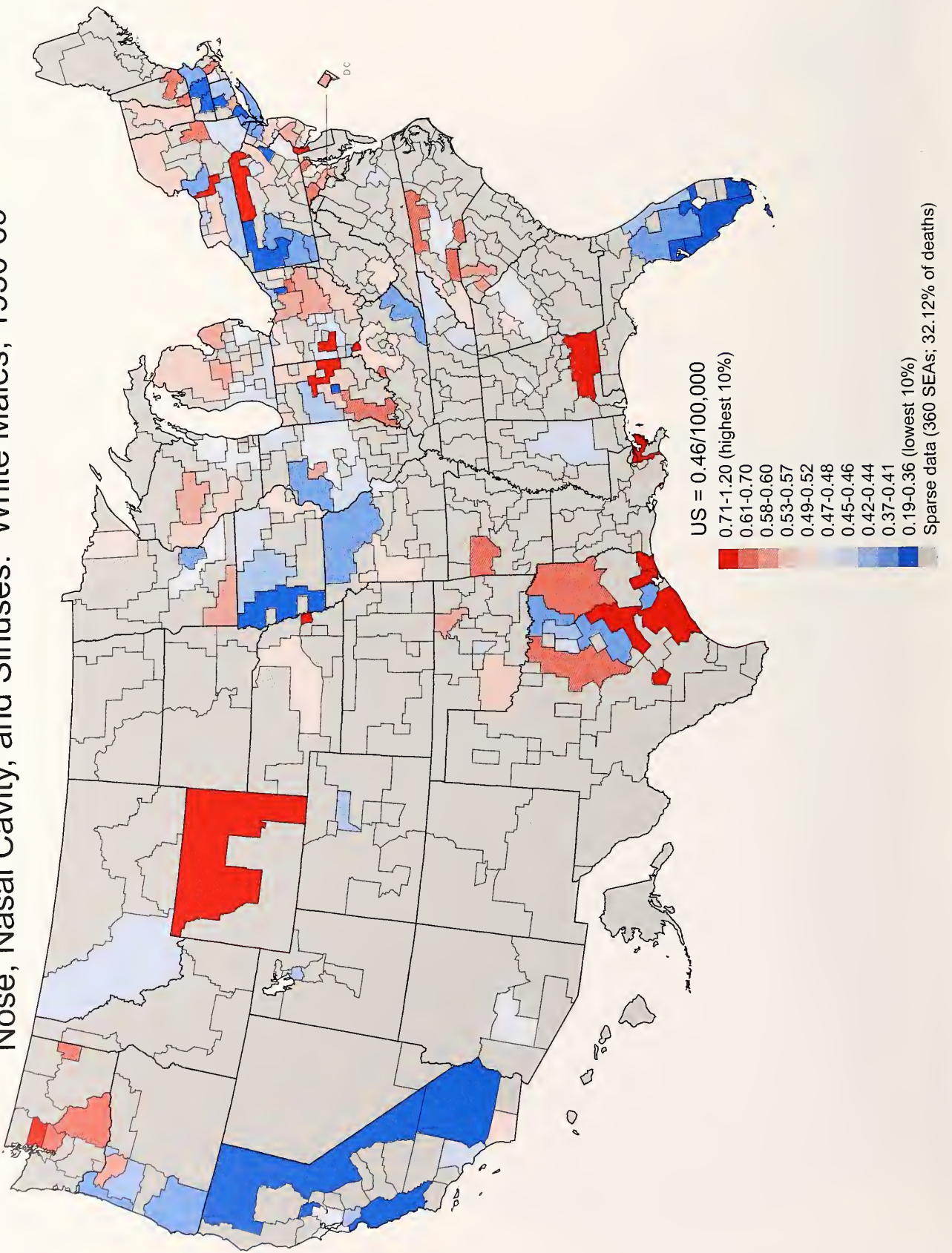
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Pancreas: Black Males, 1970-94



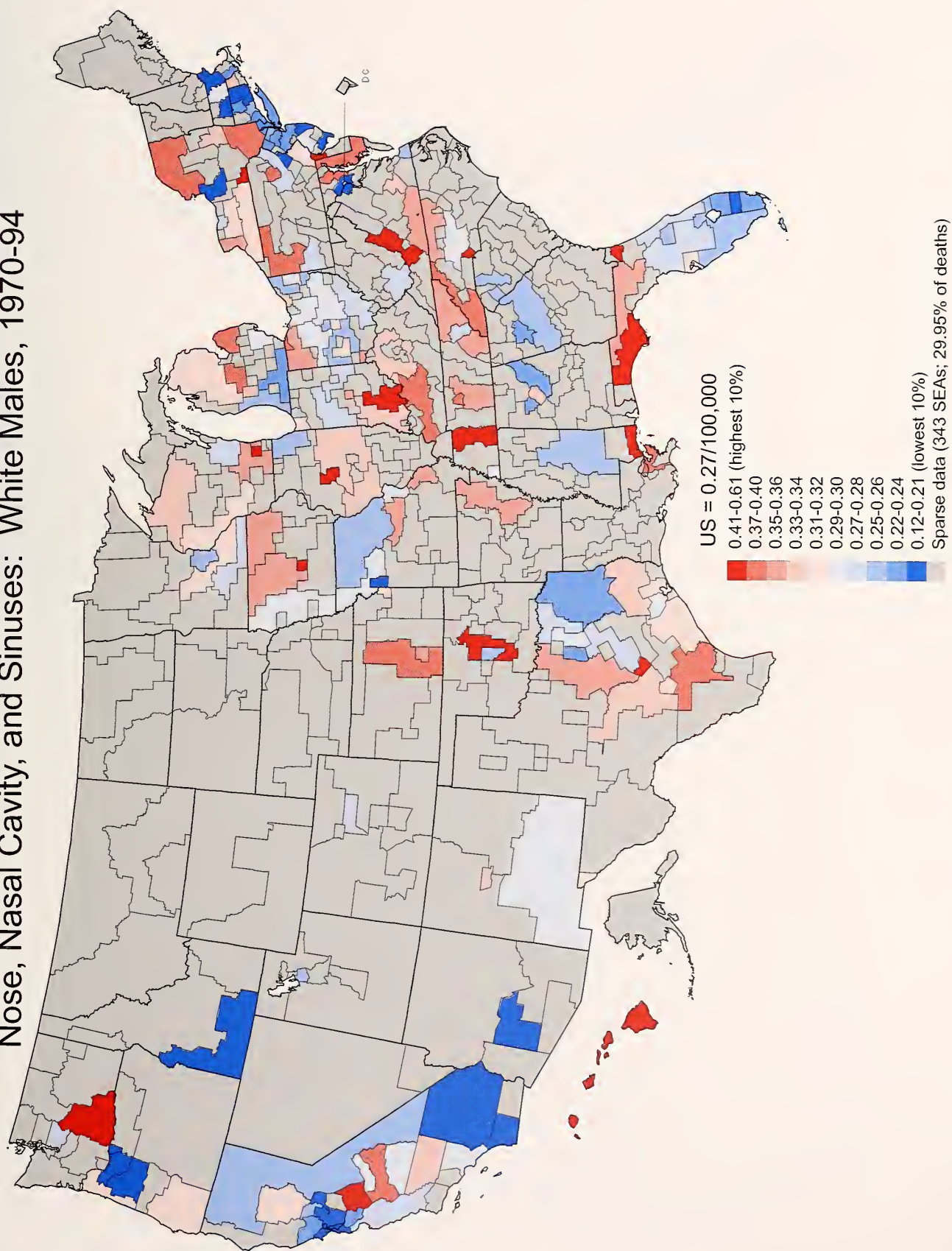
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Pancreas: Black Females, 1970-94



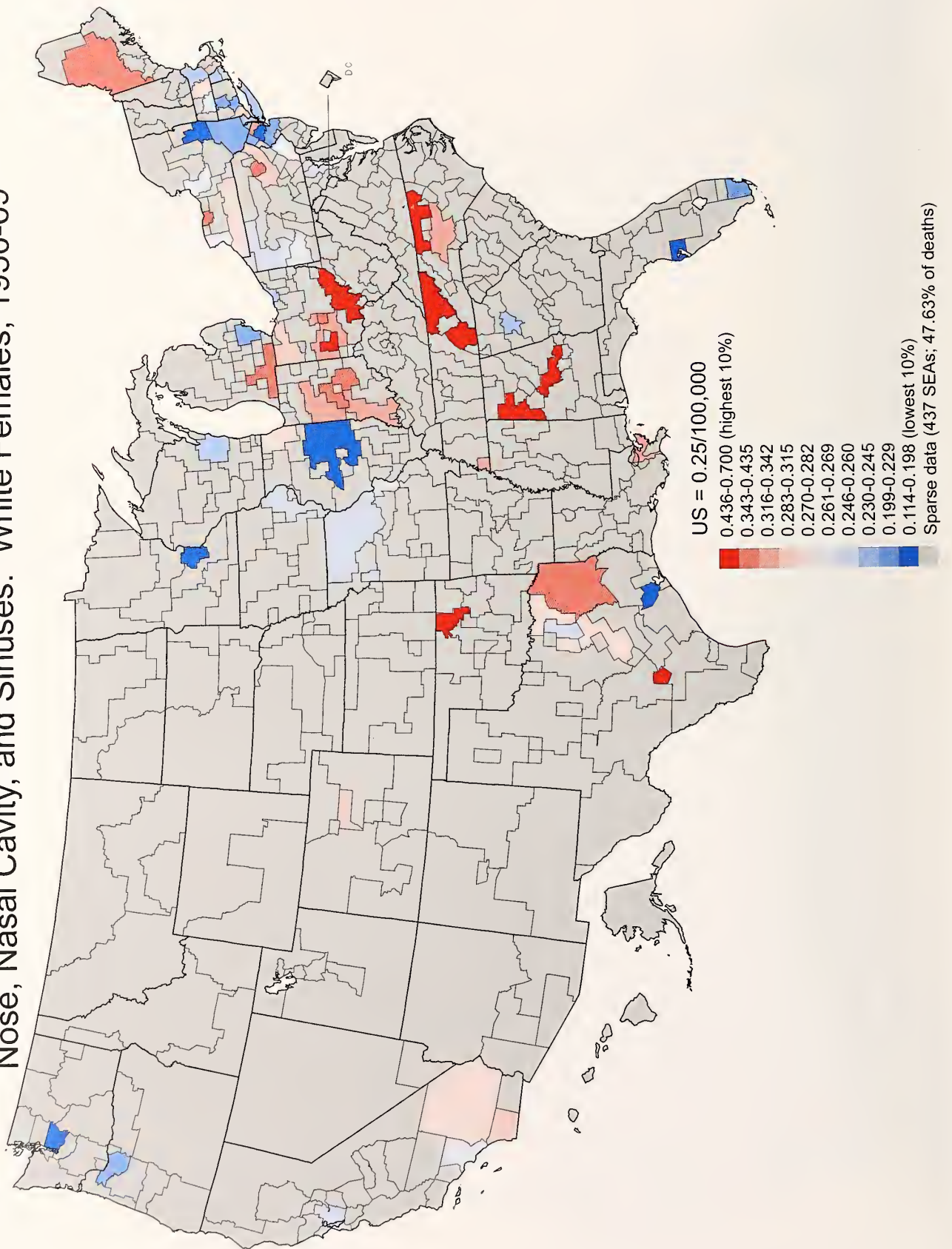
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Nose, Nasal Cavity, and Sinuses: White Males, 1950-69



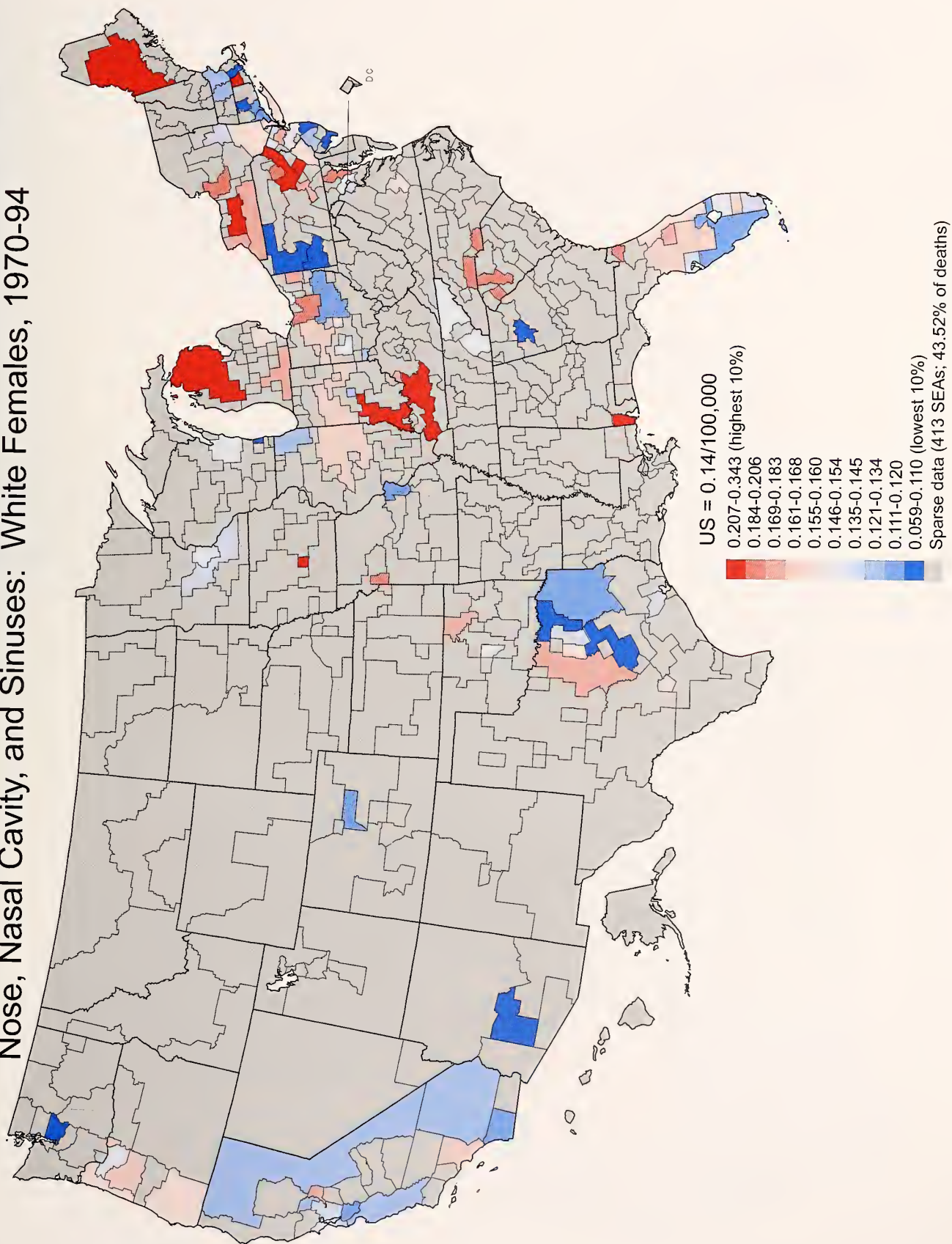
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Nose, Nasal Cavity, and Sinuses: White Males, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Nose, Nasal Cavity, and Sinuses: White Females, 1950-69

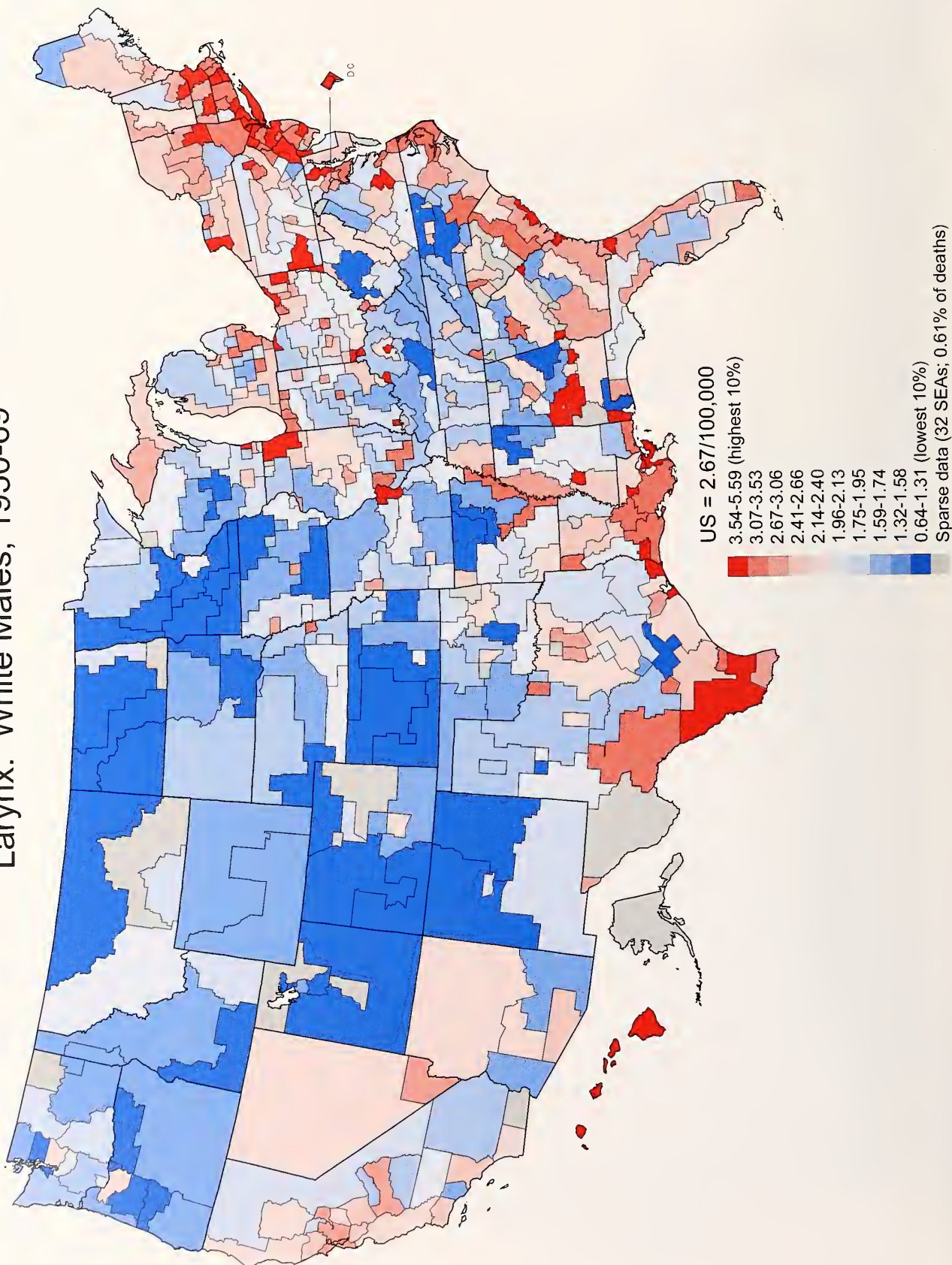


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Nose, Nasal Cavity, and Sinuses: White Females, 1970-94

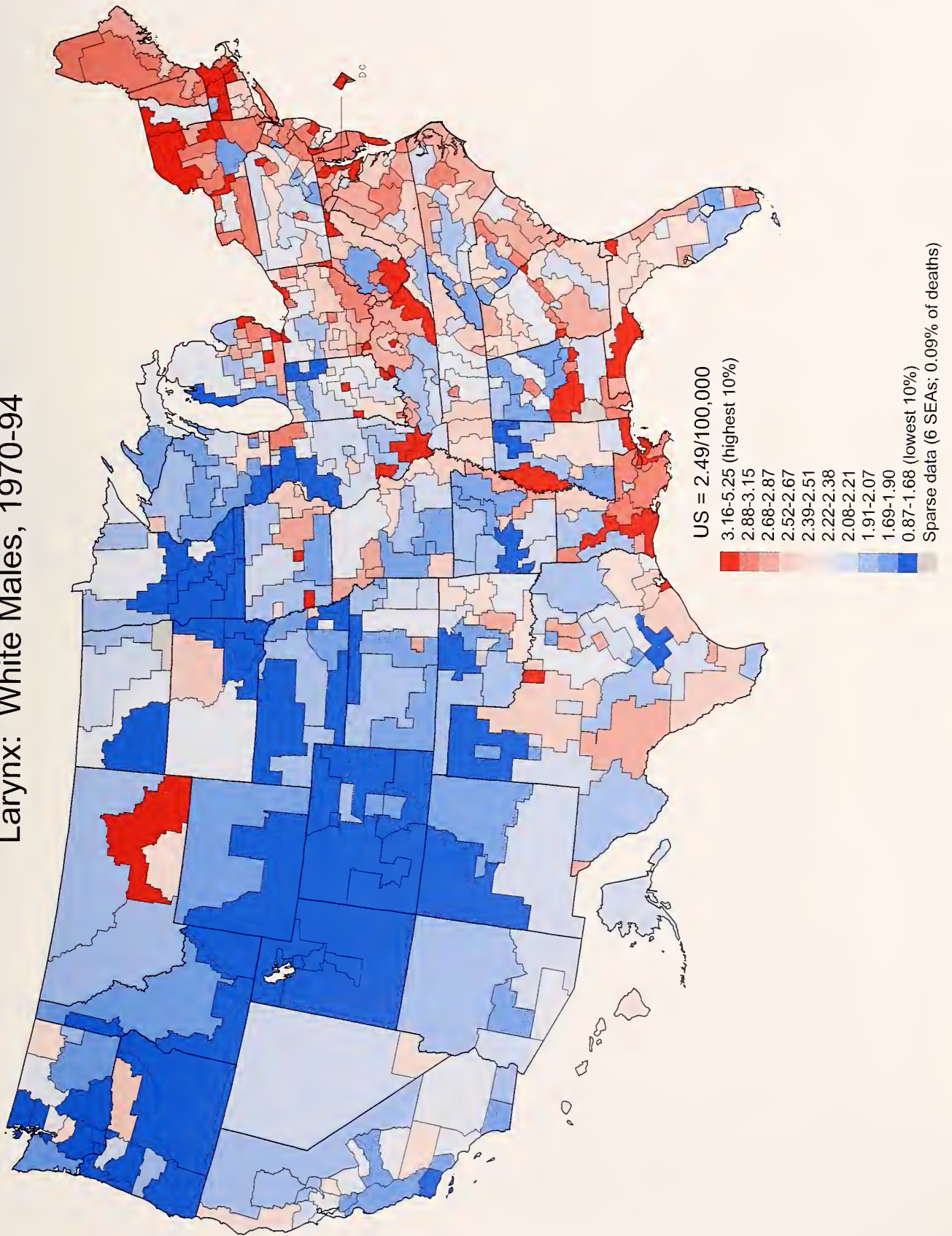


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population

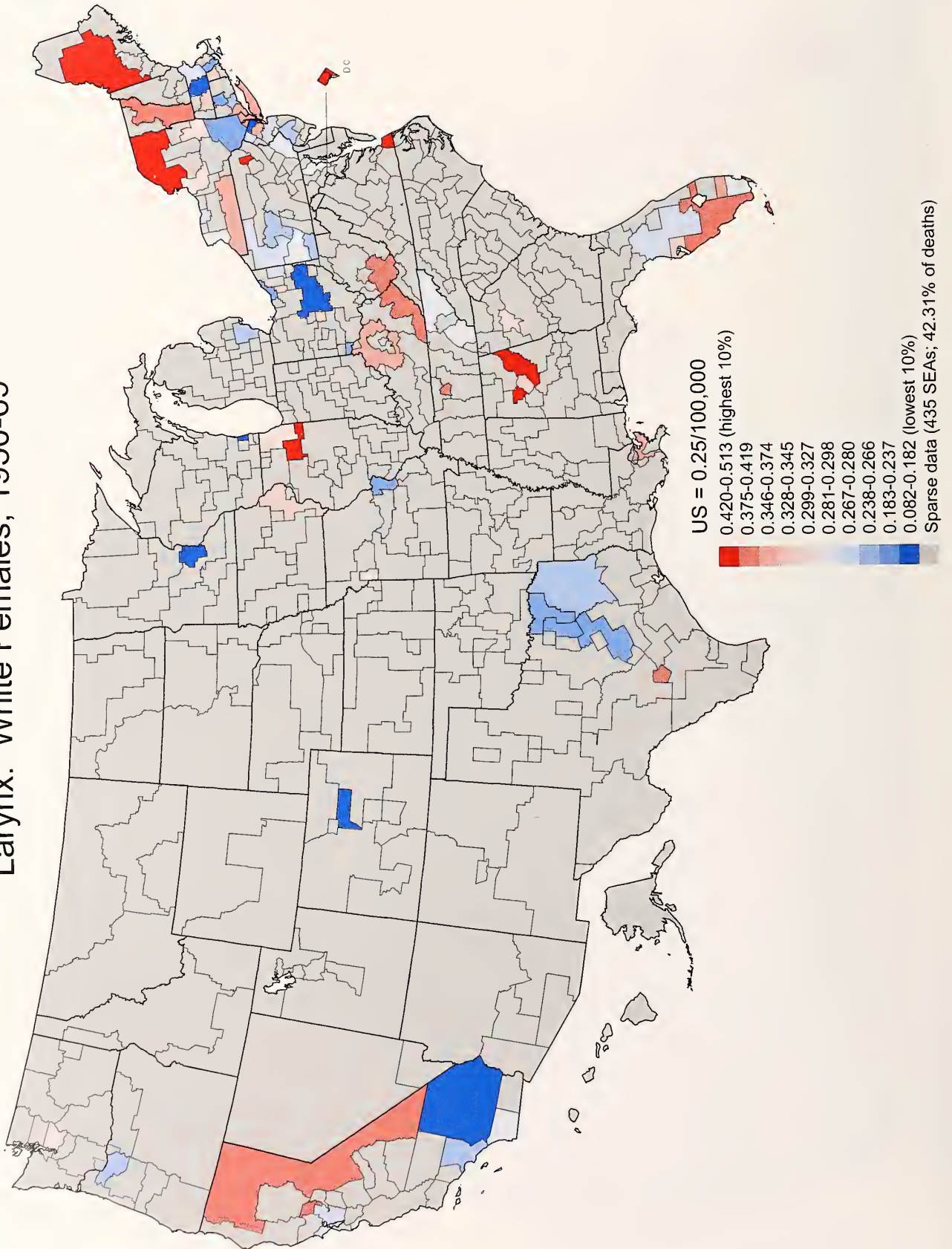
Larynx: White Males, 1950-69



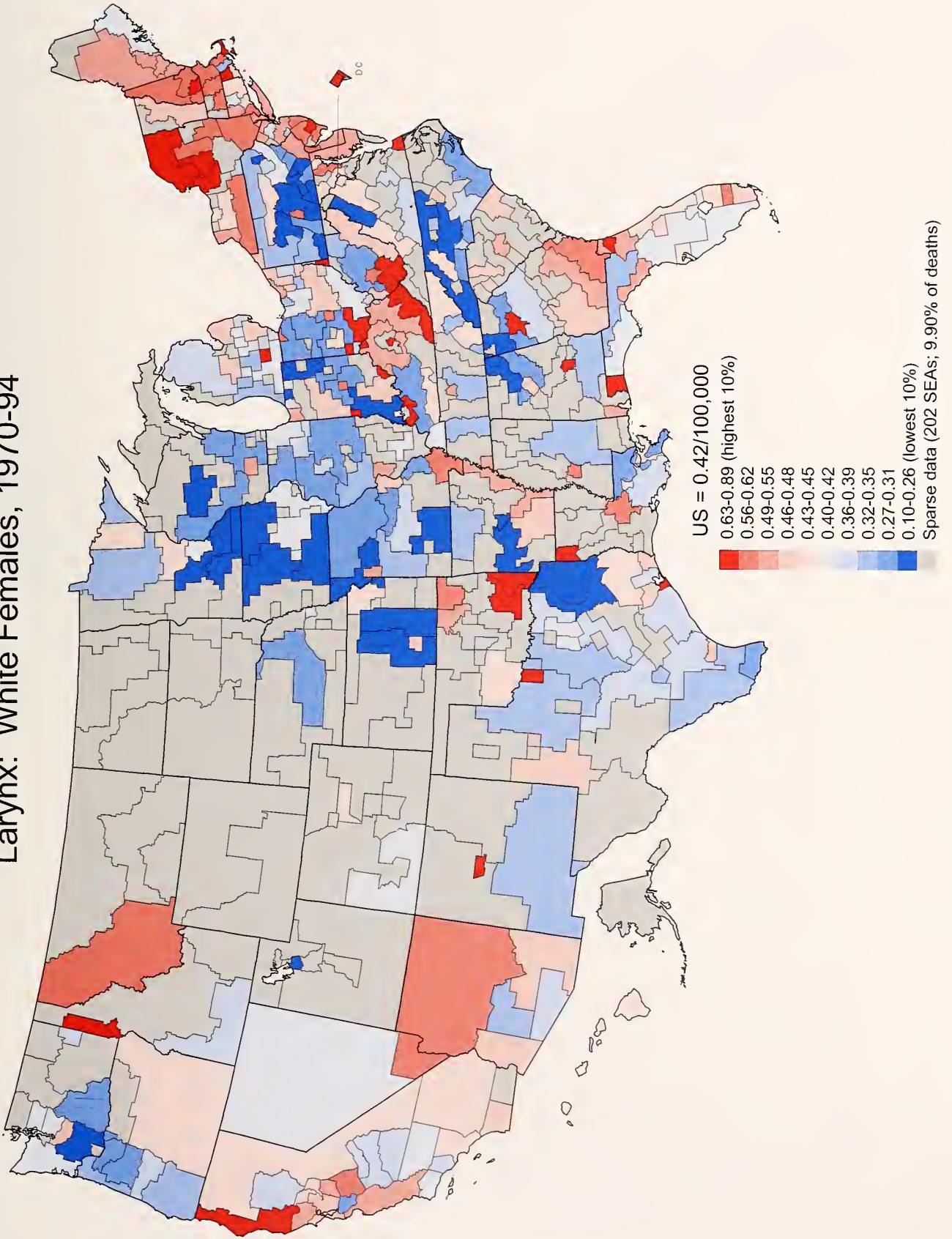
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Larynx: White Males, 1970-94



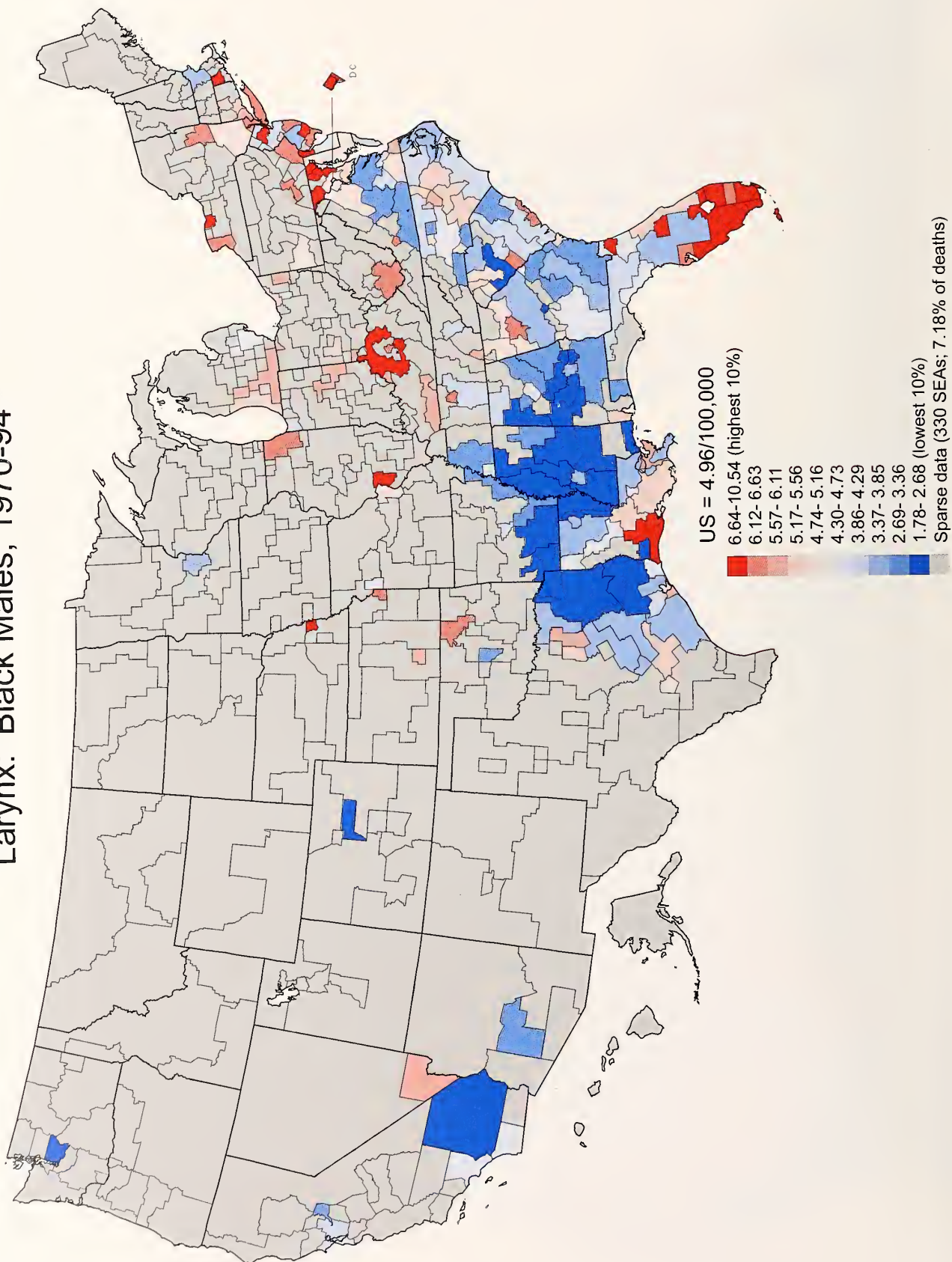
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Larynx: White Females, 1950-69



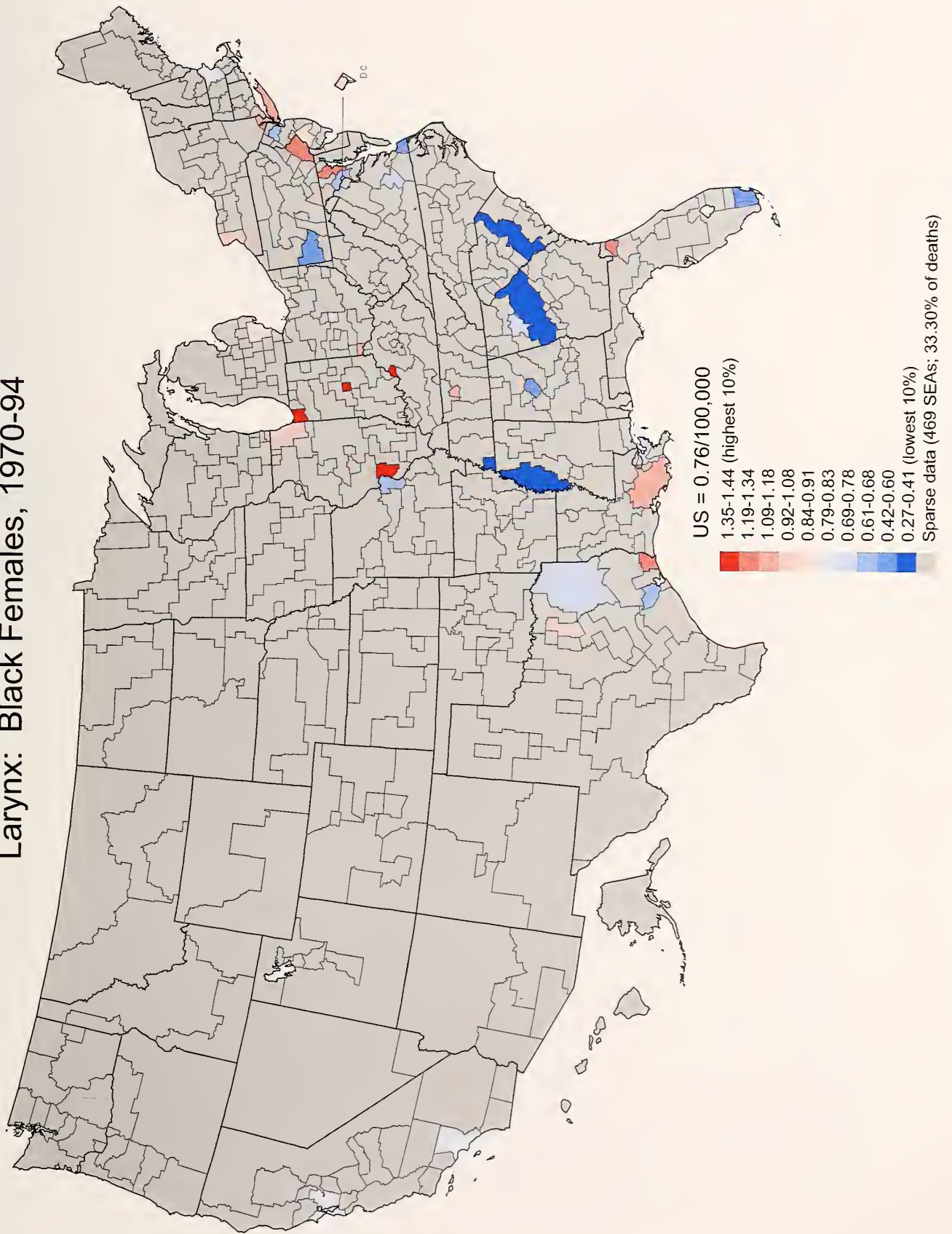
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Larynx: White Females, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Larynx: Black Males, 1970-94

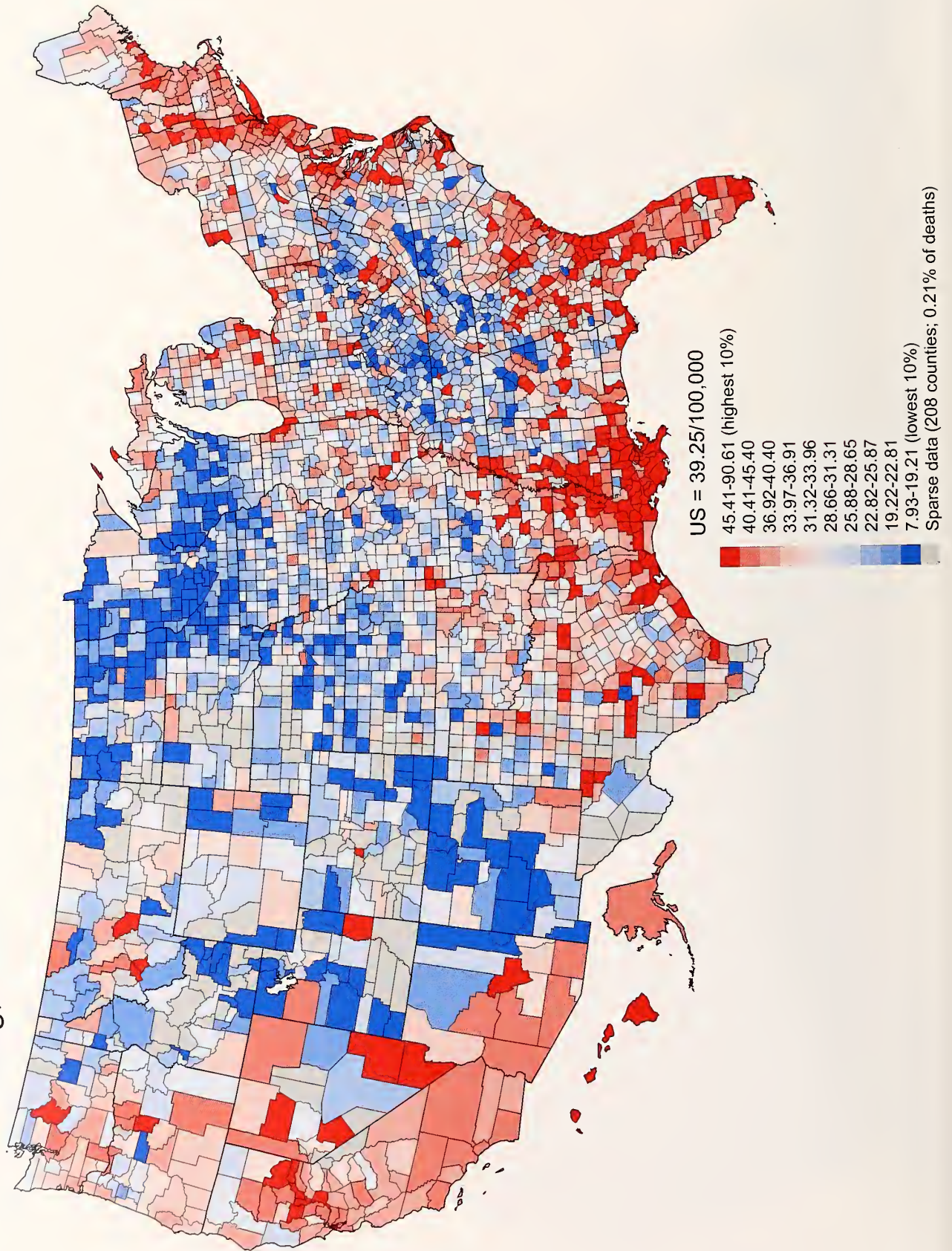


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Larynx: Black Females, 1970-94

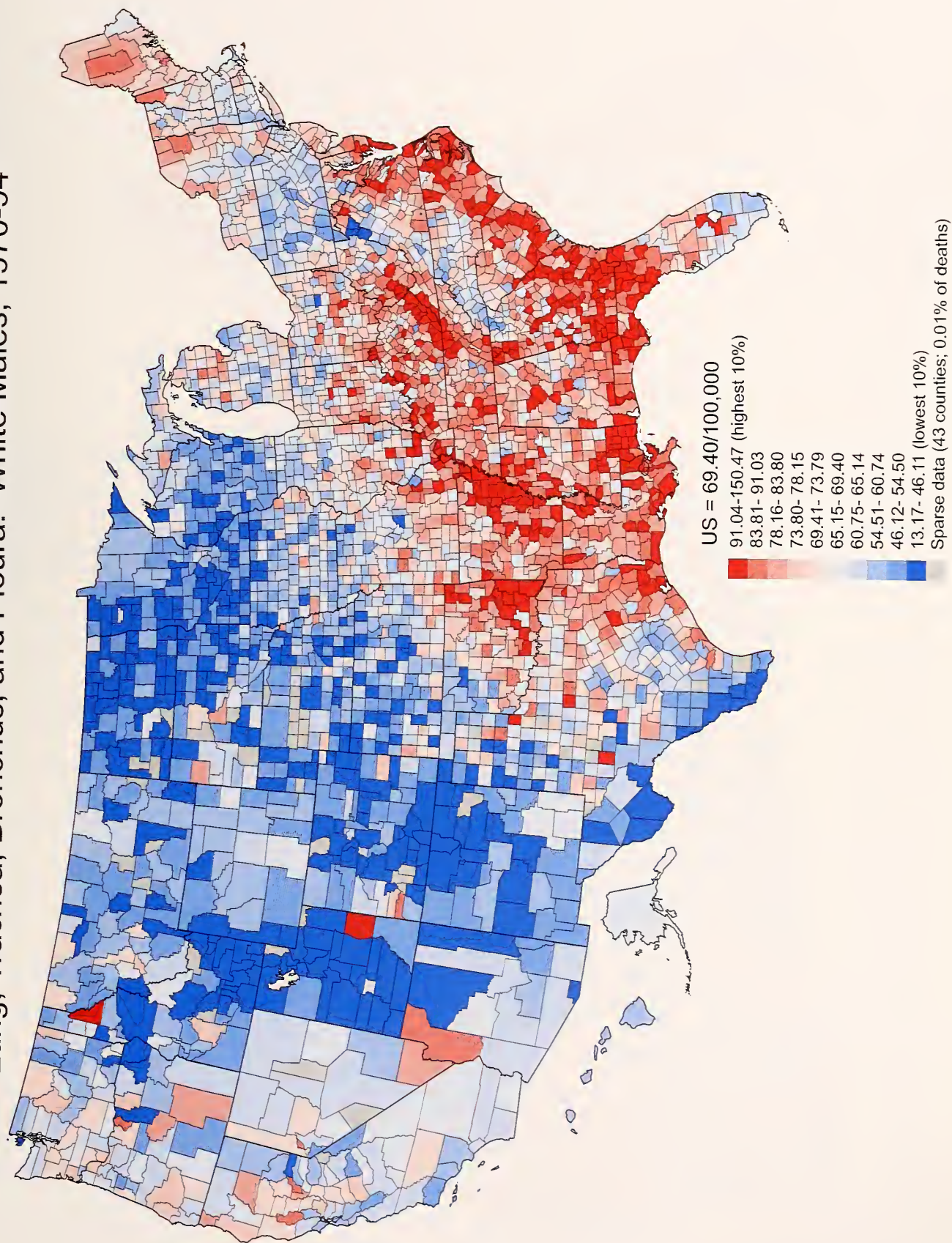


Lung, Trachea, Bronchus, and Pleura

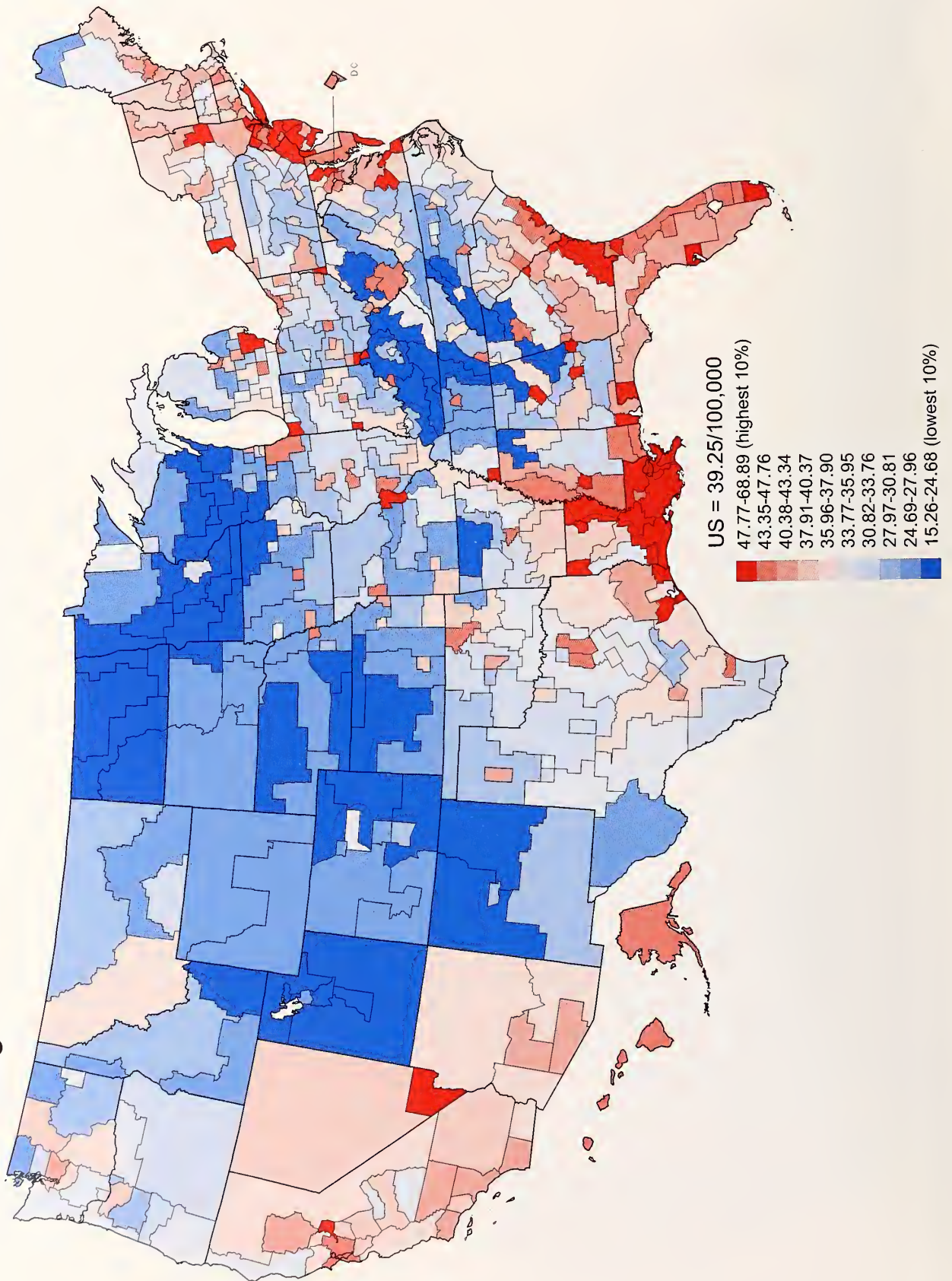
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Lung, Trachea, Bronchus, and Pleura: White Males, 1950-69



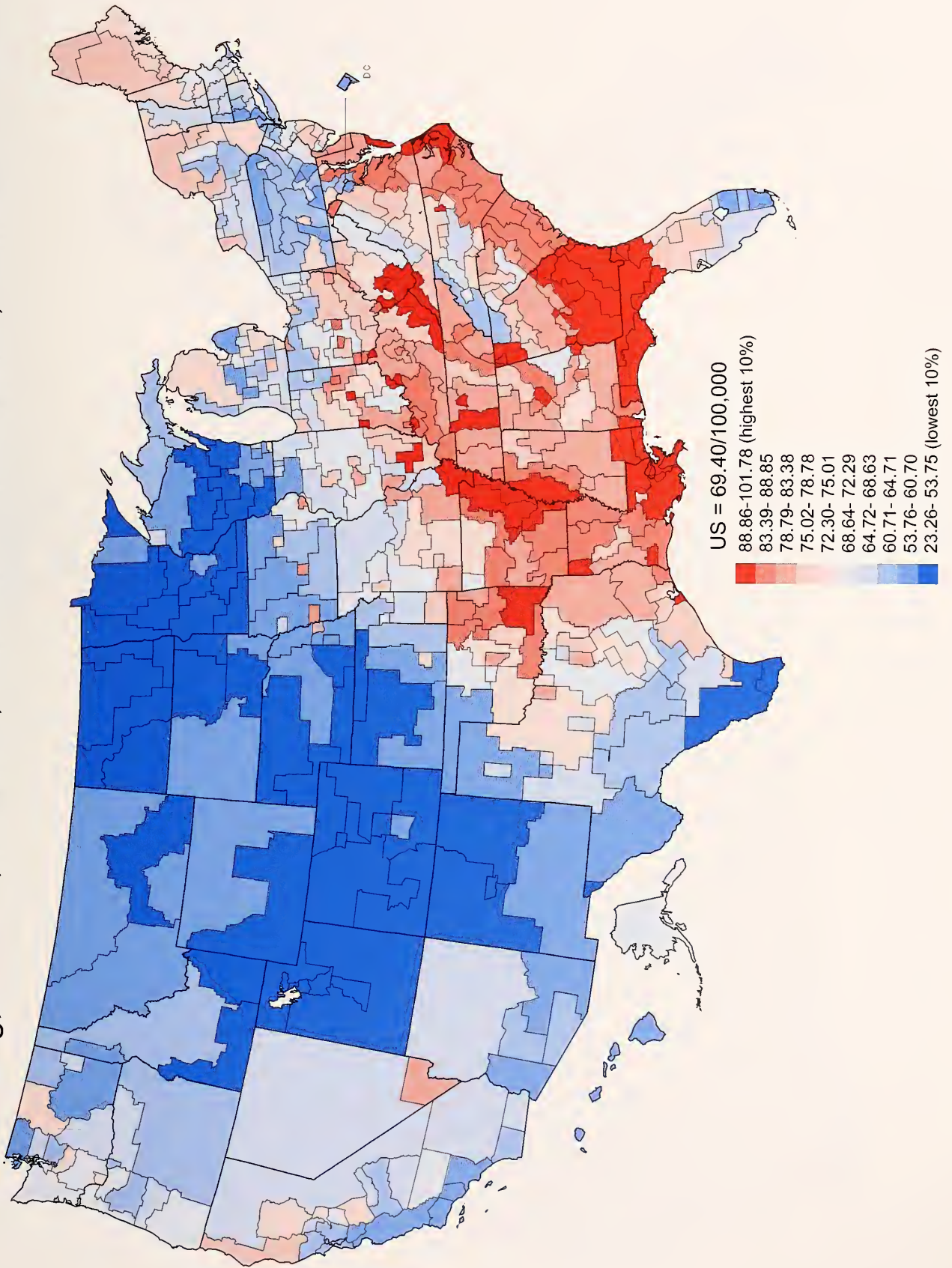
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Lung, Trachea, Bronchus, and Pleura: White Males, 1970-94



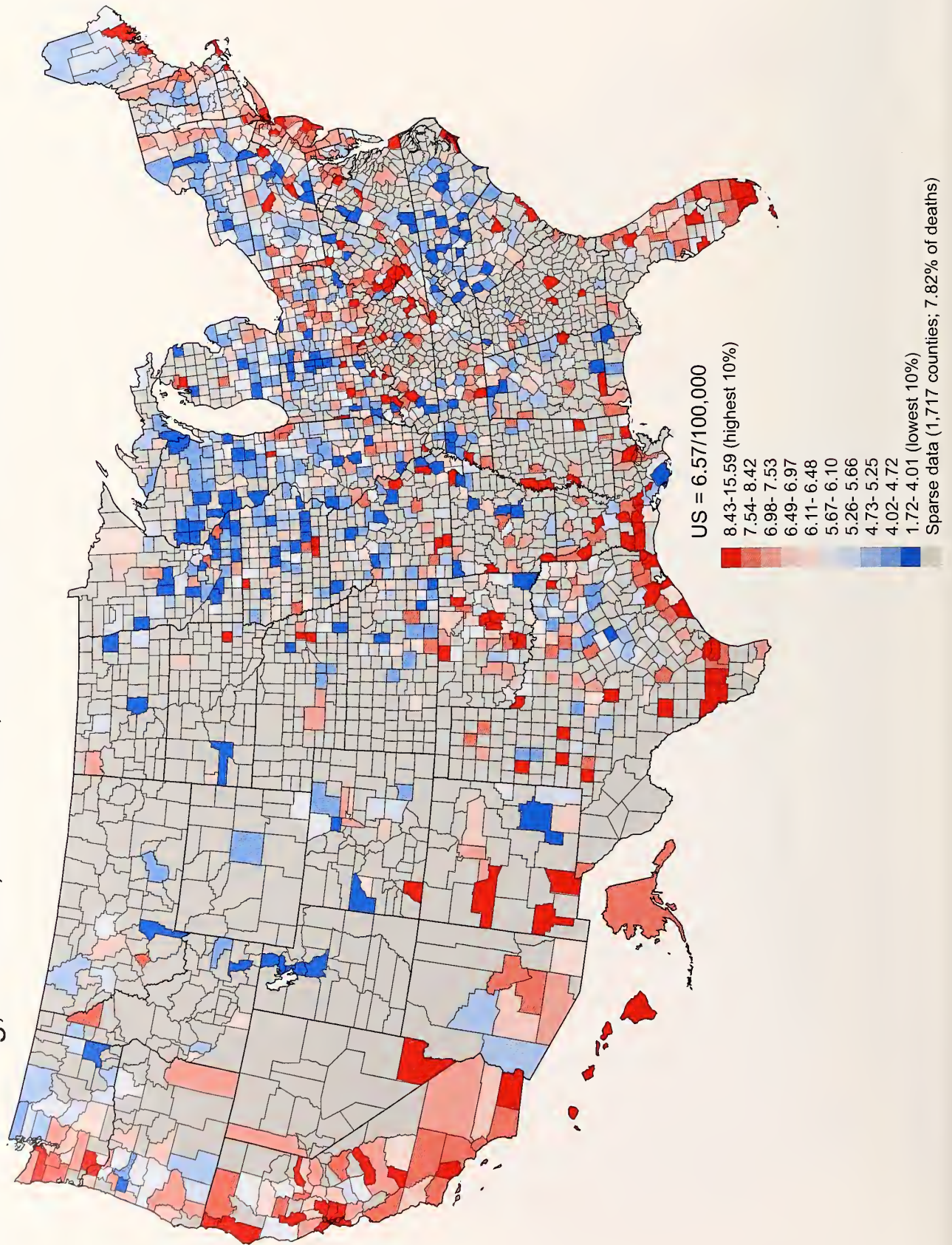
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Lung, Trachea, Bronchus, and Pleura: White Males, 1950-69



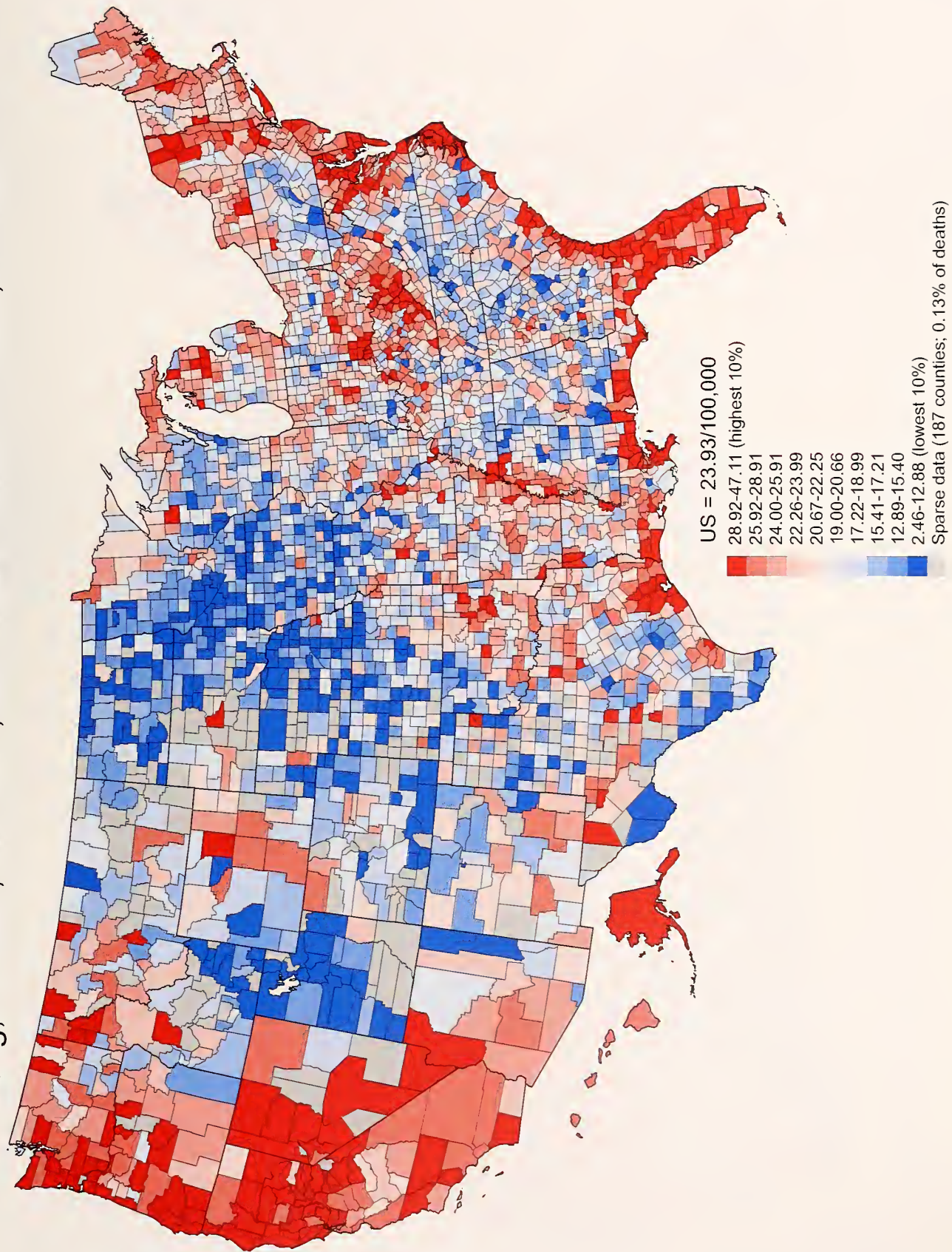
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Lung, Trachea, Bronchus, and Pleura: White Males, 1970-94



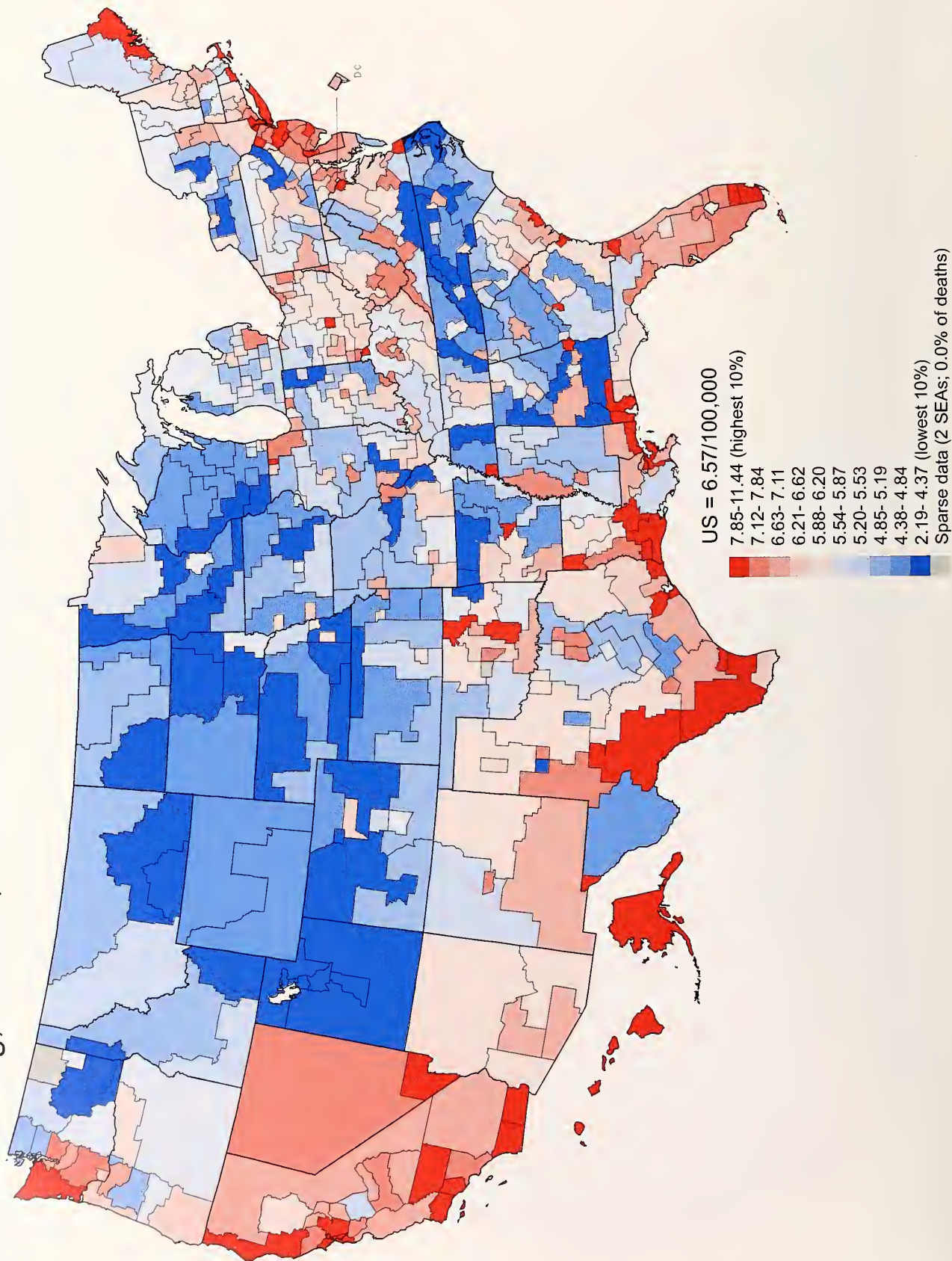
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Lung, Trachea, Bronchus, and Pleura: White Females, 1950-69



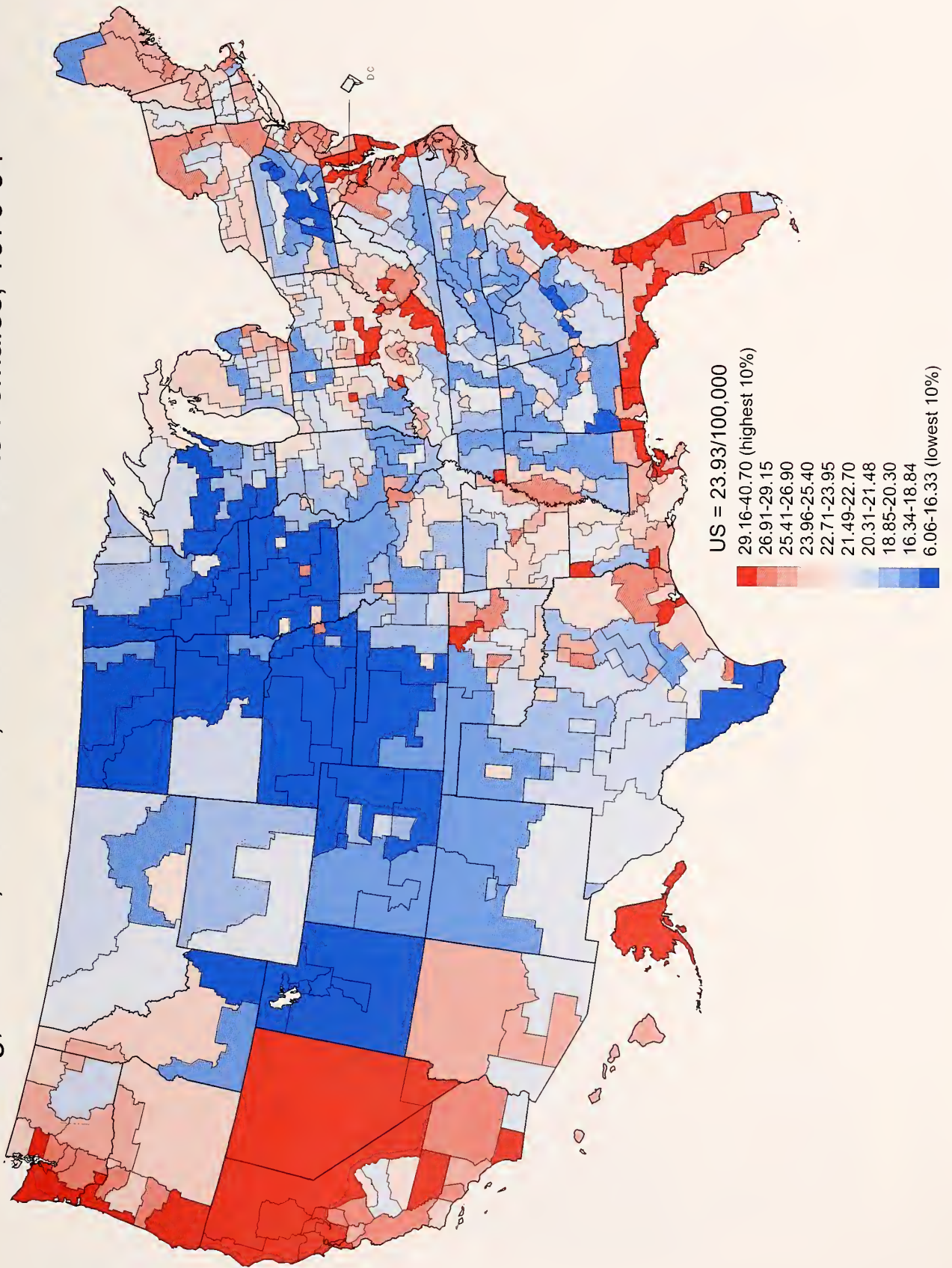
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
 Lung, Trachea, Bronchus, and Pleura: White Females, 1970-94



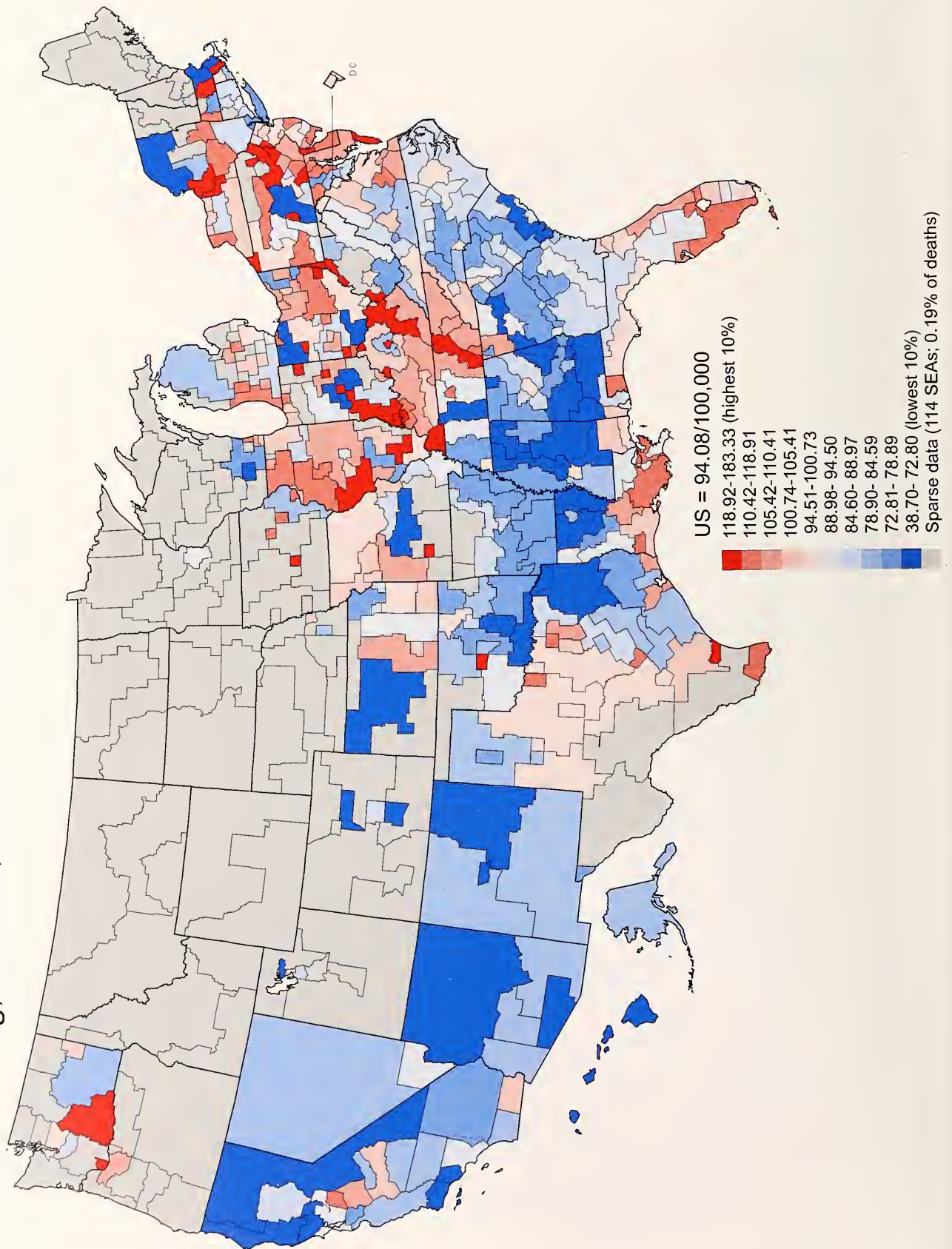
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Lung, Trachea, Bronchus, and Pleura: White Females, 1950-69



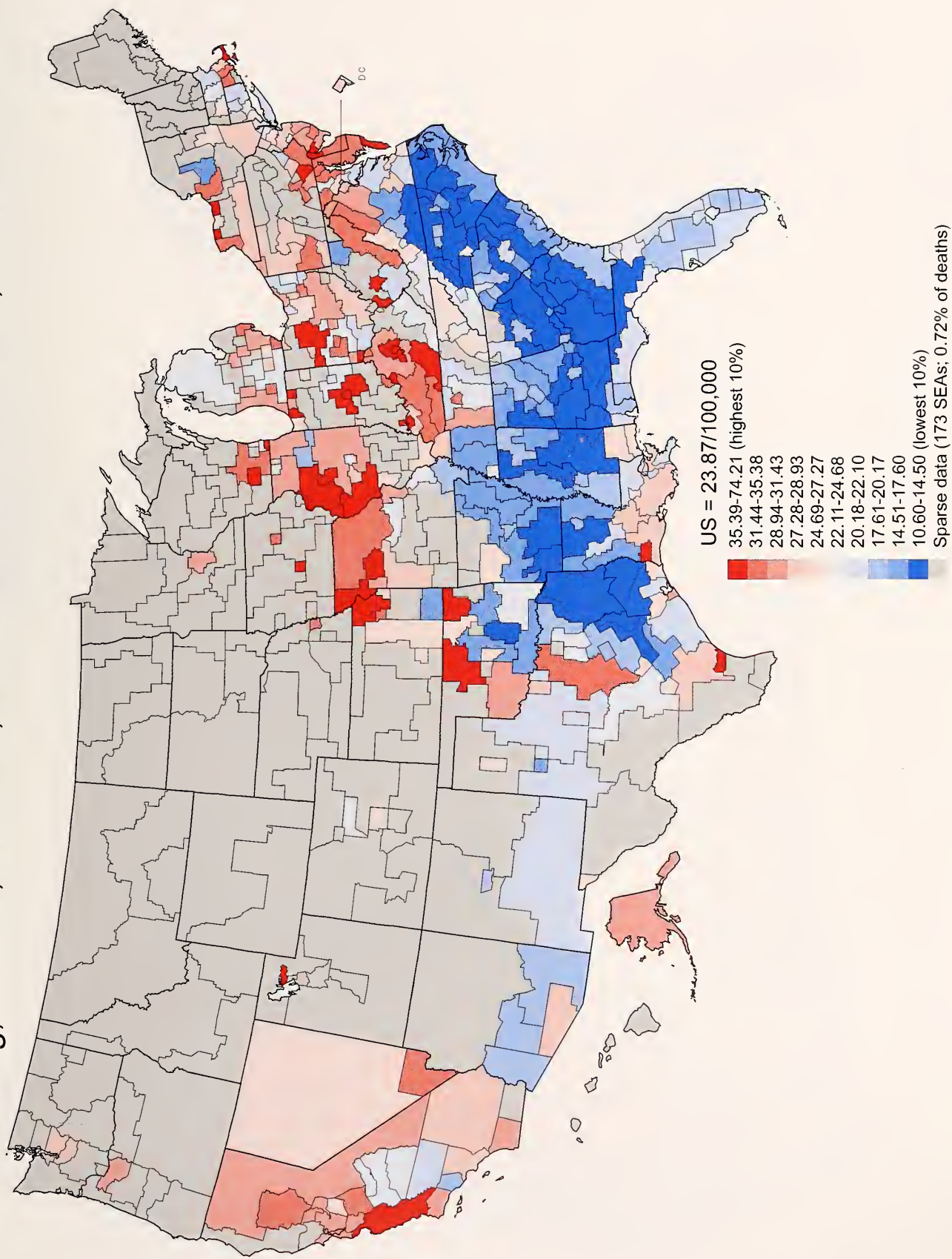
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Lung, Trachea, Bronchus, and Pleura: White Females, 1970-94



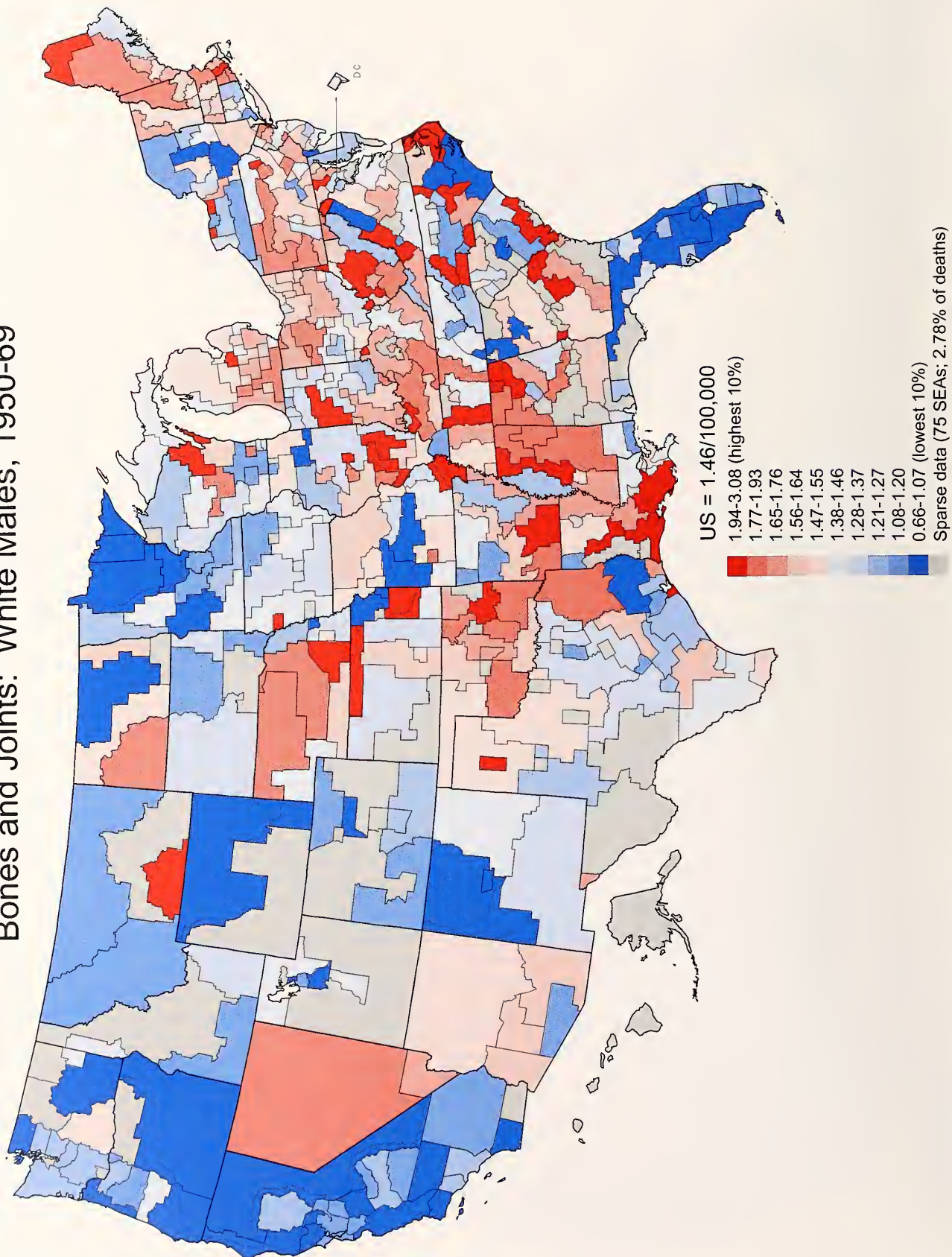
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Lung, Trachea, Bronchus, and Pleura: Black Males, 1970-94



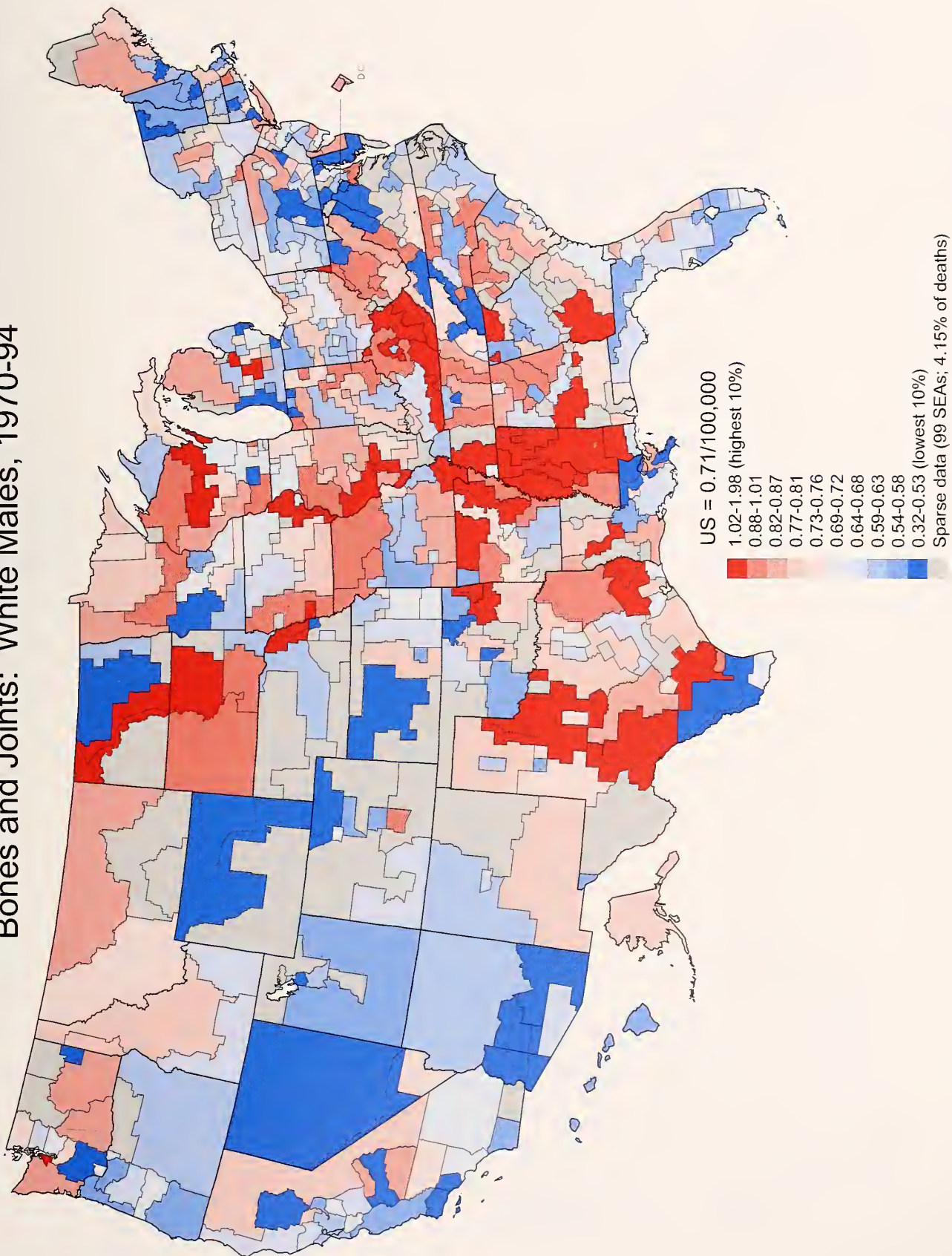
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Lung, Trachea, Bronchus, and Pleura: Black Females, 1970-94



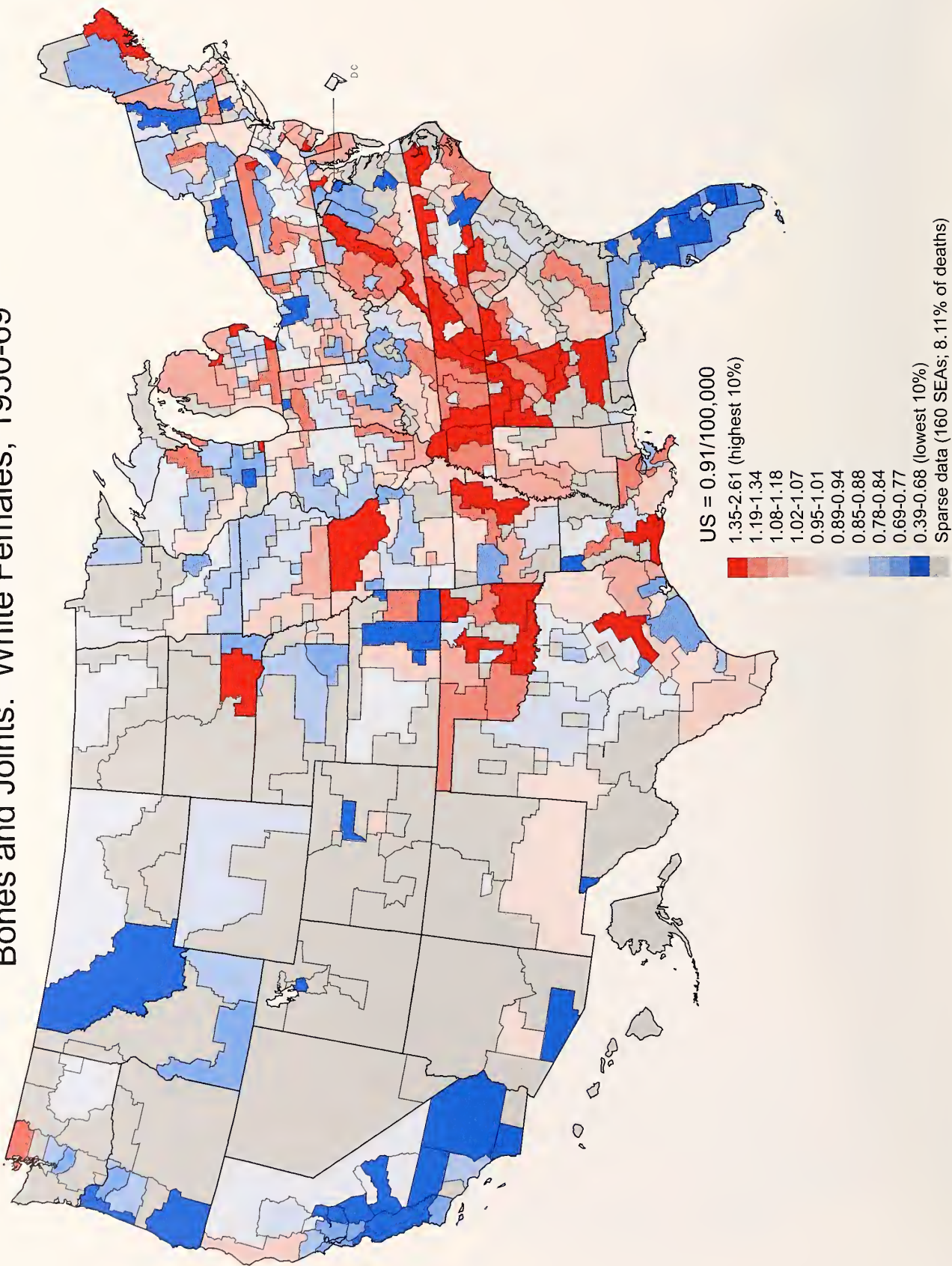
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bones and Joints: White Males, 1950-69



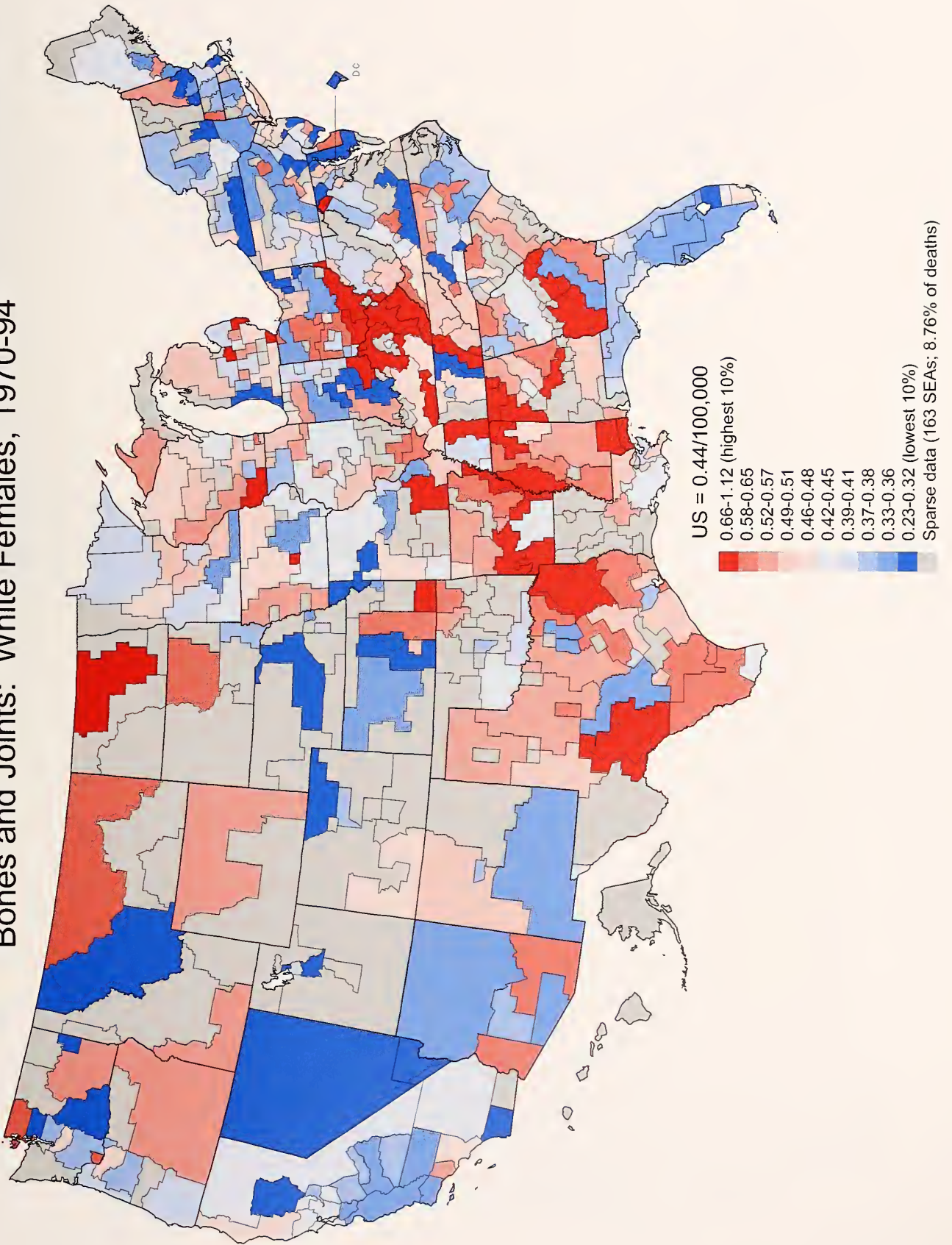
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bones and Joints: White Males, 1970-94



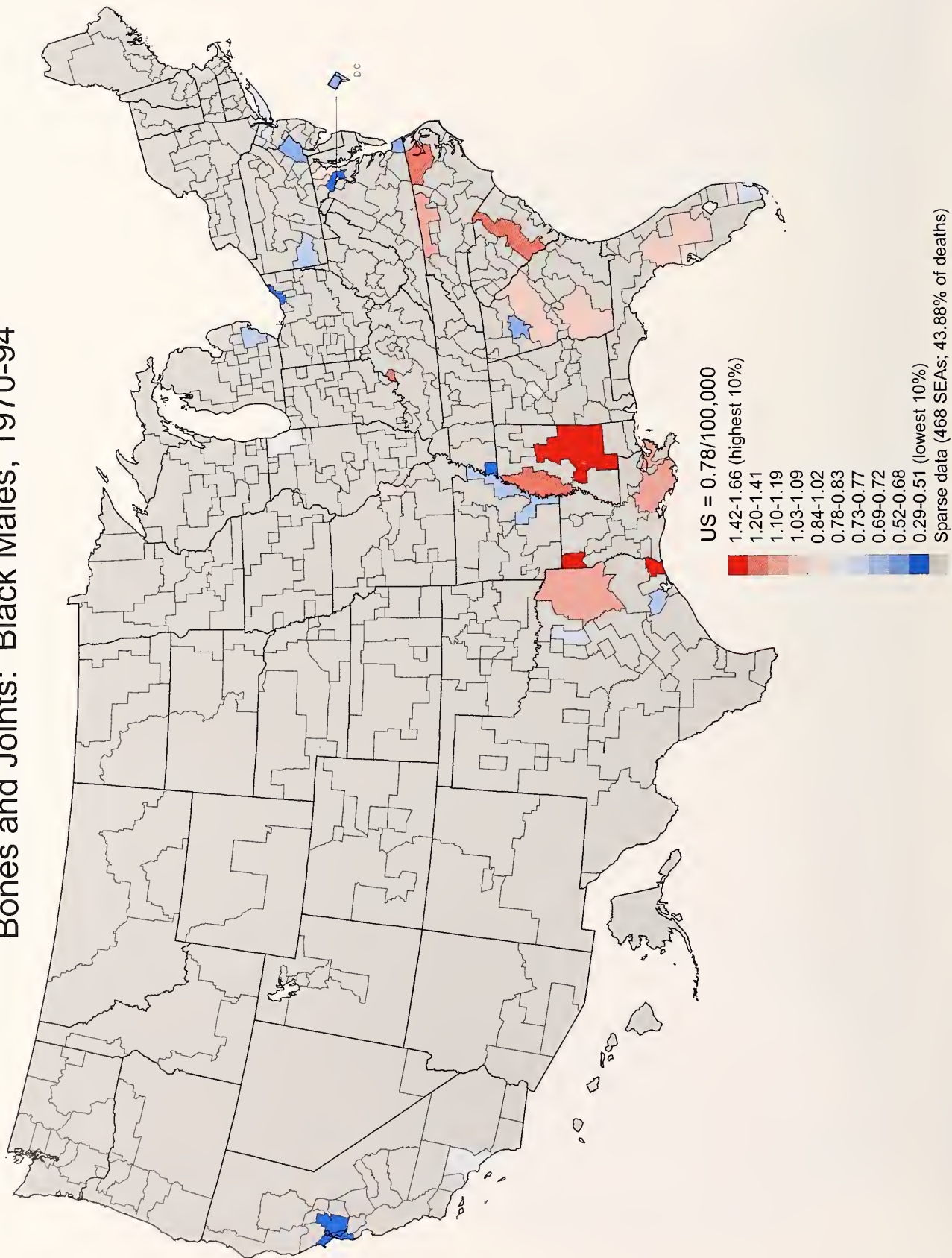
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 Bones and Joints: White Females, 1950-69



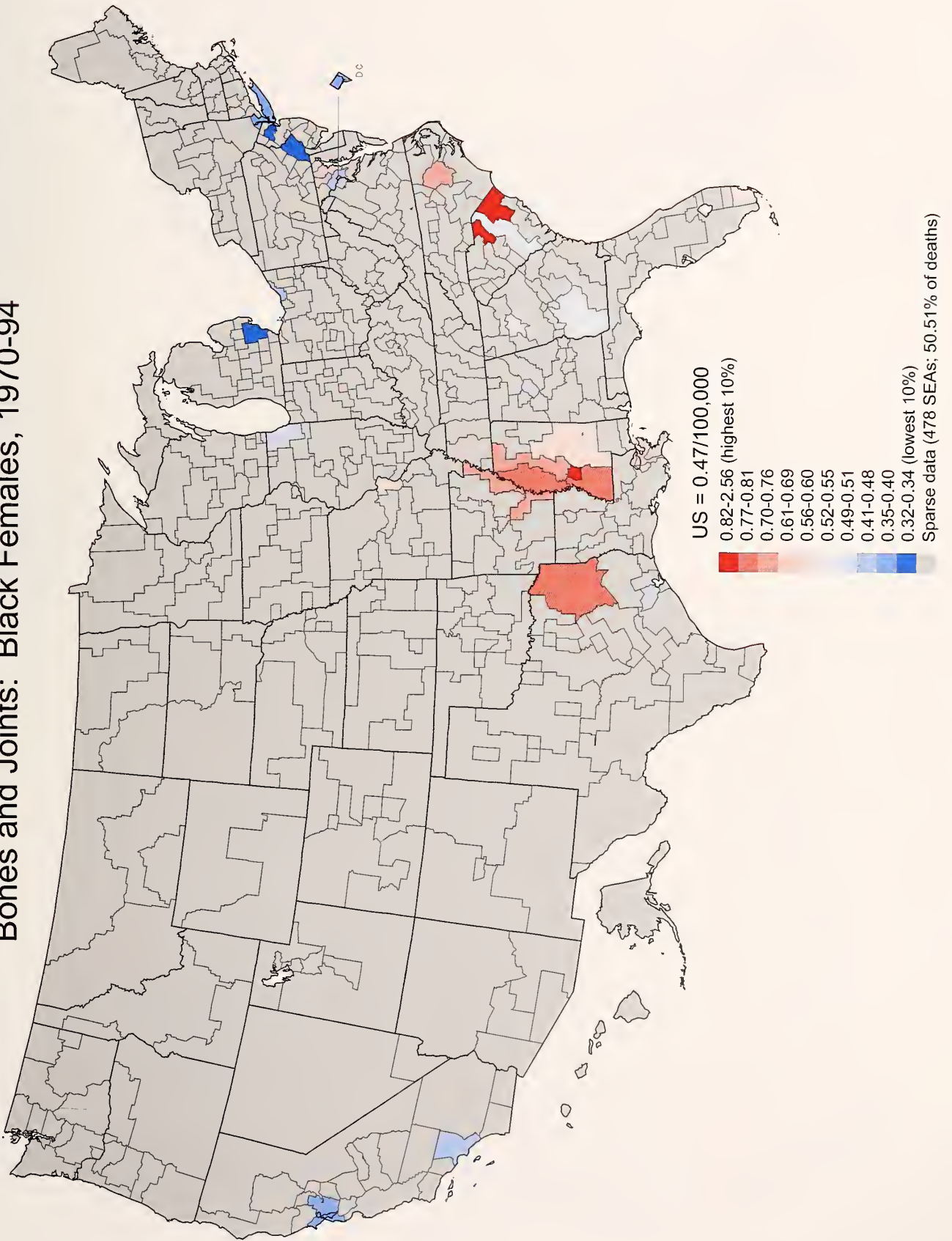
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bones and Joints: White Females, 1970-94



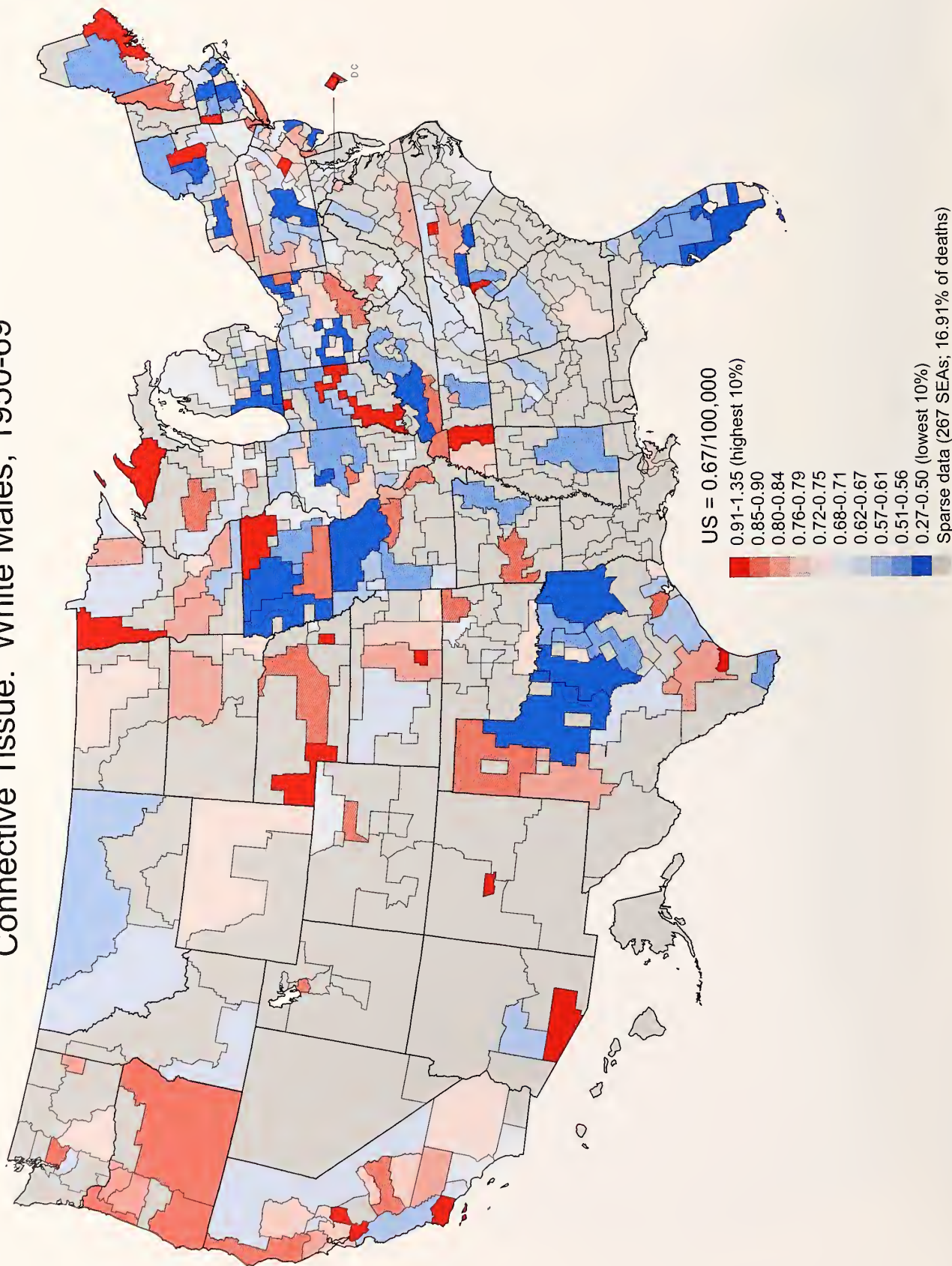
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Bones and Joints: Black Males, 1970-94



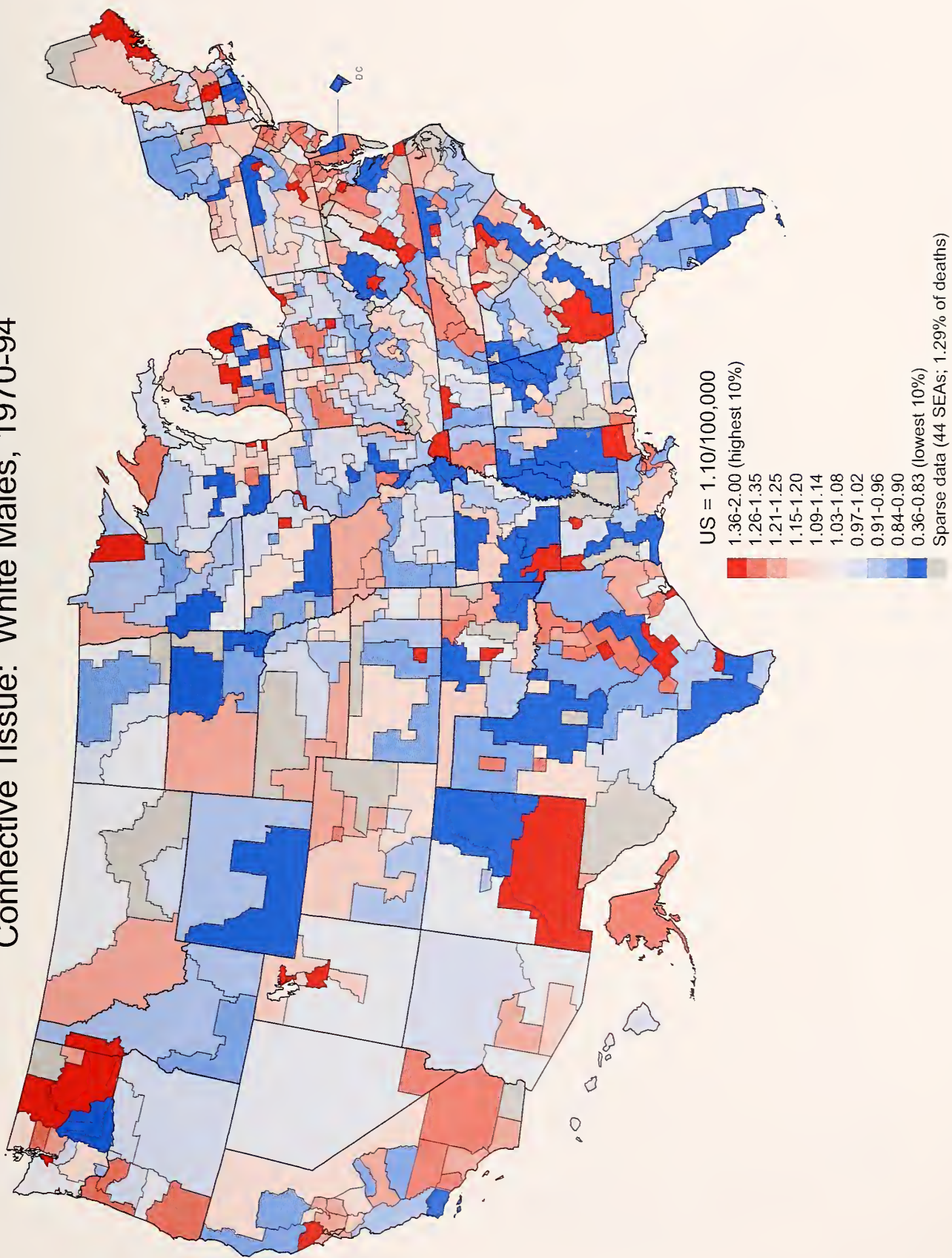
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Bones and Joints: Black Females, 1970-94



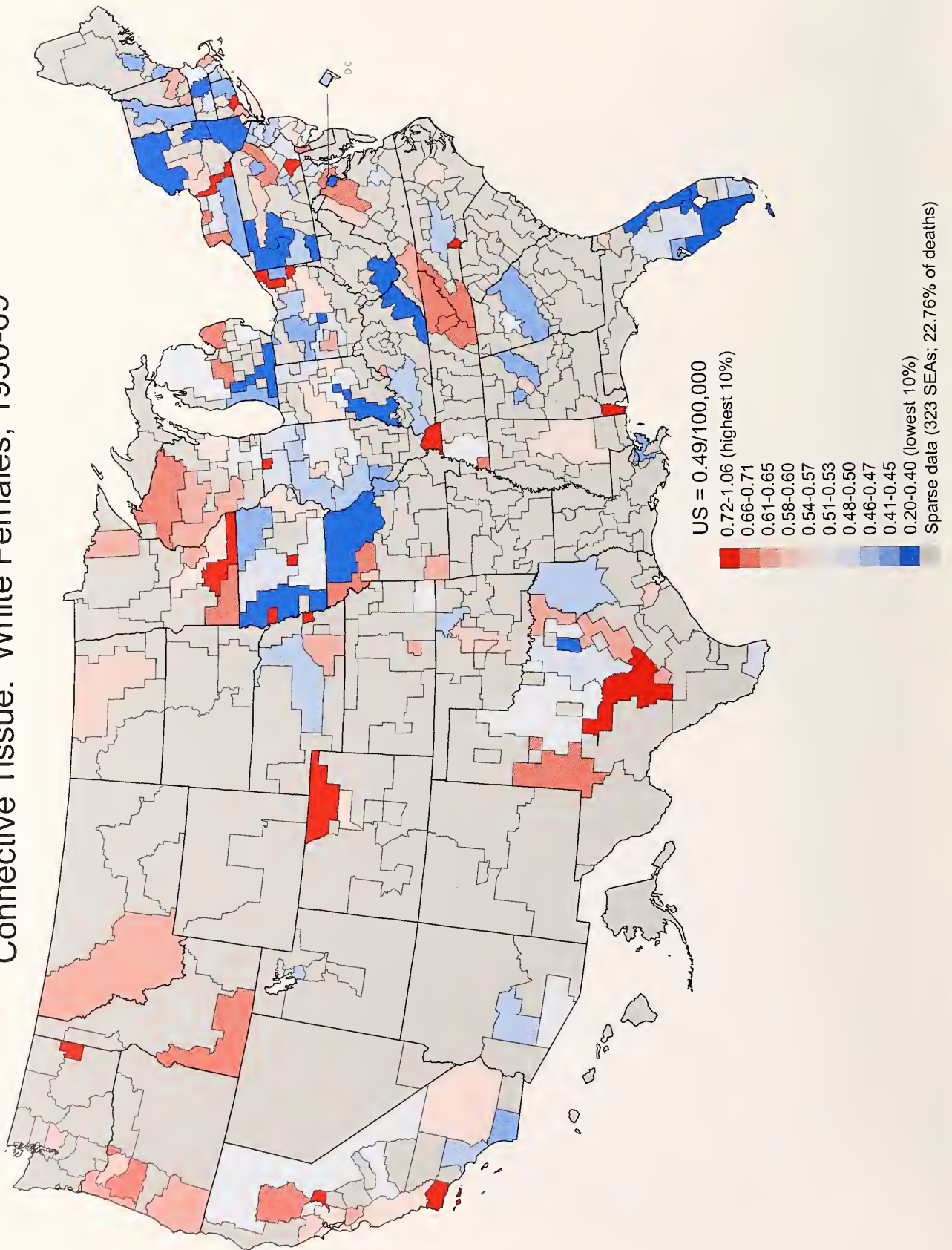
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Connective Tissue: White Males, 1950-69



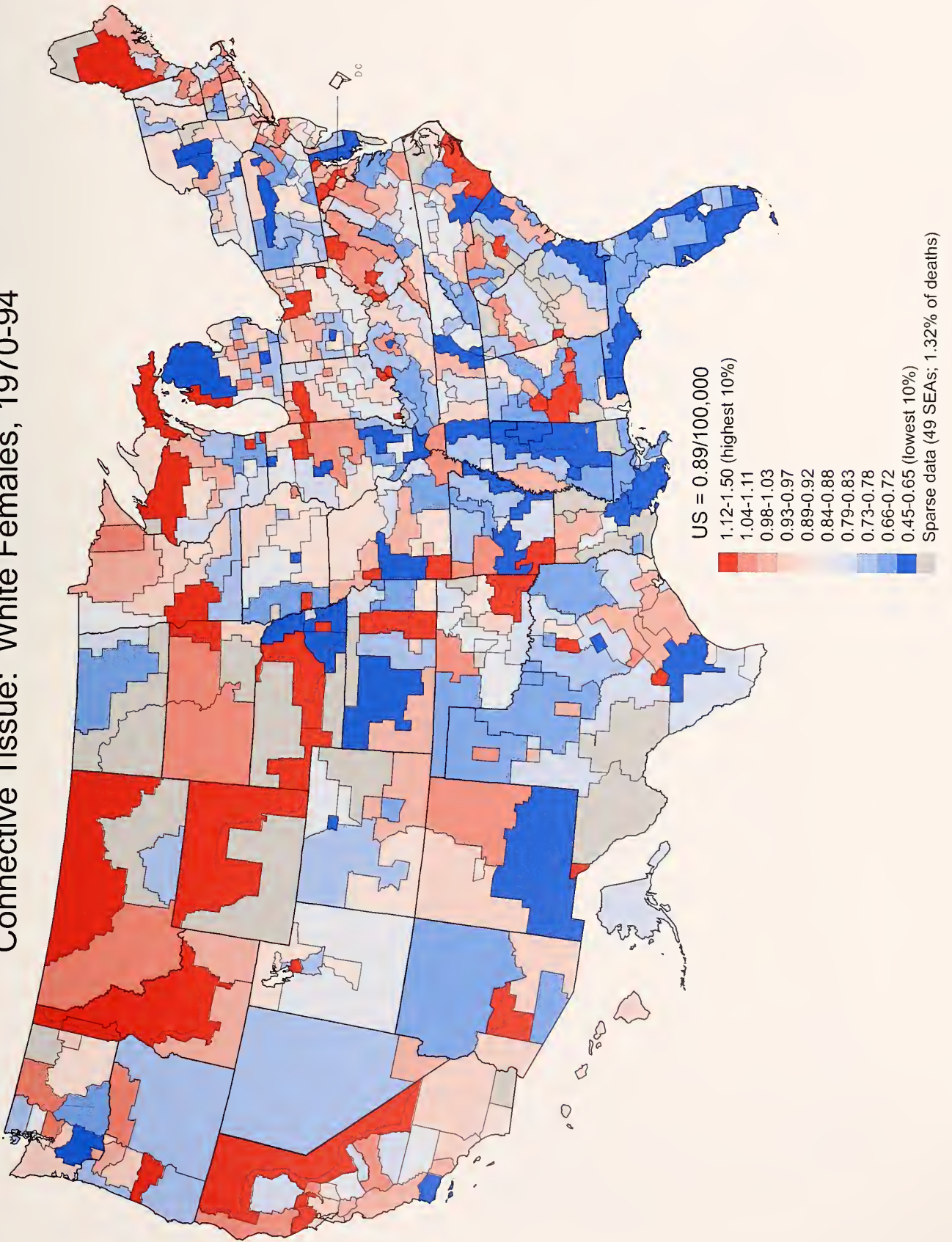
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Connective Tissue: White Males, 1970-94



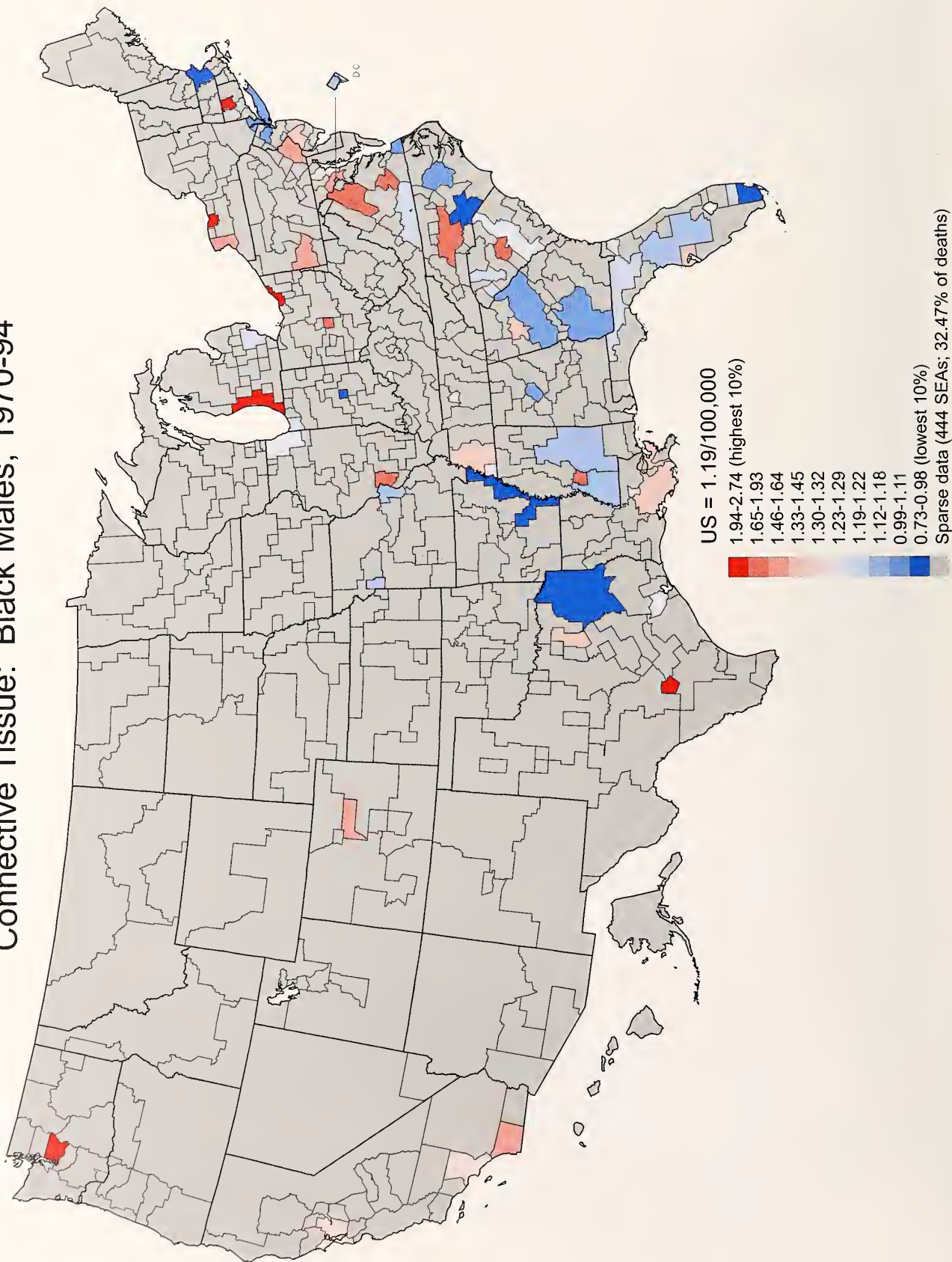
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Connective Tissue: White Females, 1950-69



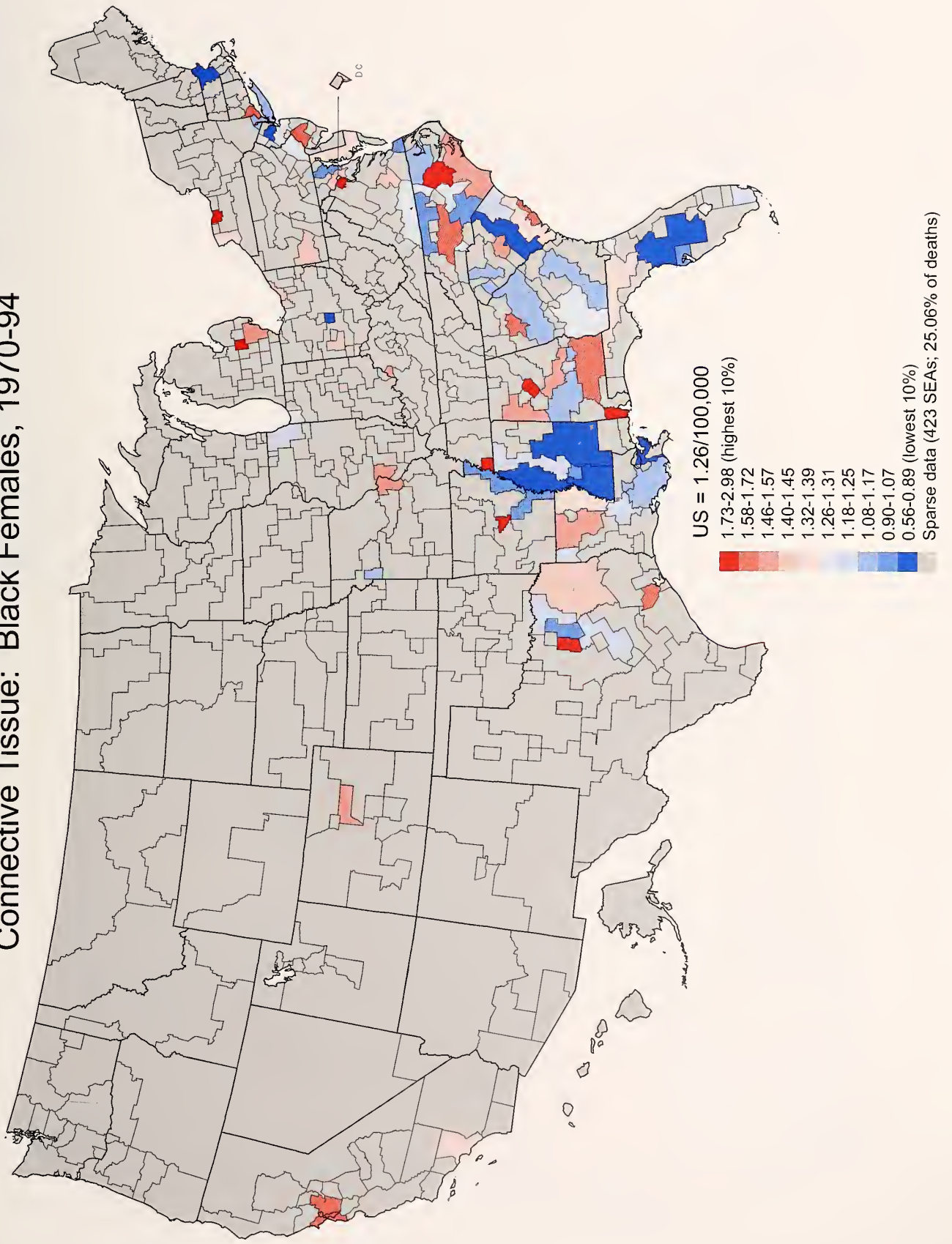
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Connective Tissue: White Females, 1970-94



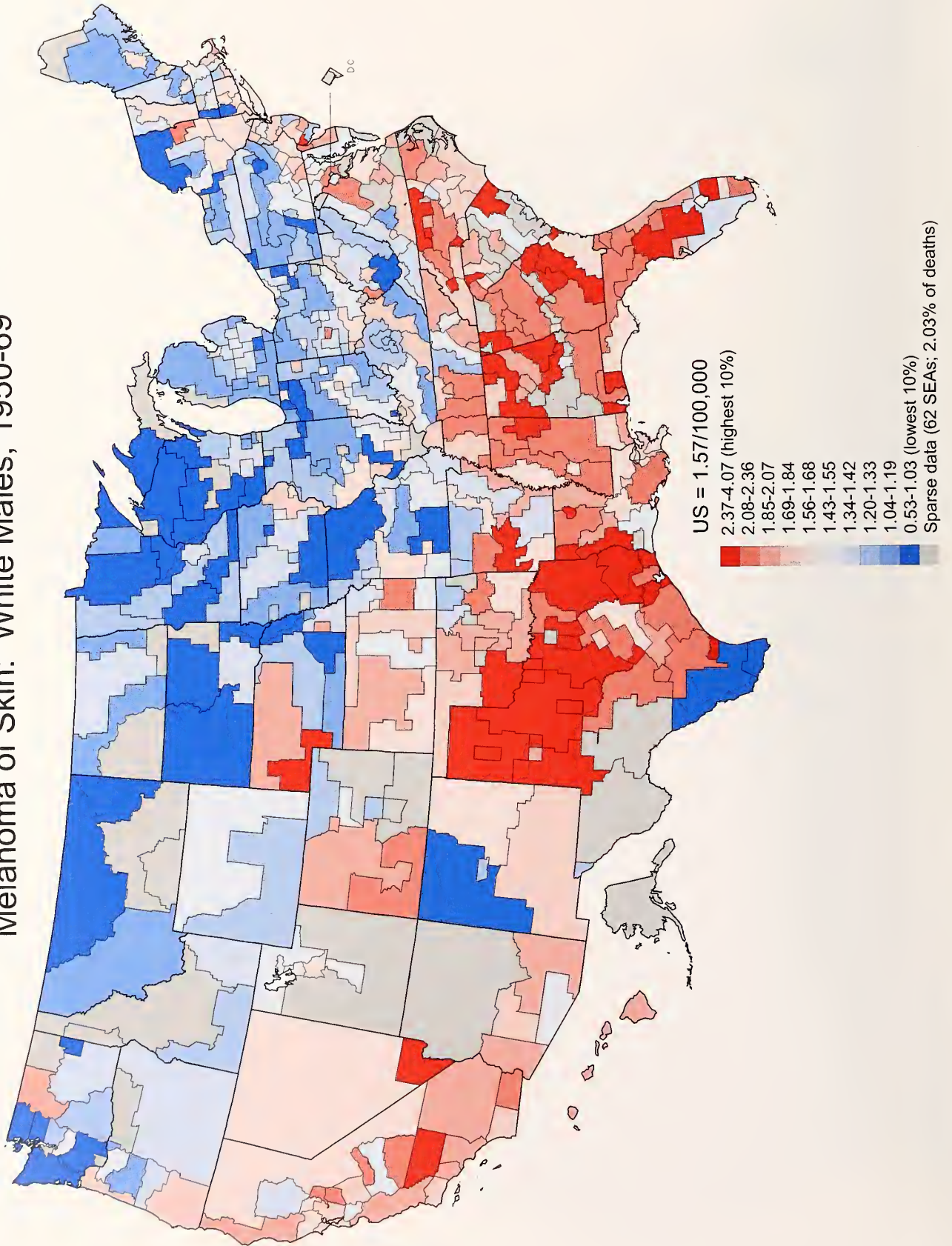
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Connective Tissue: Black Males, 1970-94



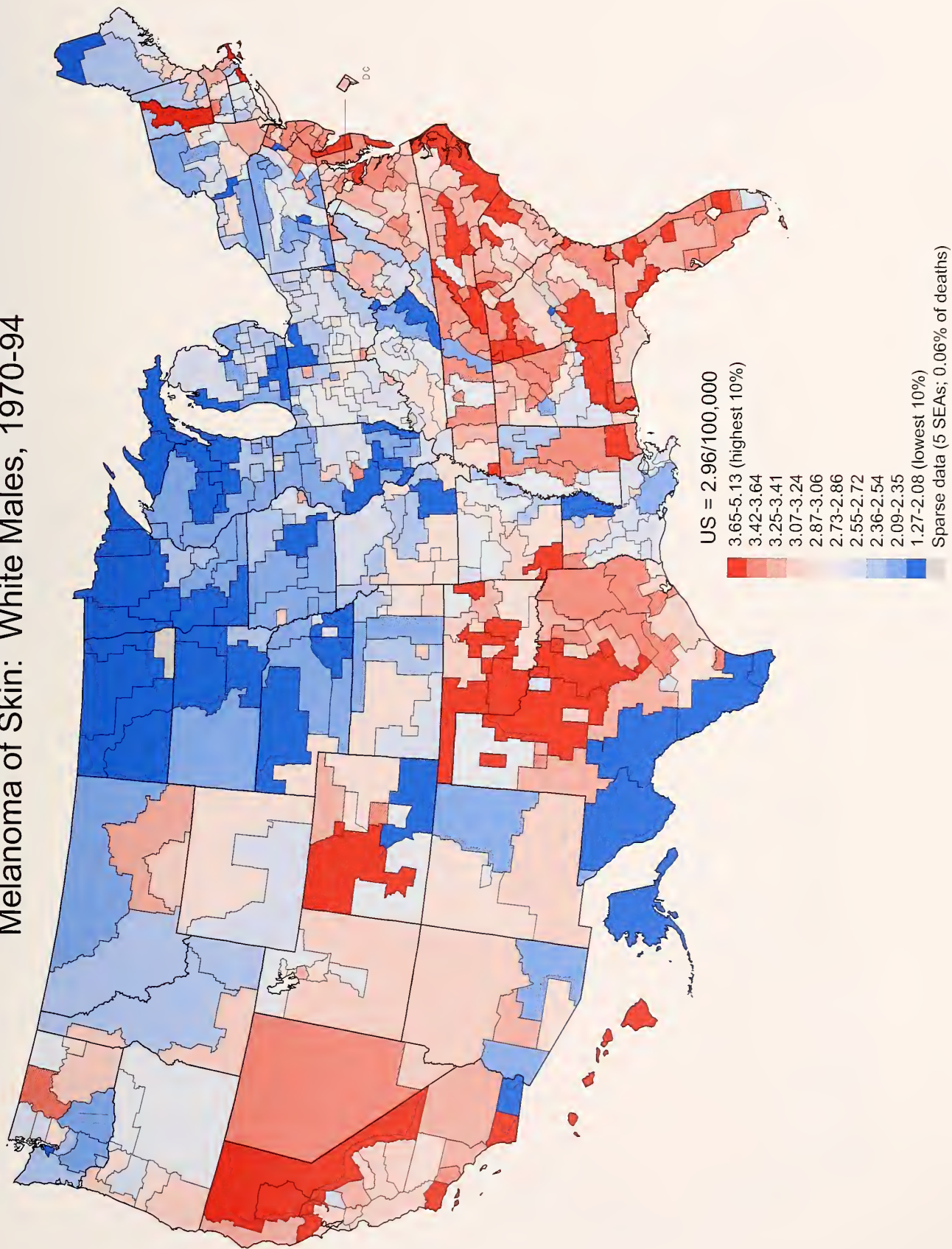
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Connective Tissue: Black Females, 1970-94



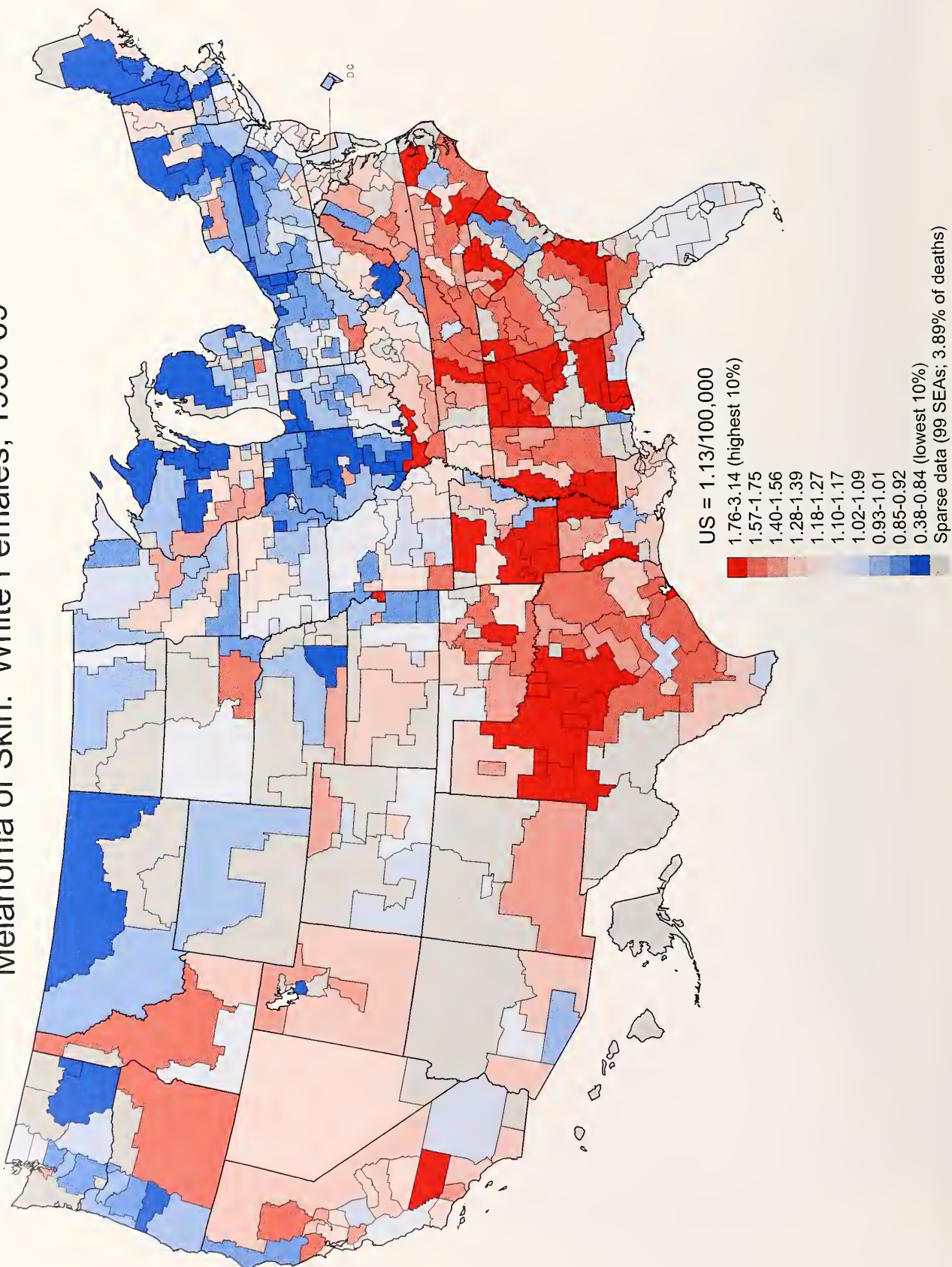
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Melanoma of Skin: White Males, 1950-69



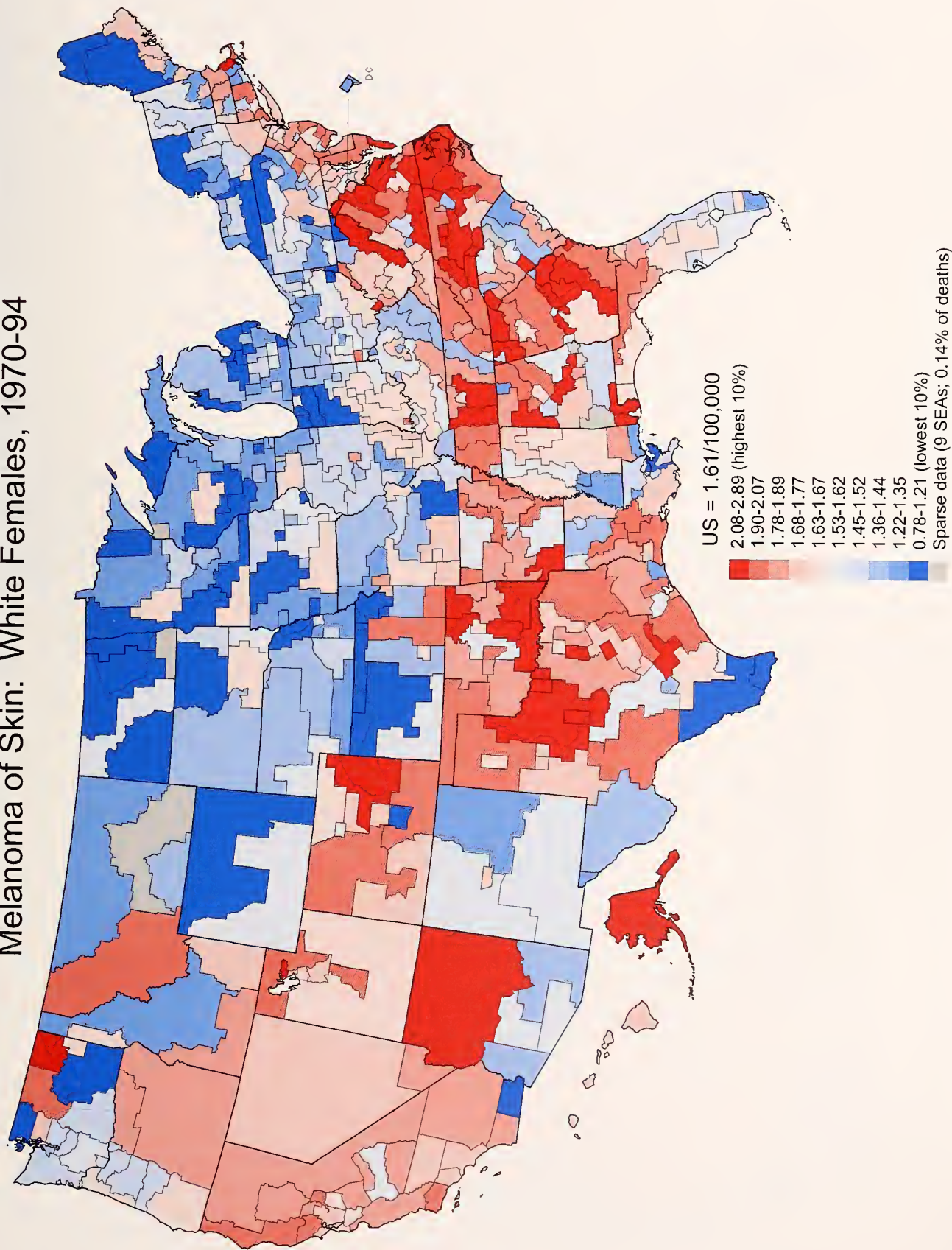
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Melanoma of Skin: White Males, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Melanoma of Skin: White Females, 1950-69

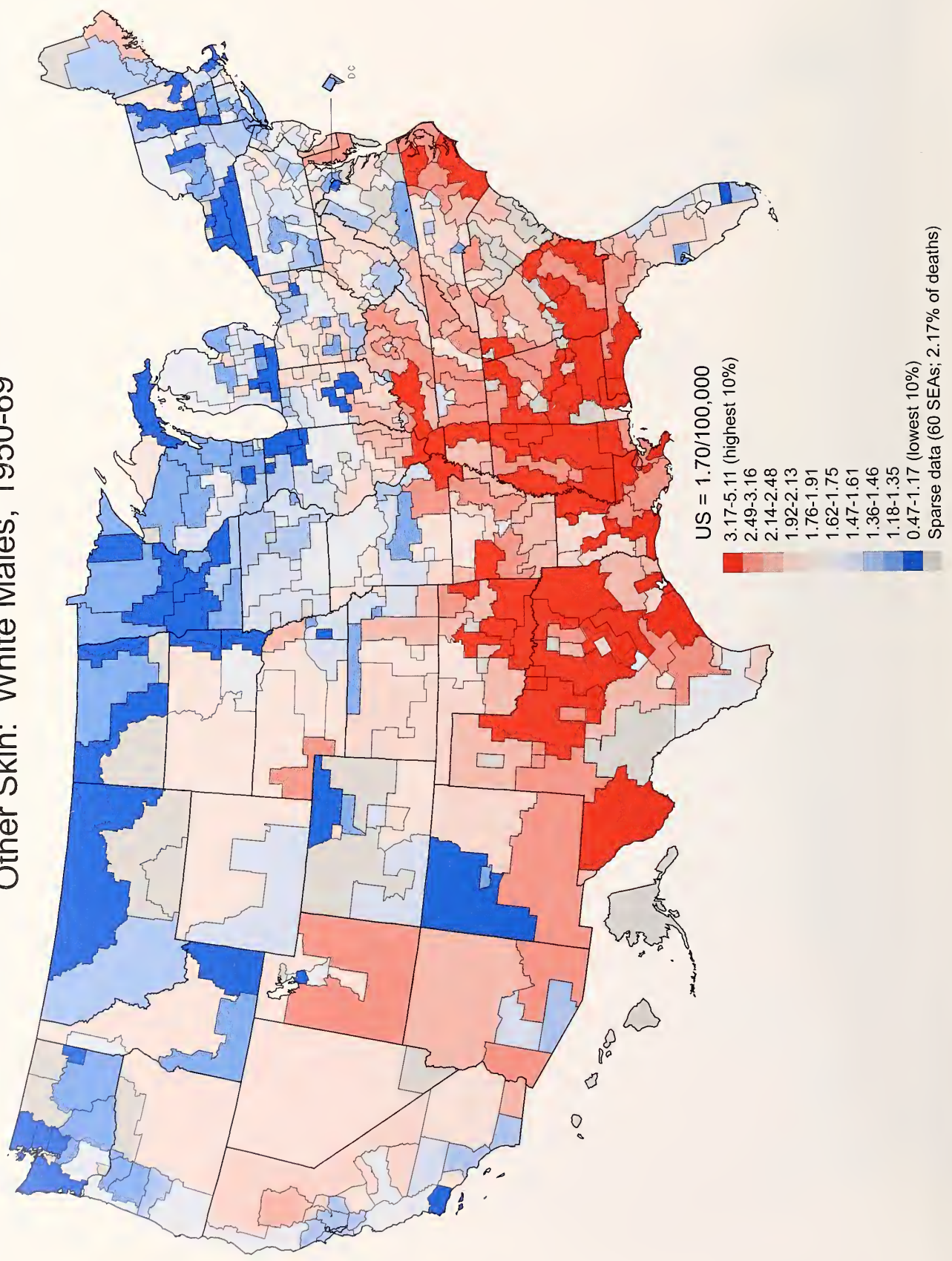


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Melanoma of Skin: White Females, 1970-94

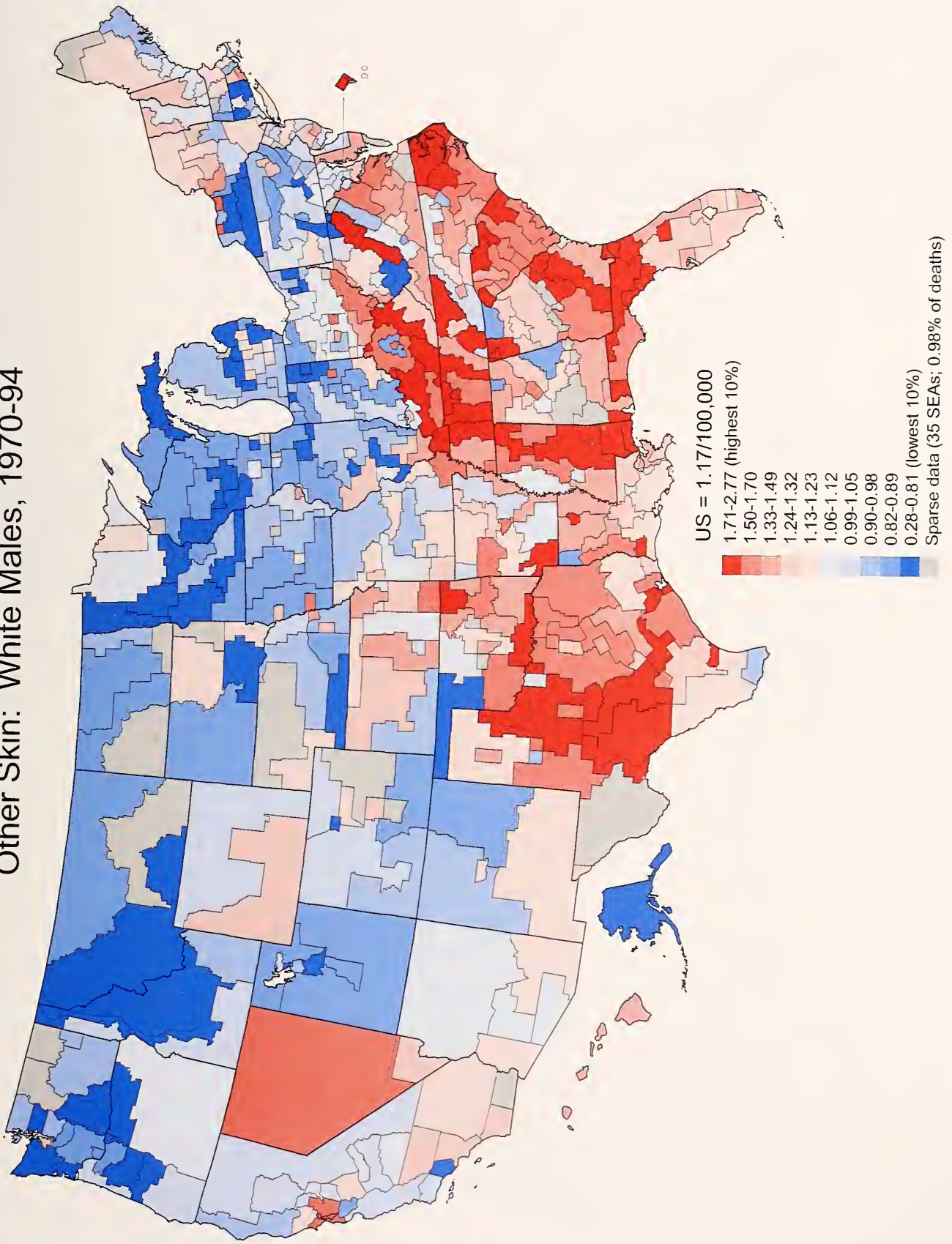


Other Skin

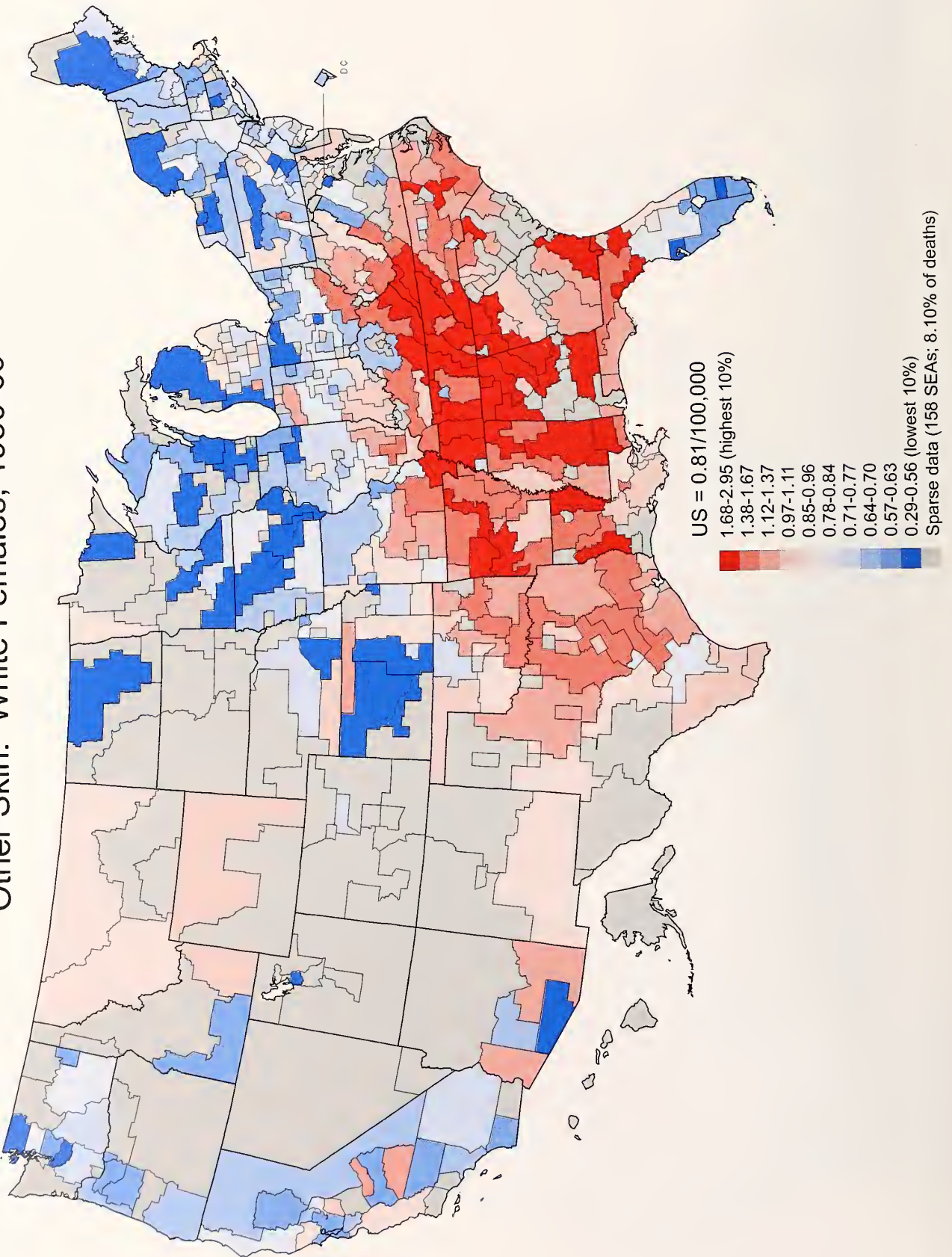
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Skin: White Males, 1950-69



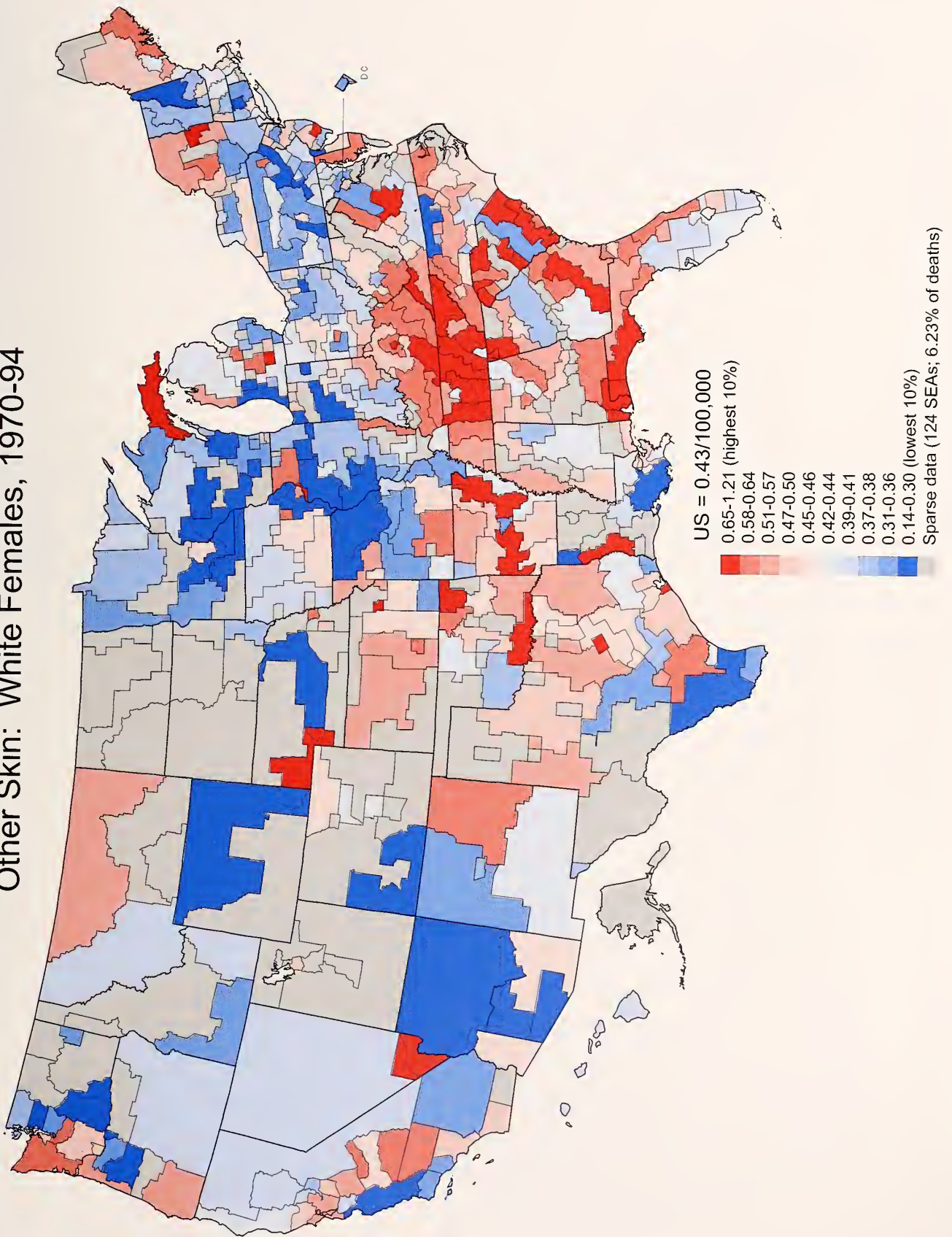
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Other Skin: White Males, 1970-94



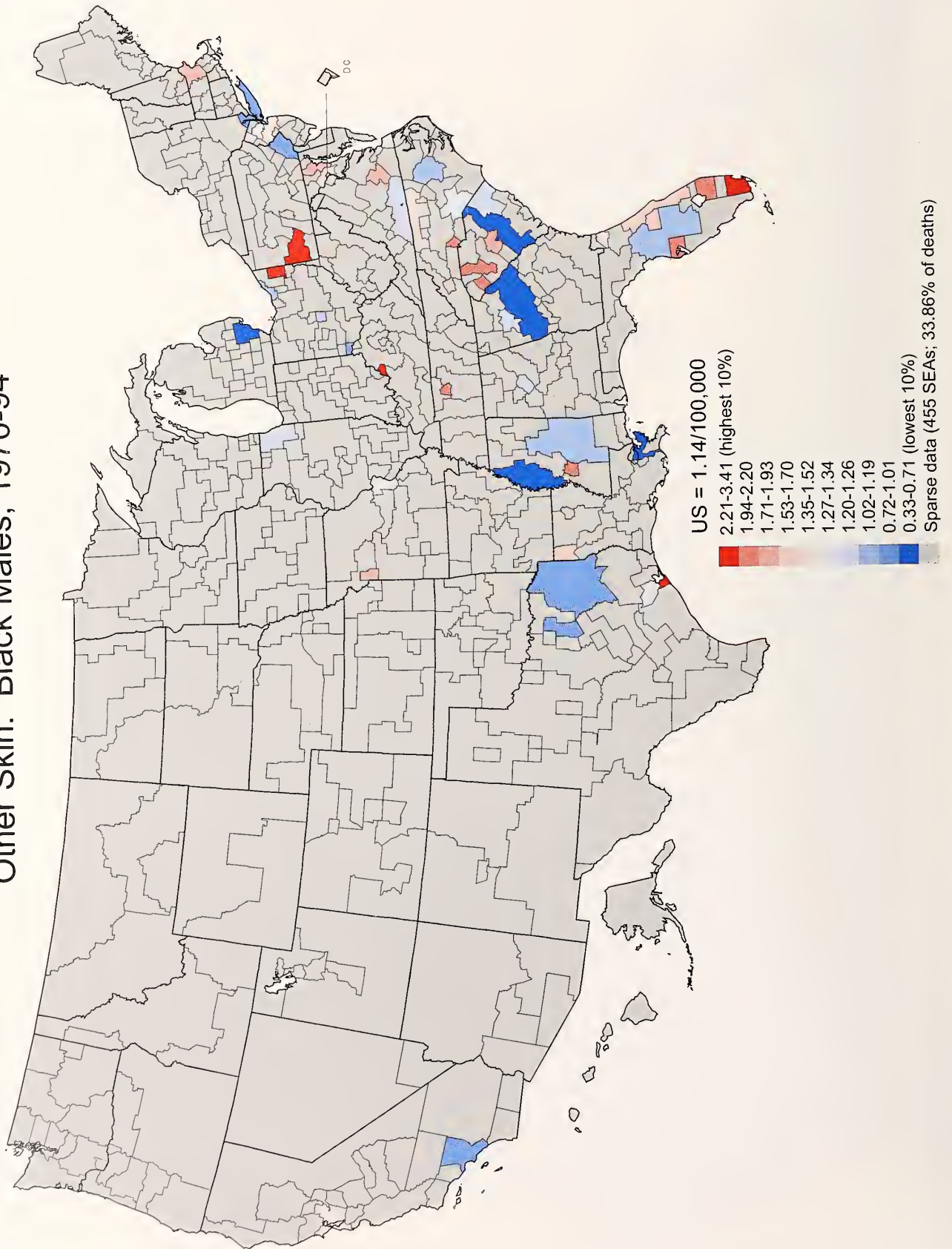
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Skin: White Females, 1950-69



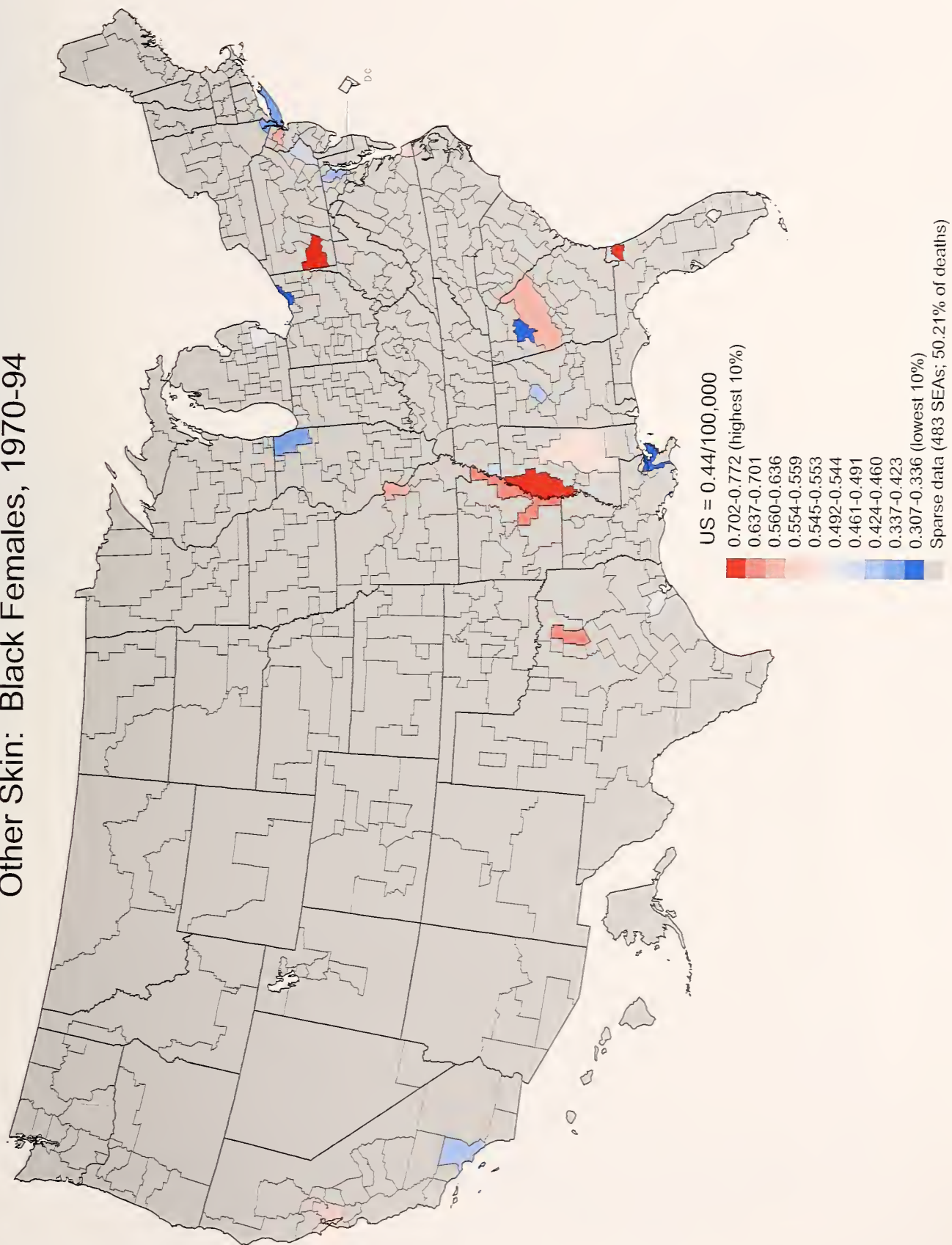
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Skin: White Females, 1970-94



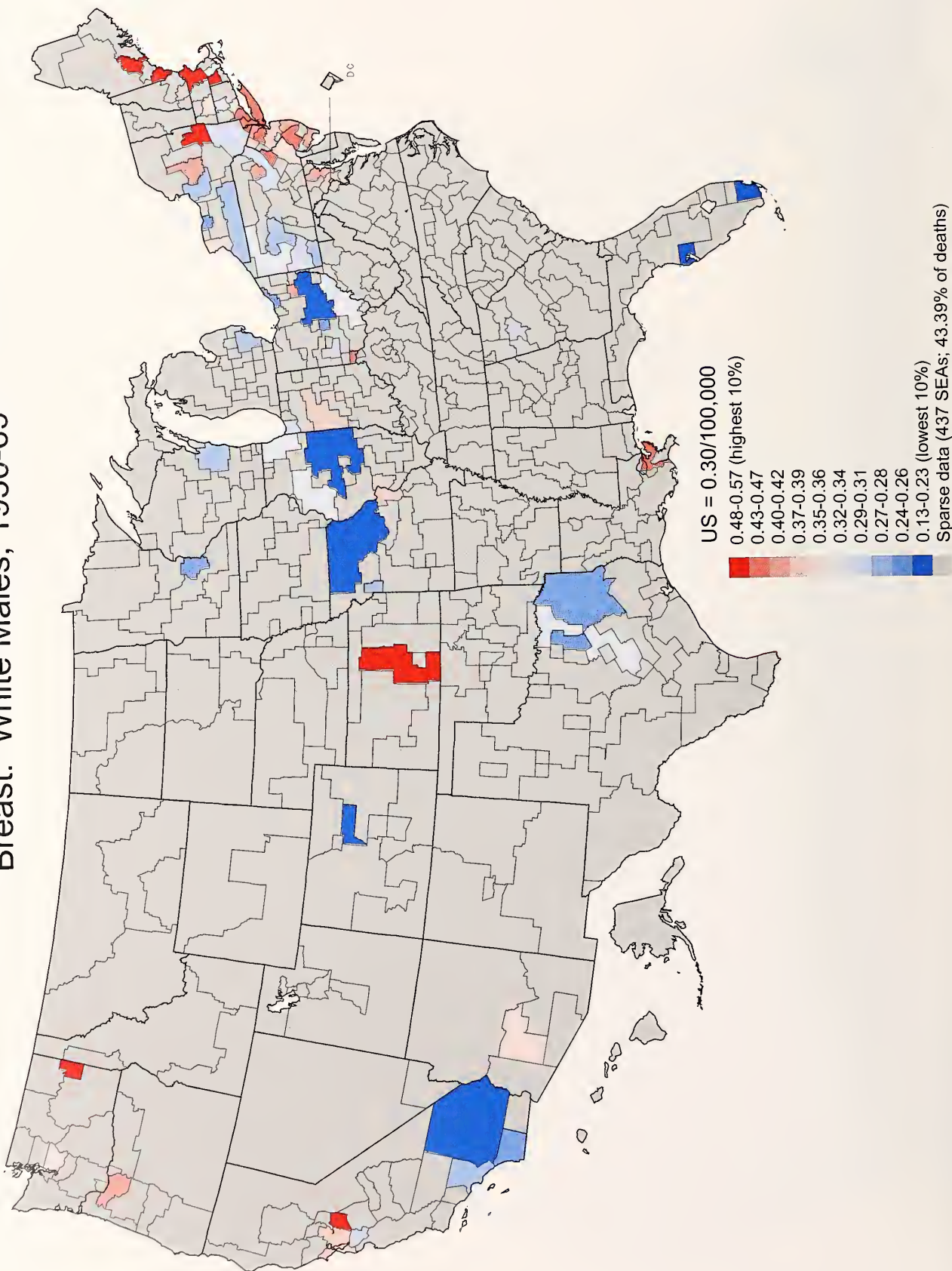
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Skin: Black Males, 1970-94



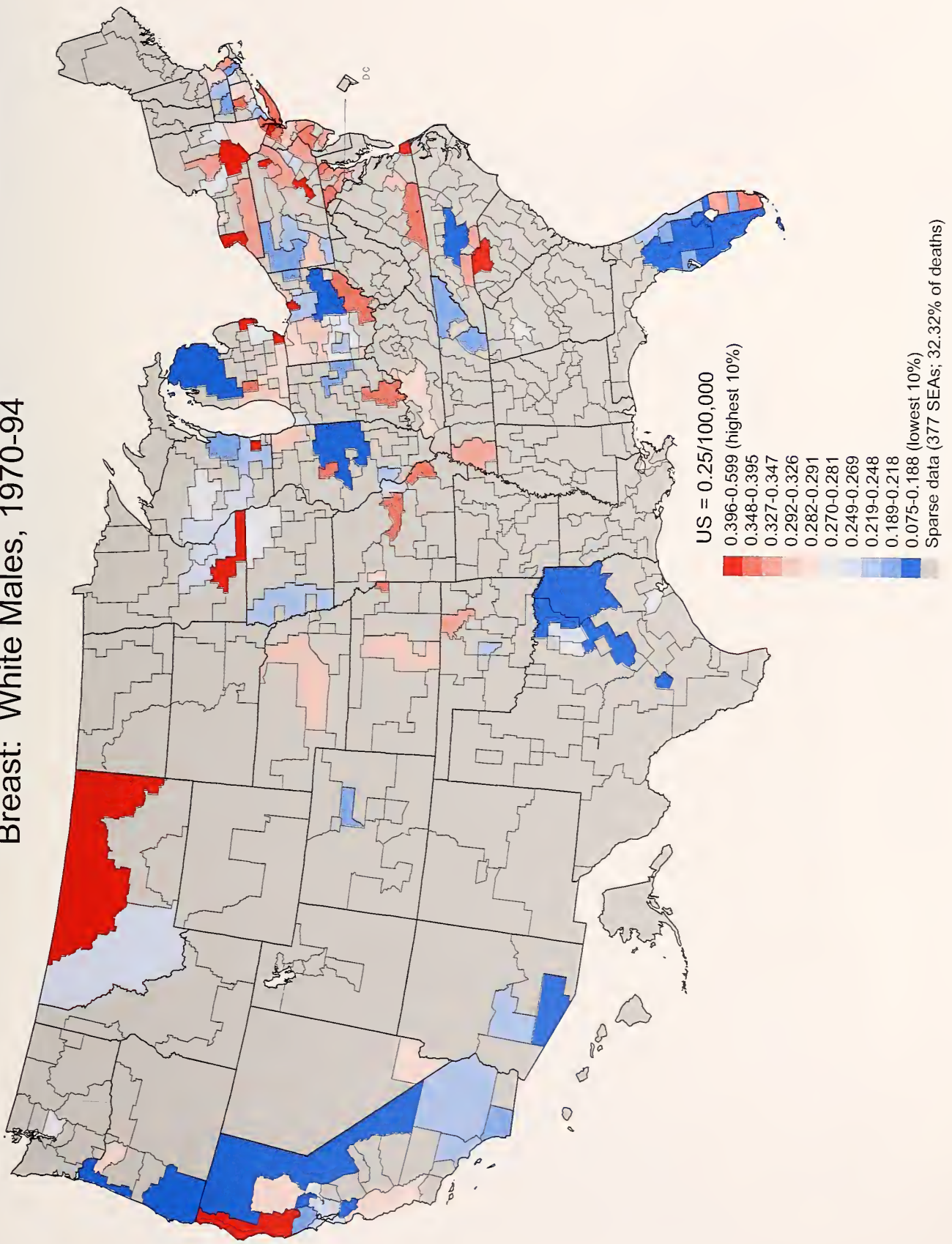
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Other Skin: Black Females, 1970-94



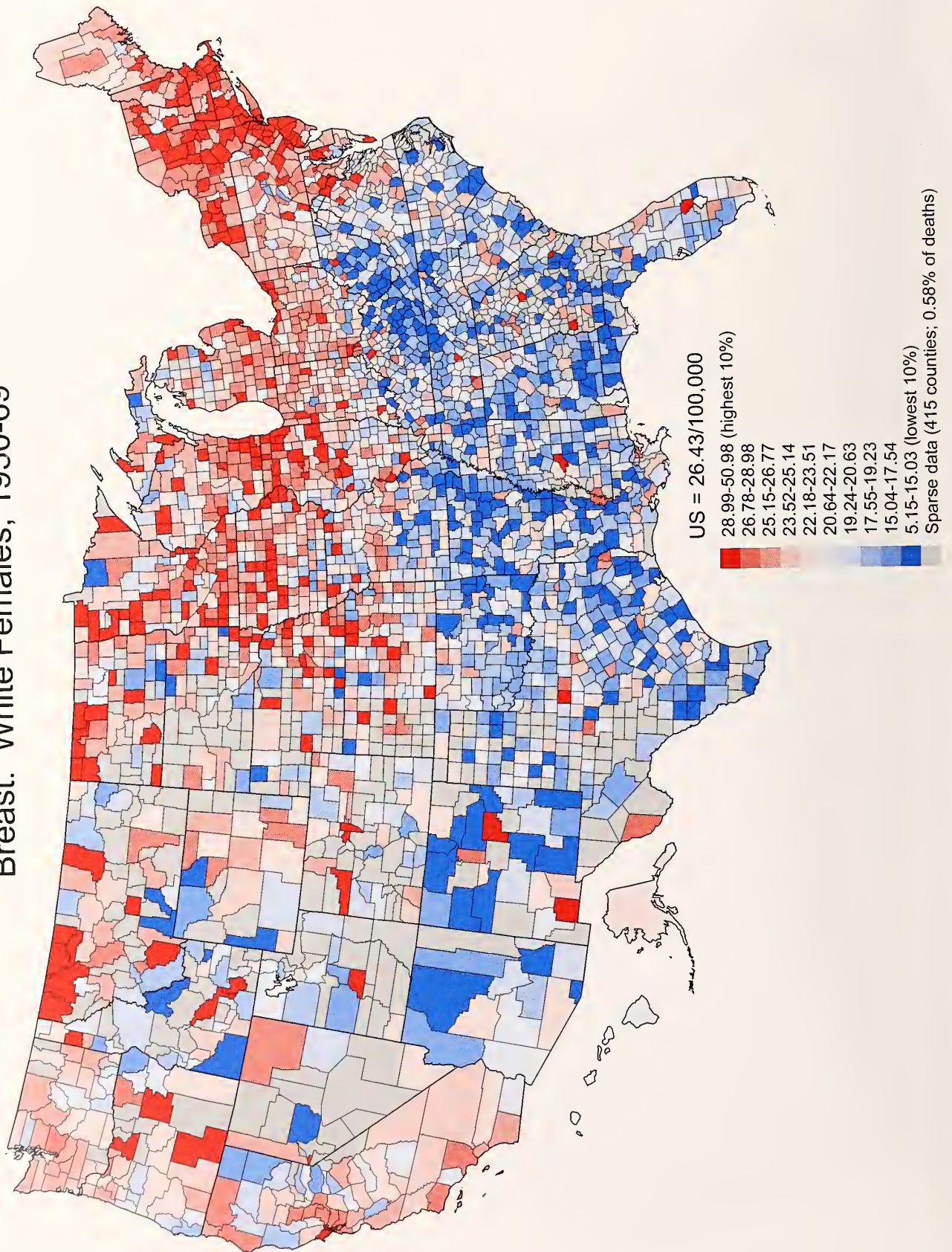
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Breast: White Males, 1950-69



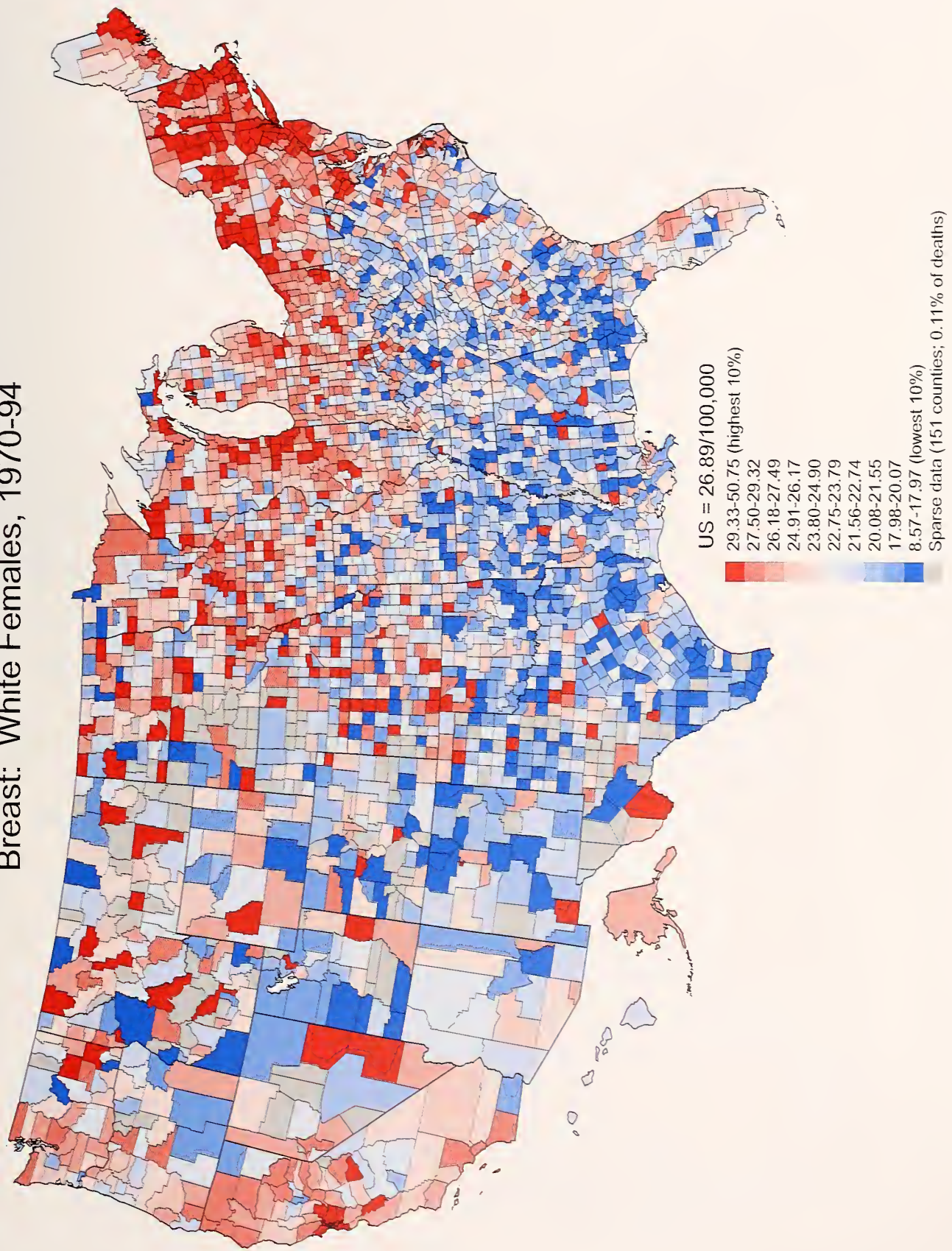
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Breast: White Males, 1970-94



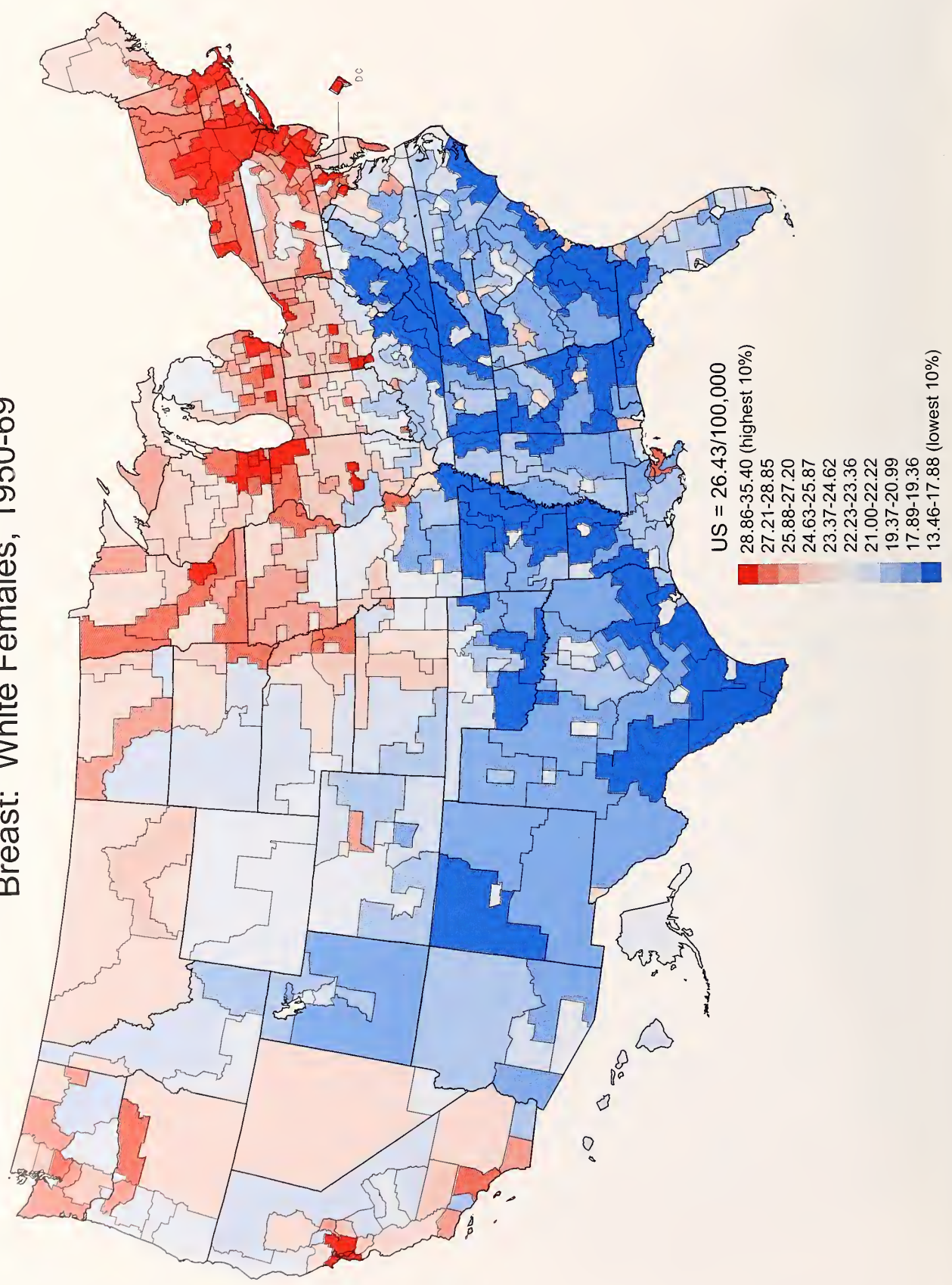
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
 Breast: White Females, 1950-69



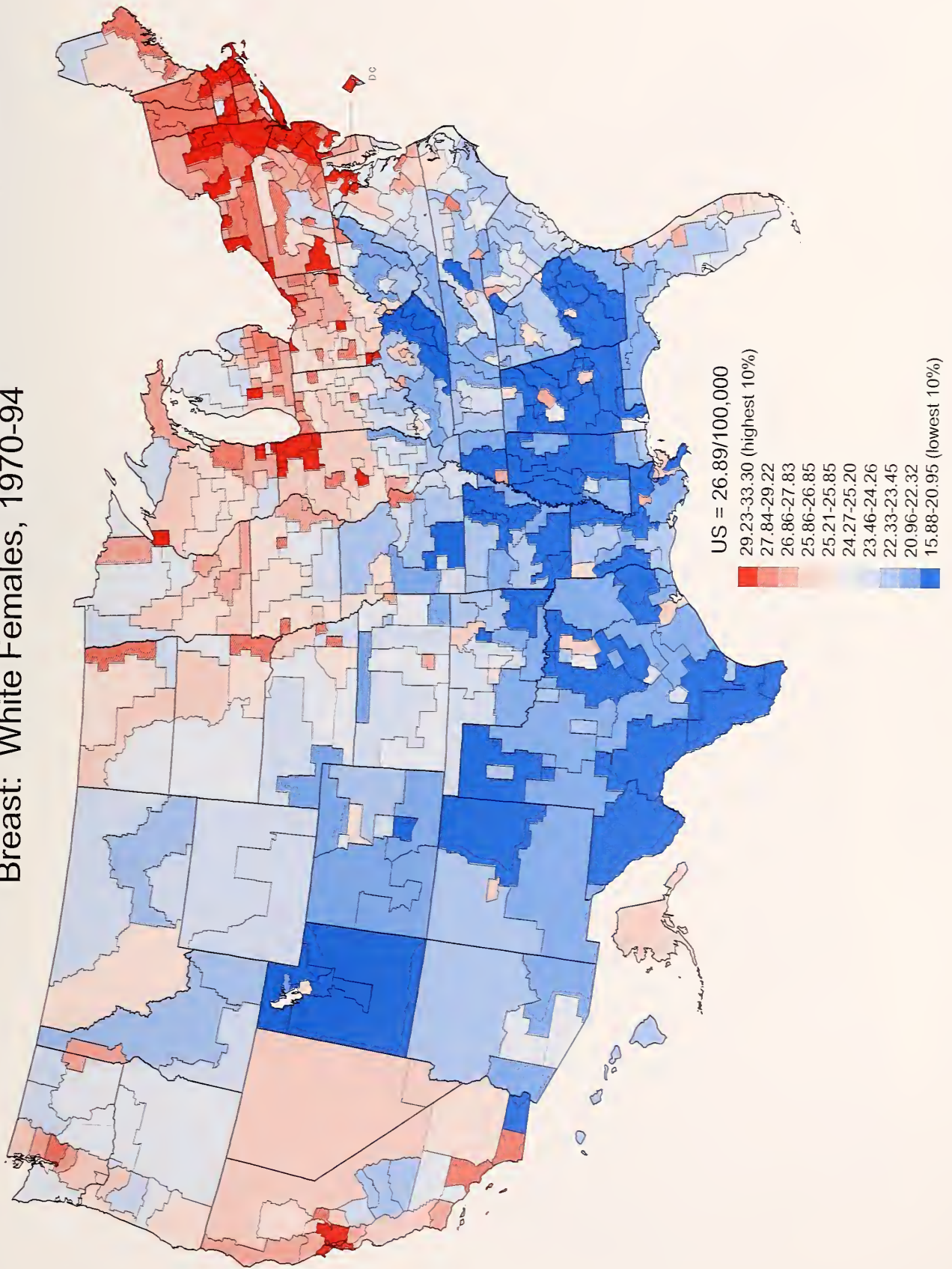
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Breast: White Females, 1970-94



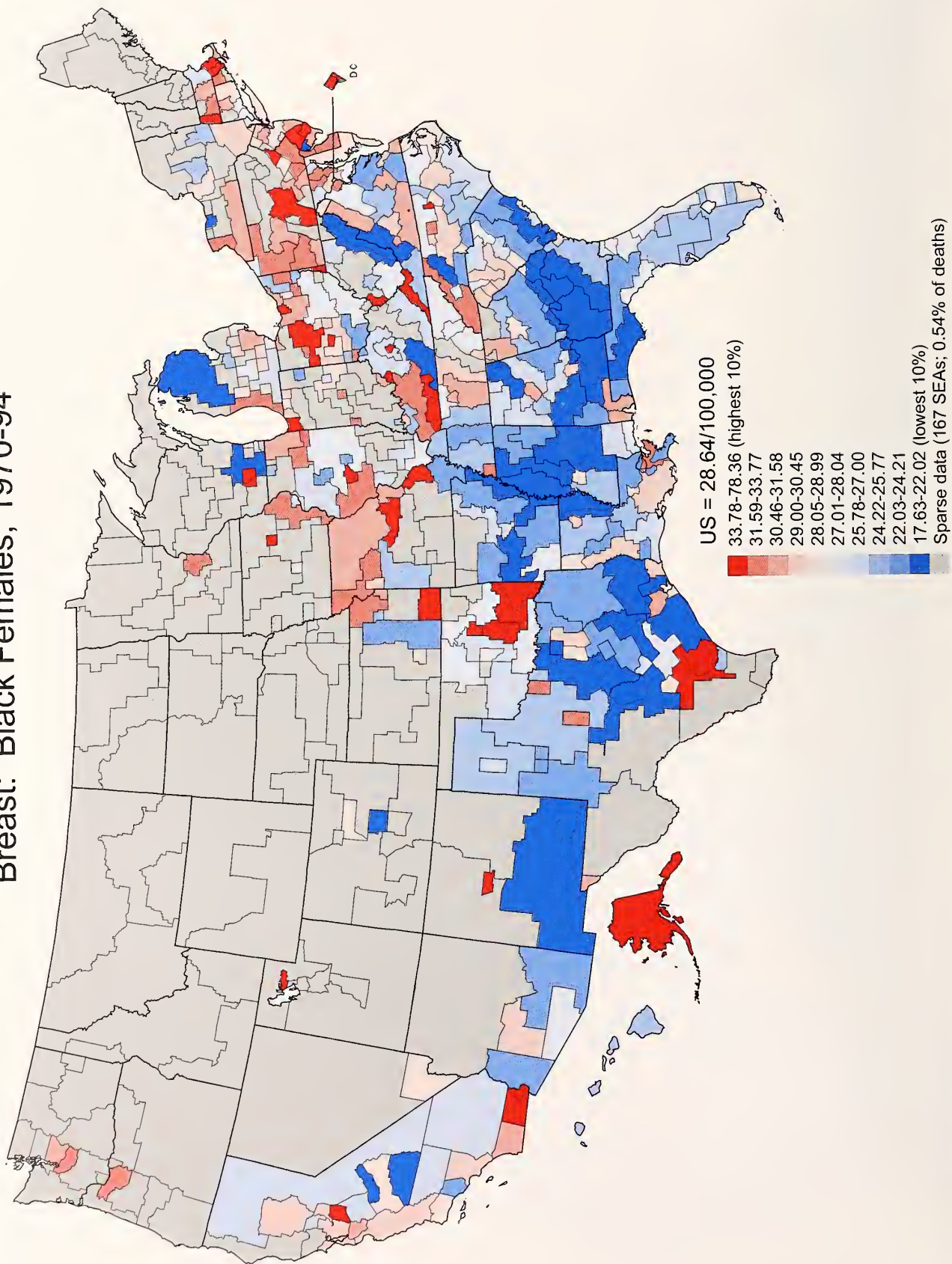
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Breast: White Females, 1950-69

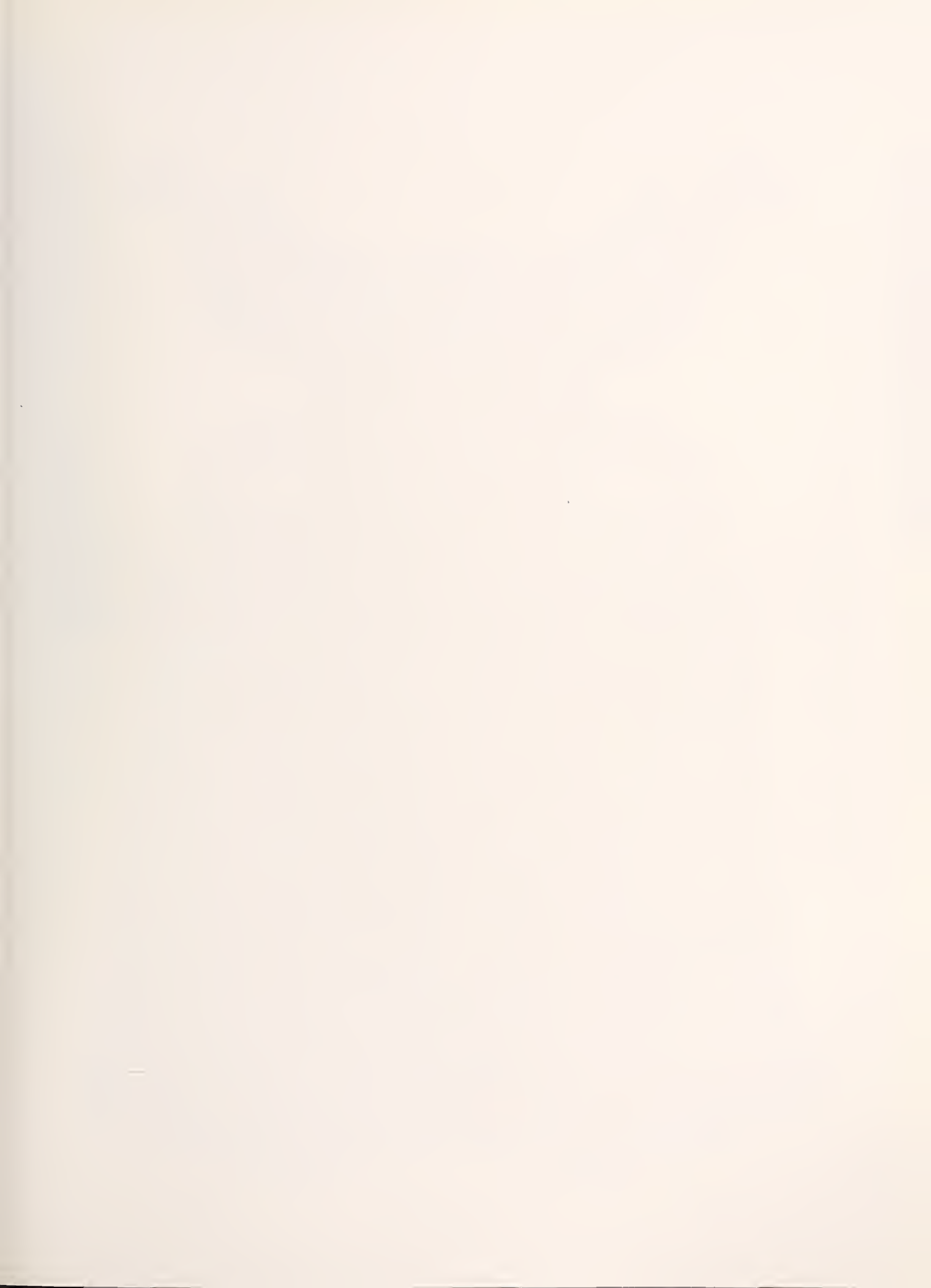


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Breast: White Females, 1970-94

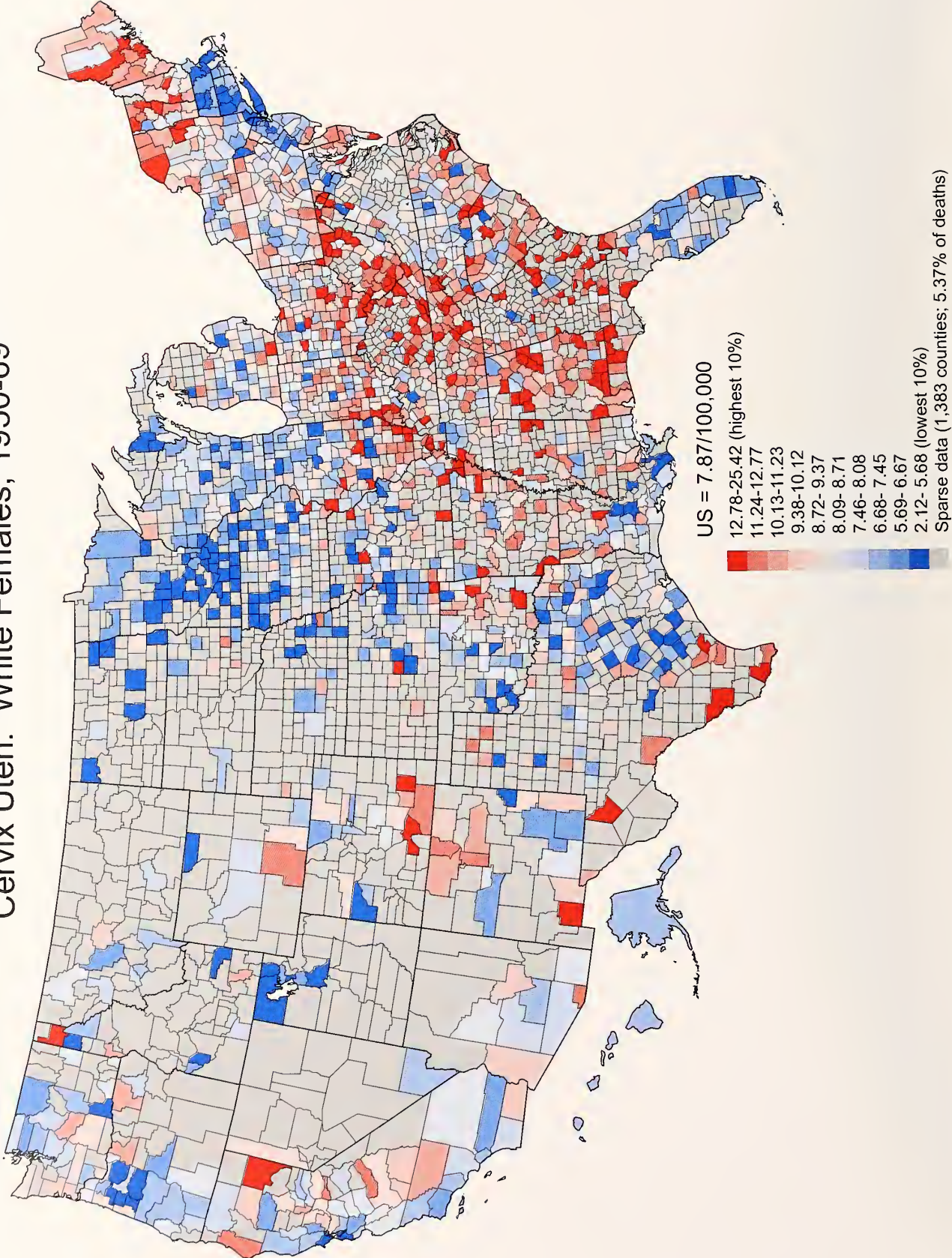


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Breast: Black Females, 1970-94

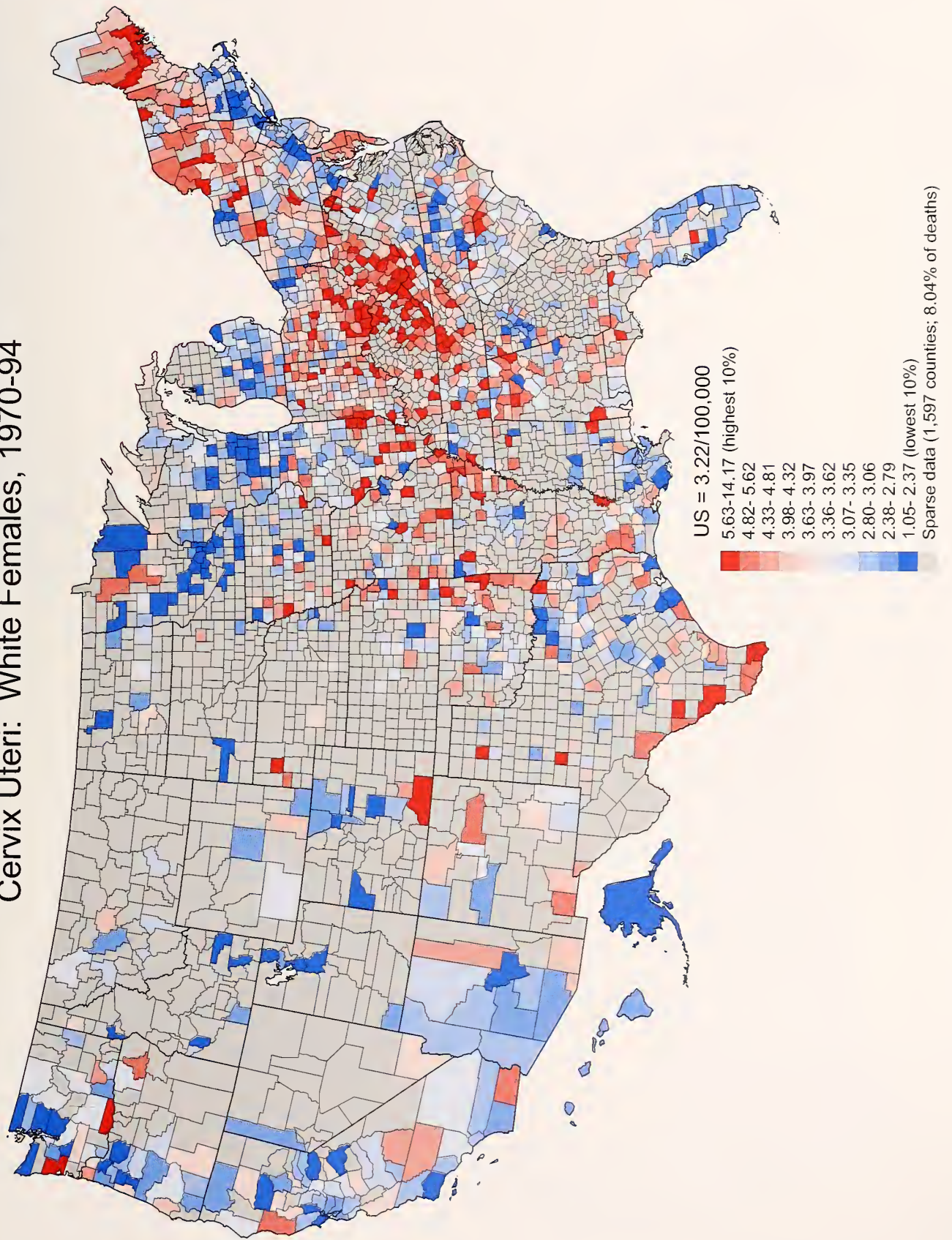




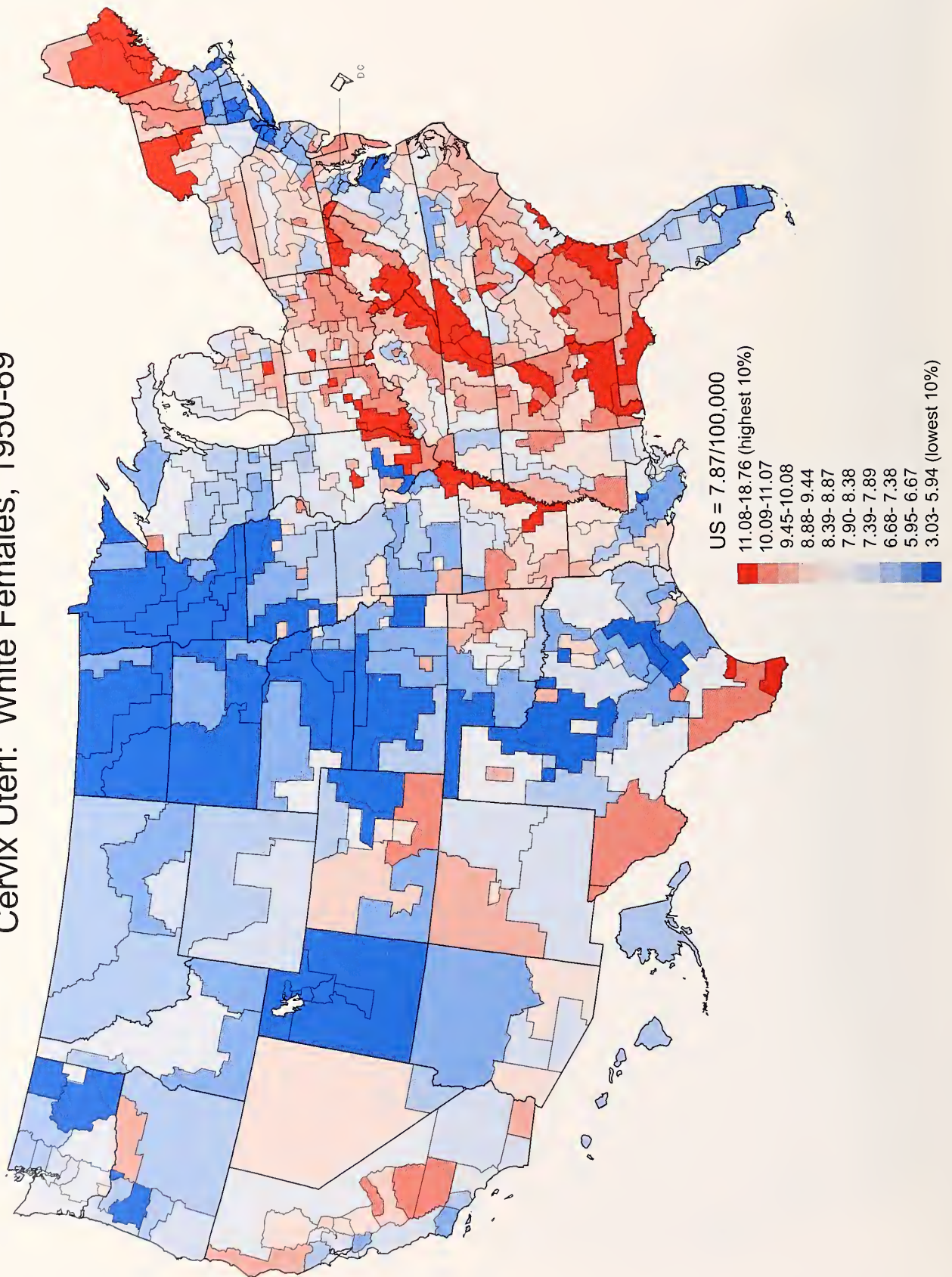
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Cervix Uteri: White Females, 1950-69



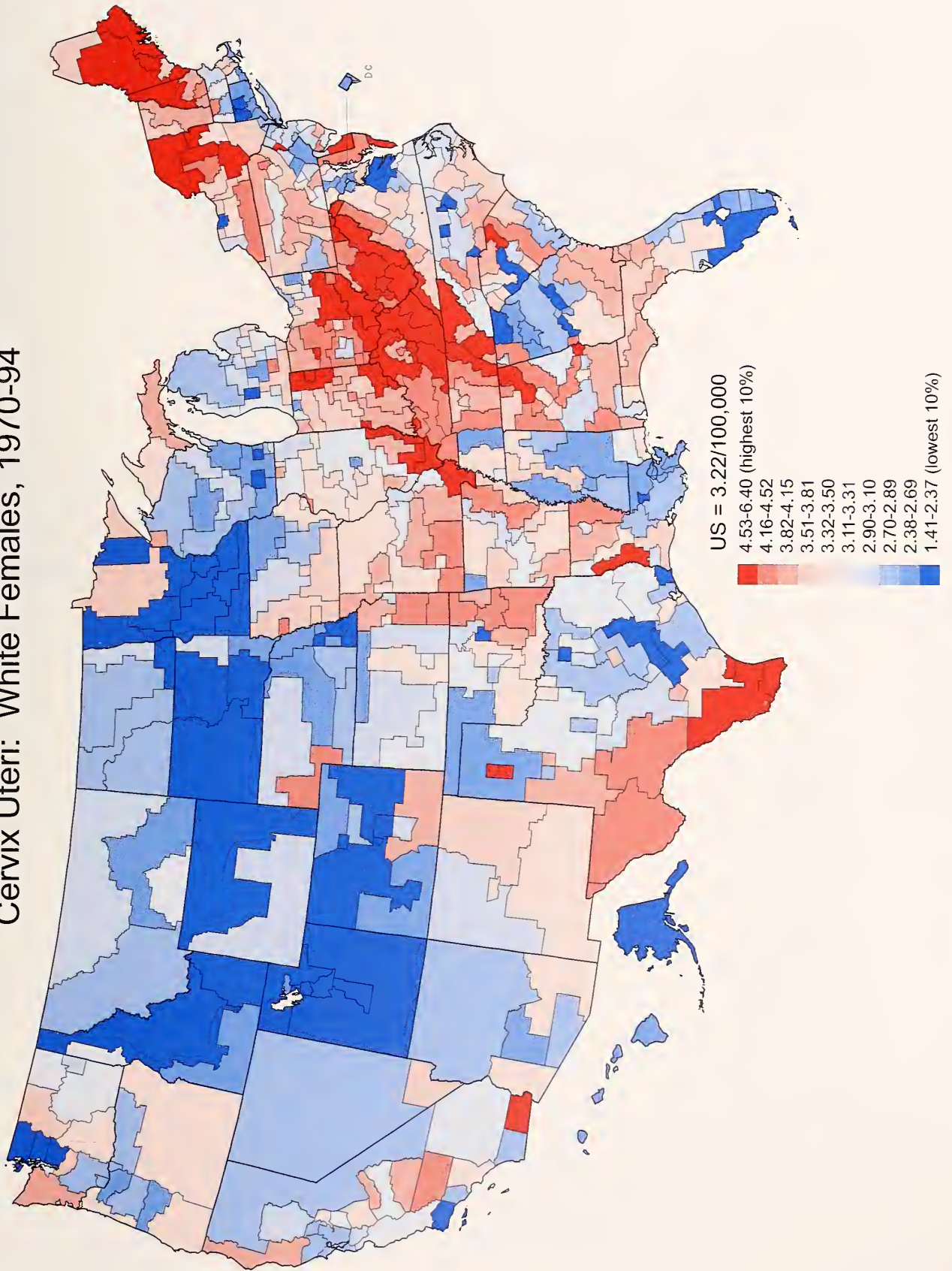
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Cervix Uteri: White Females, 1970-94



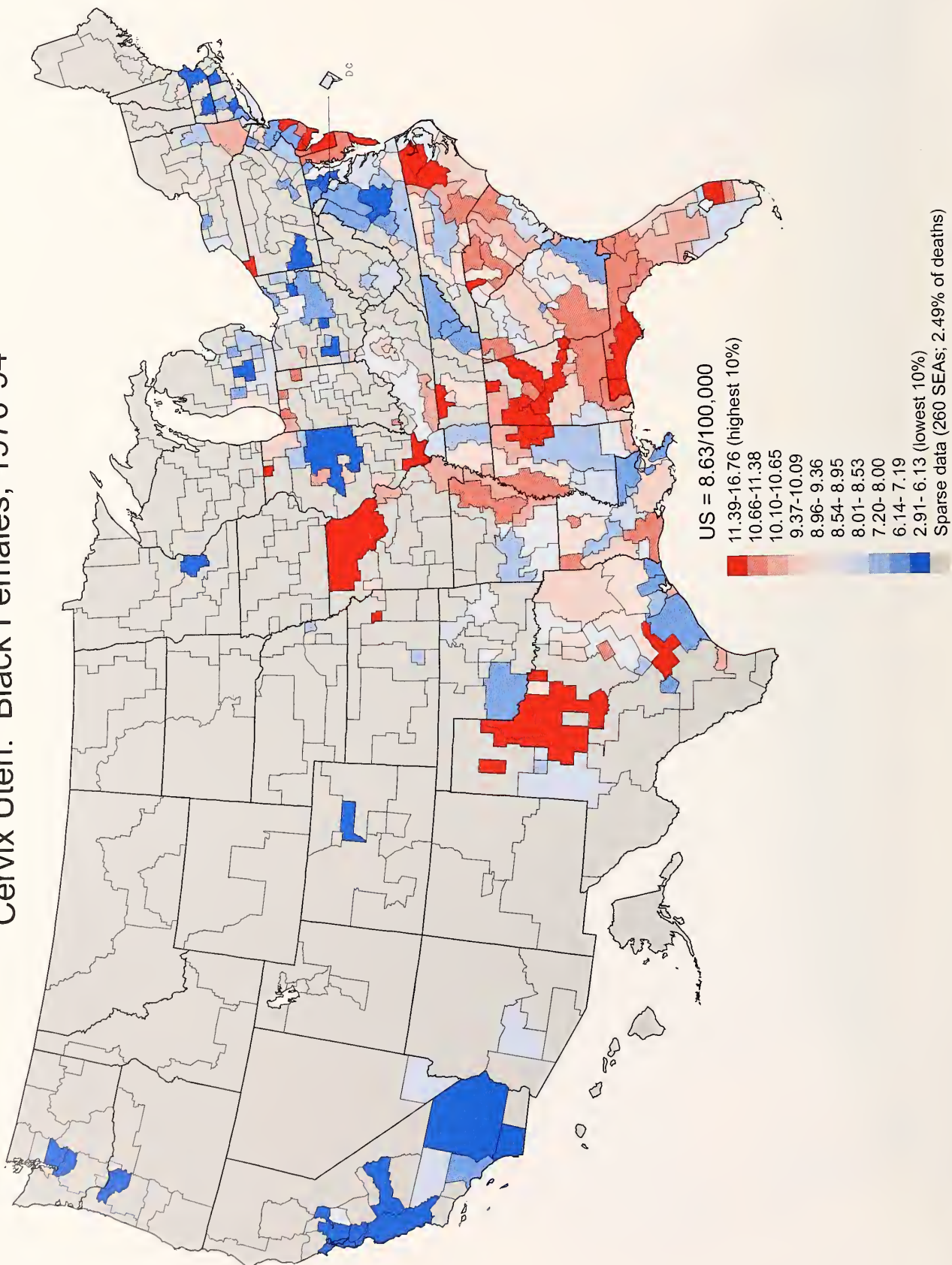
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Cervix Uteri: White Females, 1950-69



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Cervix Uteri: White Females, 1970-94

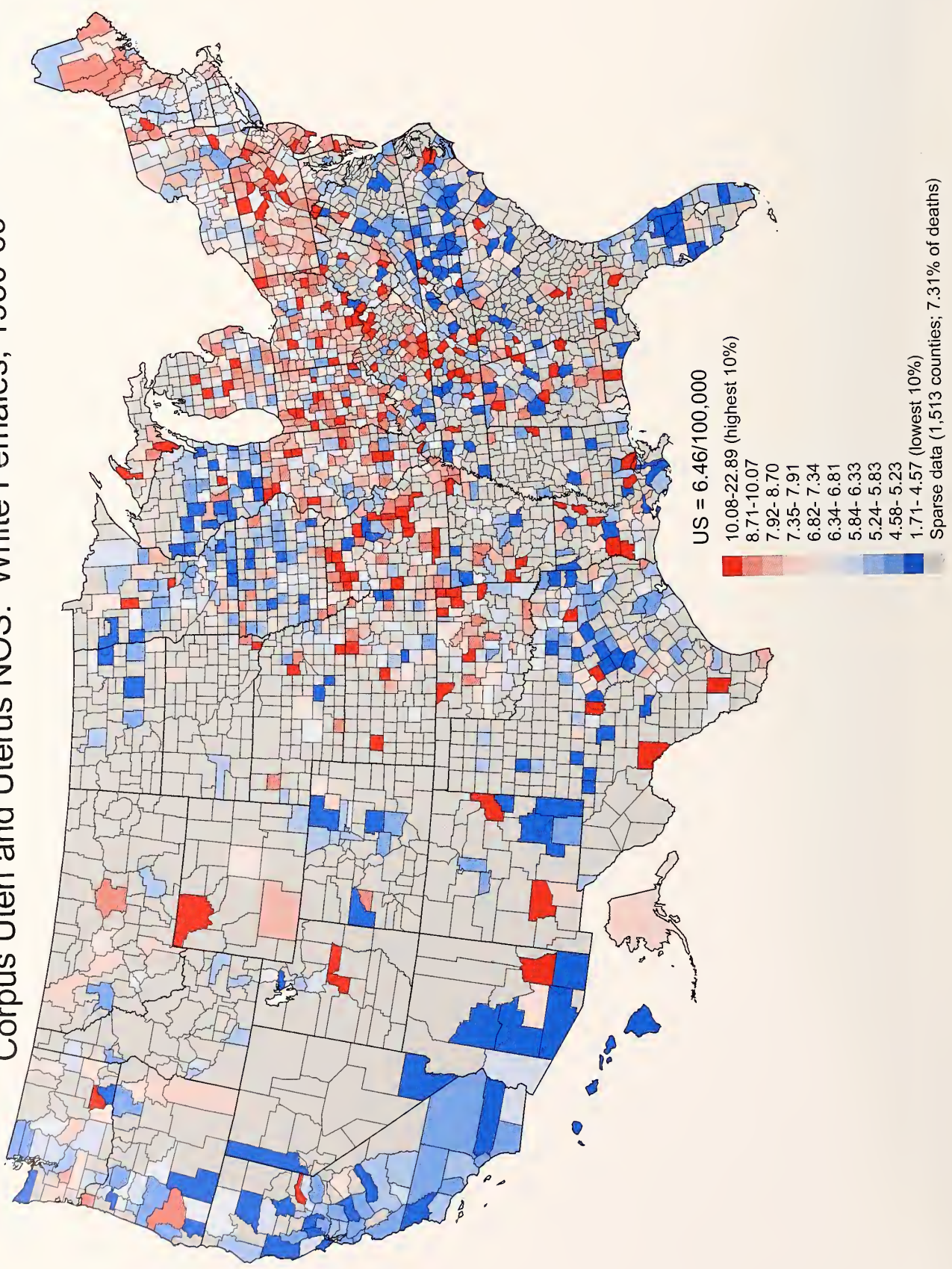


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Cervix Uteri: Black Females, 1970-94

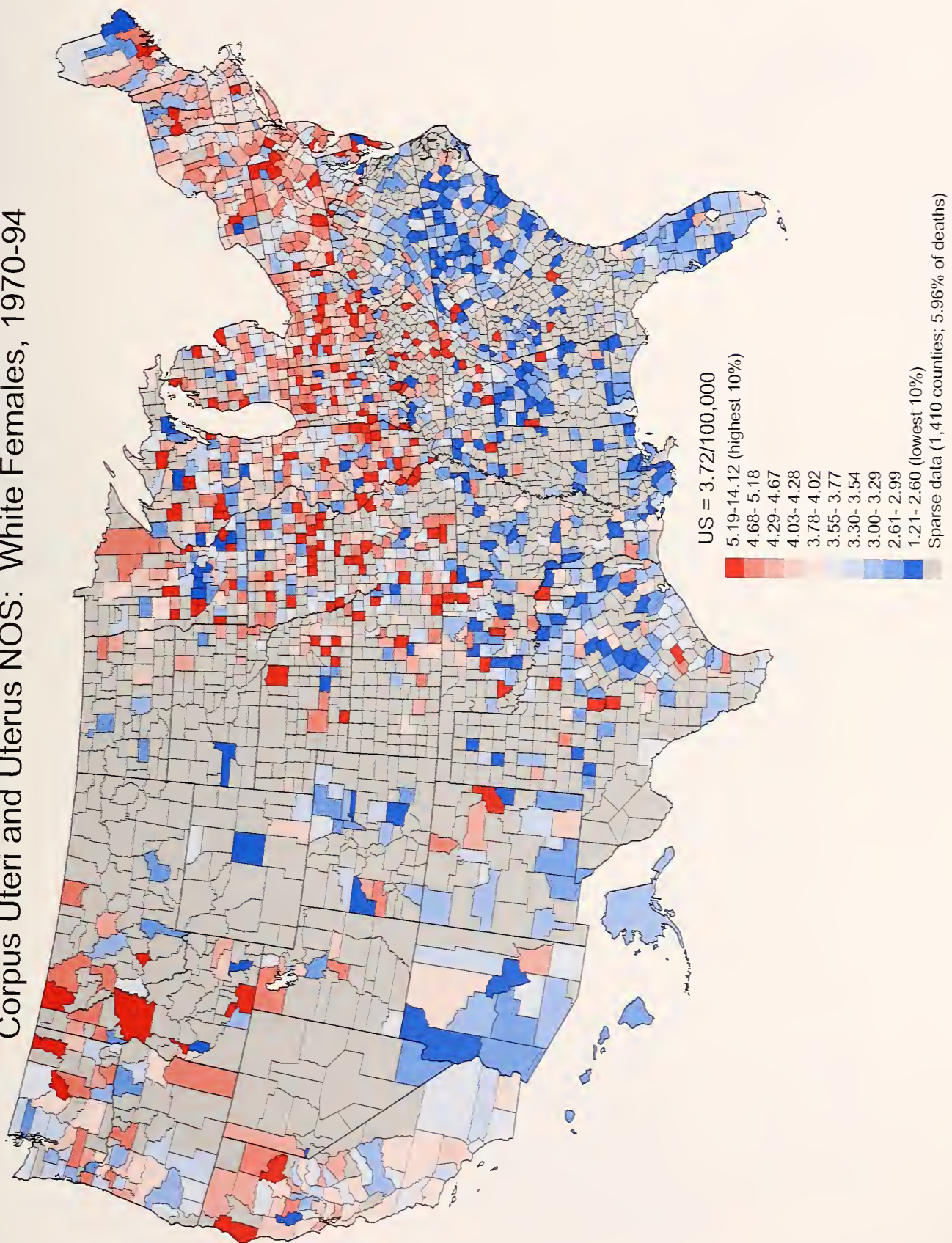




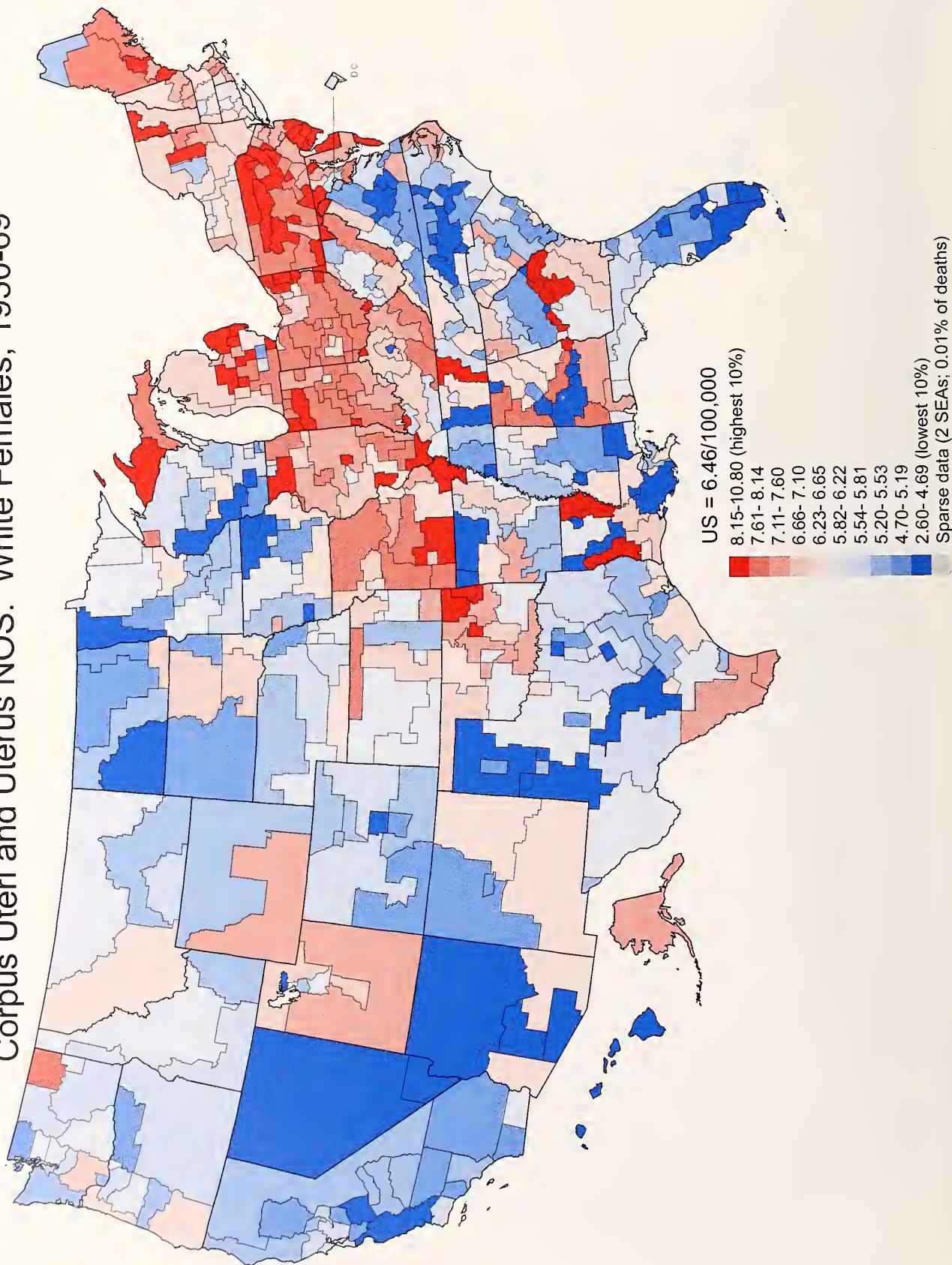
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Corpus Uteri and Uterus NOS: White Females, 1950-69



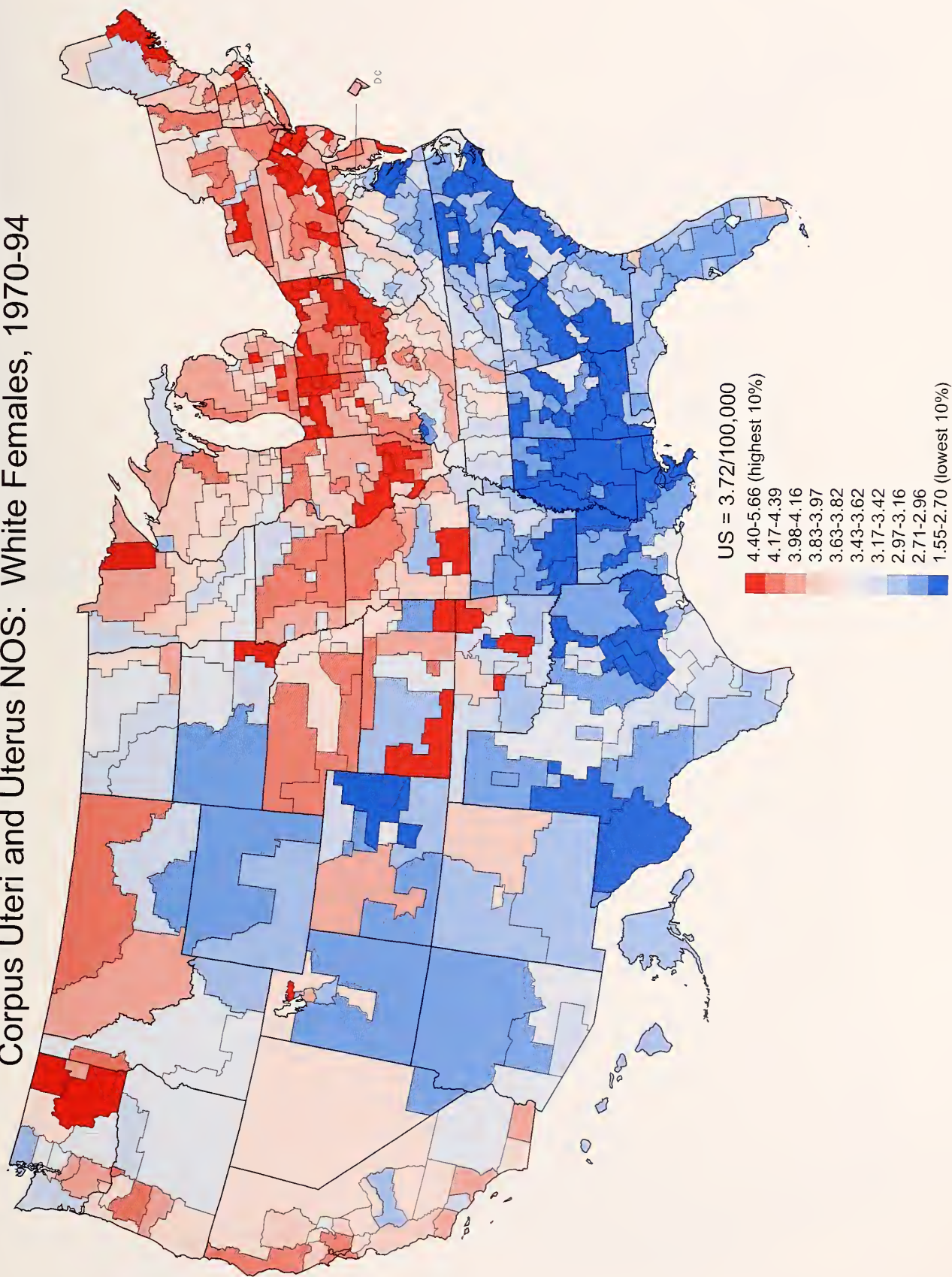
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Corpus Uteri and Uterus NOS: White Females, 1970-94



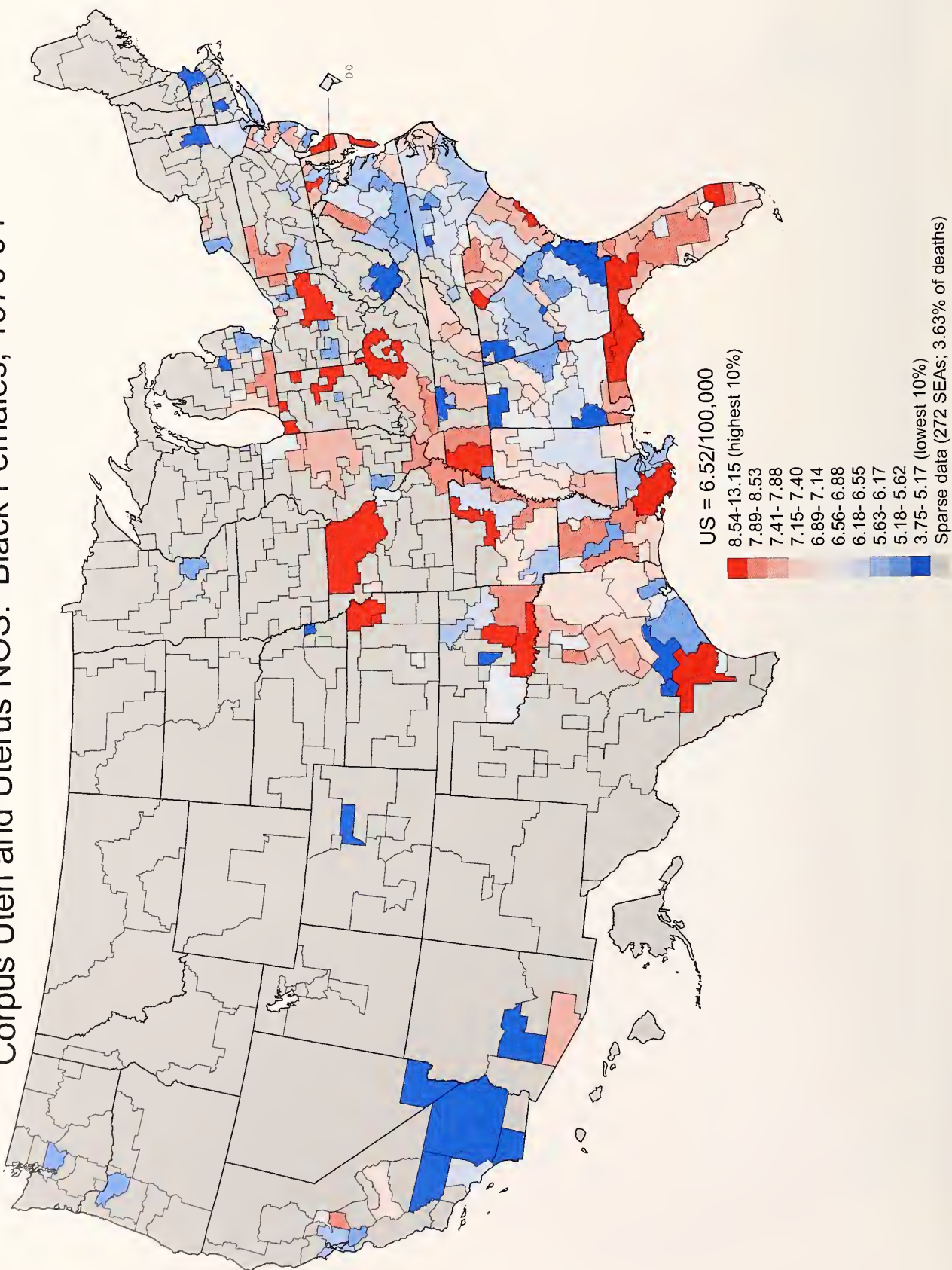
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Corpus Uteri and Uterus NOS: White Females, 1950-69



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Corpus Uteri and Uterus NOS: White Females, 1970-94

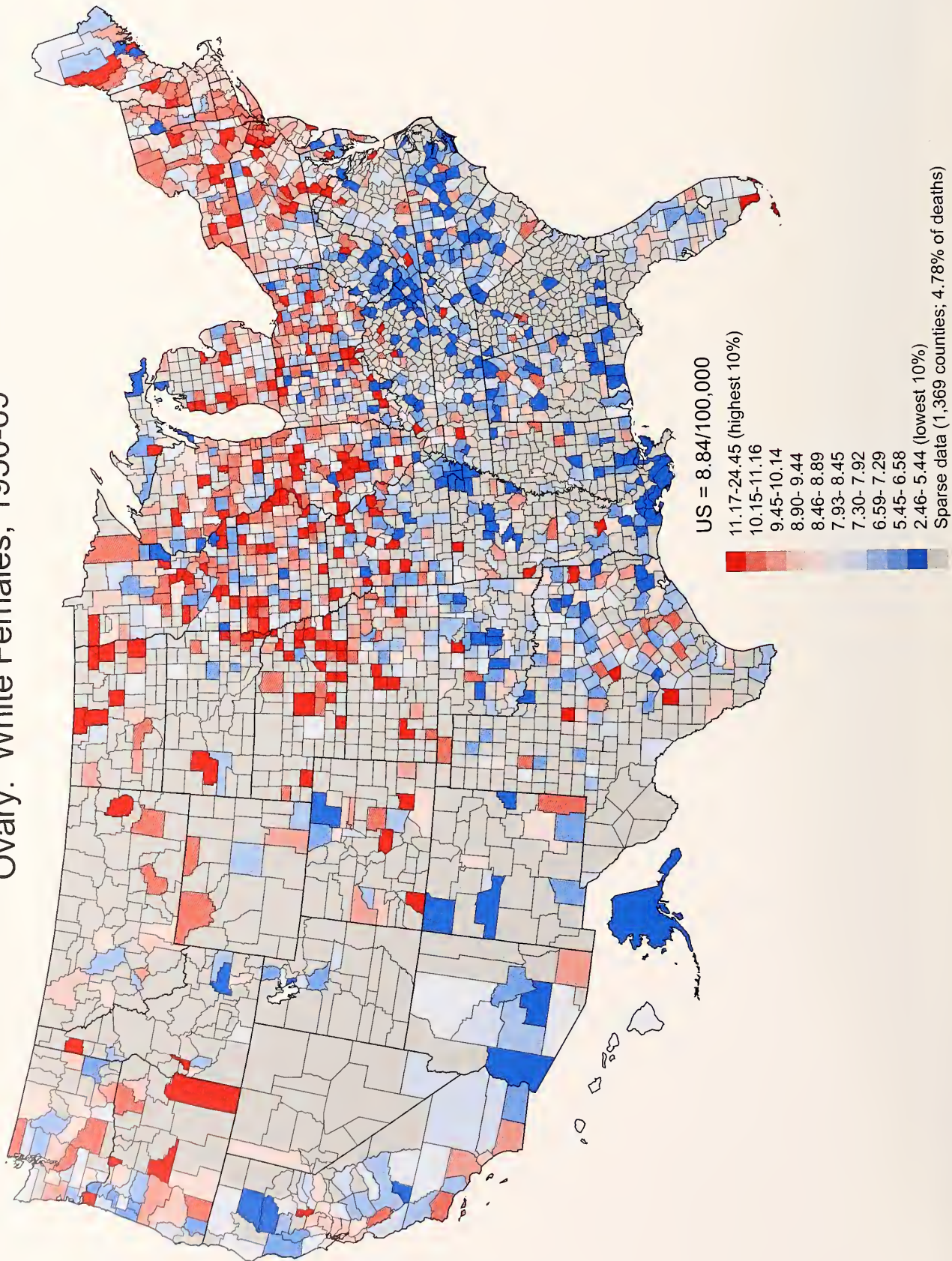


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Corpus Uteri and Uterus NOS: Black Females, 1970-94

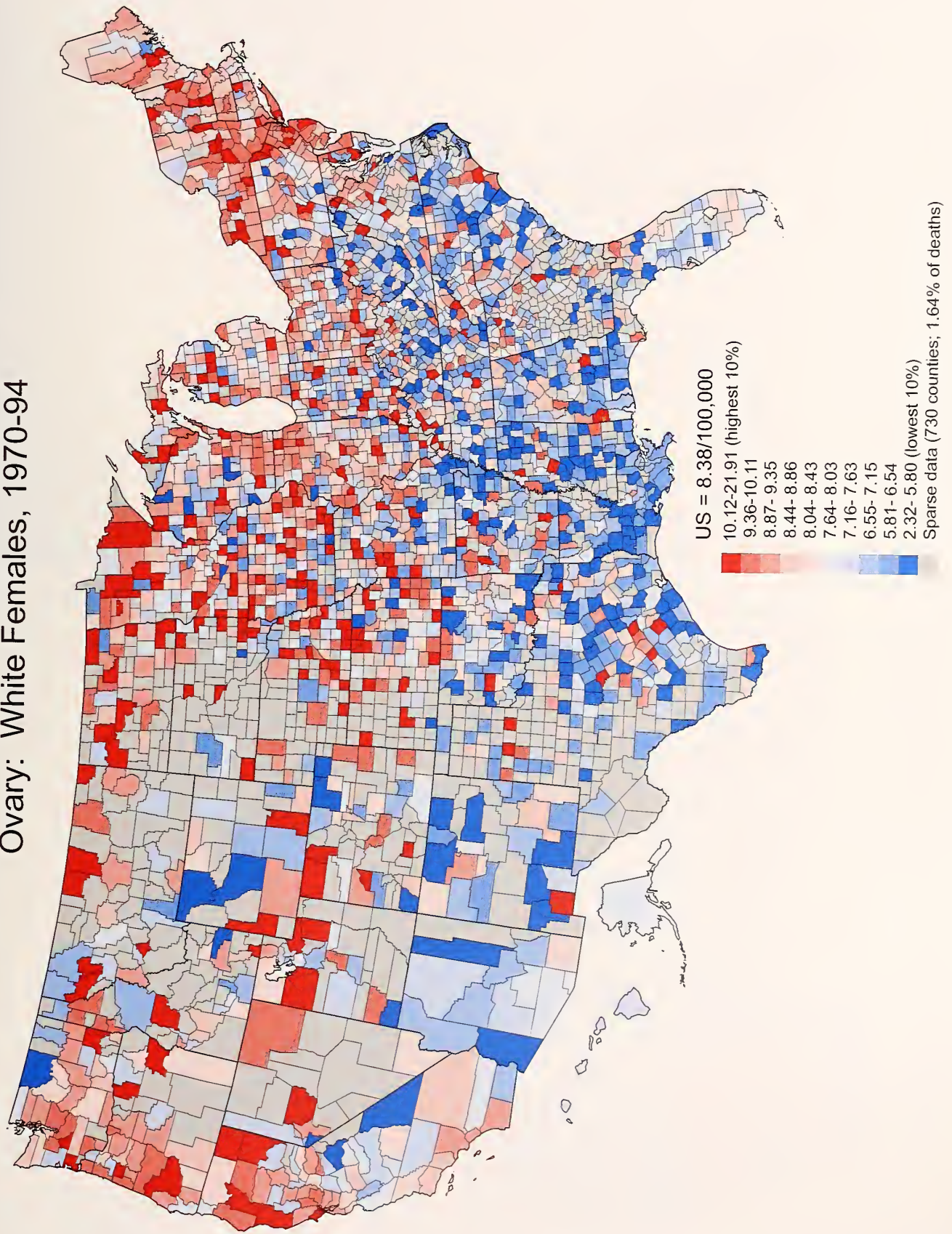




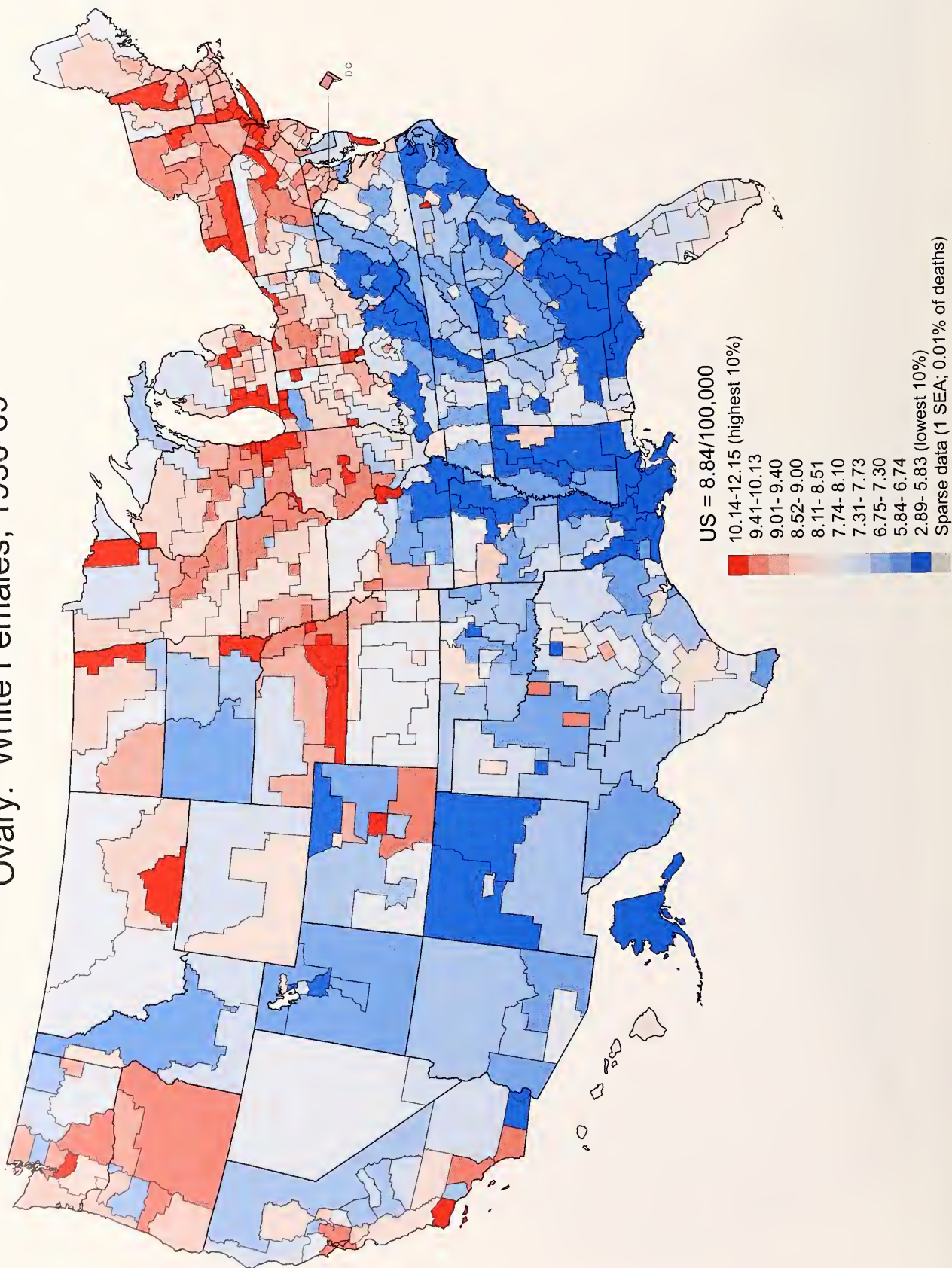
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Ovary: White Females, 1950-69



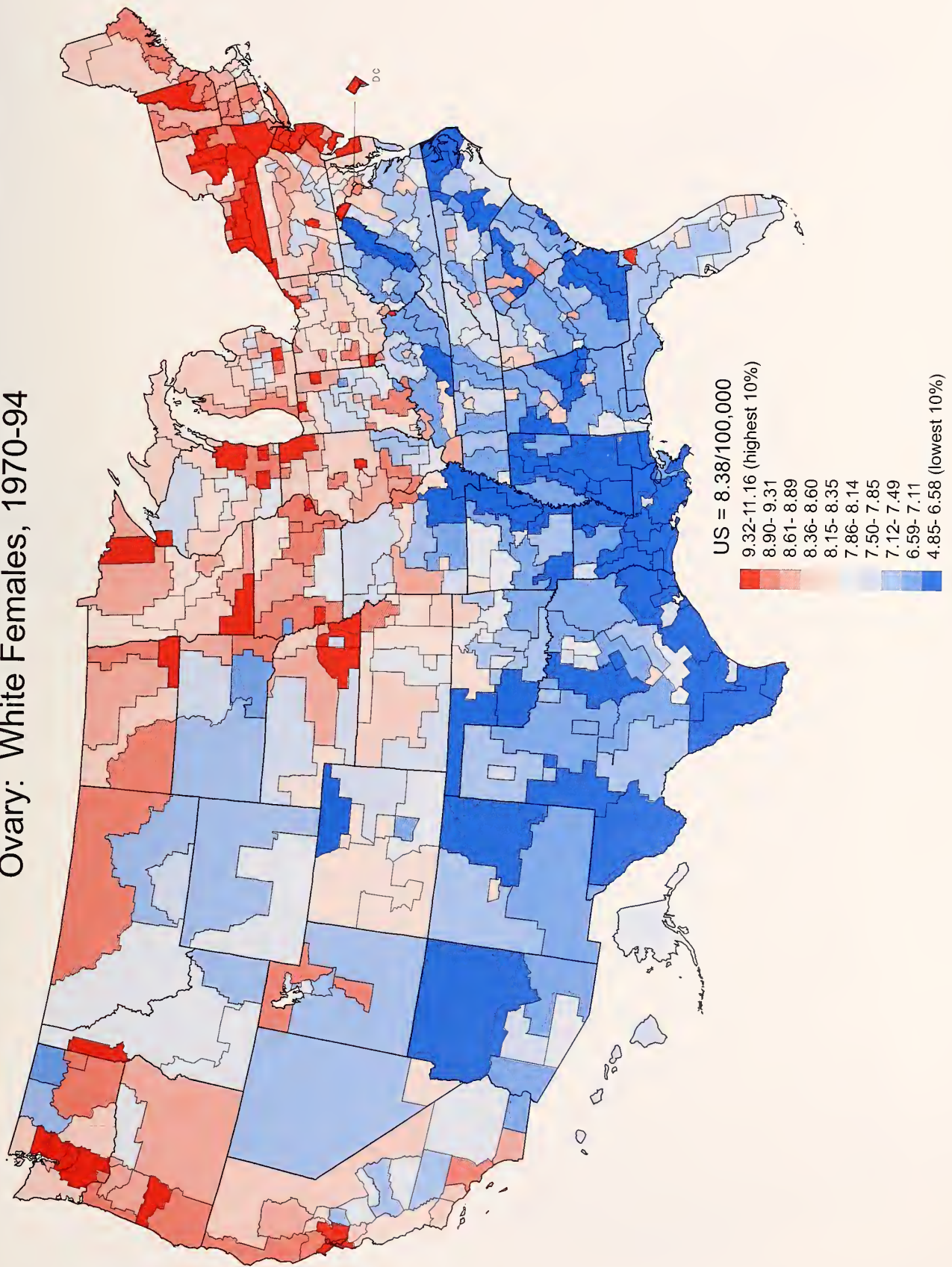
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Ovary: White Females, 1970-94



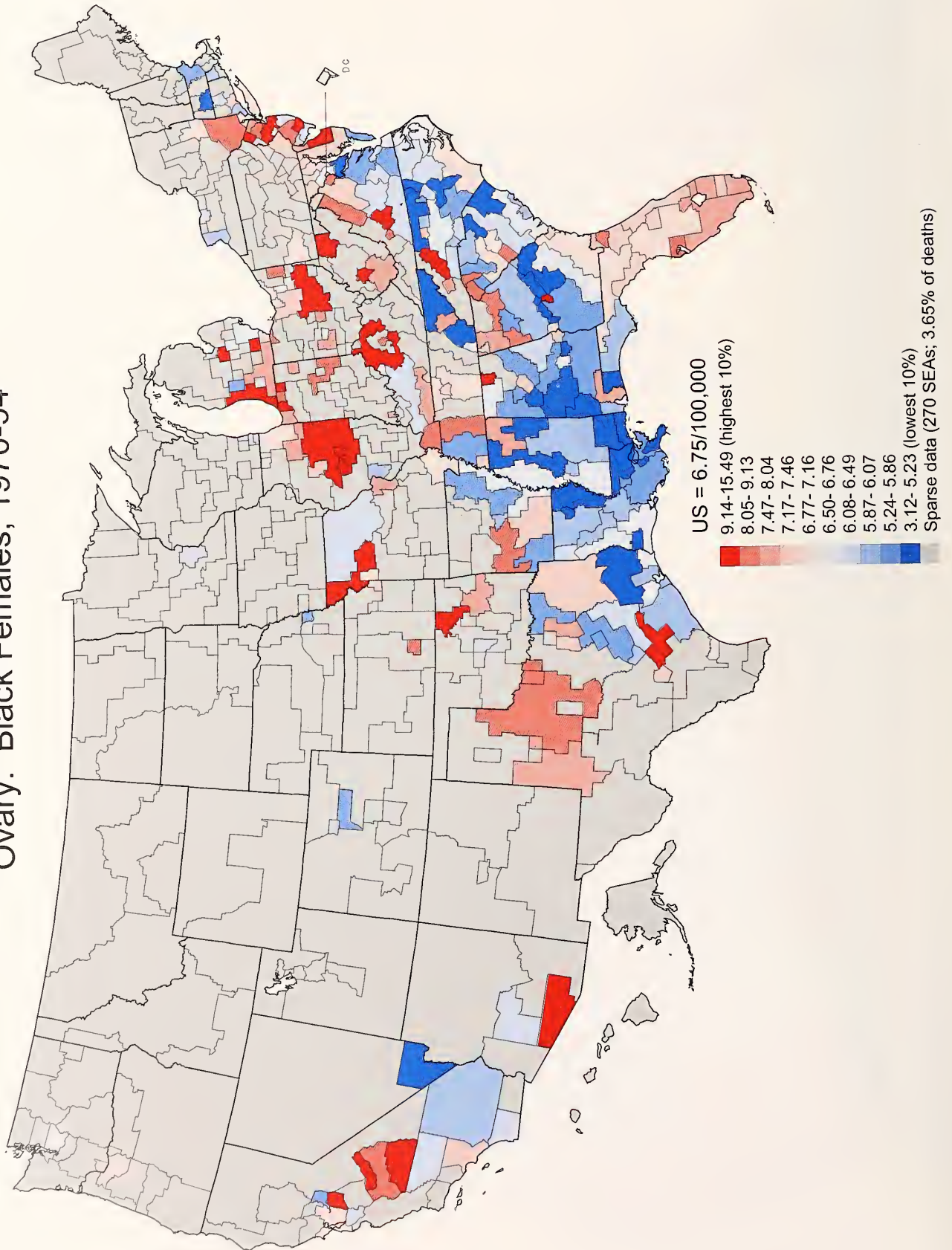
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Ovary: White Females, 1950-69



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Ovary: White Females, 1970-94

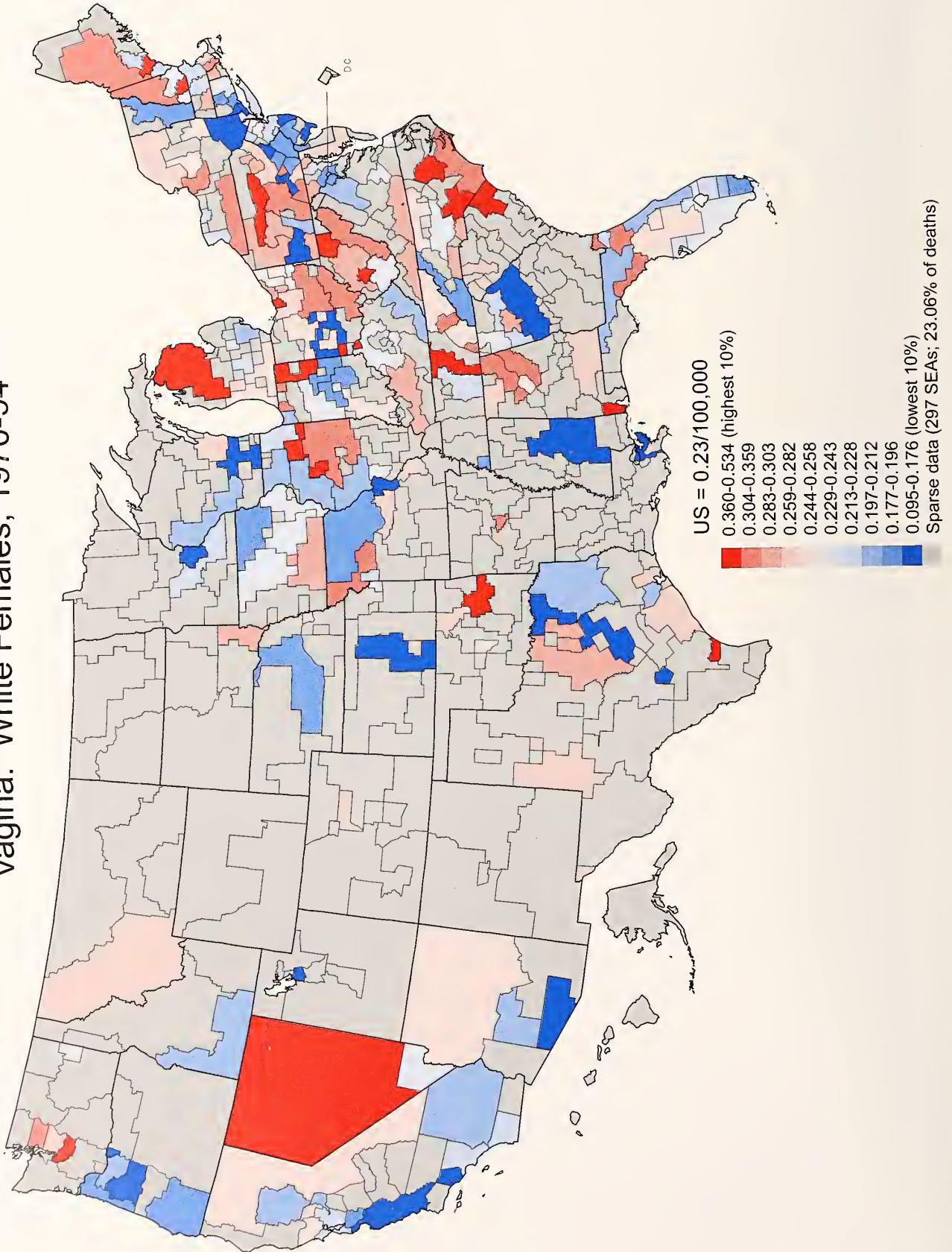


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Ovary: Black Females, 1970-94





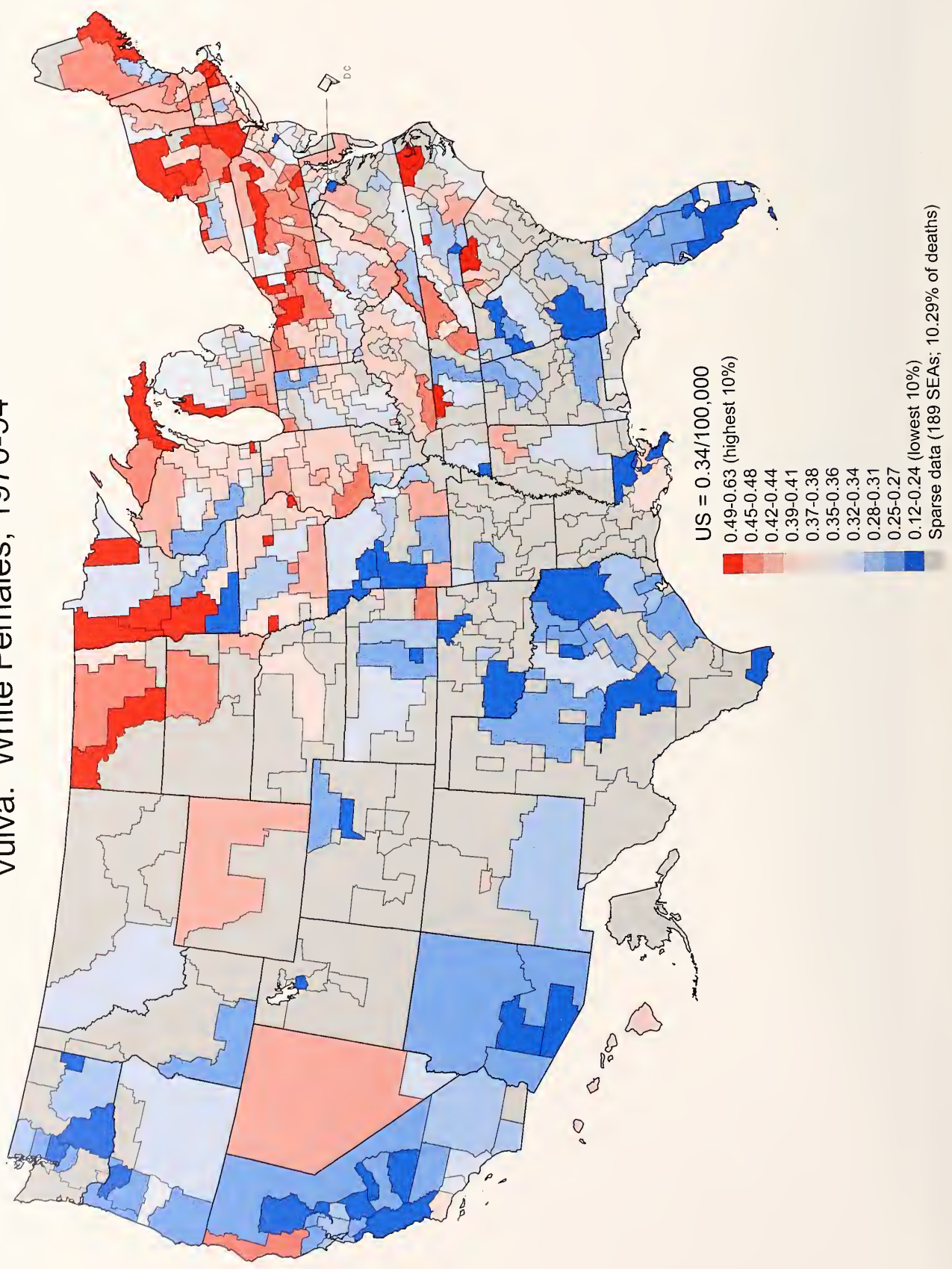
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Vagina: White Females, 1970-94





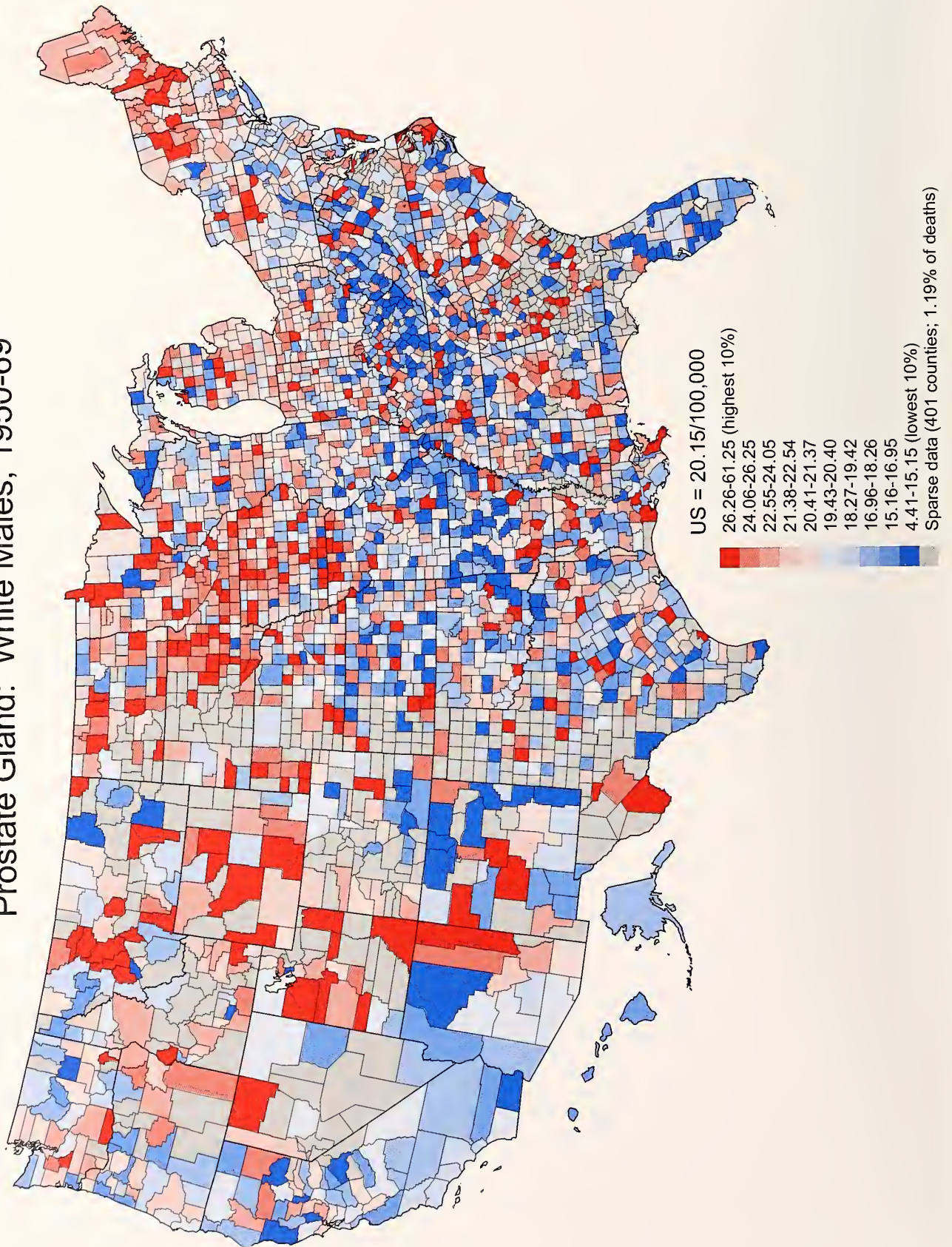
Vulva

Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Vulva: White Females, 1970-94

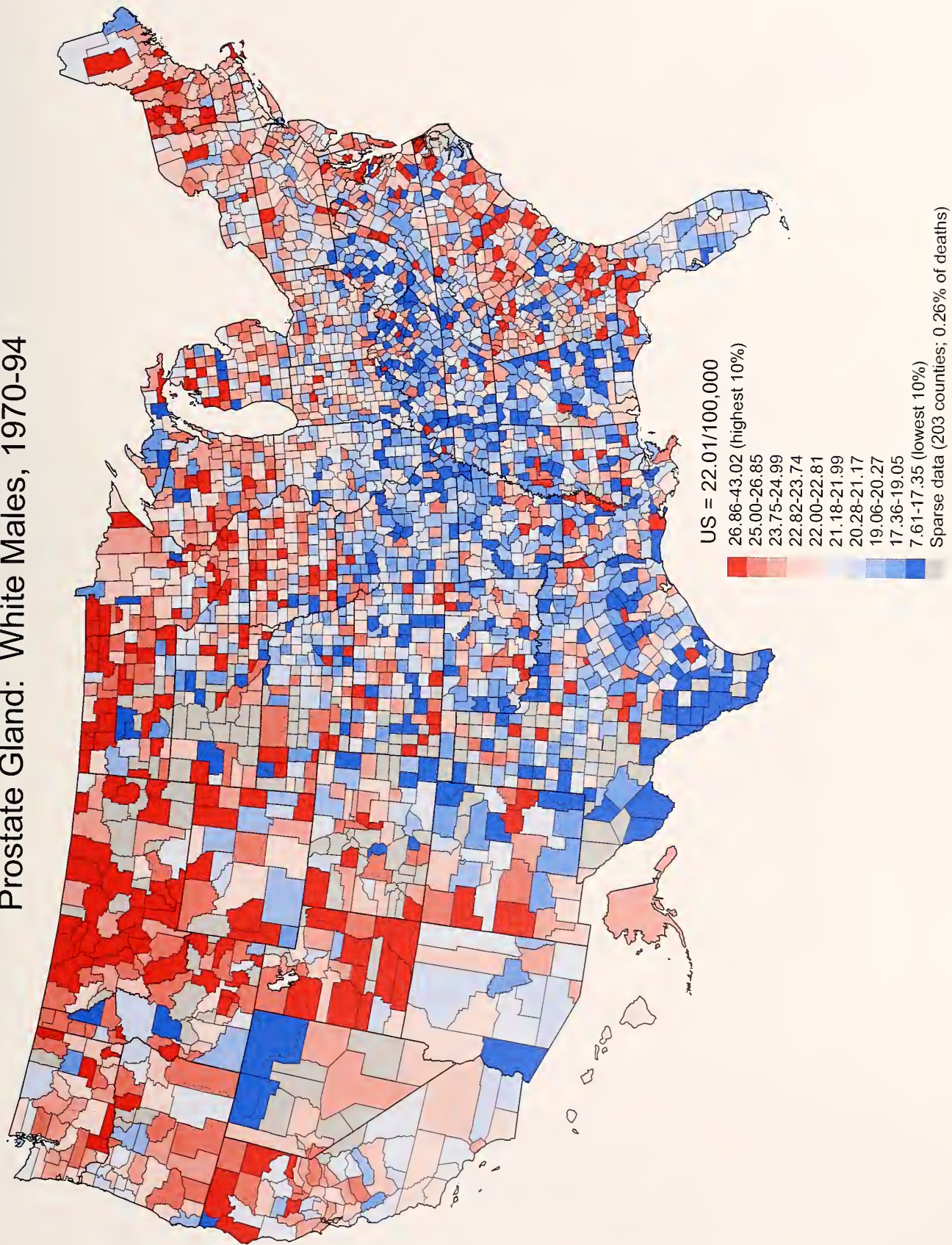




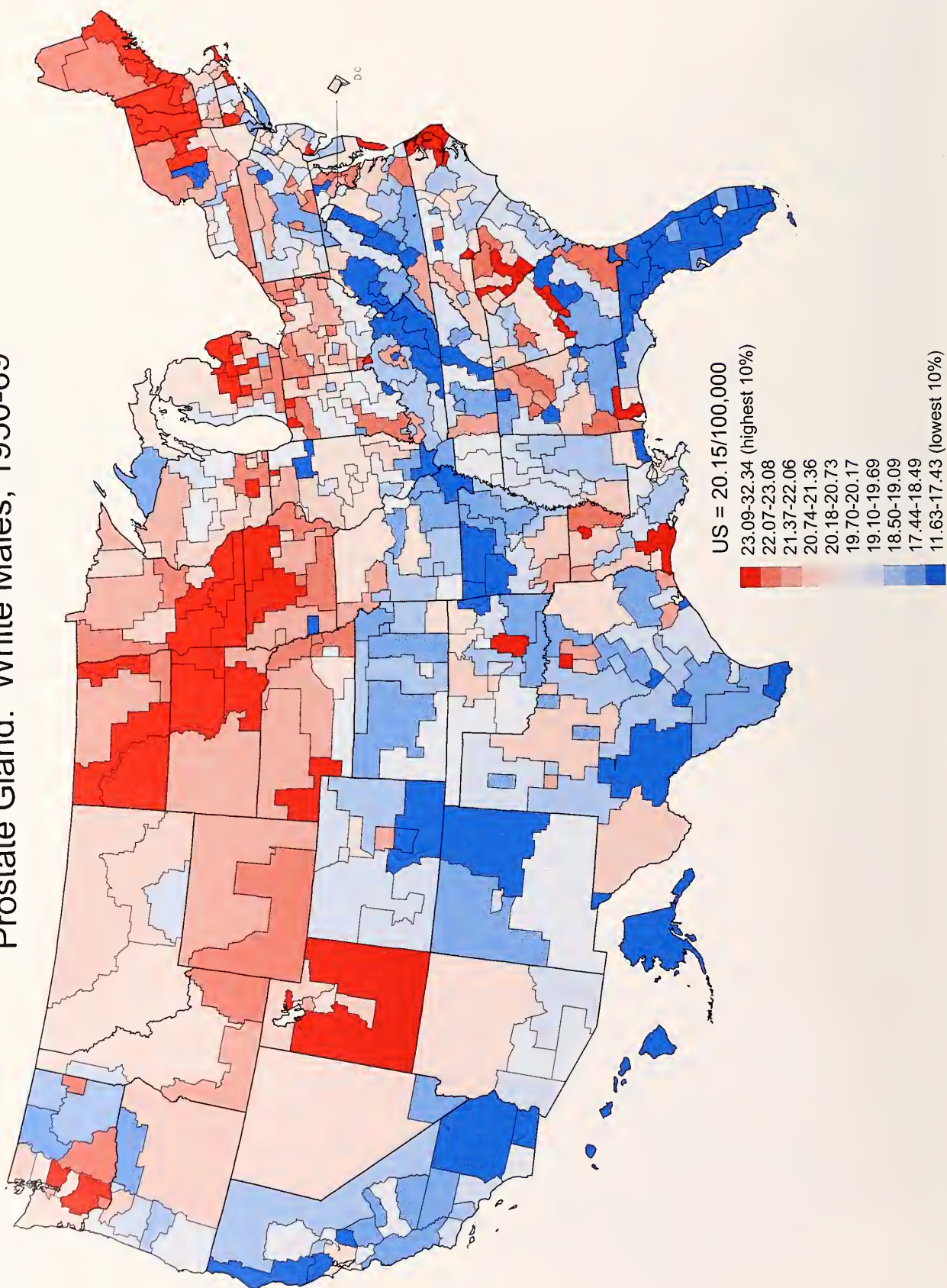
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Prostate Gland: White Males, 1950-69



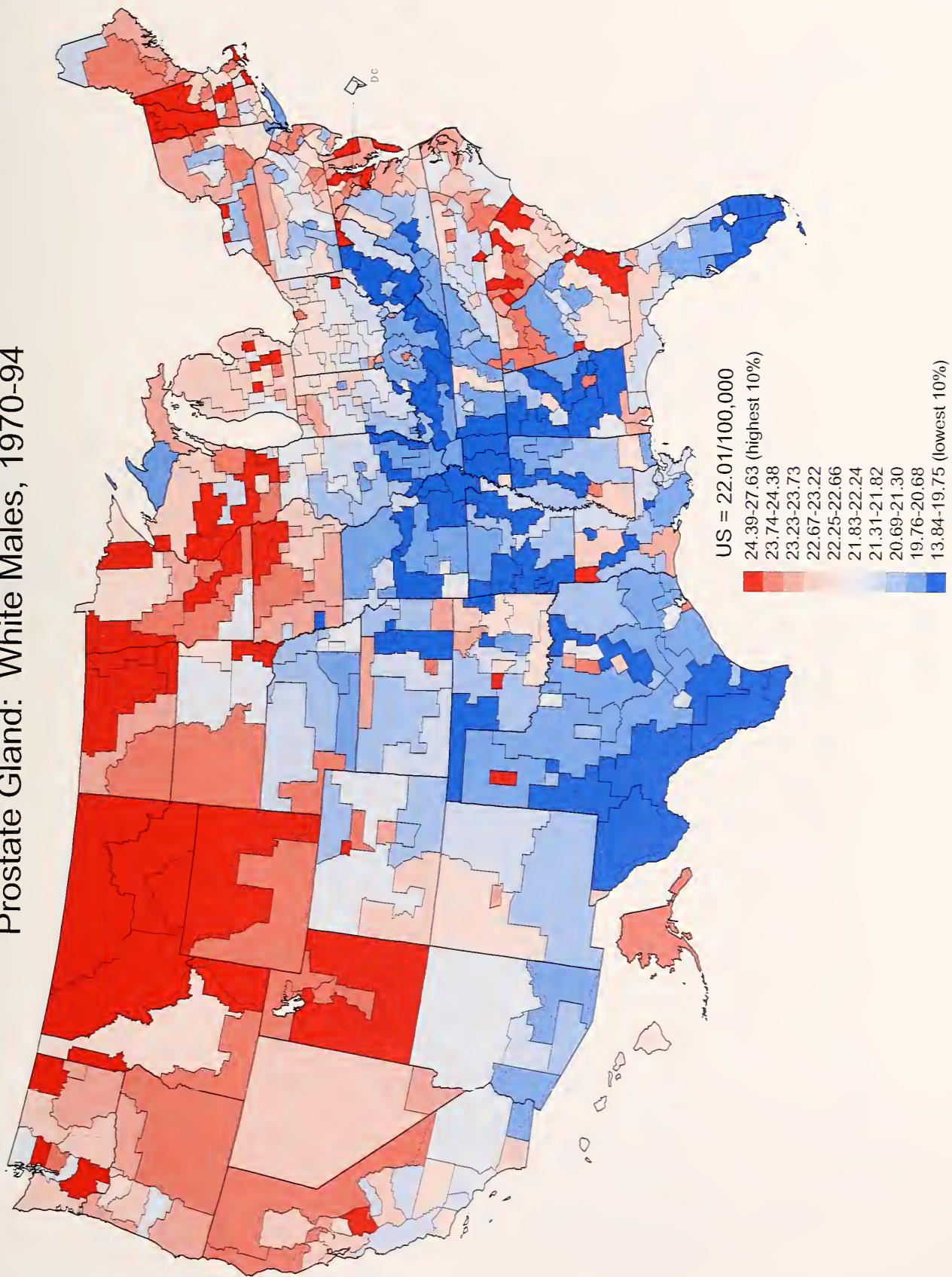
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Prostate Gland: White Males, 1970-94



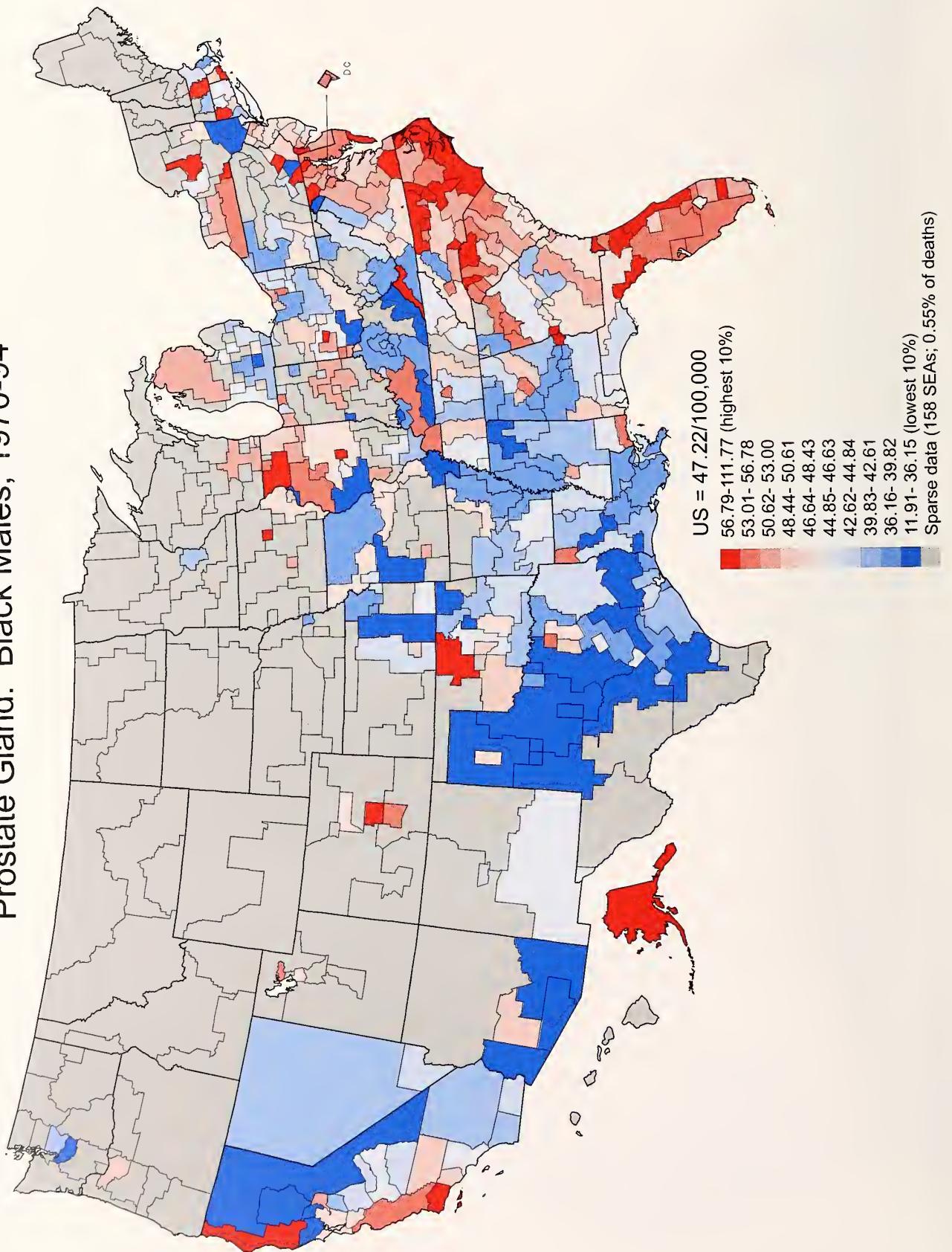
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Prostate Gland: White Males, 1950-69



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Prostate Gland: White Males, 1970-94

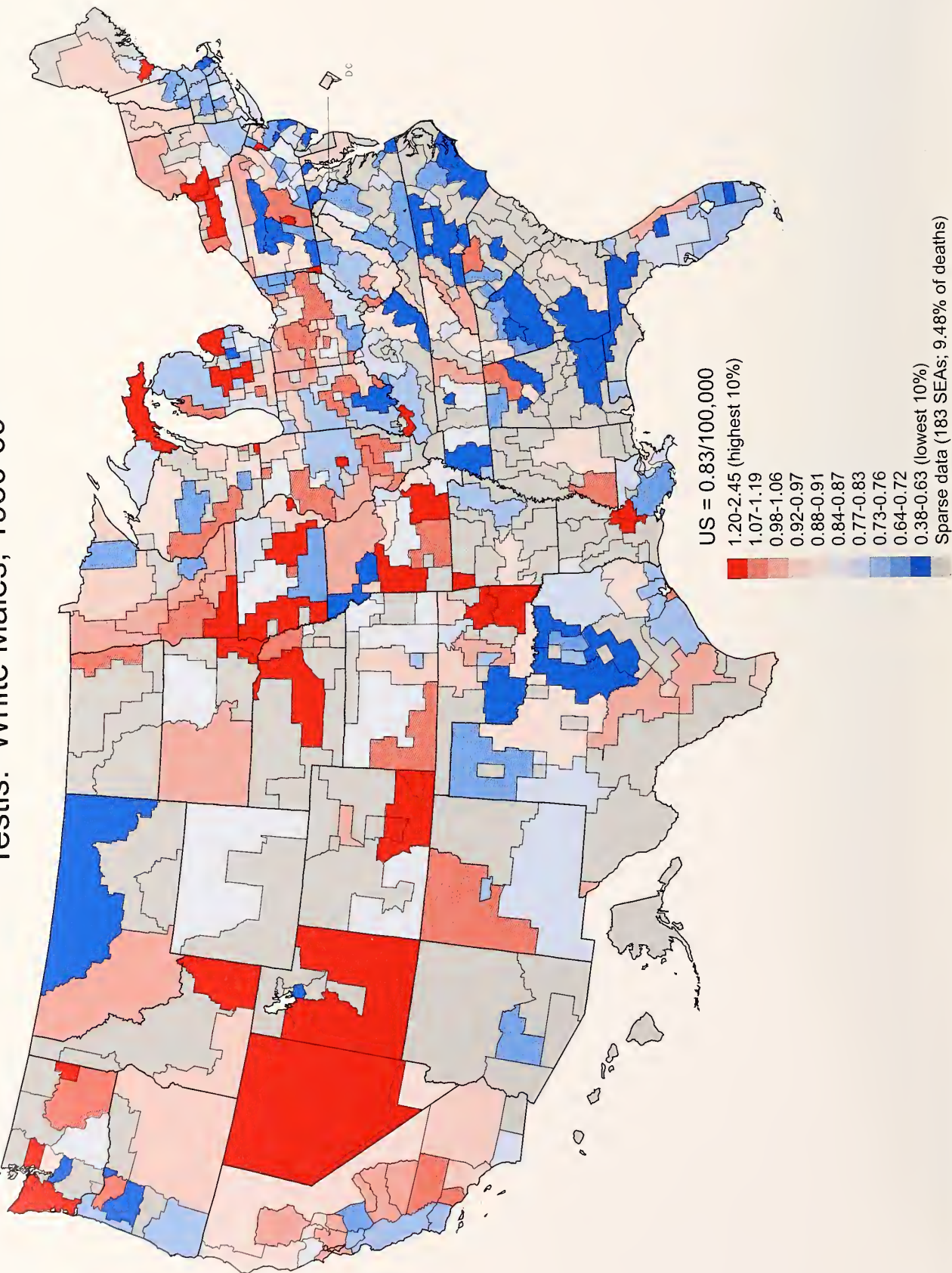


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Prostate Gland: Black Males, 1970-94

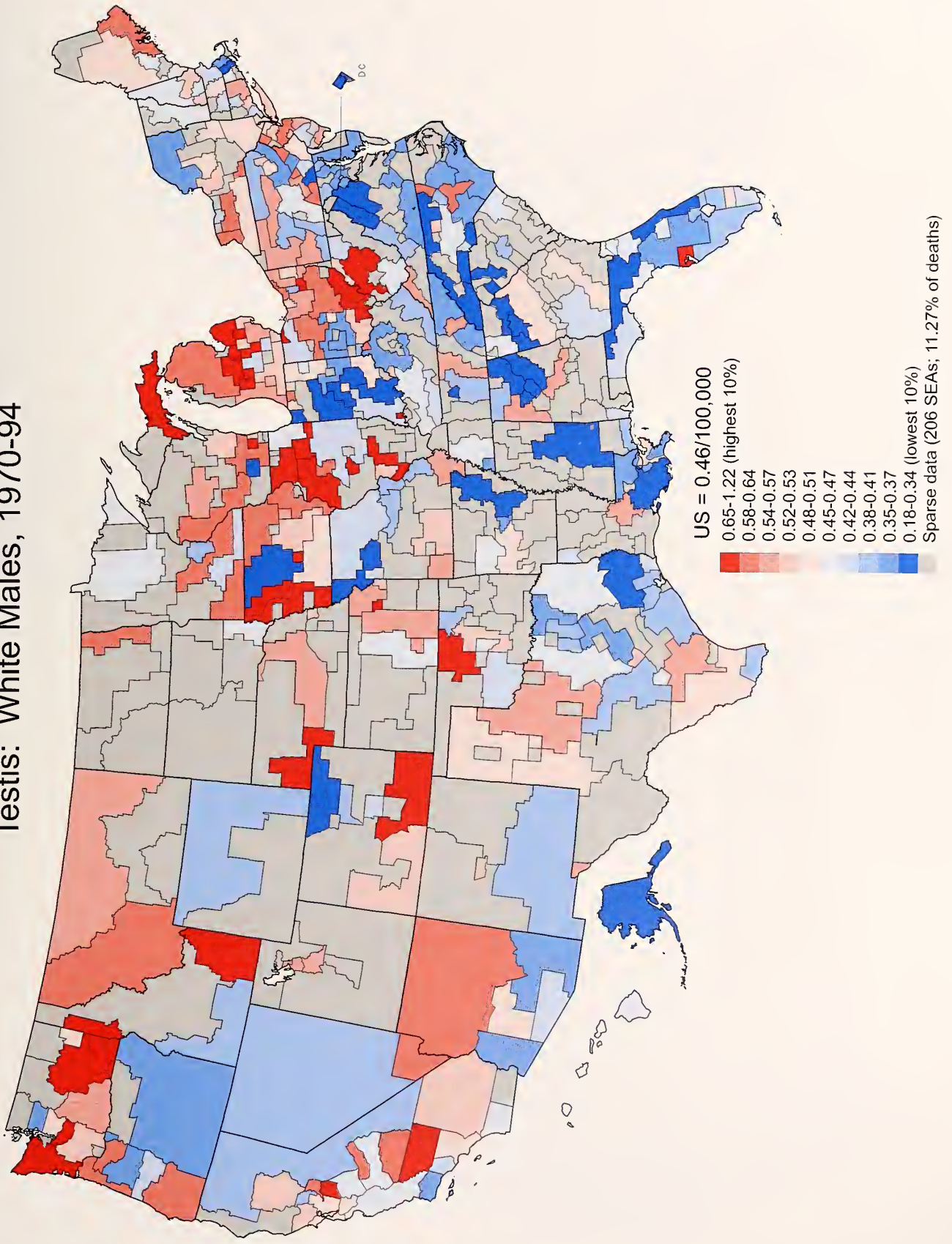




Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Testis: White Males, 1950-69

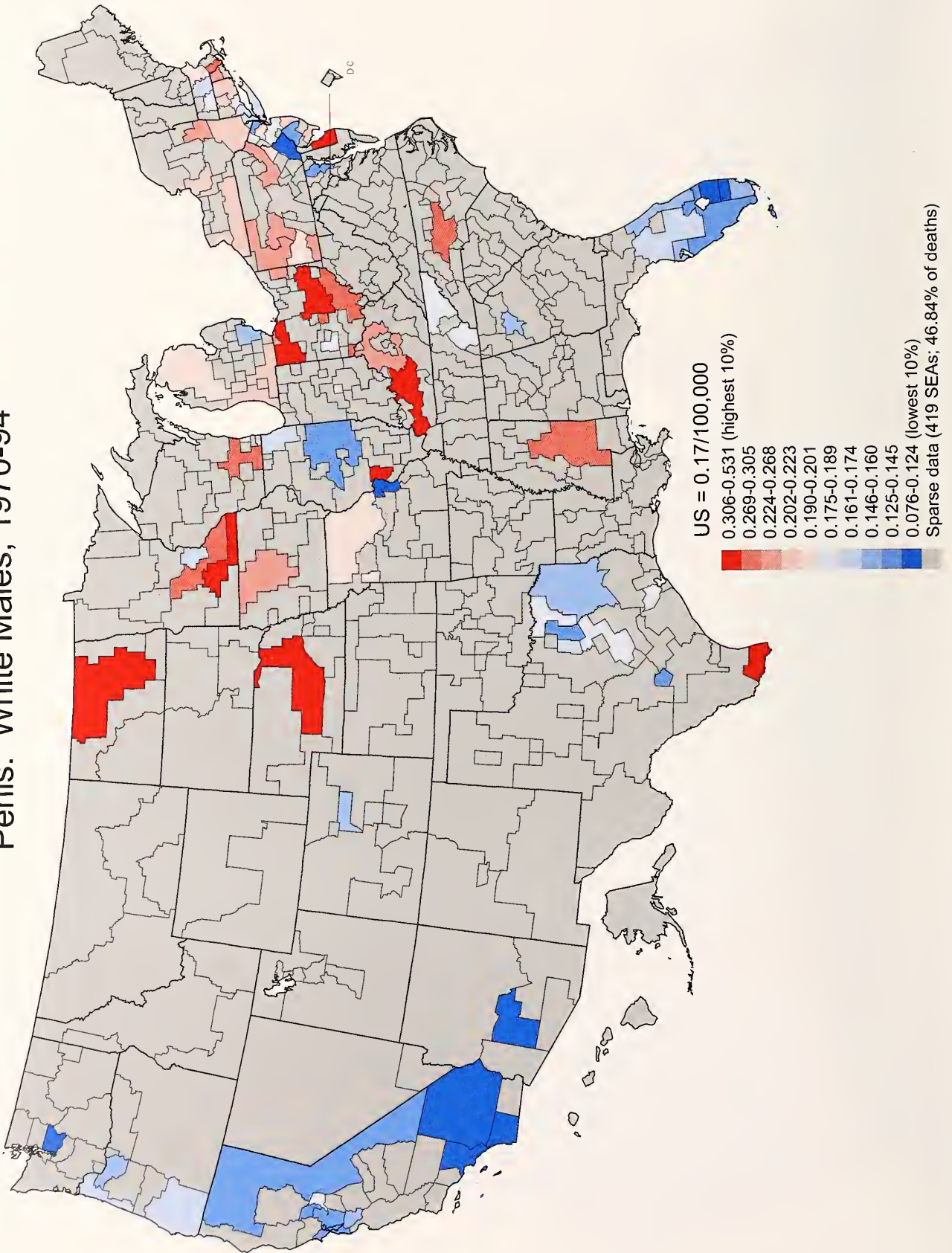


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Testis: White Males, 1970-94



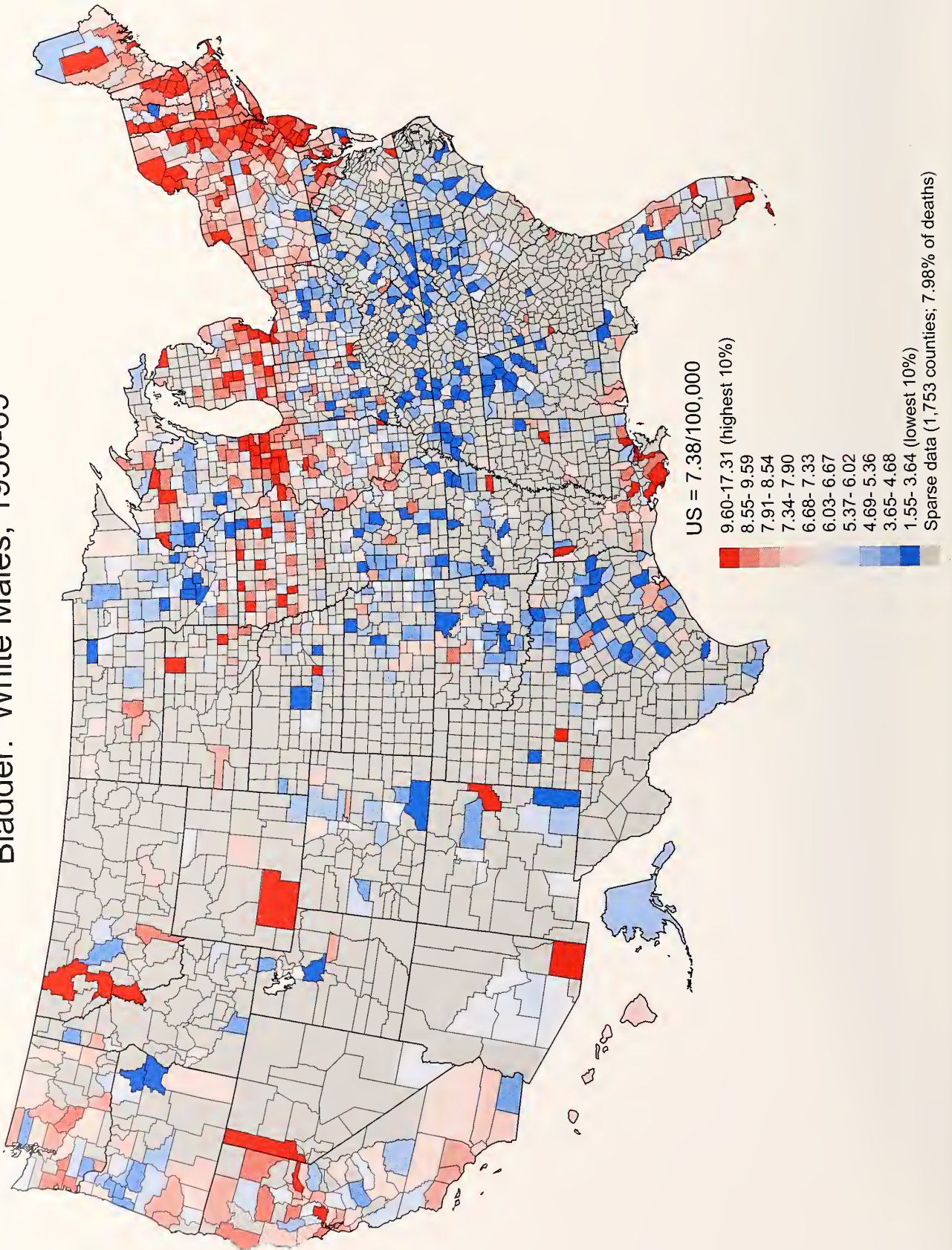
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)

Penis: White Males, 1970-94

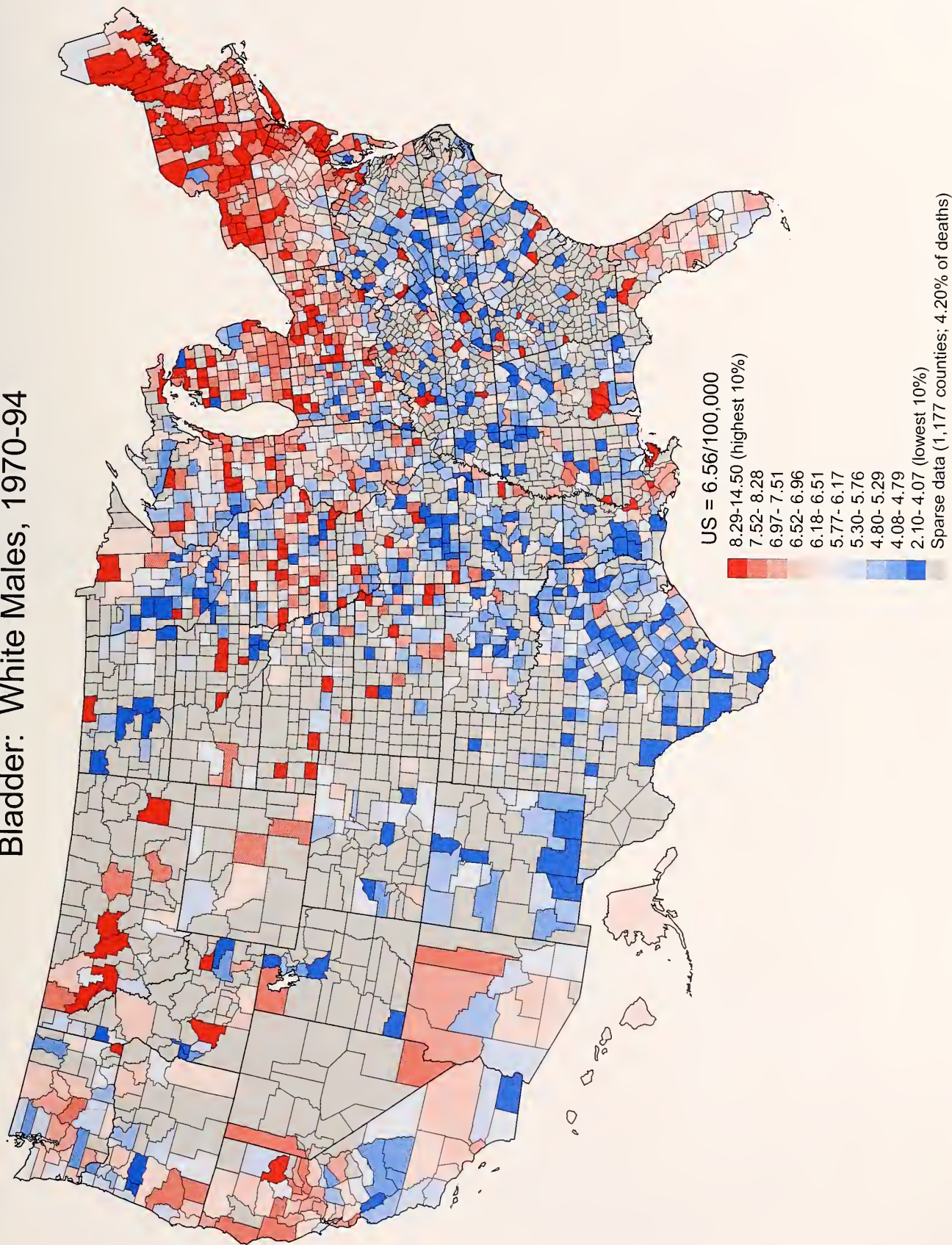




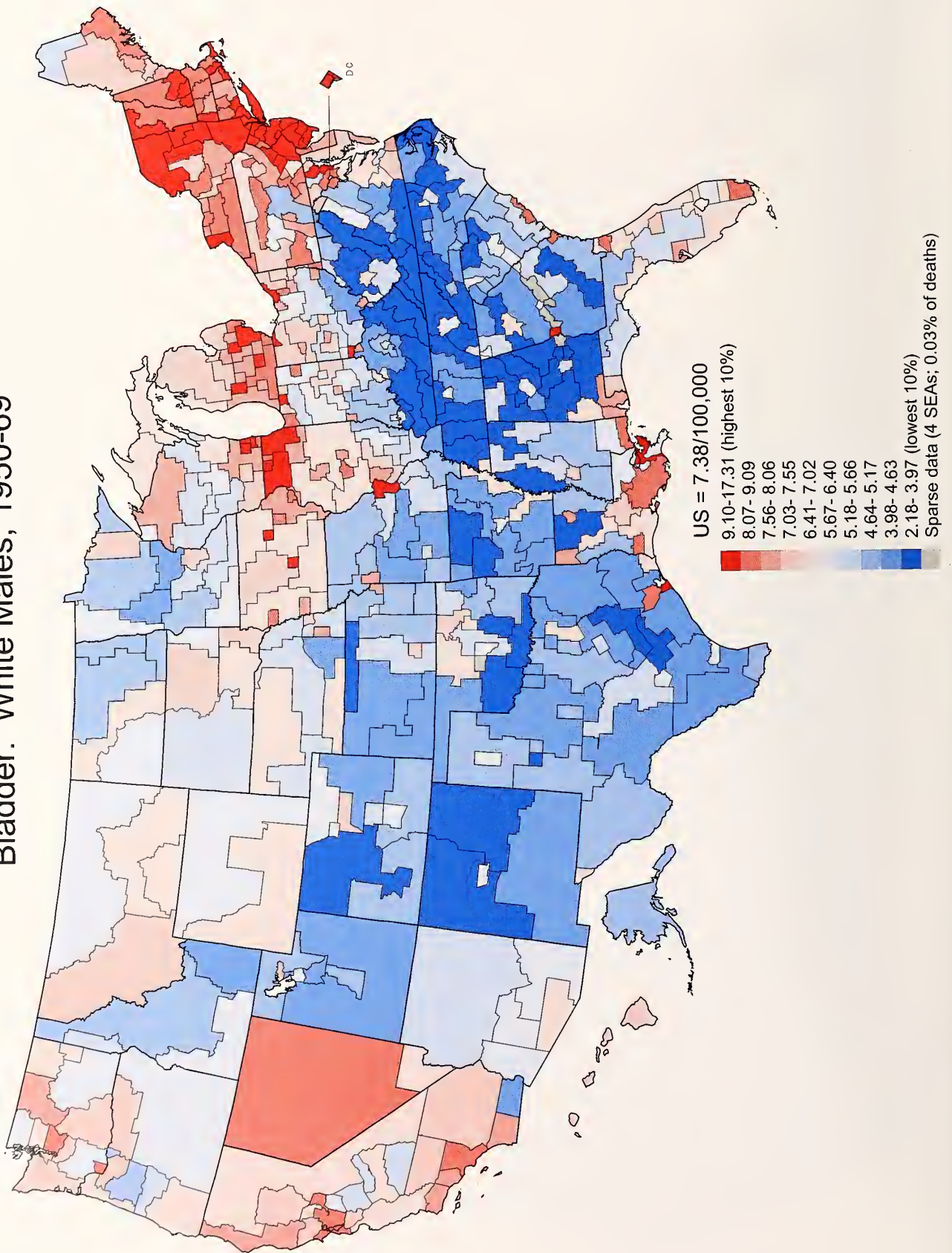
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Bladder: White Males, 1950-69



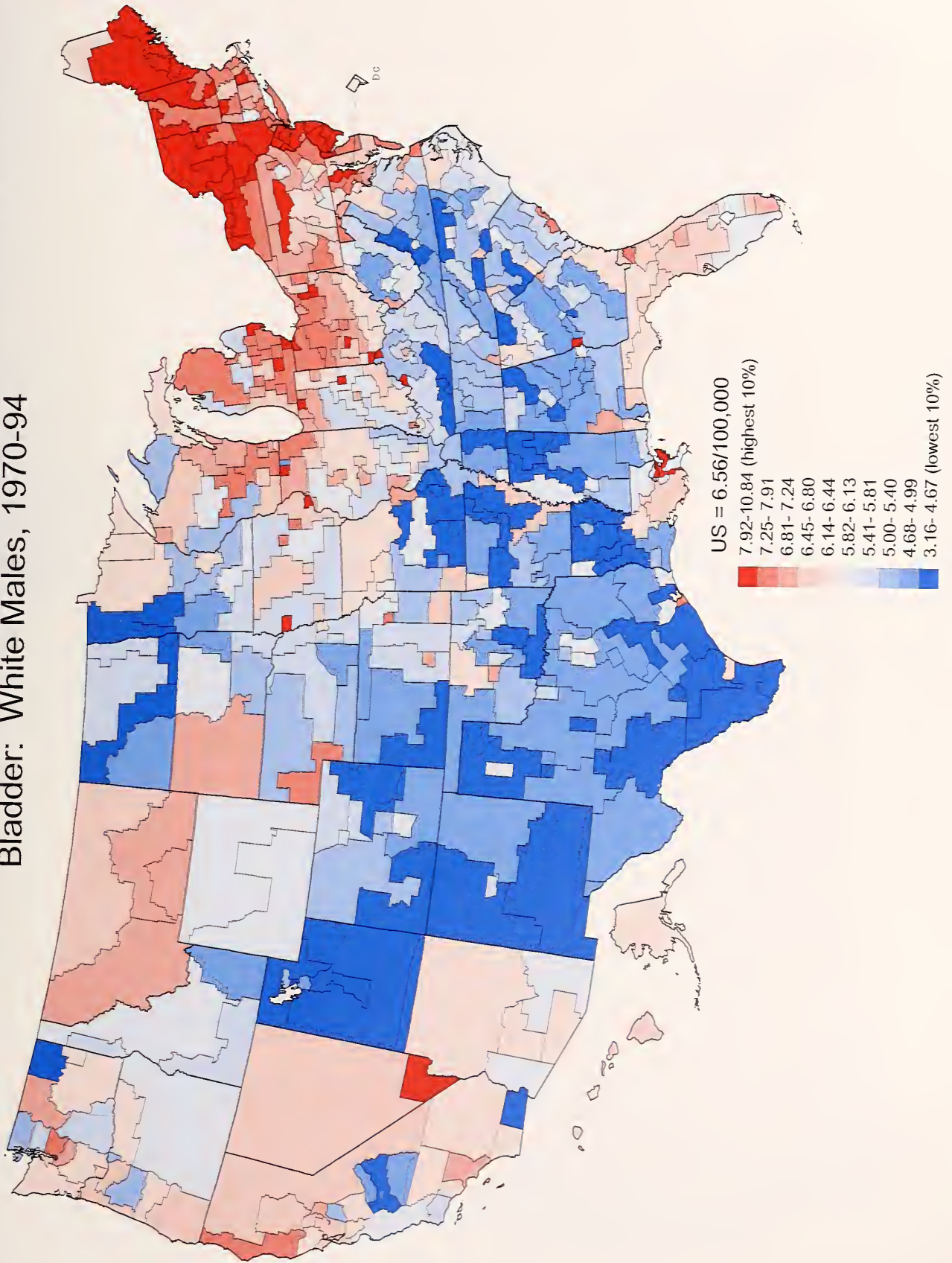
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Bladder: White Males, 1970-94



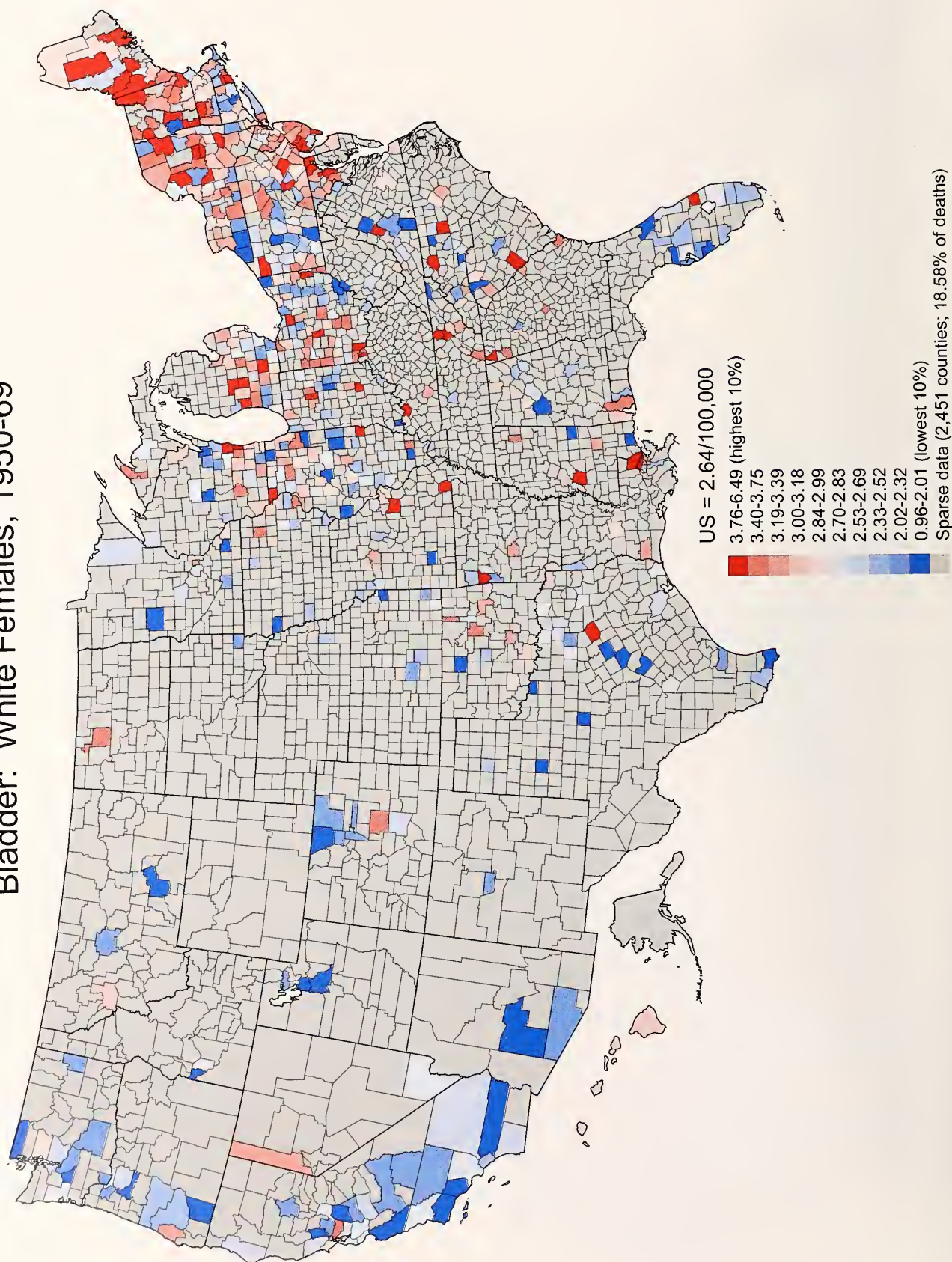
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Bladder: White Males, 1950-69



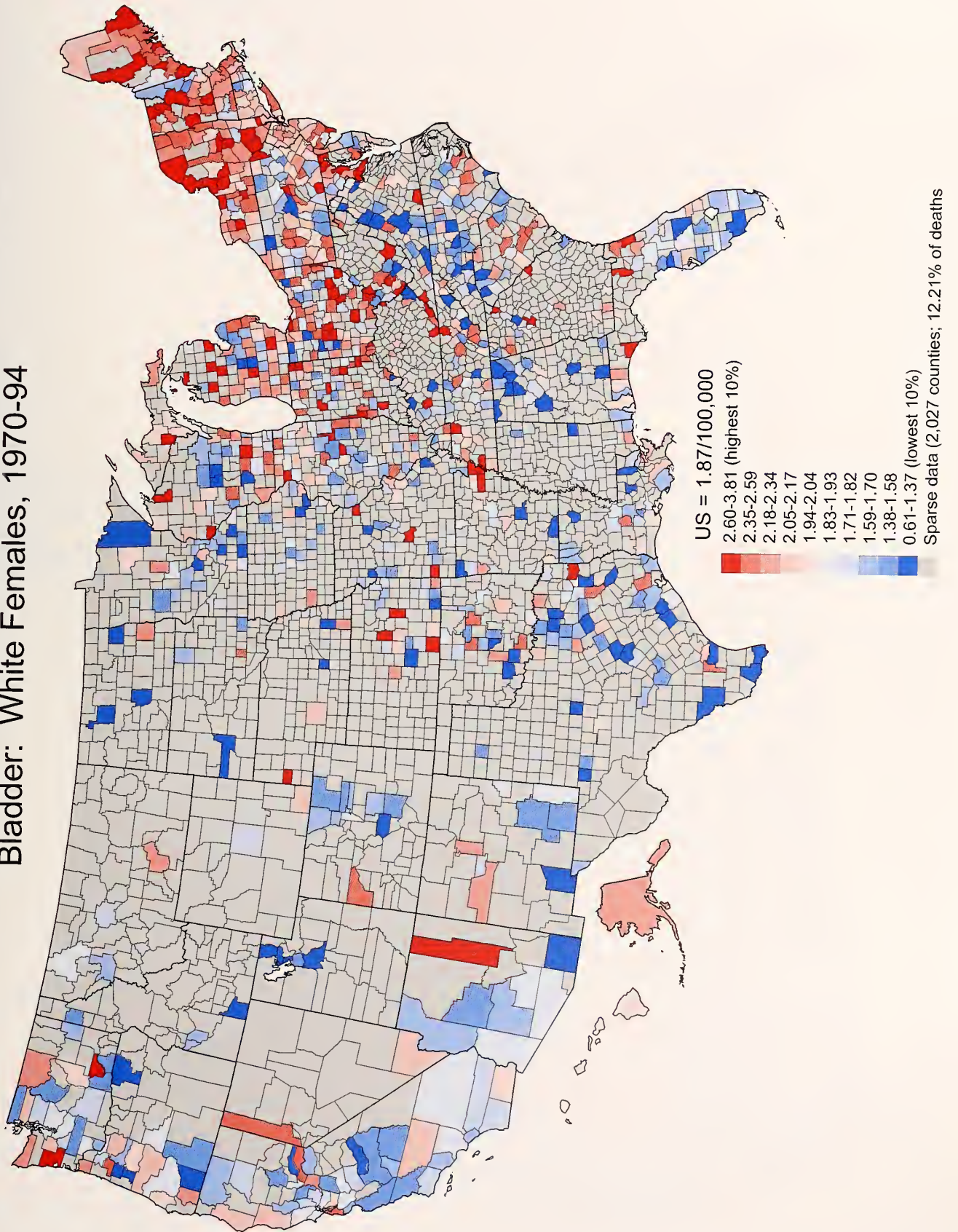
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bladder: White Males, 1970-94



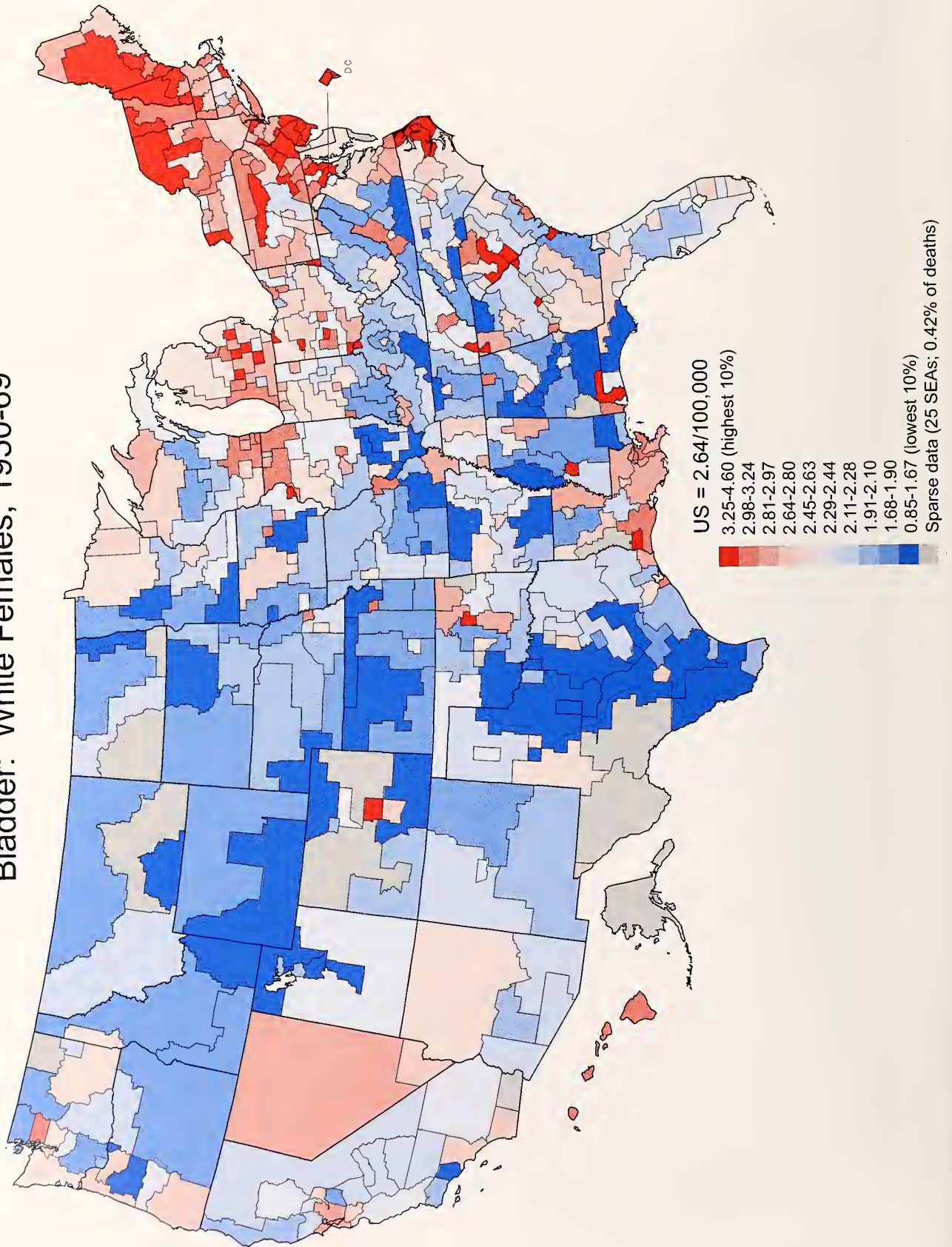
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Bladder: White Females, 1950-69



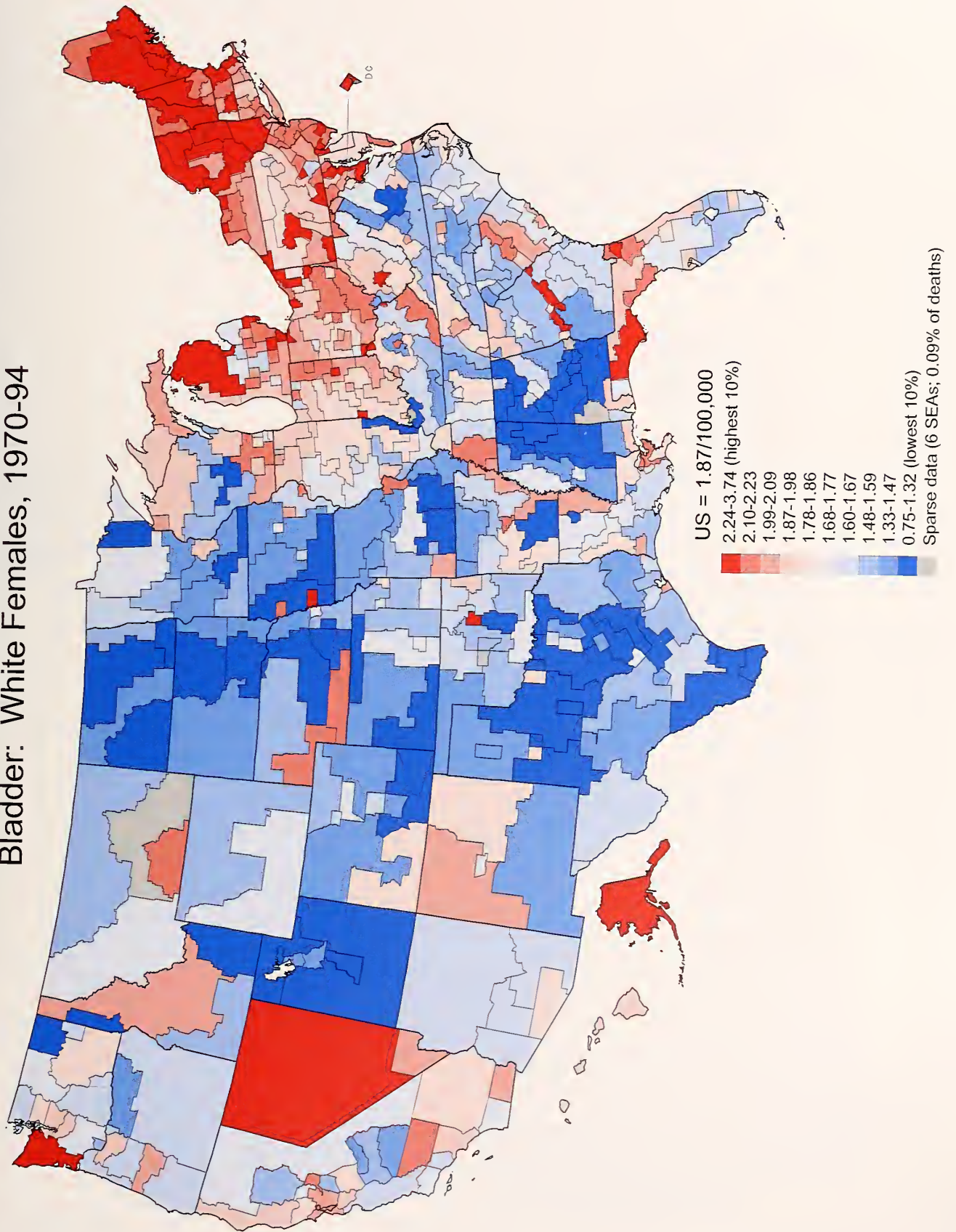
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Bladder: White Females, 1970-94



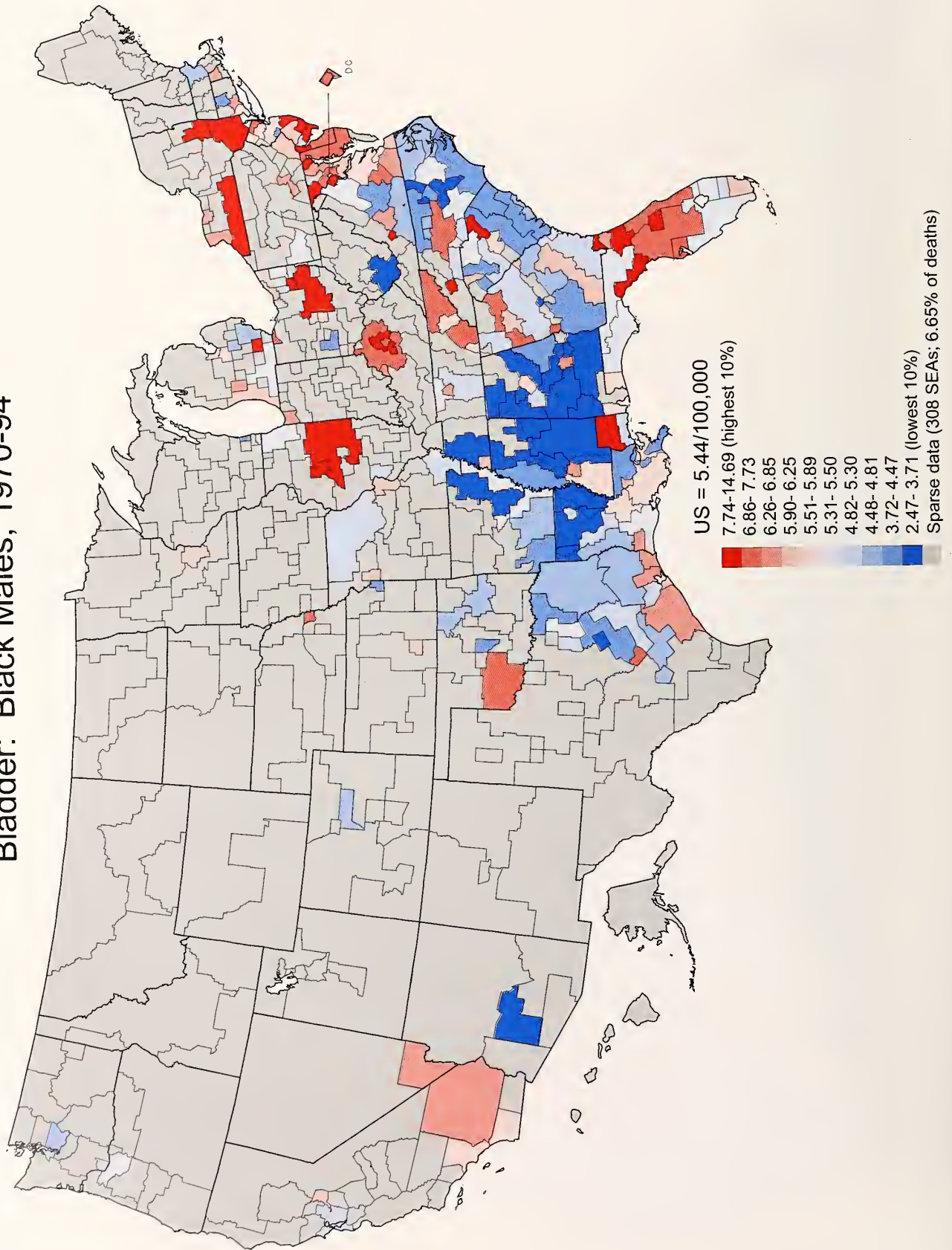
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bladder: White Females, 1950-69



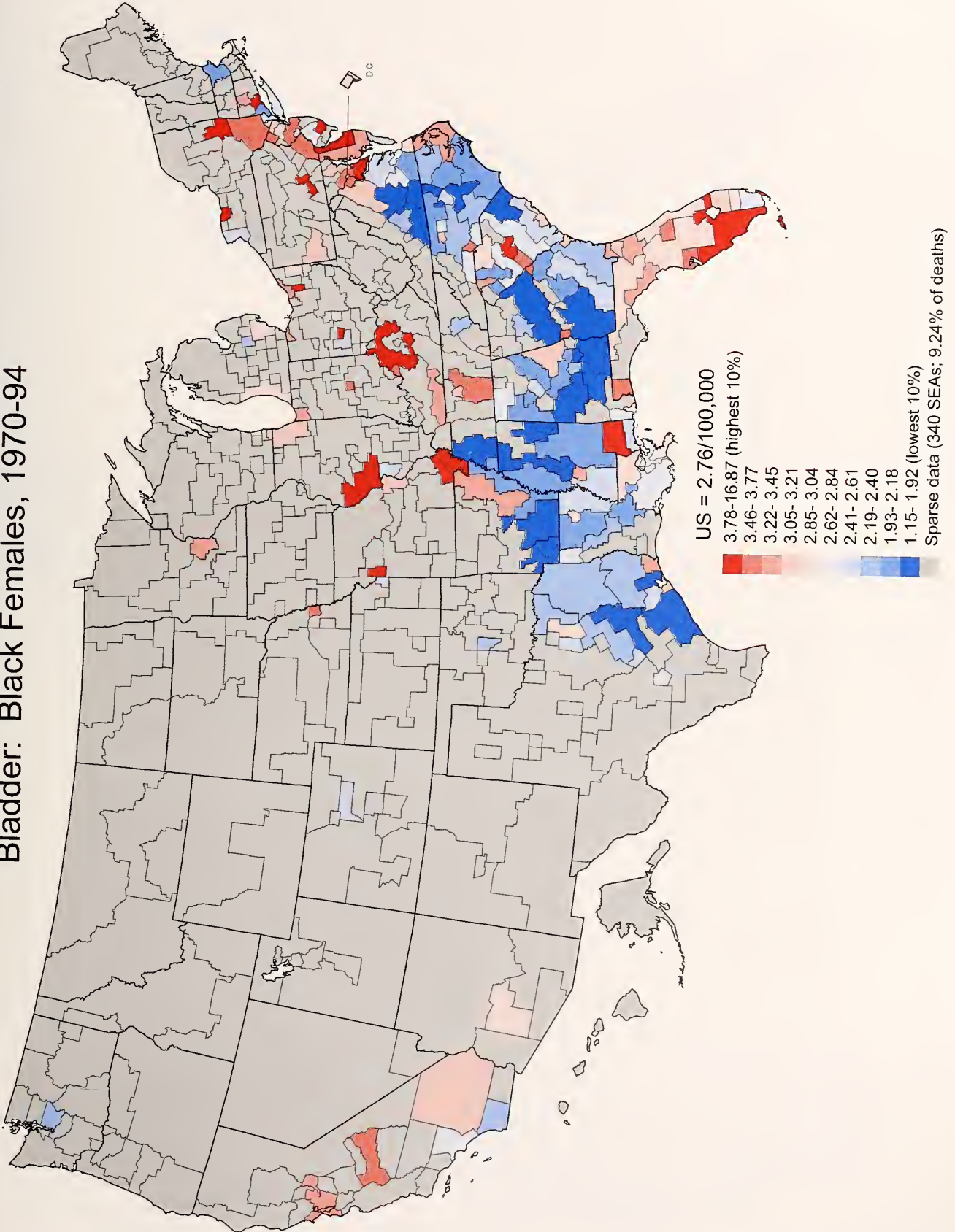
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bladder: White Females, 1970-94



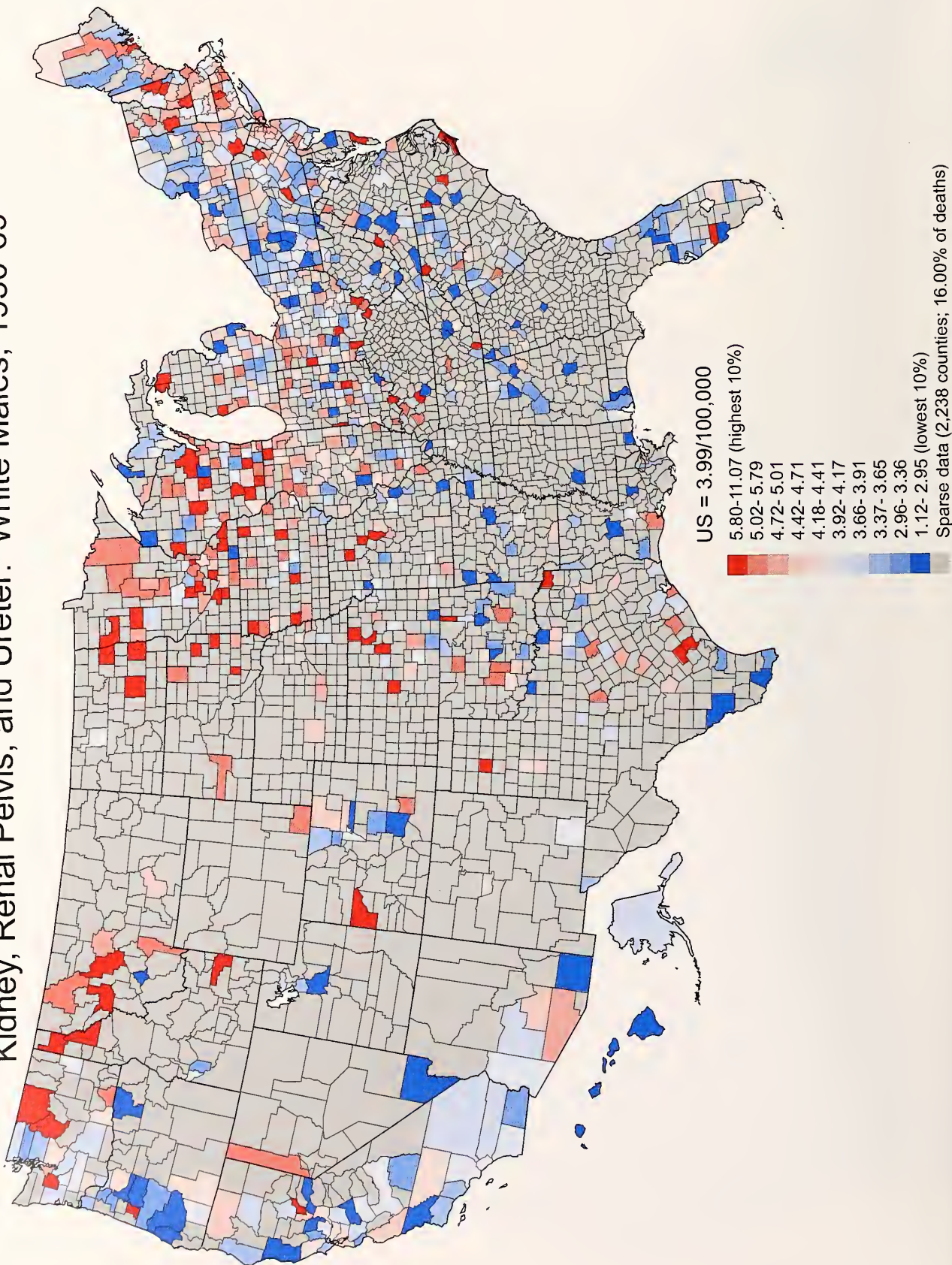
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Bladder: Black Males, 1970-94



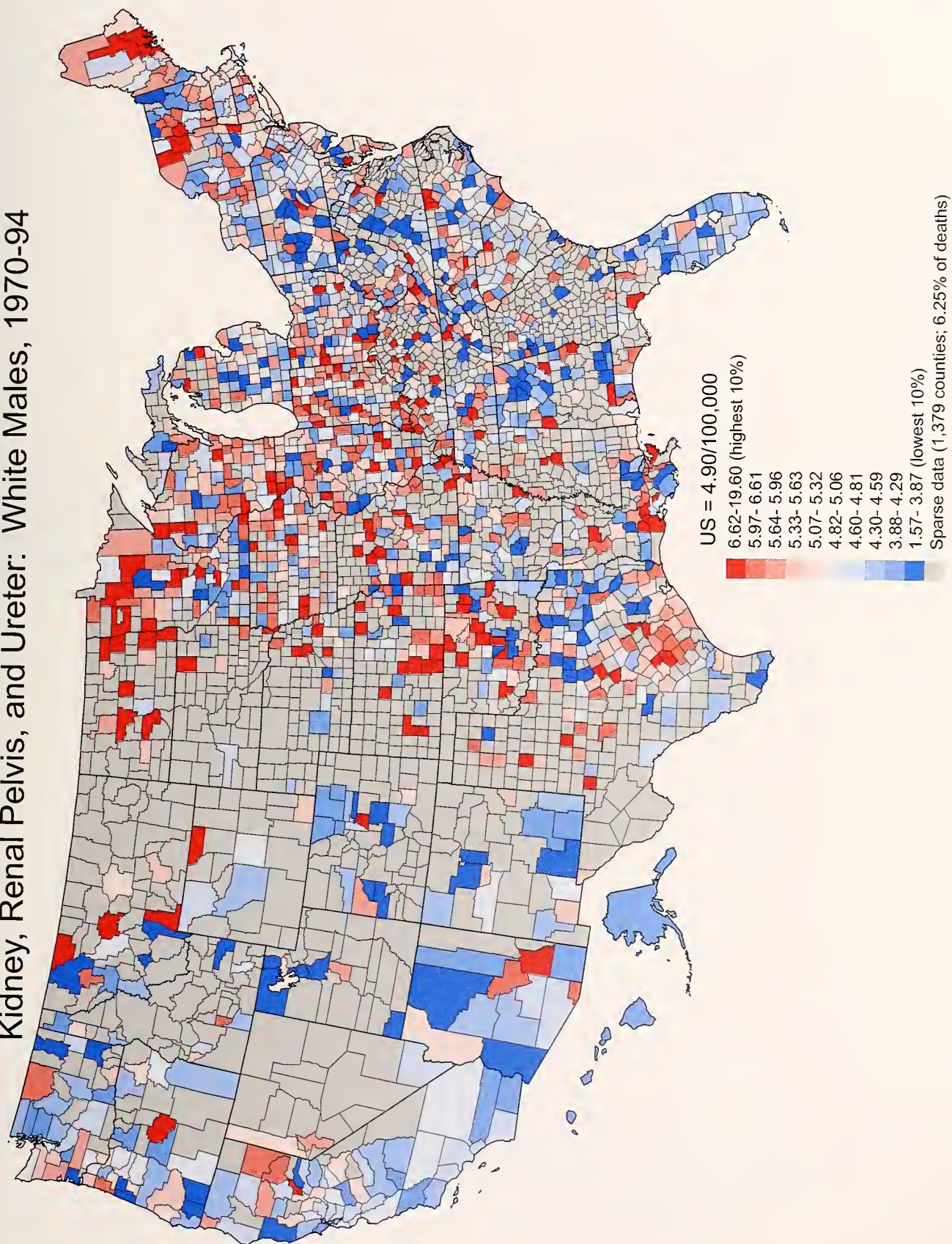
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Bladder: Black Females, 1970-94



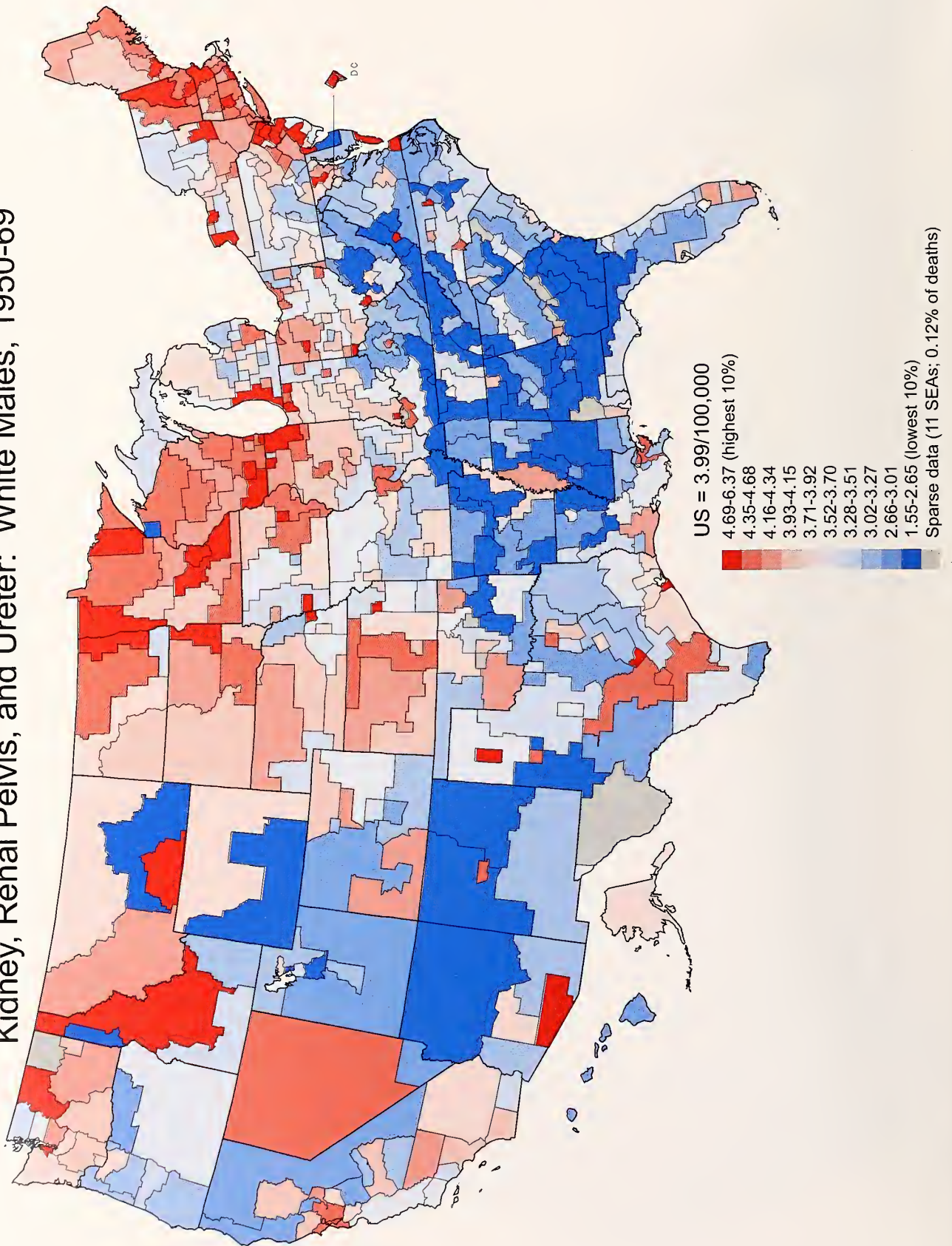
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Kidney, Renal Pelvis, and Ureter: White Males, 1950-69



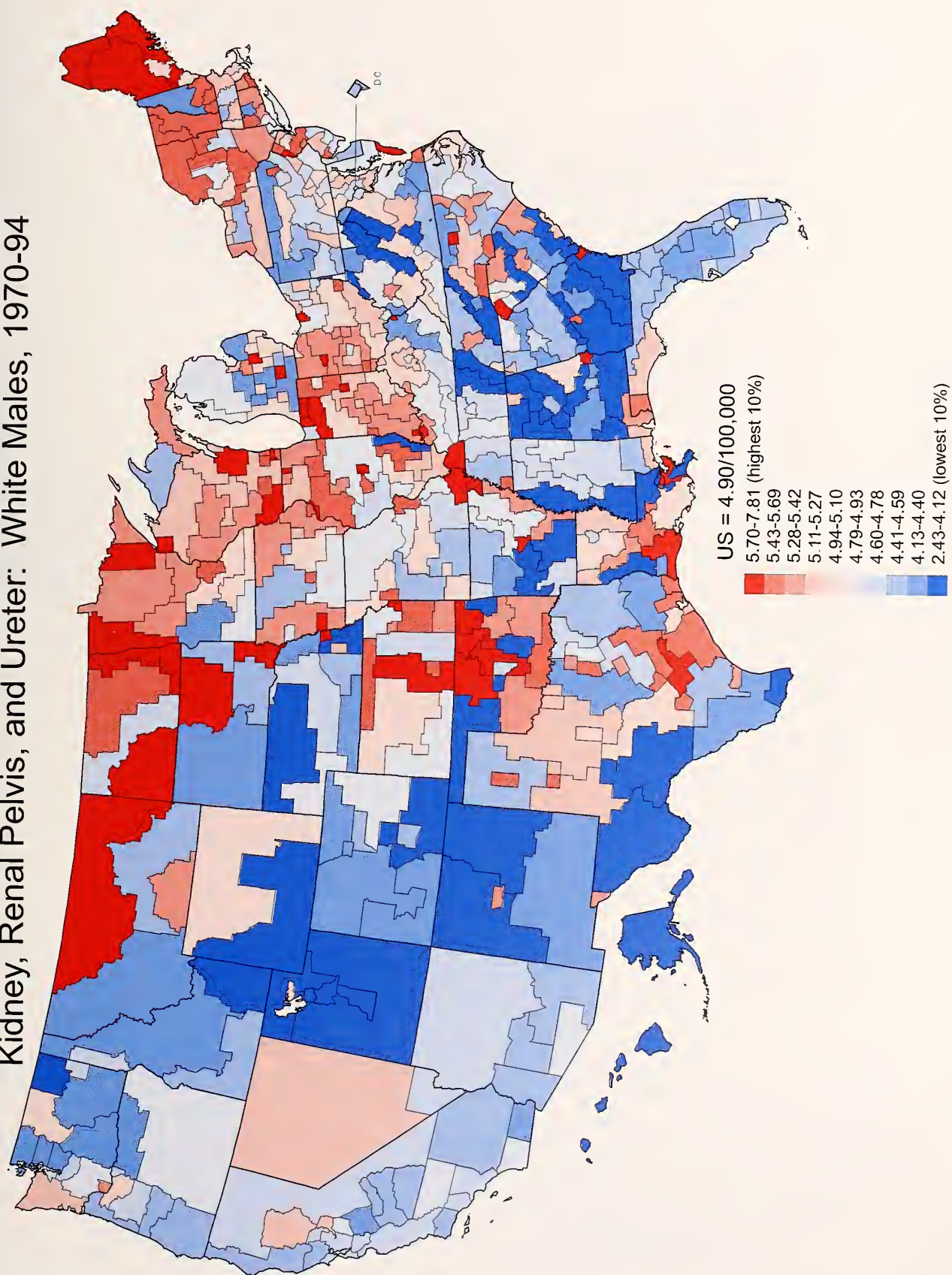
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Kidney, Renal Pelvis, and Ureter: White Males, 1970-94



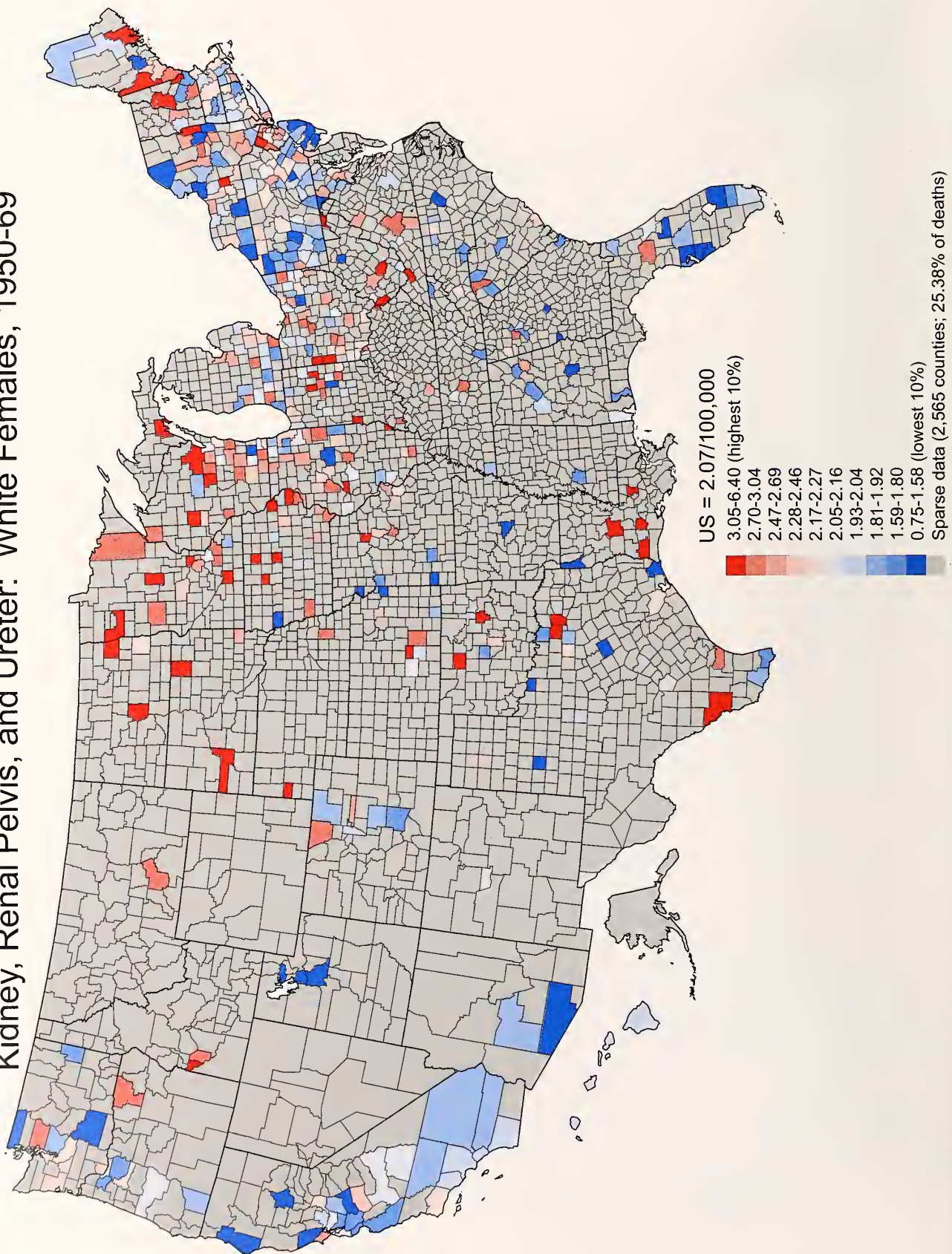
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Kidney, Renal Pelvis, and Ureter: White Males, 1950-69



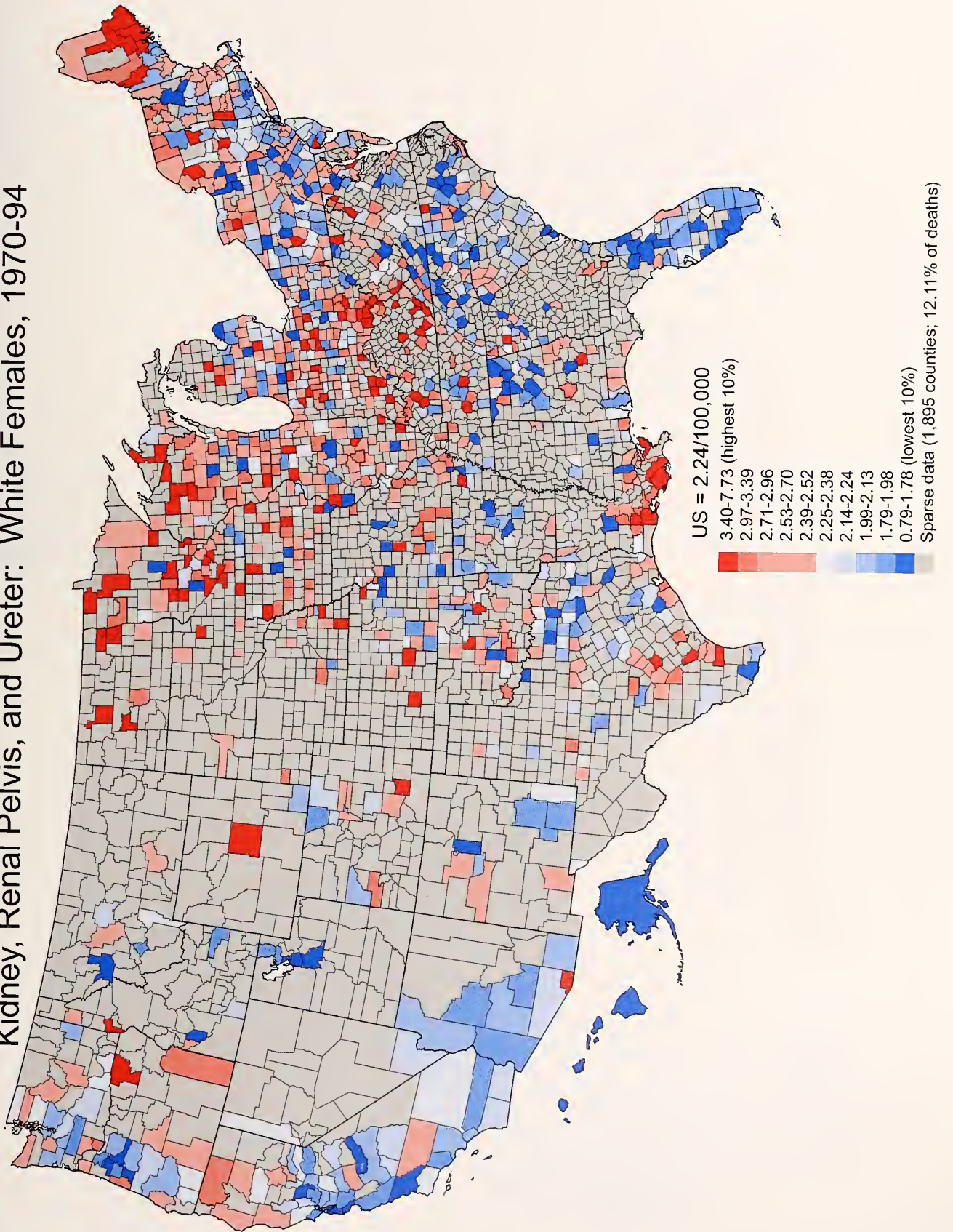
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Kidney, Renal Pelvis, and Ureter: White Males, 1970-94



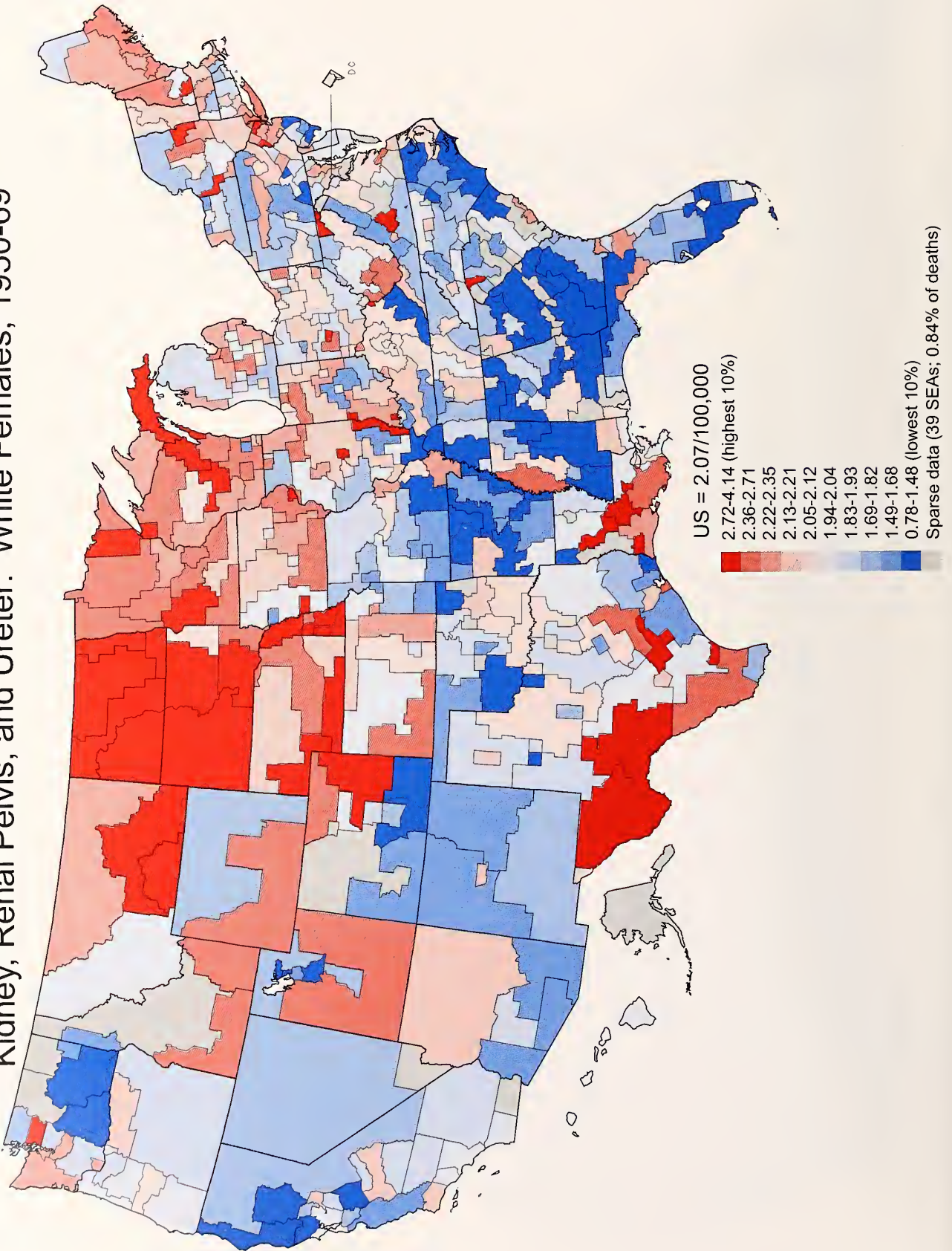
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
 Kidney, Renal Pelvis, and Ureter: White Females, 1950-69



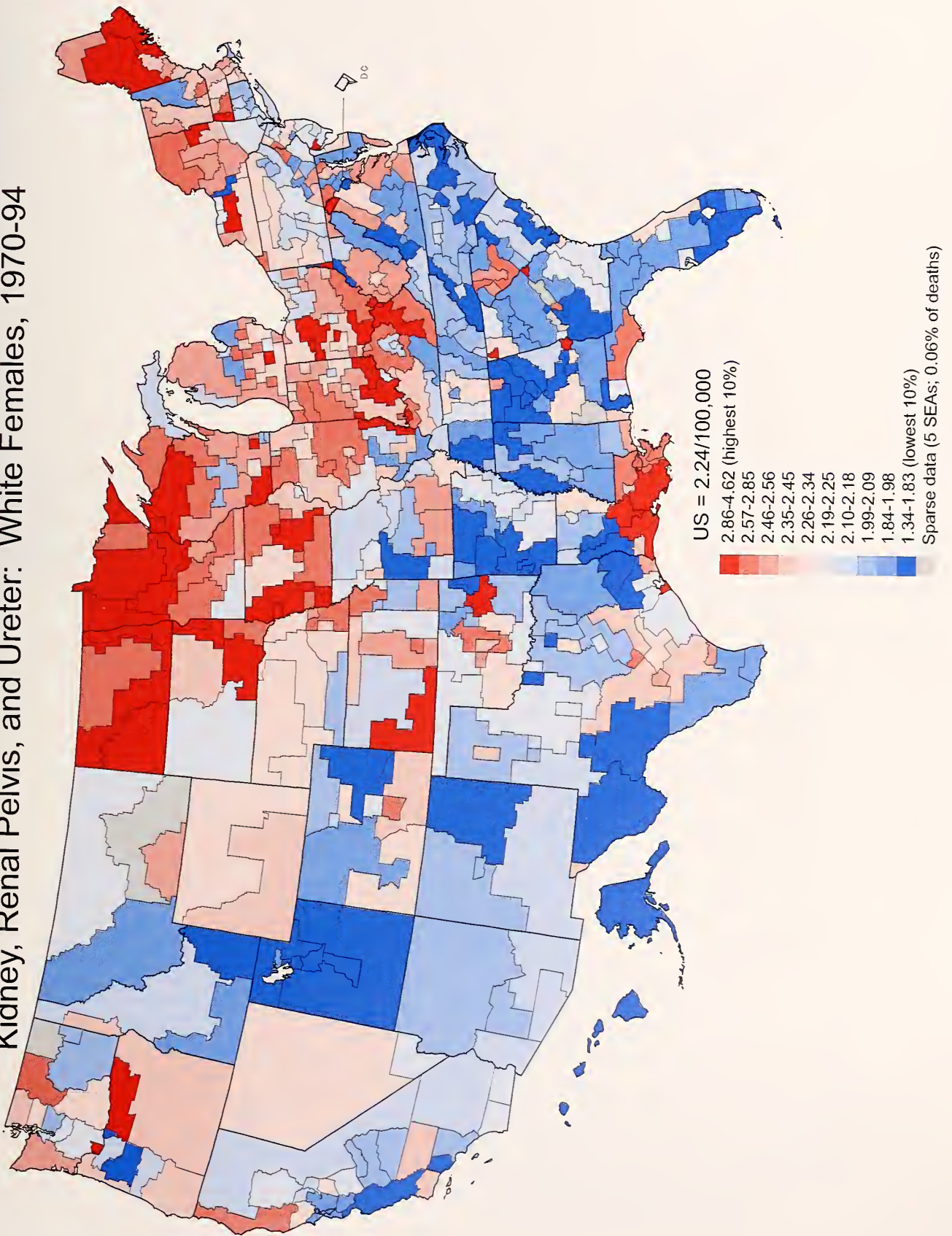
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Kidney, Renal Pelvis, and Ureter: White Females, 1970-94



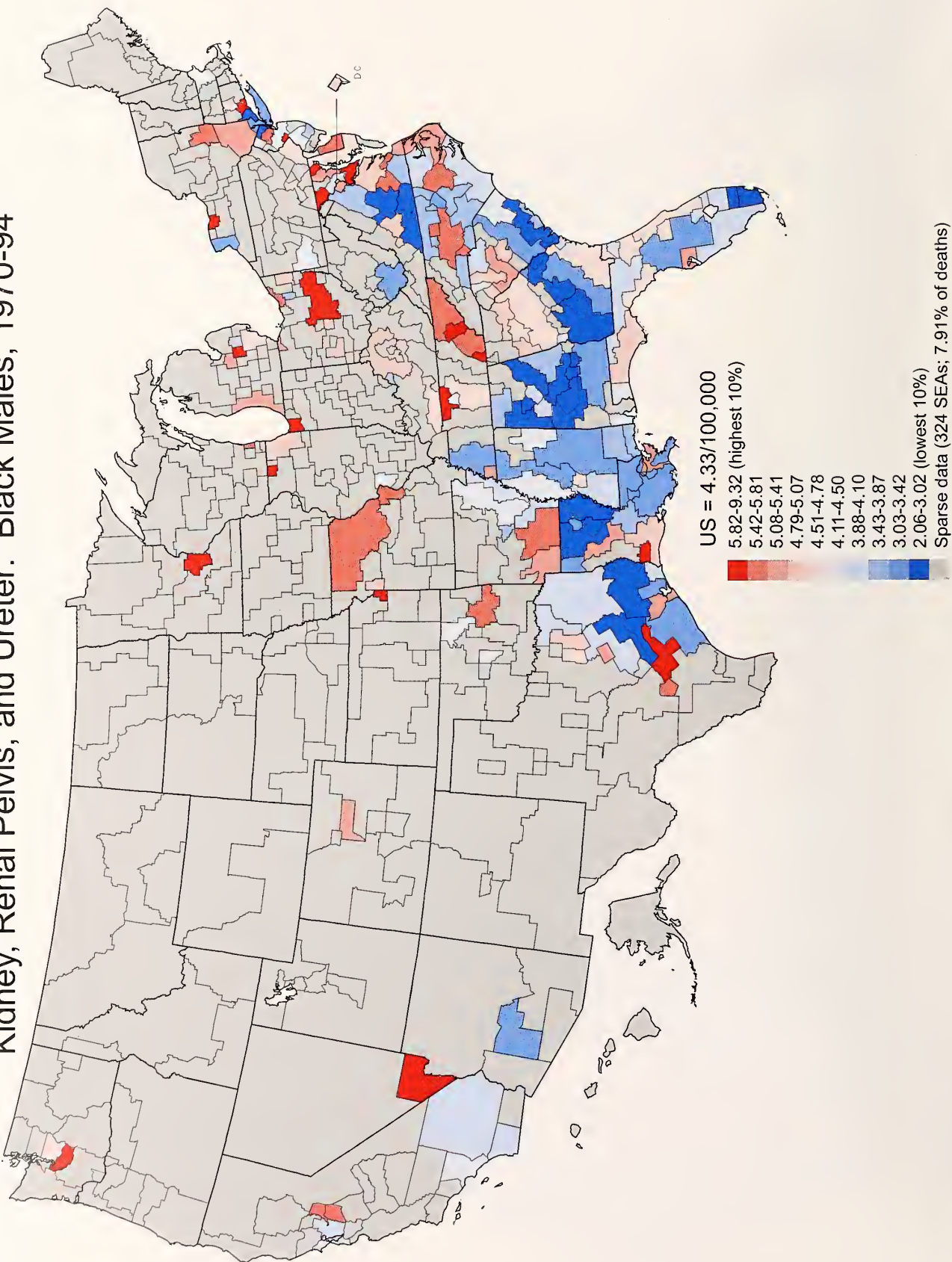
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Kidney, Renal Pelvis, and Ureter: White Females, 1950-69



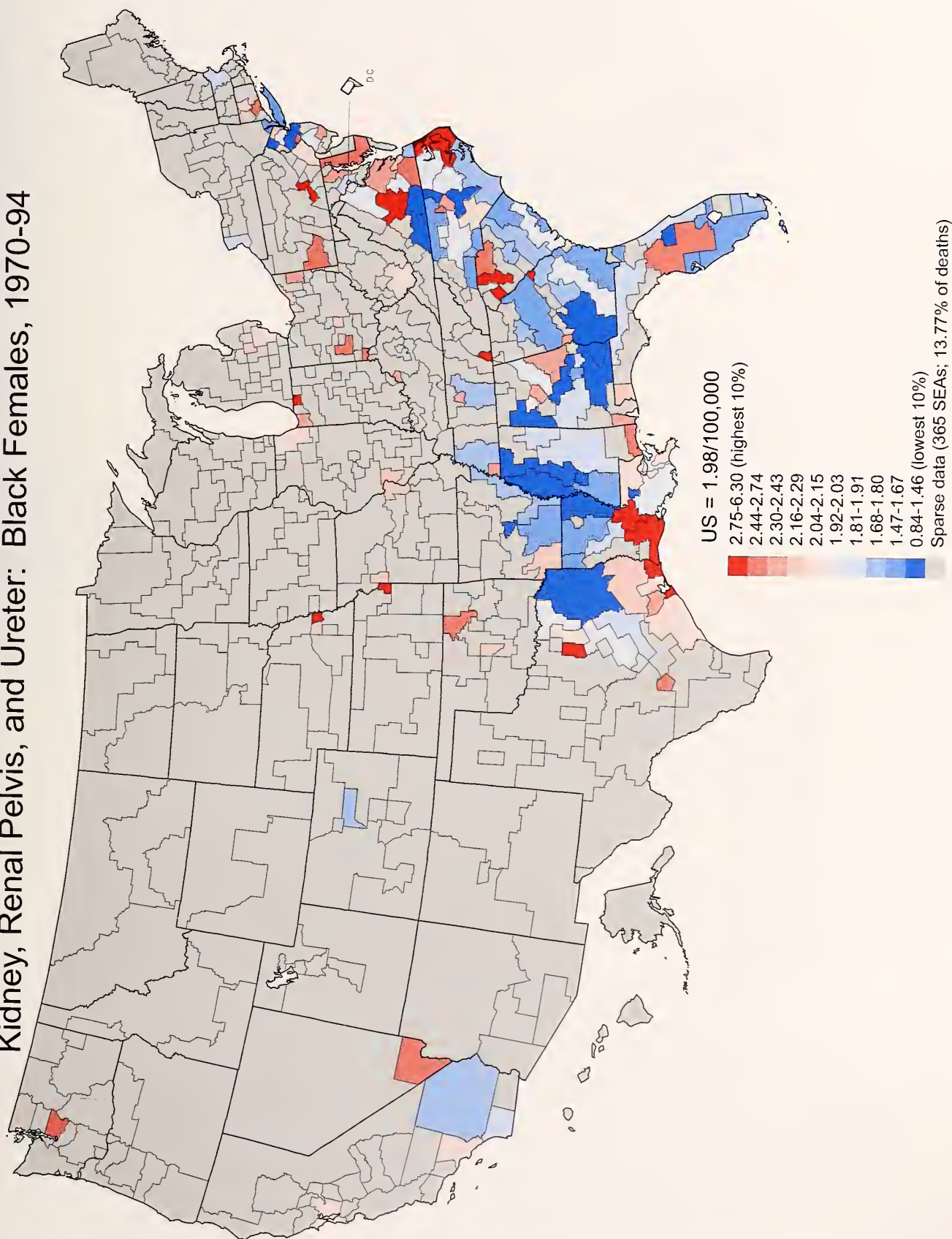
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Kidney, Renal Pelvis, and Ureter: White Females, 1970-94



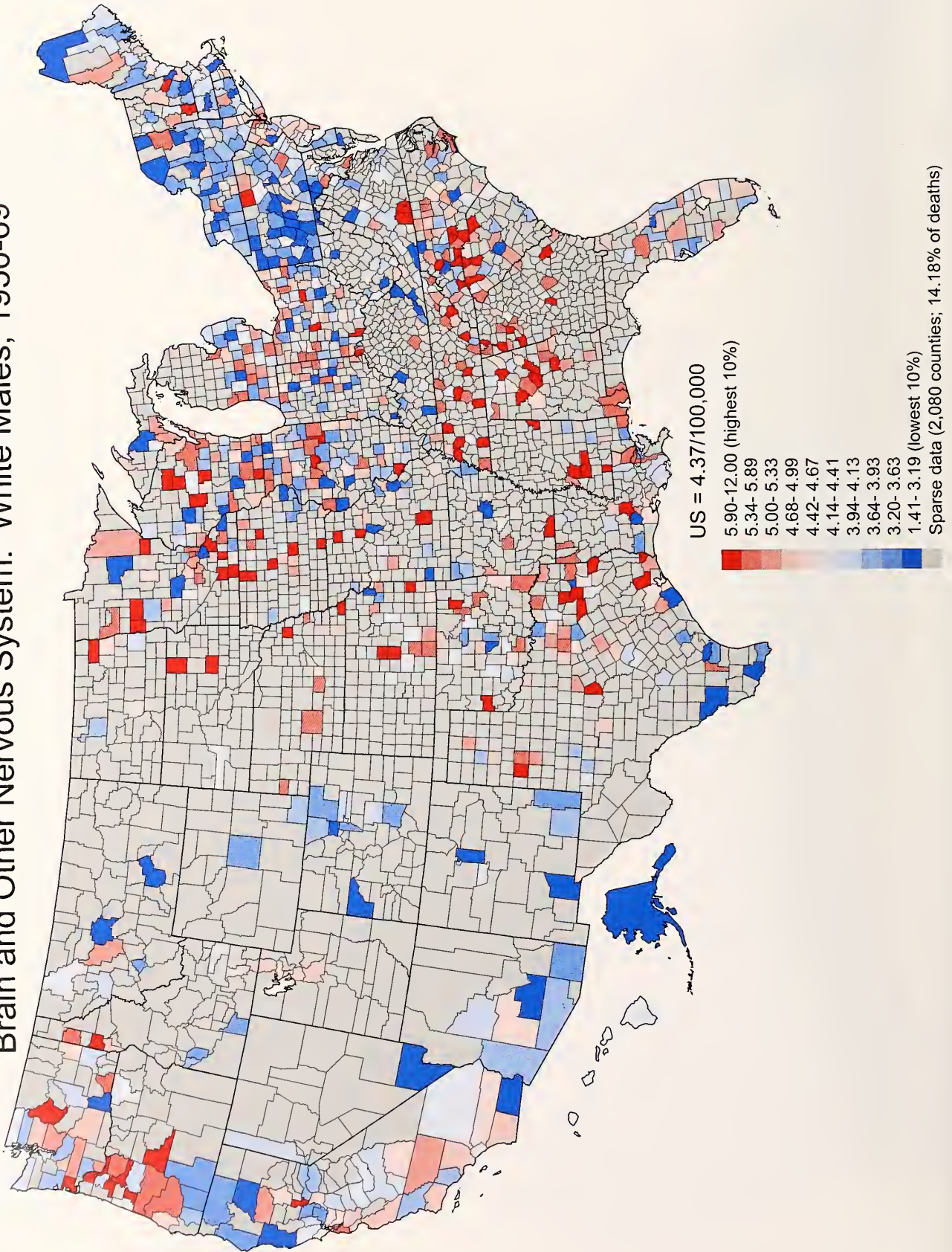
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Kidney, Renal Pelvis, and Ureter: Black Males, 1970-94



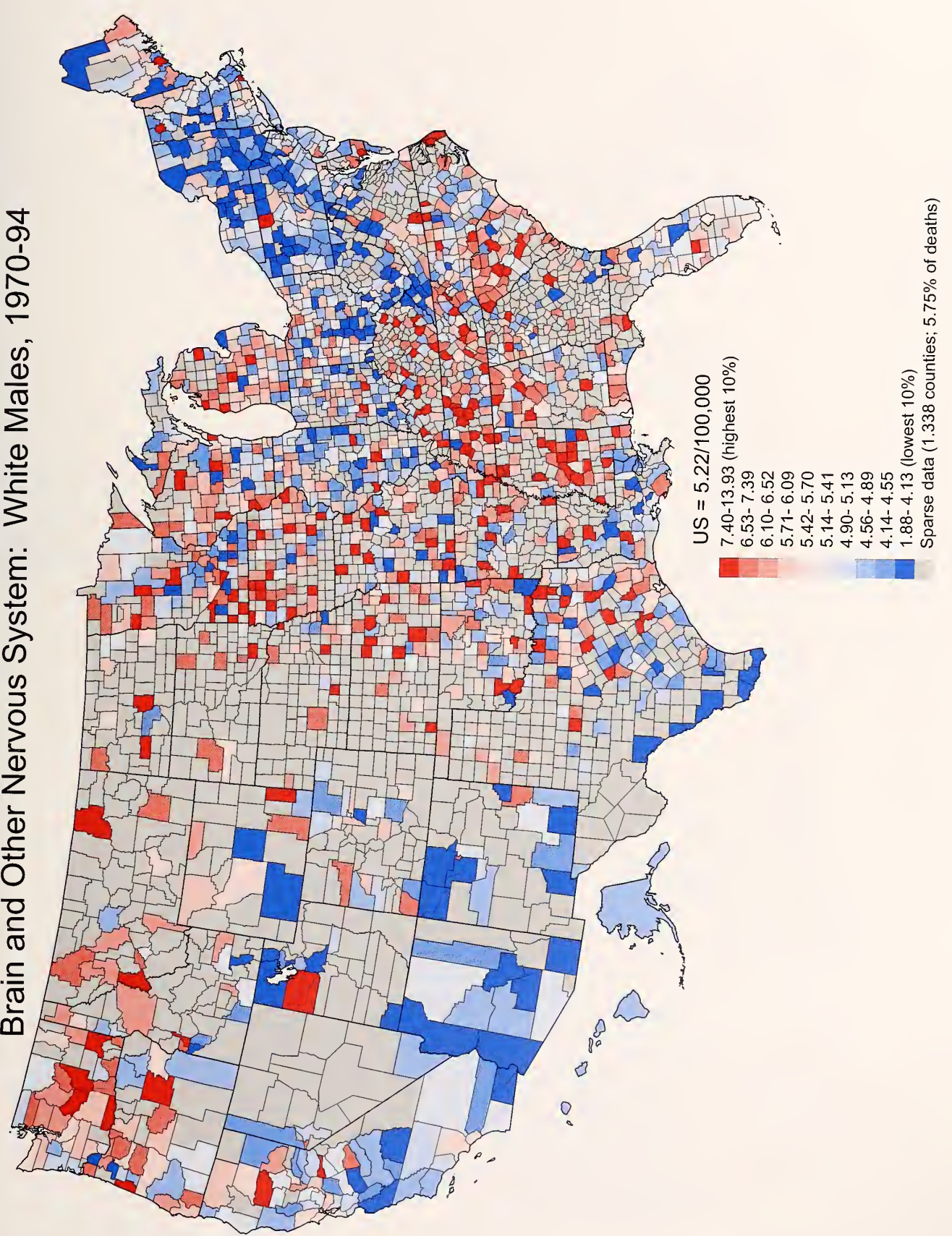
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Kidney, Renal Pelvis, and Ureter: Black Females, 1970-94



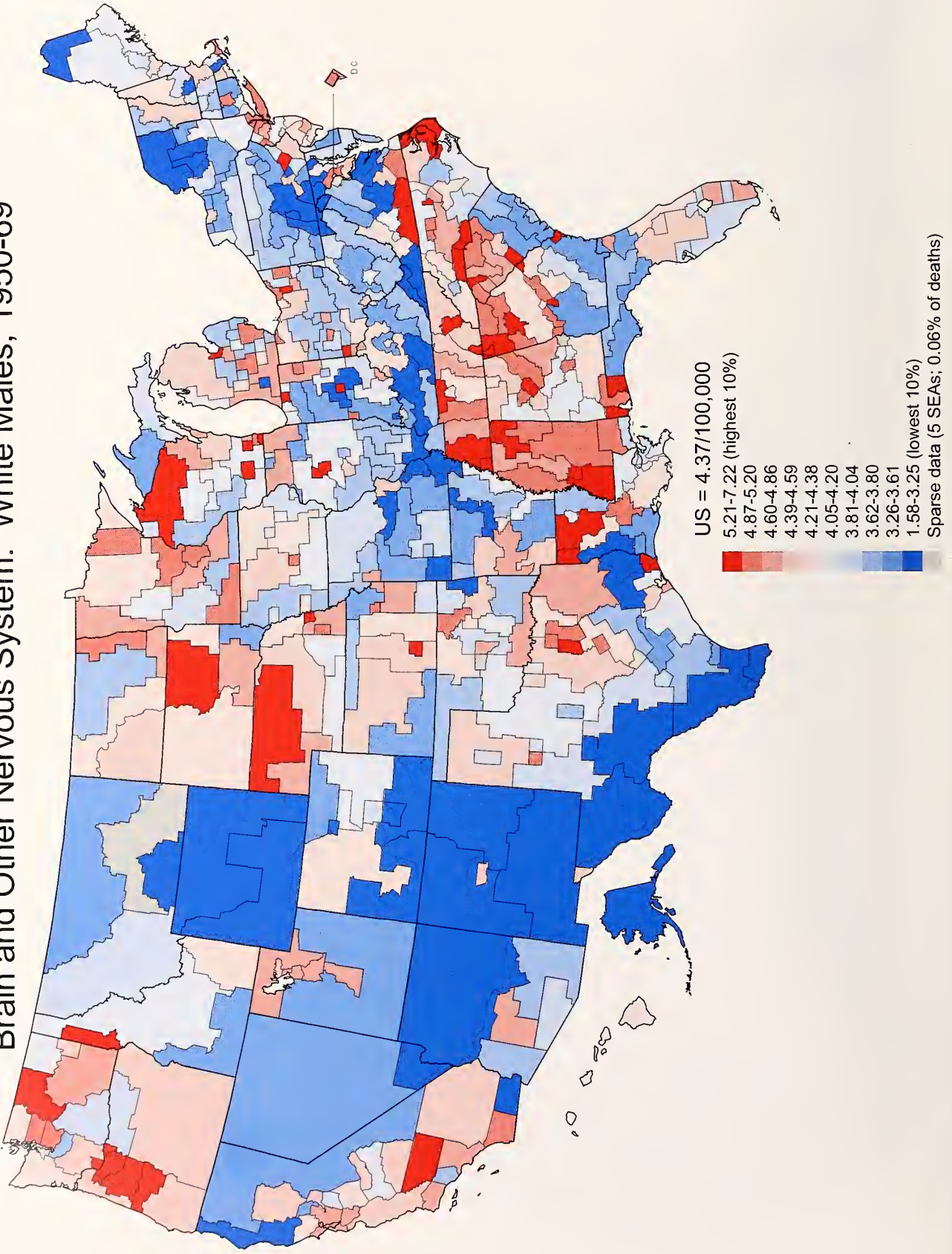
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Brain and Other Nervous System: White Males, 1950-69



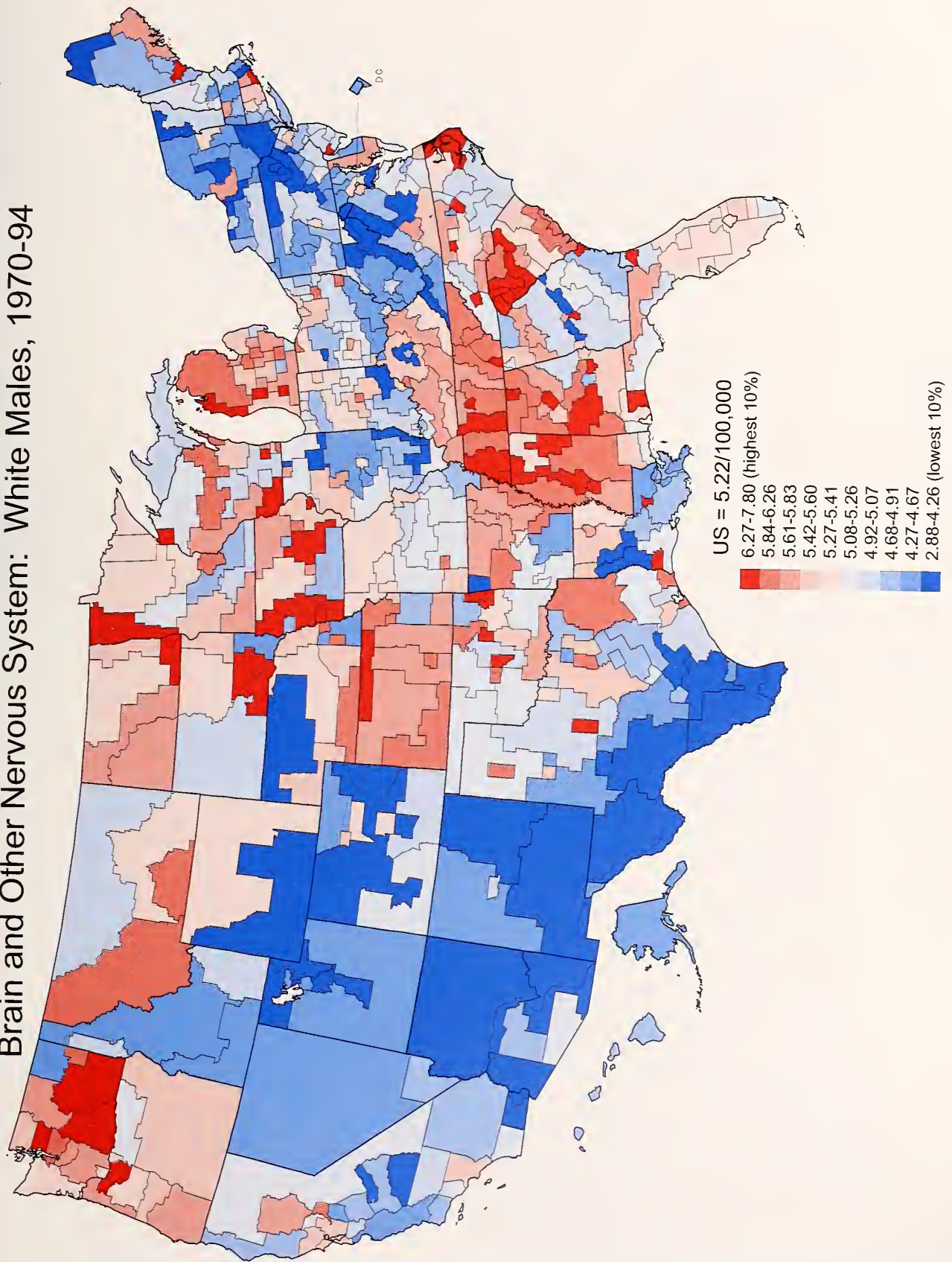
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Brain and Other Nervous System: White Males, 1970-94



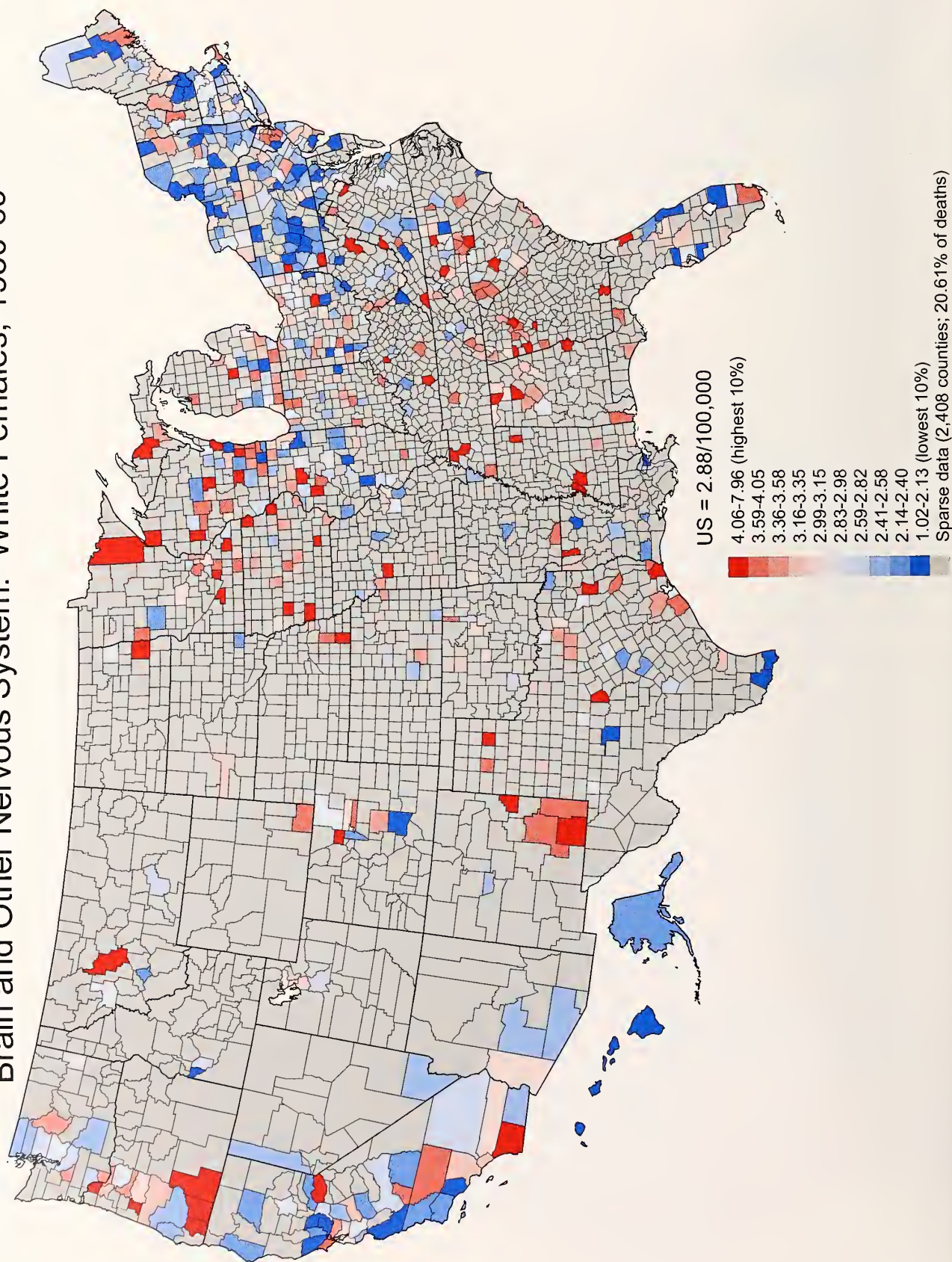
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Brain and Other Nervous System: White Males, 1950-69



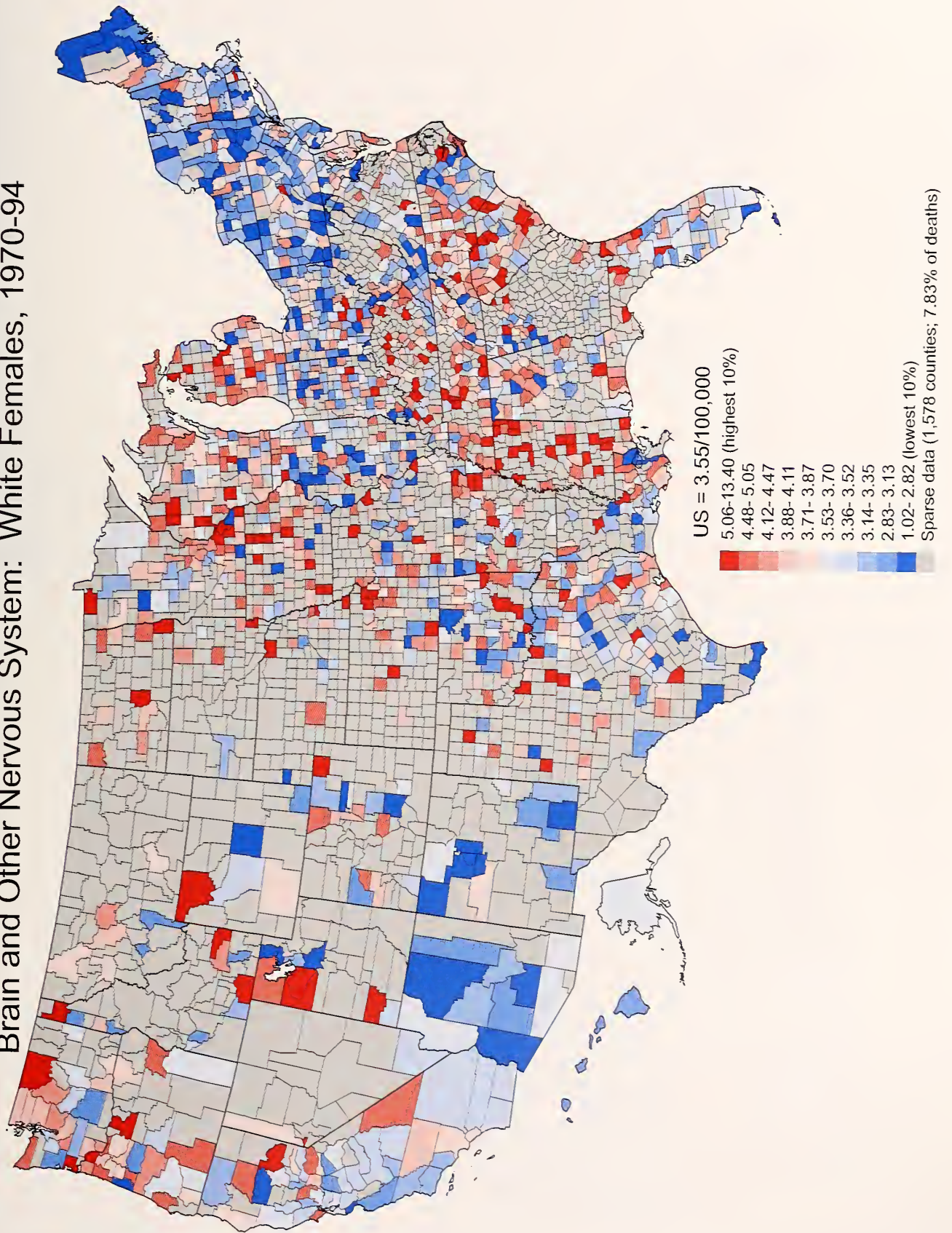
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Brain and Other Nervous System: White Males, 1970-94



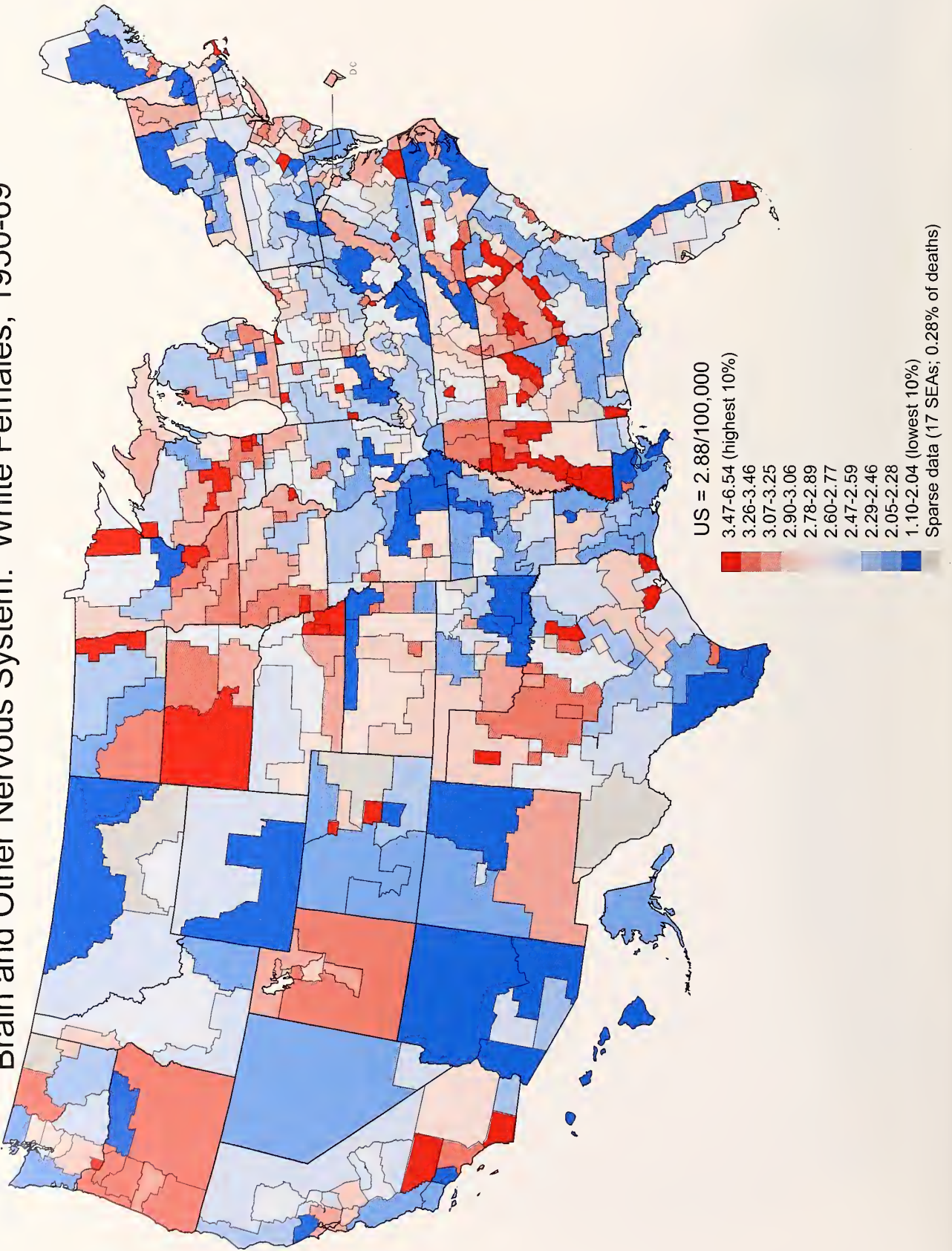
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Brain and Other Nervous System: White Females, 1950-69



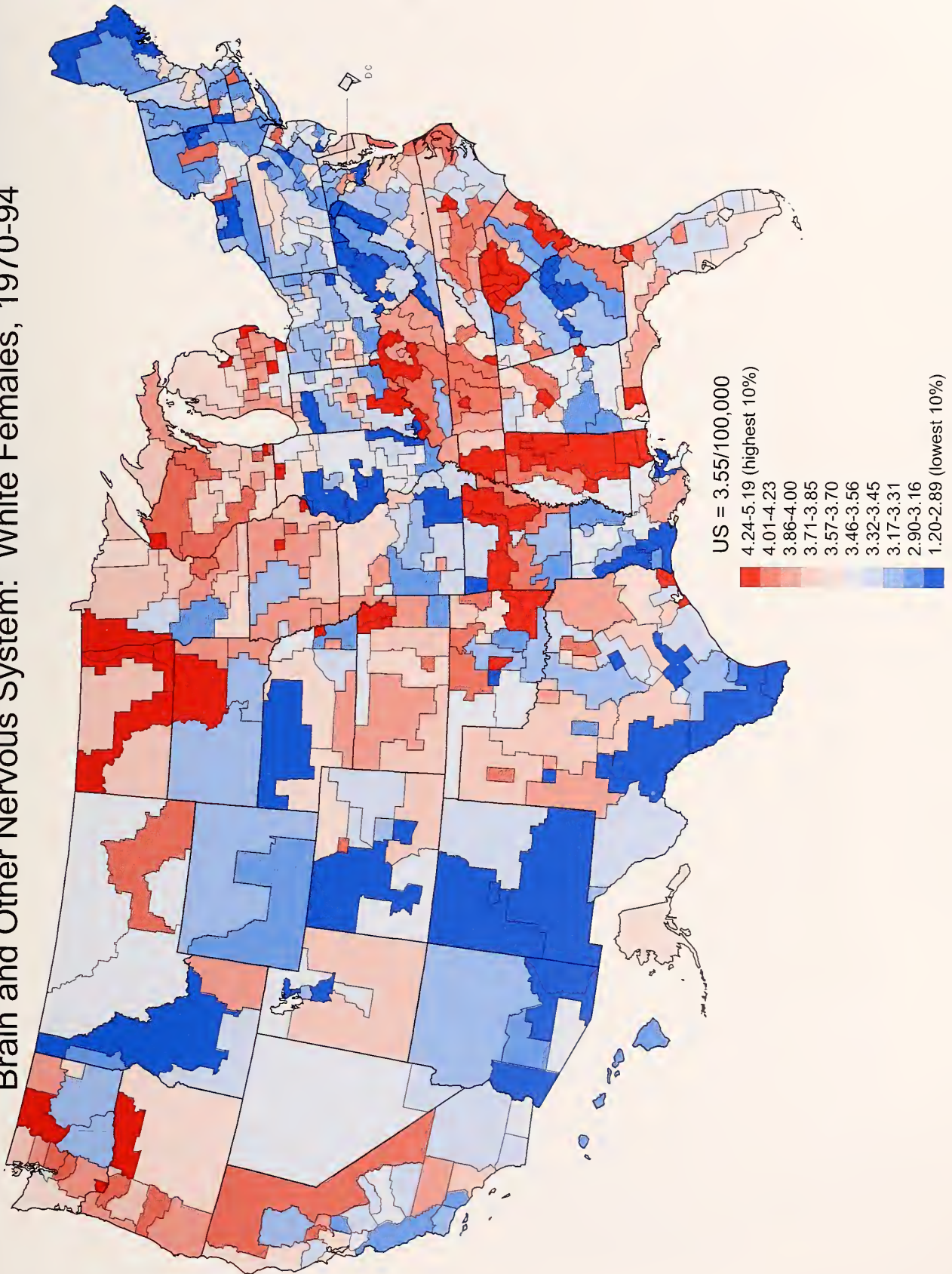
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Brain and Other Nervous System: White Females, 1970-94



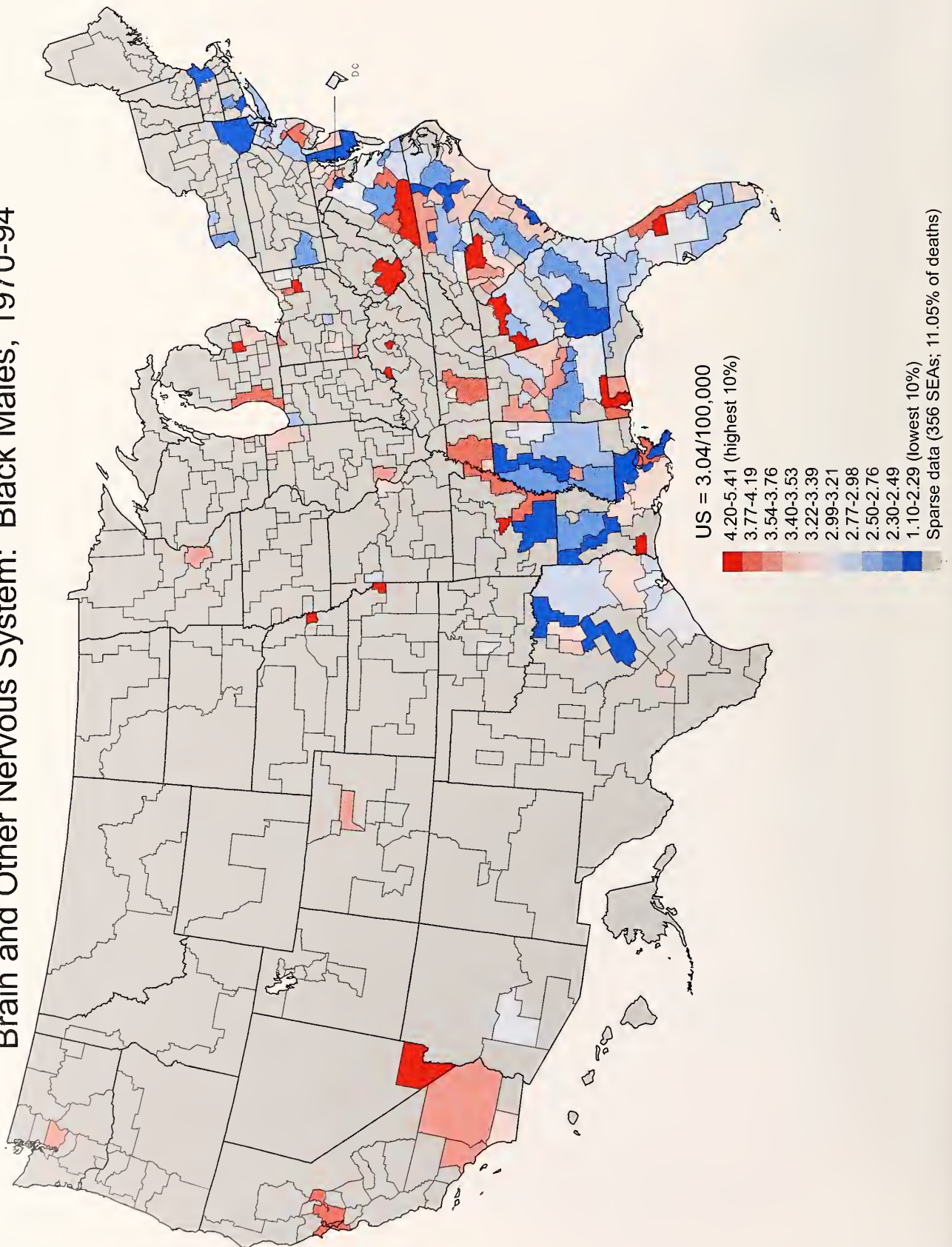
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Brain and Other Nervous System: White Females, 1950-69



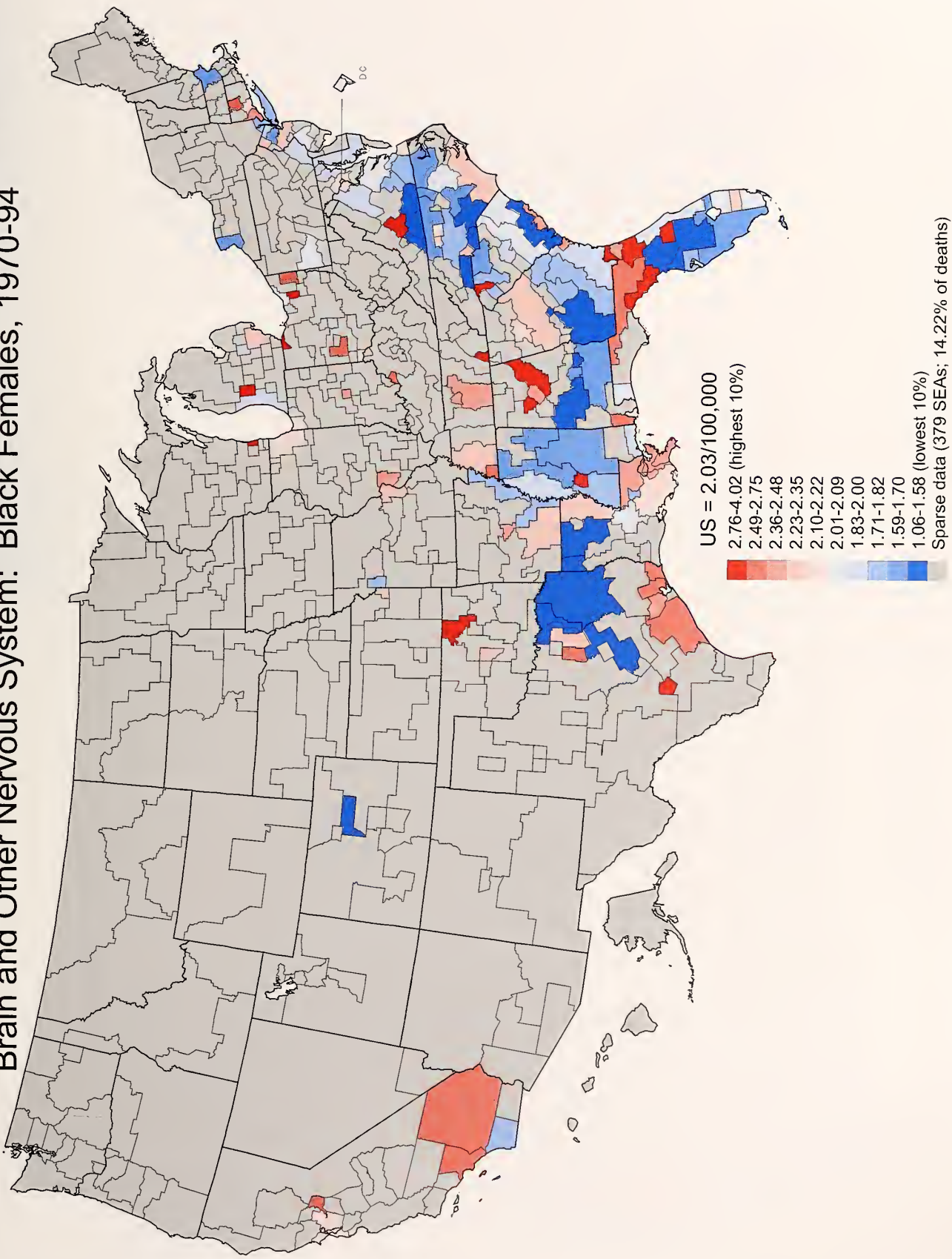
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Brain and Other Nervous System: White Females, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Brain and Other Nervous System: Black Males, 1970-94

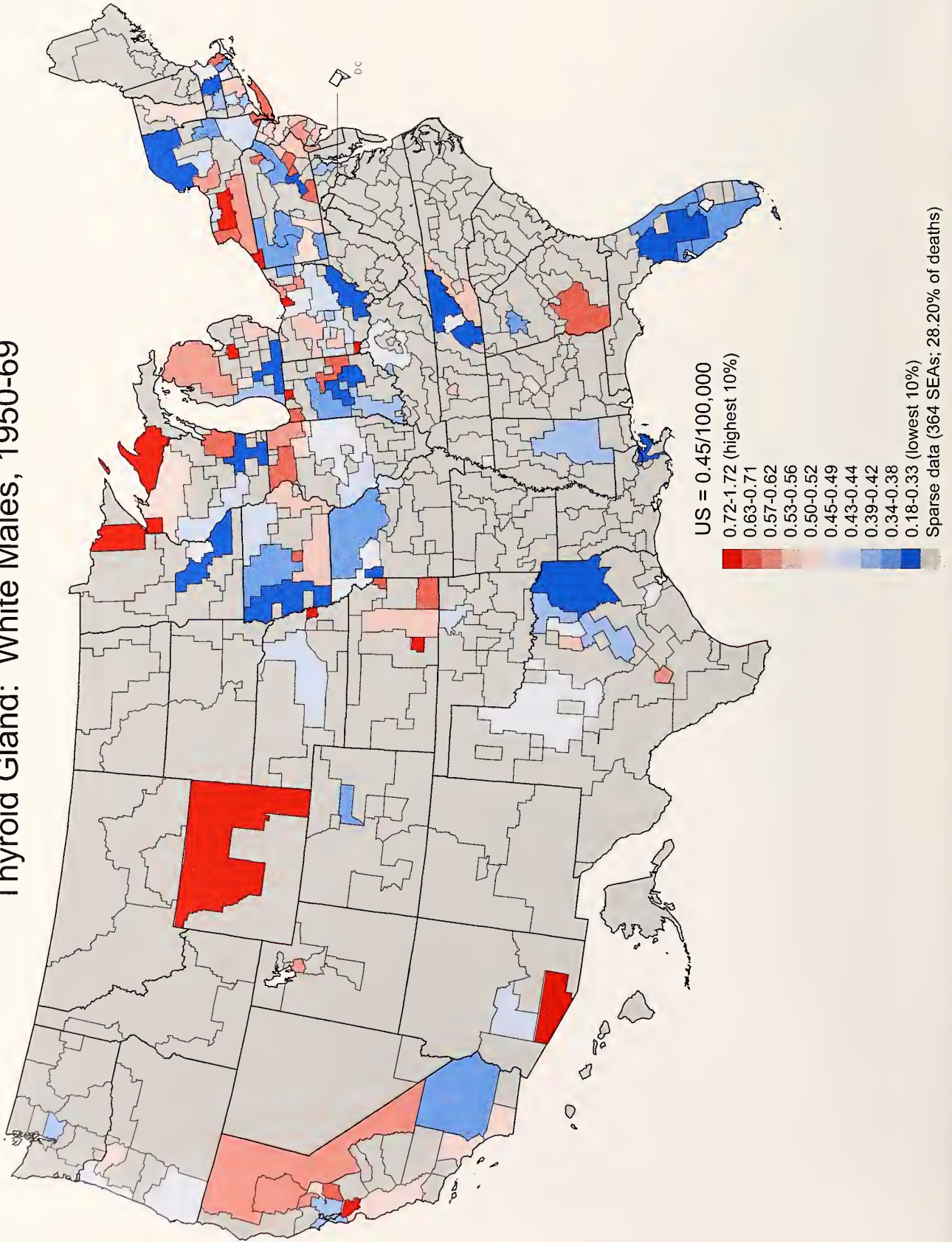


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Brain and Other Nervous System: Black Females, 1970-94

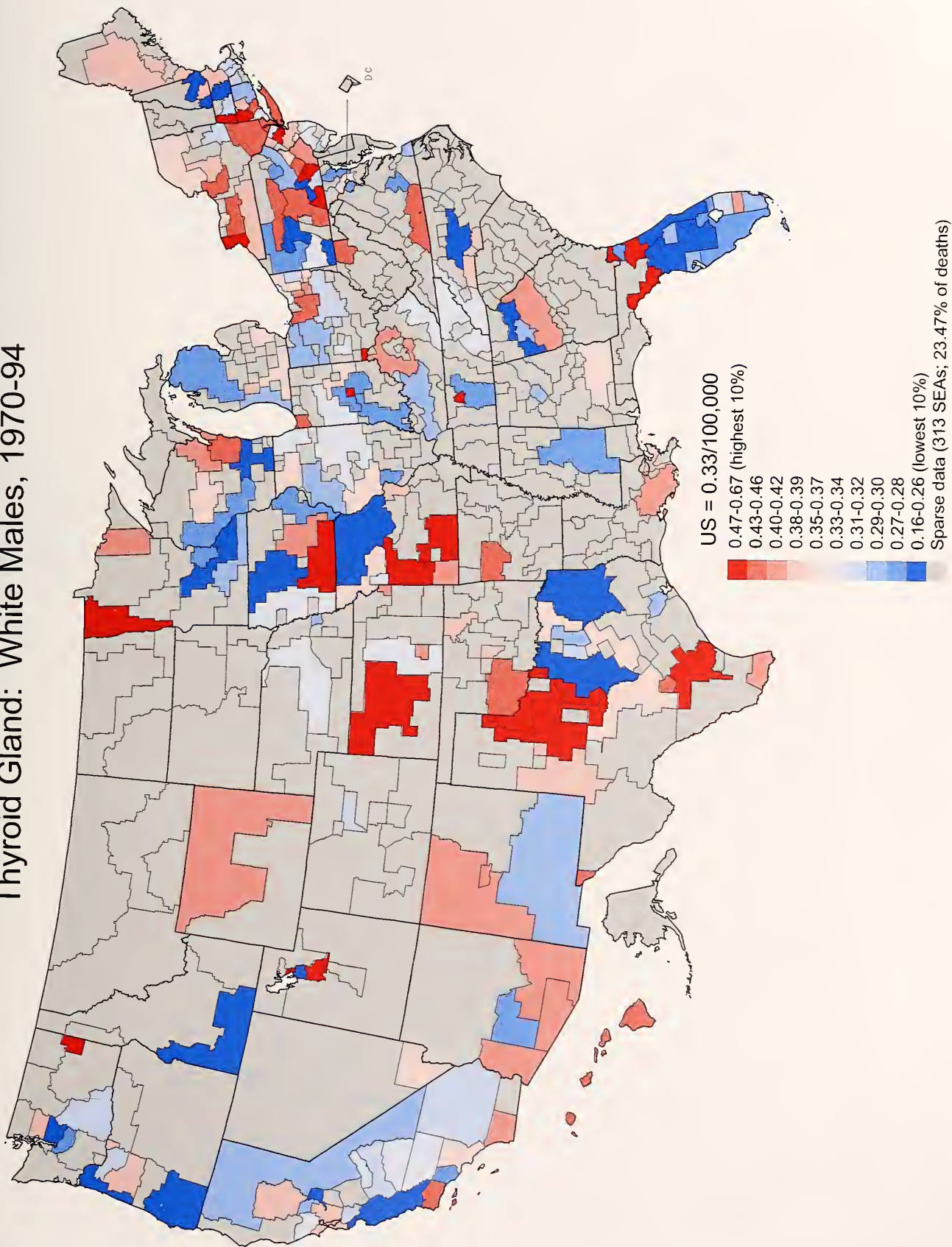


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)

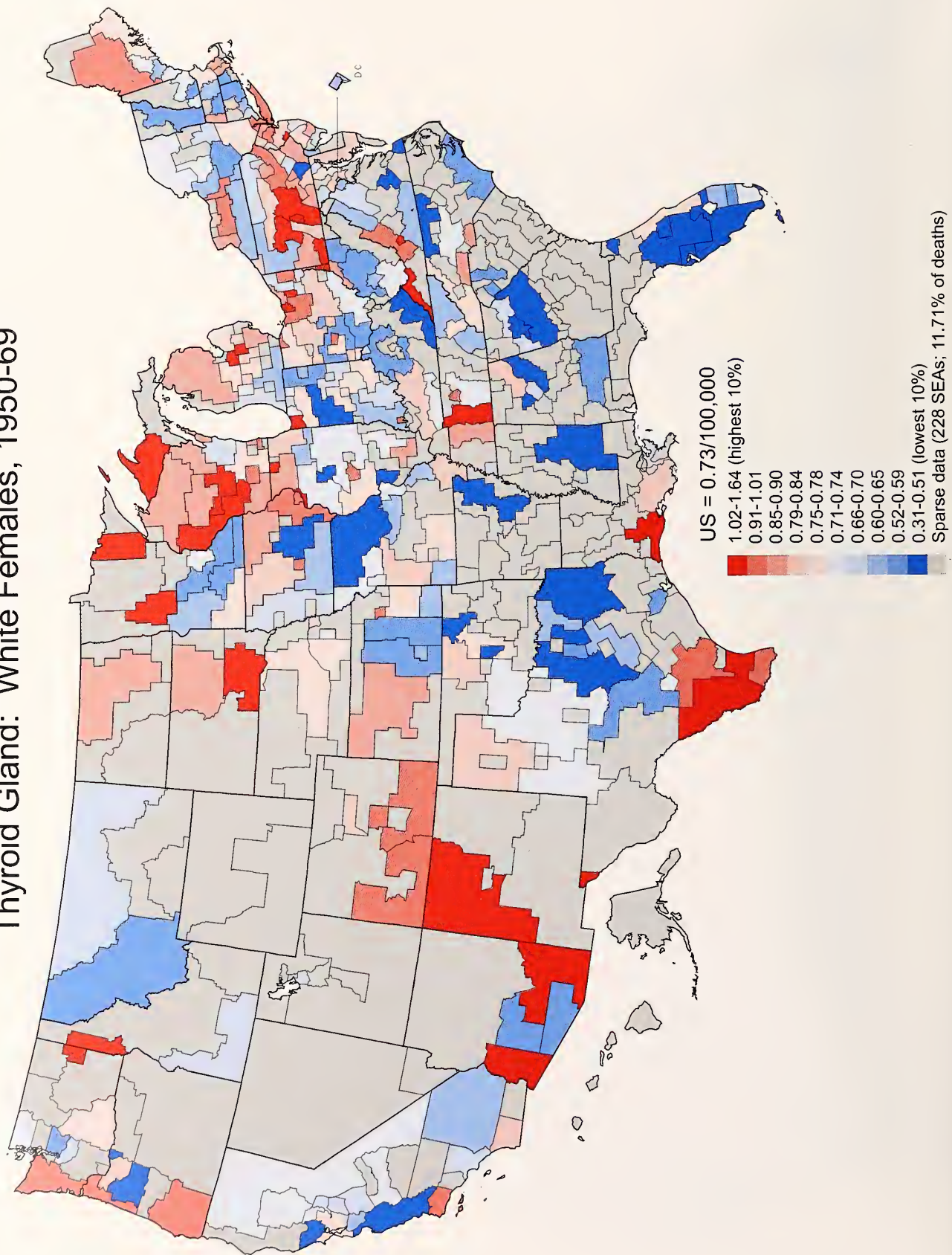
Thyroid Gland: White Males, 1950-69



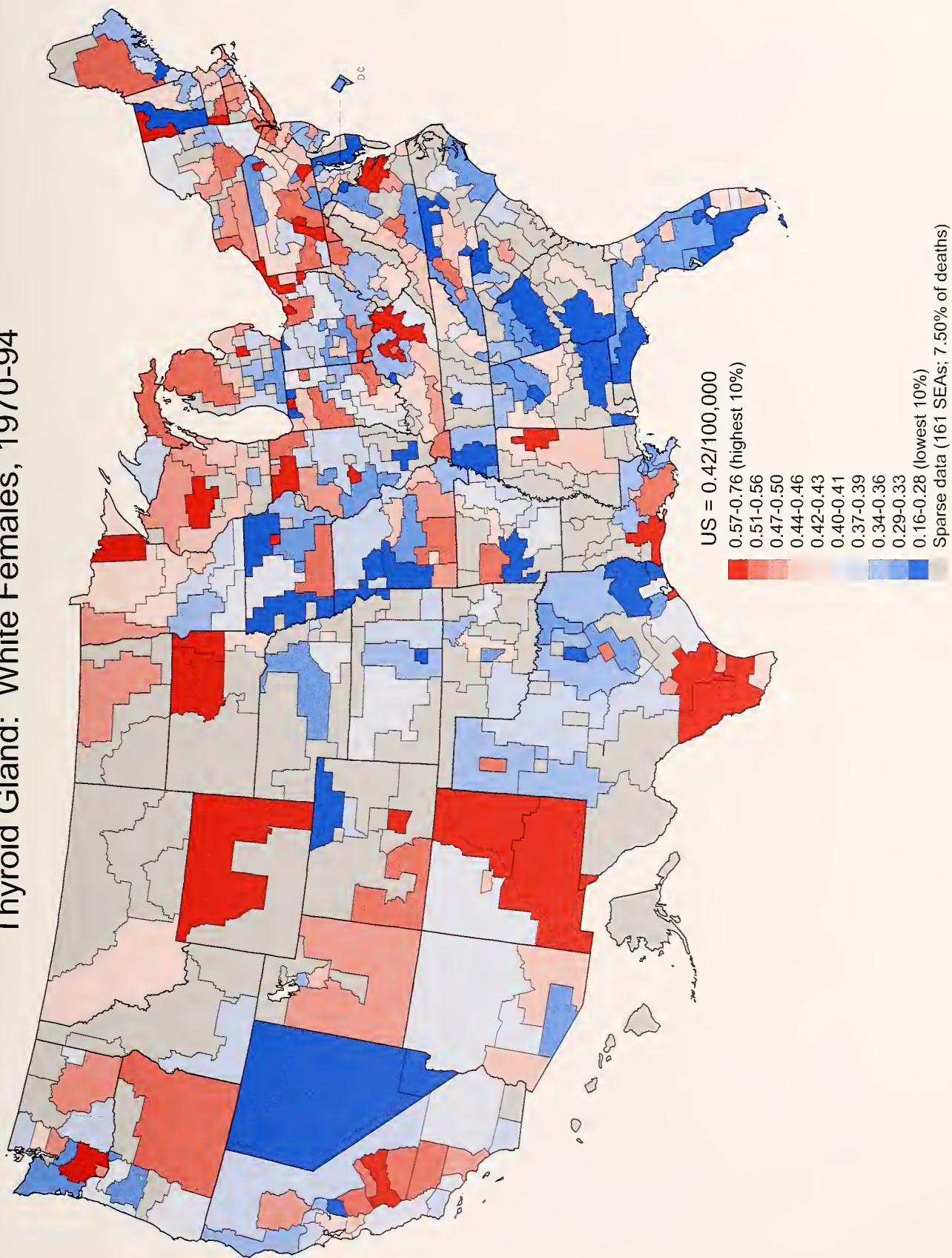
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Thyroid Gland: White Males, 1970-94



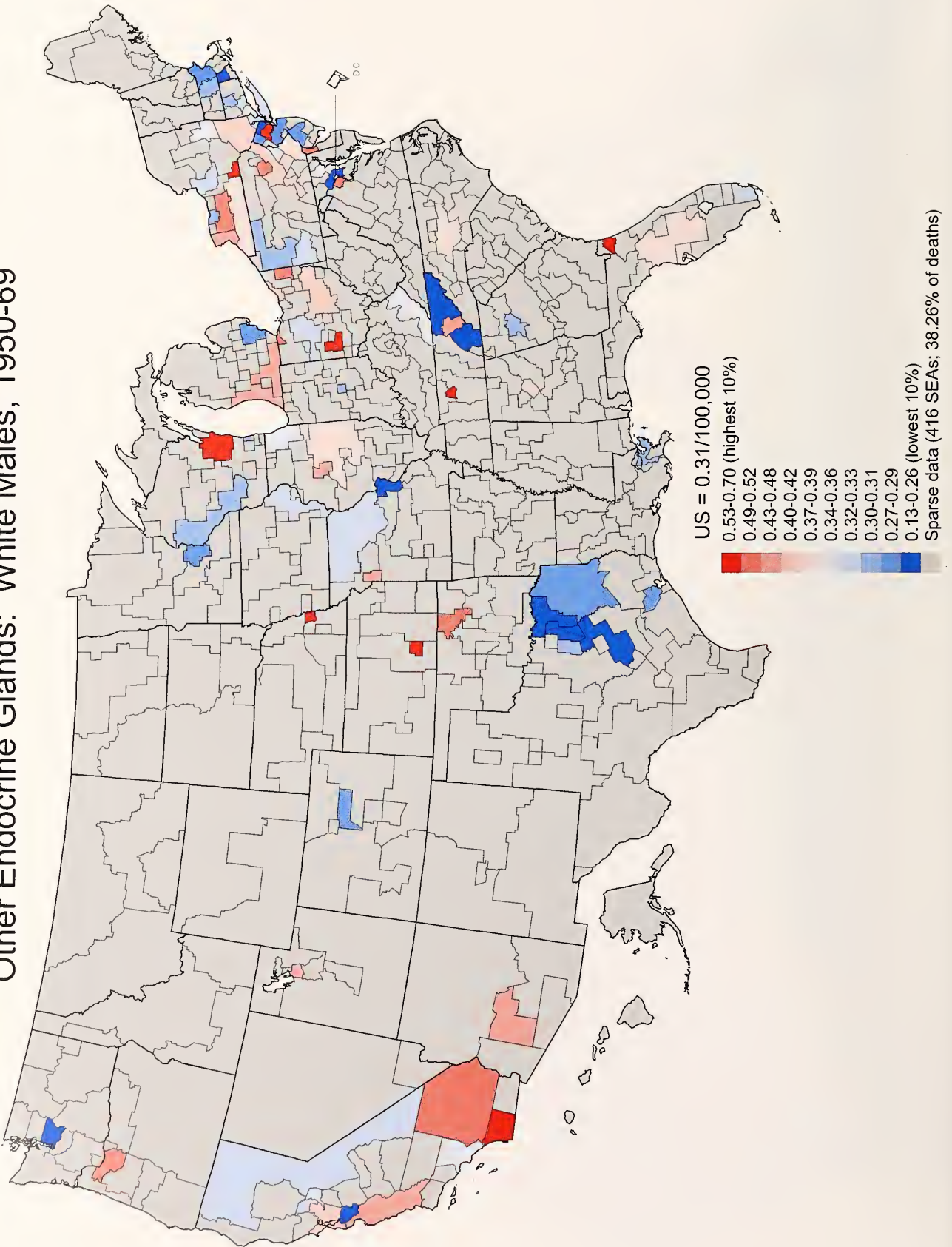
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Thyroid Gland: White Females, 1950-69



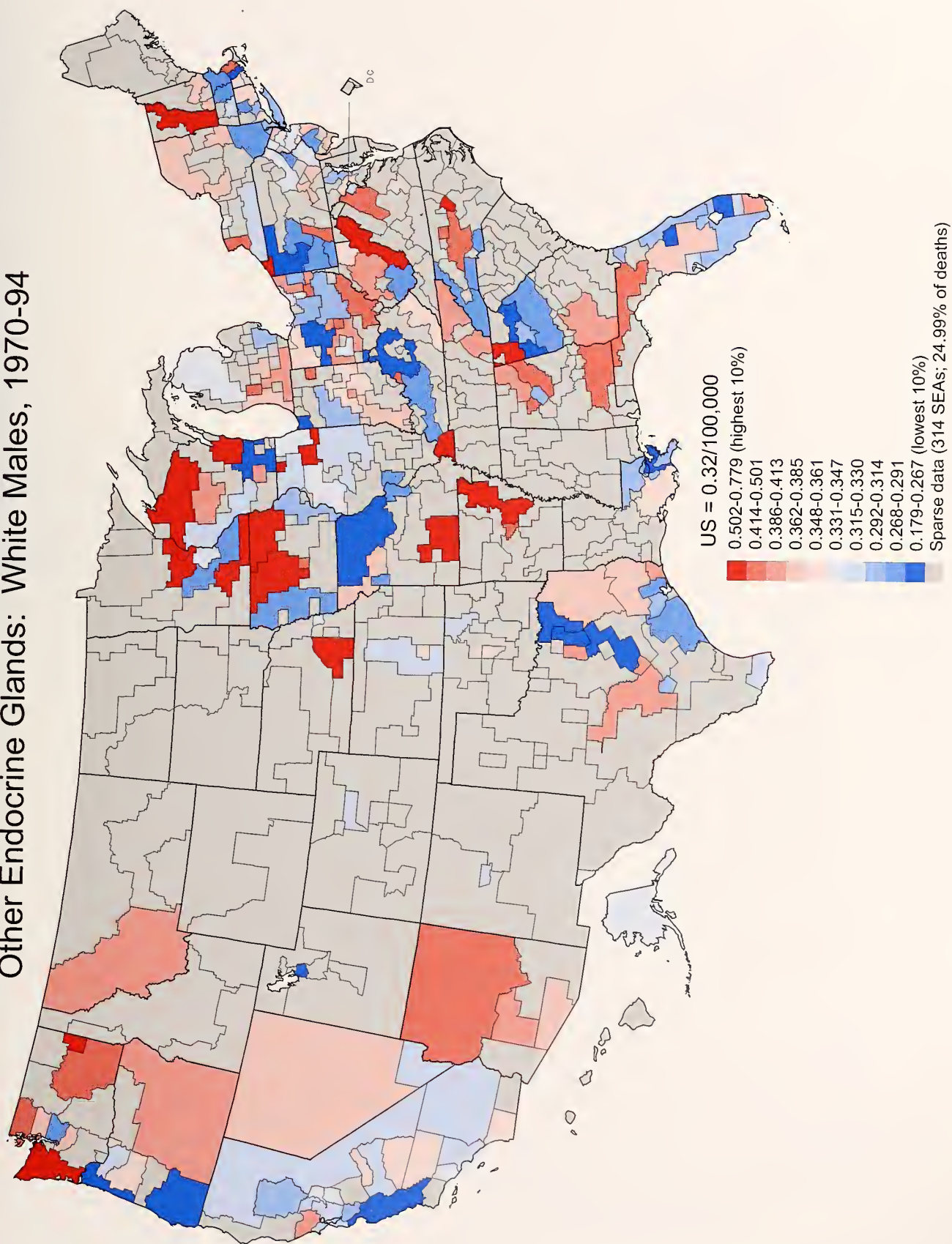
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Thyroid Gland: White Females, 1970-94



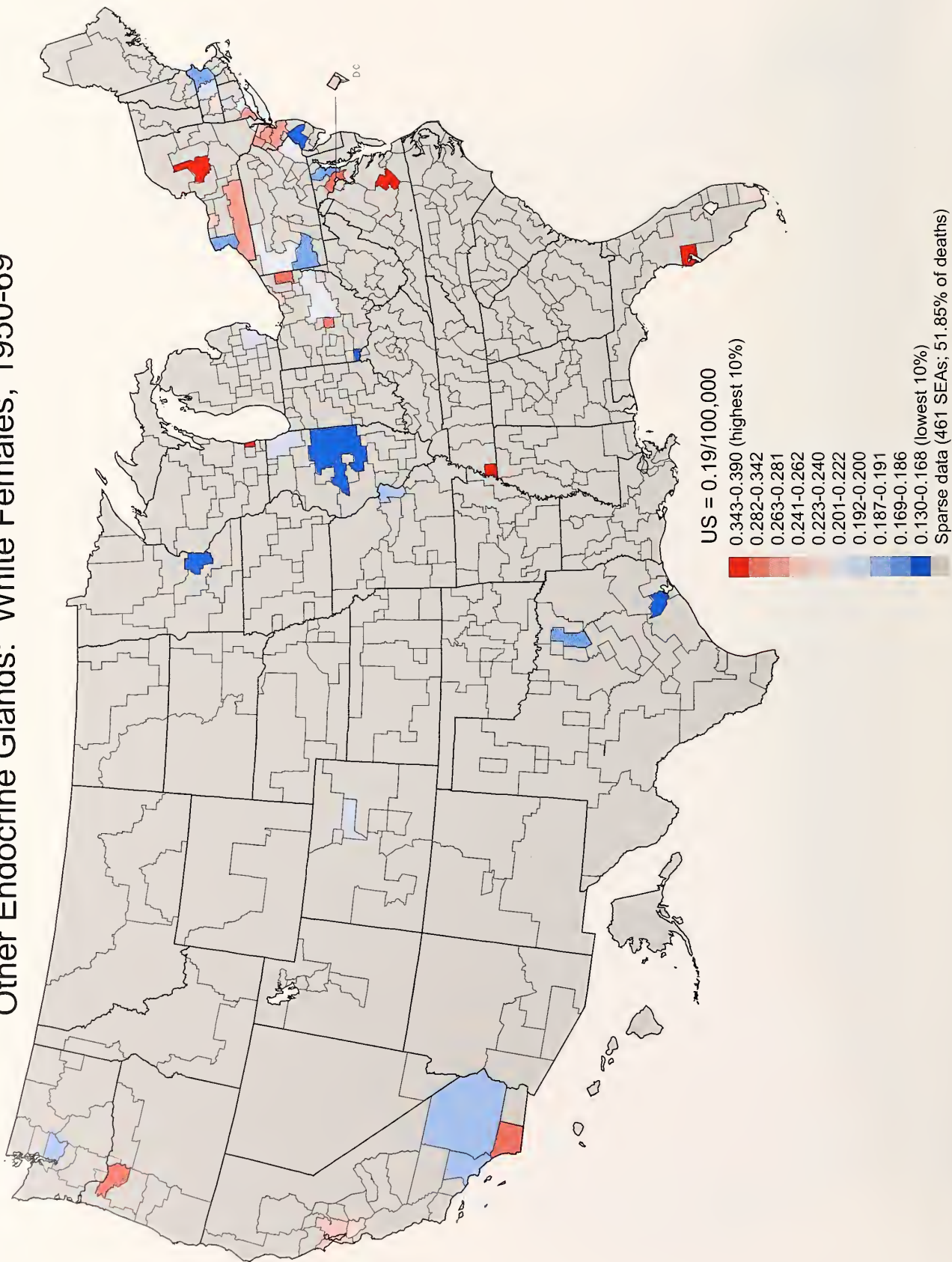
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Endocrine Glands: White Males, 1950-69



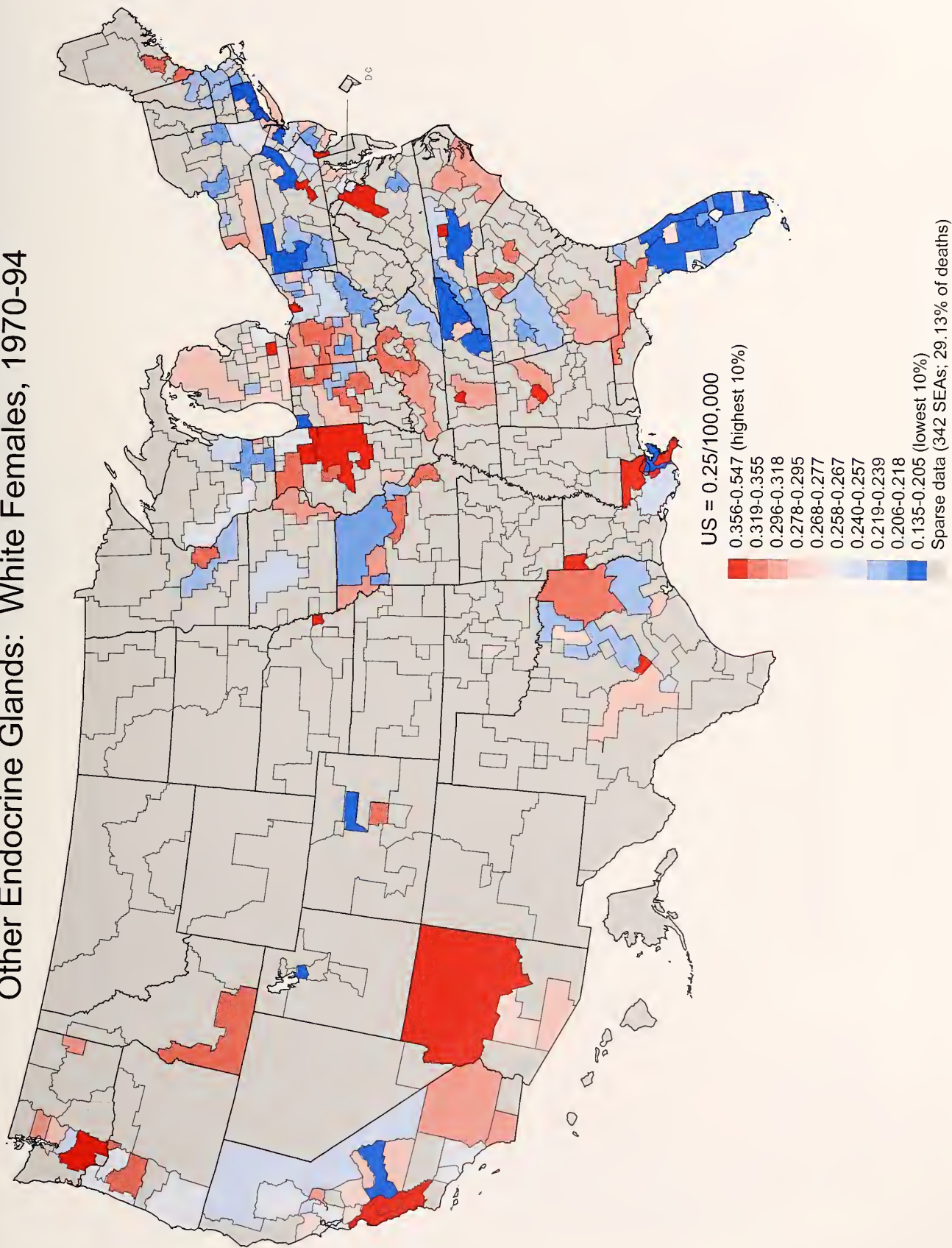
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Other Endocrine Glands: White Males, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other Endocrine Glands: White Females, 1950-69

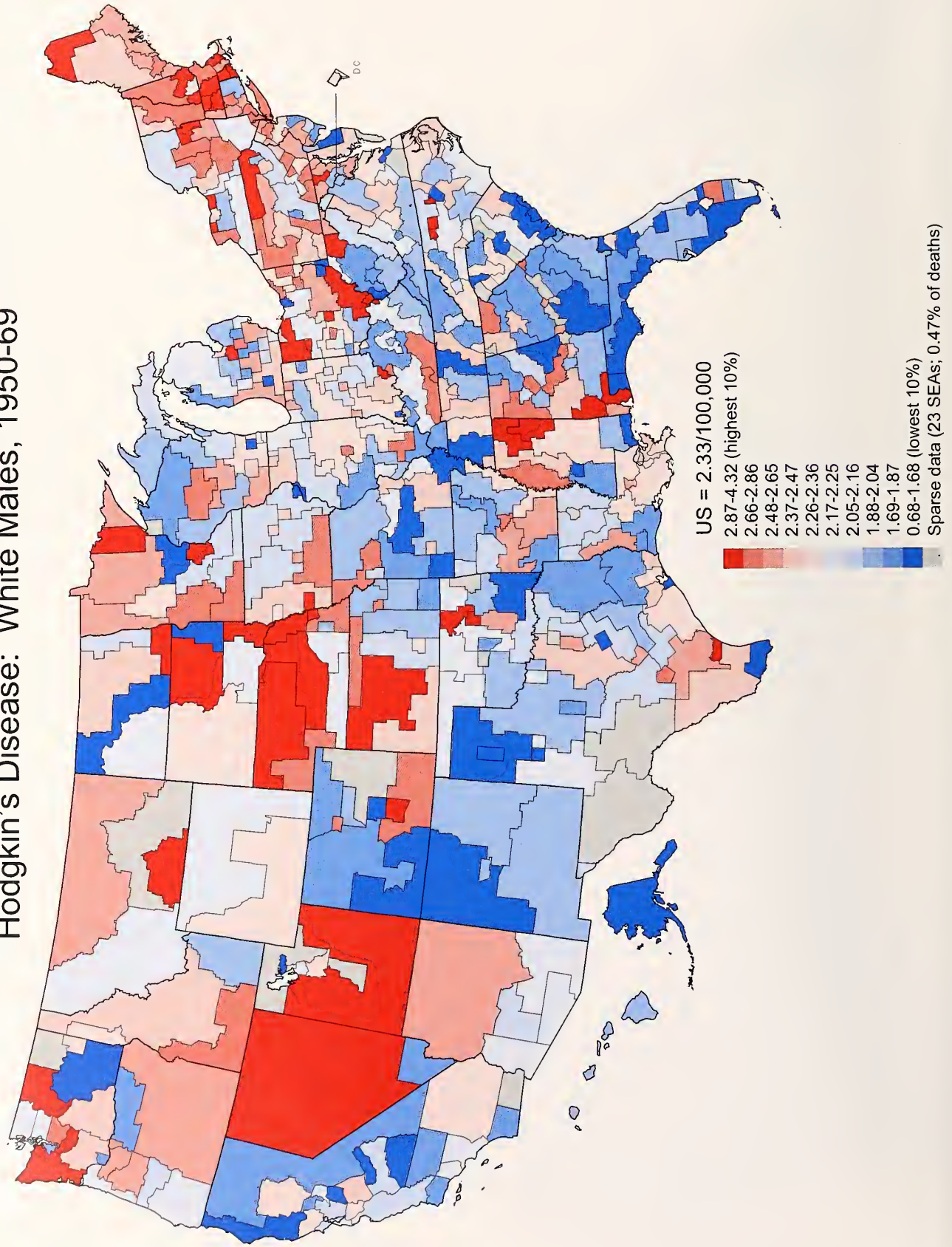


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other Endocrine Glands: White Females, 1970-94

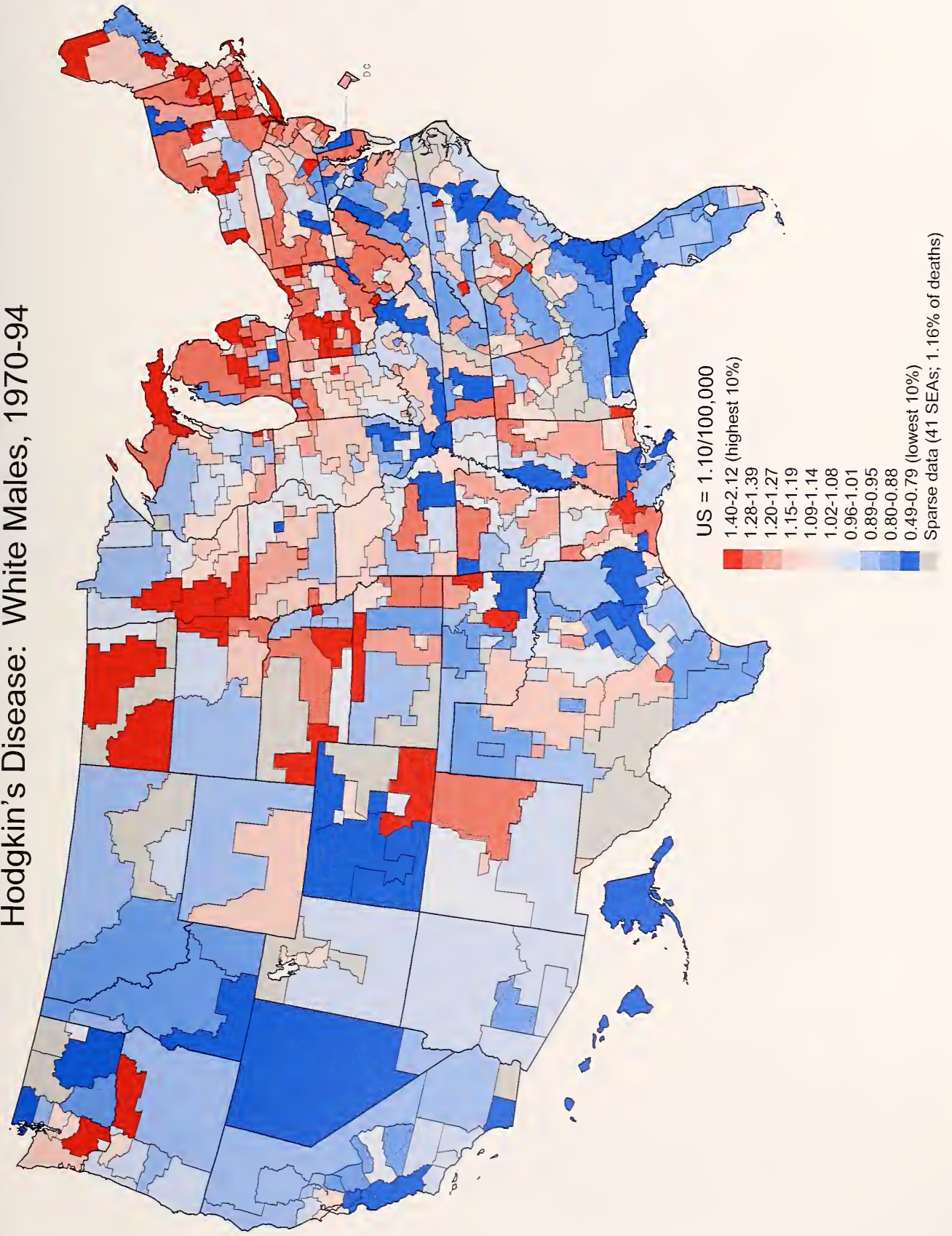


Hodgkin's Disease

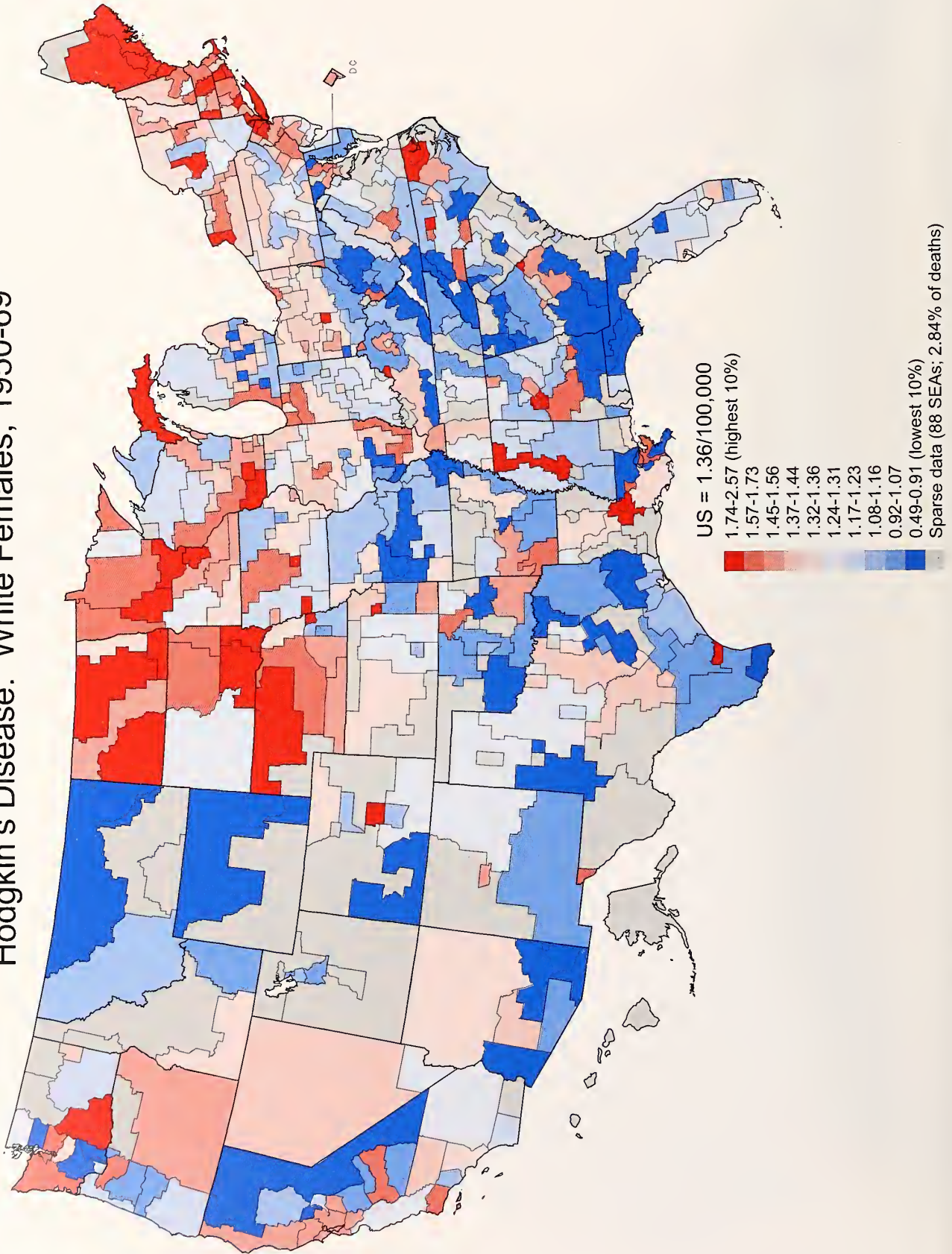
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Hodgkin's Disease: White Males, 1950-69



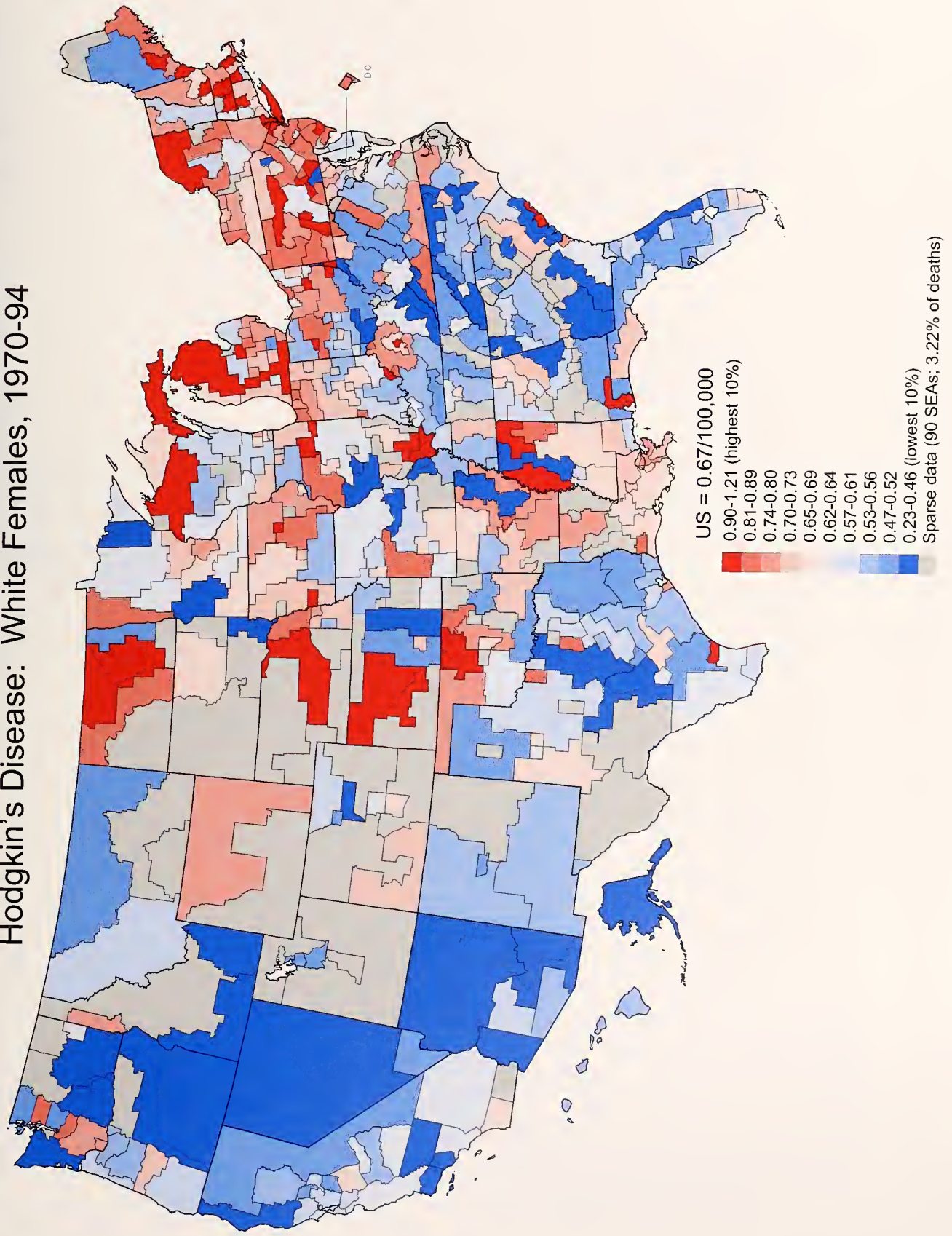
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Hodgkin's Disease: White Males, 1970-94



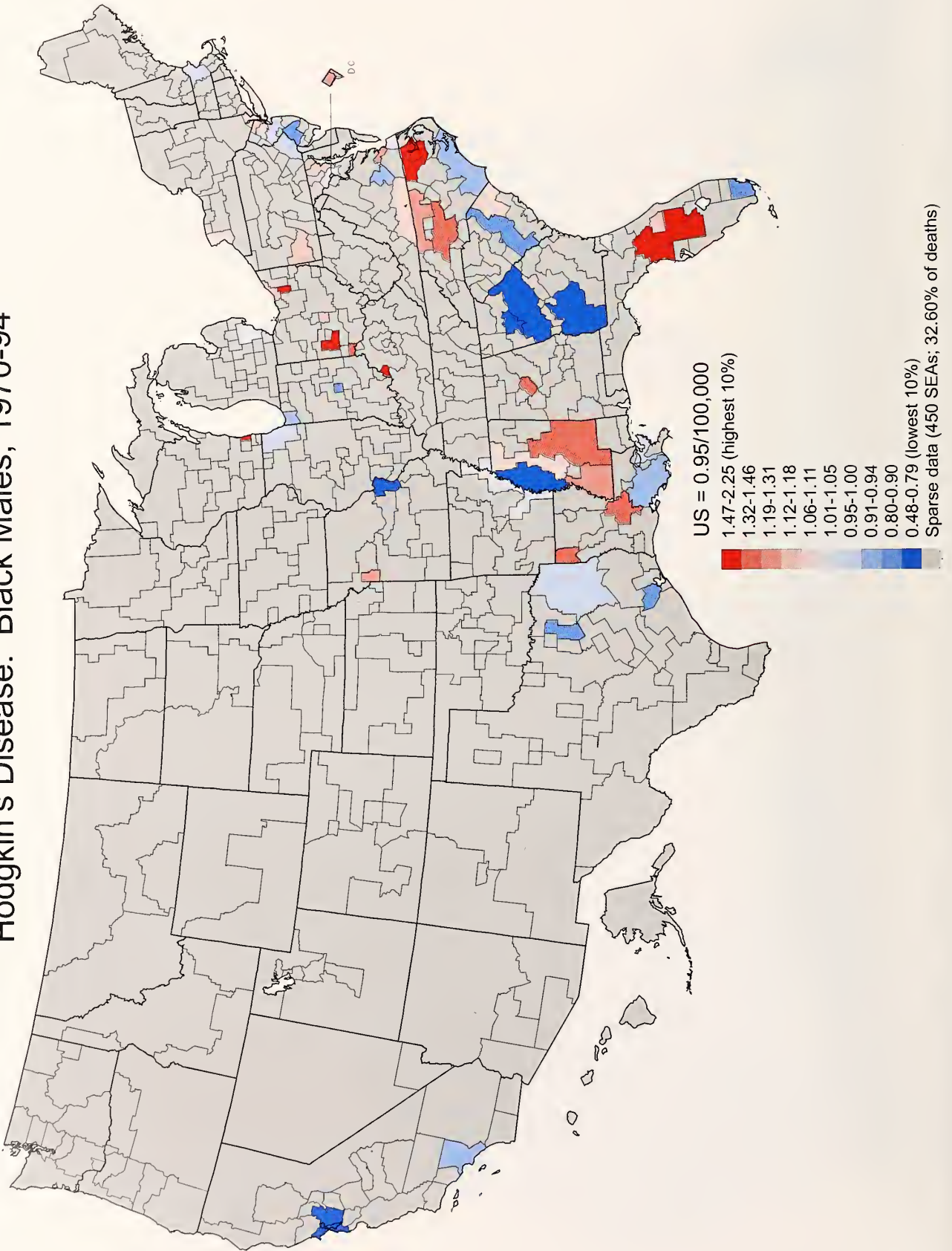
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Hodgkin's Disease: White Females, 1950-69



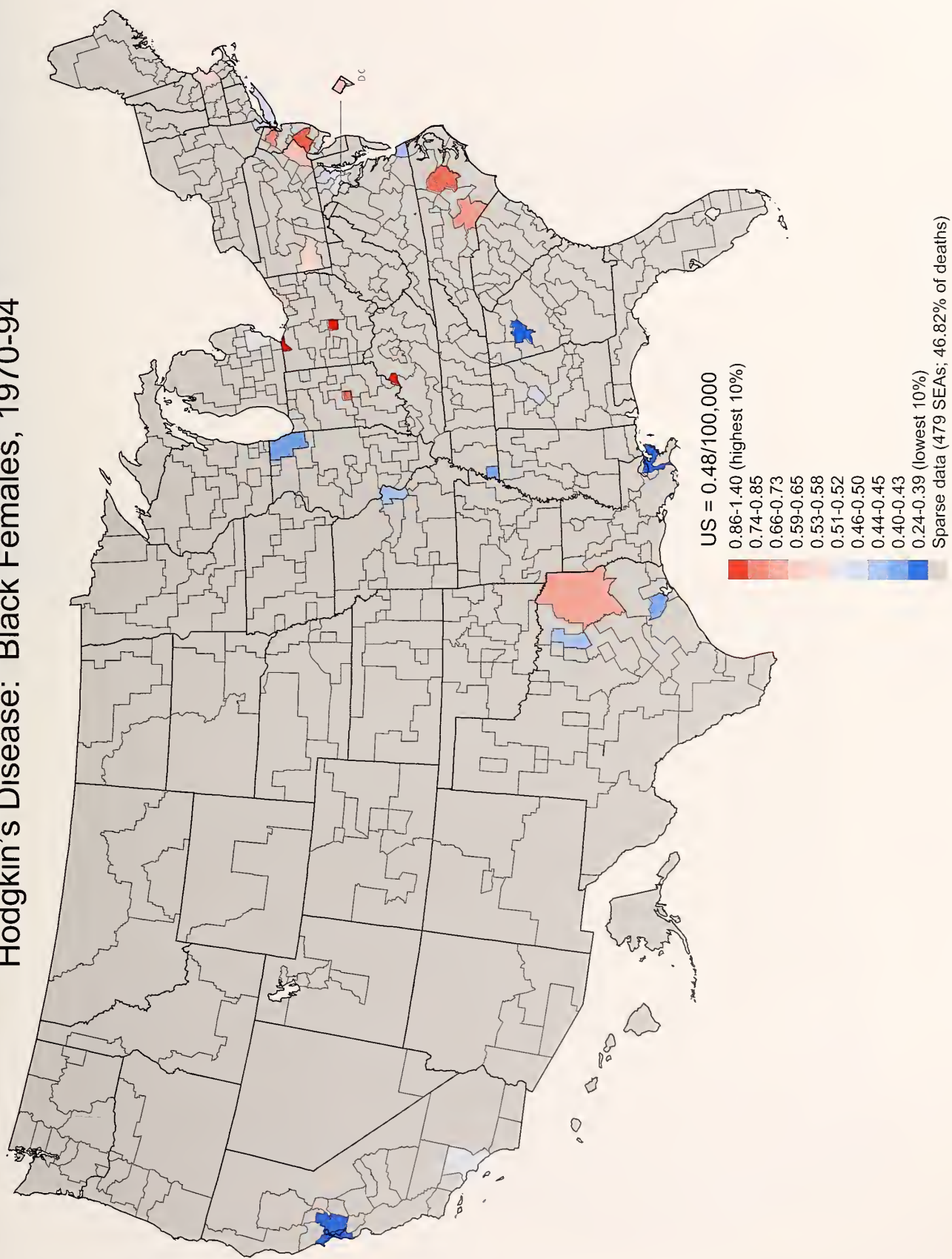
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Hodgkin's Disease: White Females, 1970-94



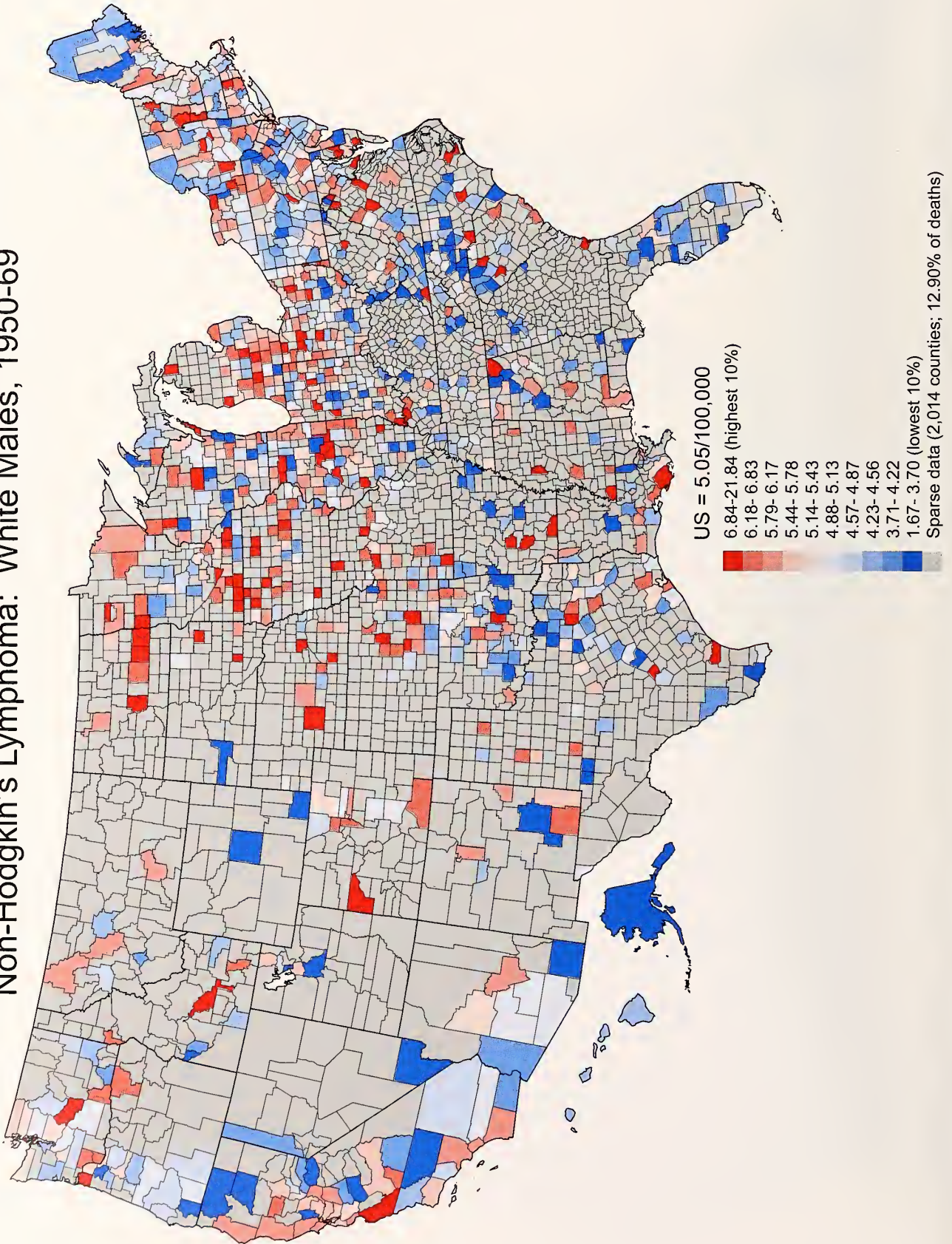
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Hodgkin's Disease: Black Males, 1970-94



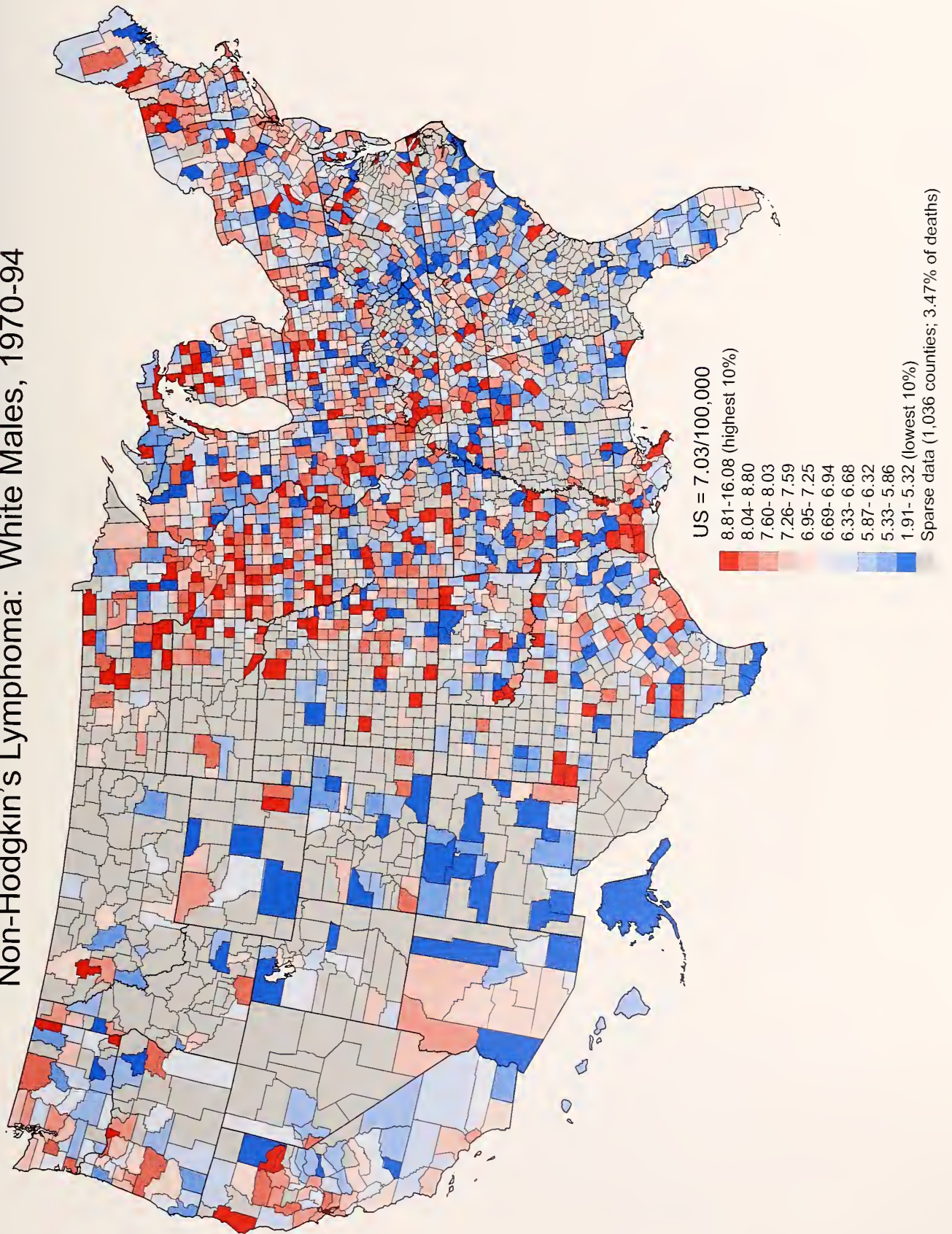
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Hodgkin's Disease: Black Females, 1970-94



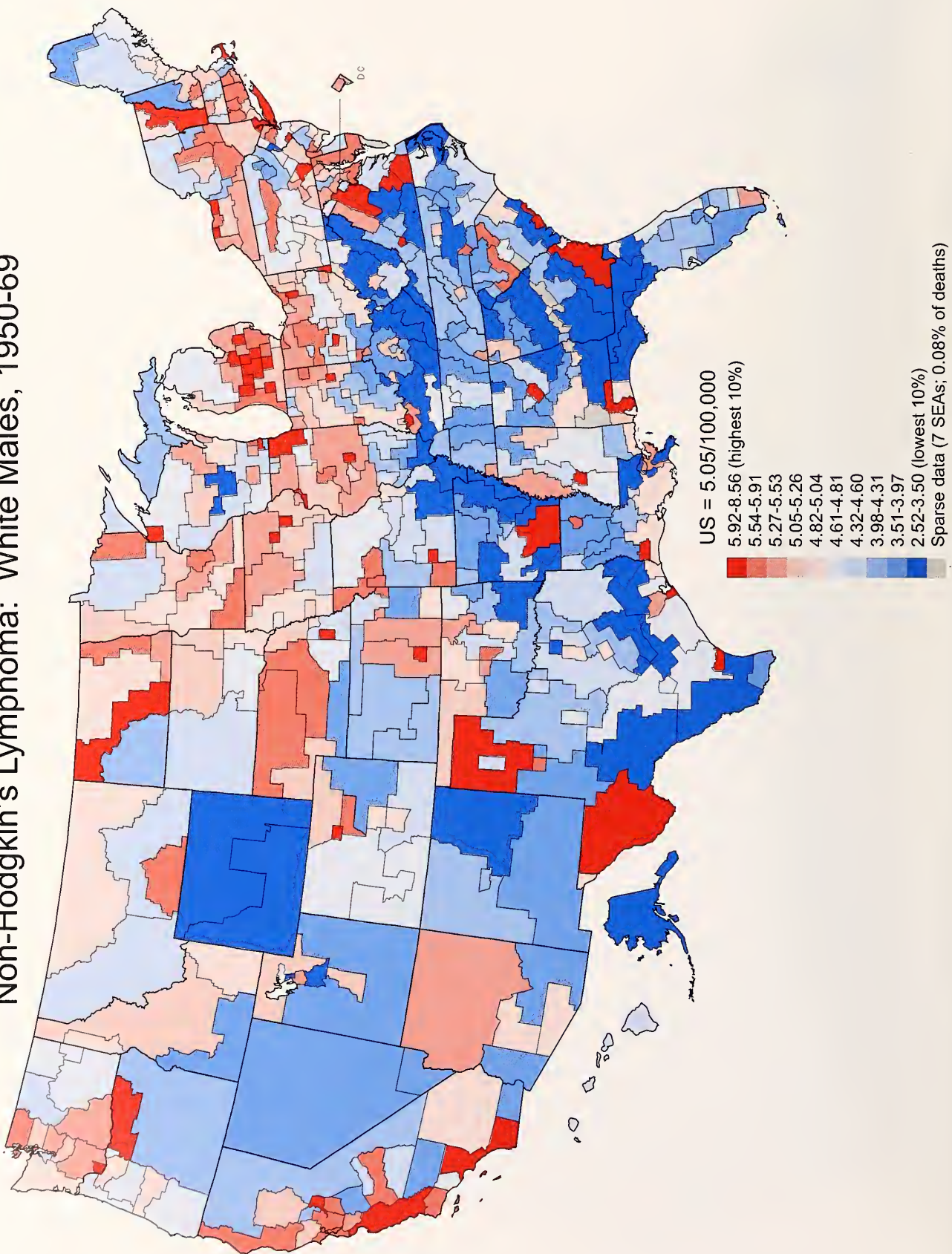
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Non-Hodgkin's Lymphoma: White Males, 1950-69



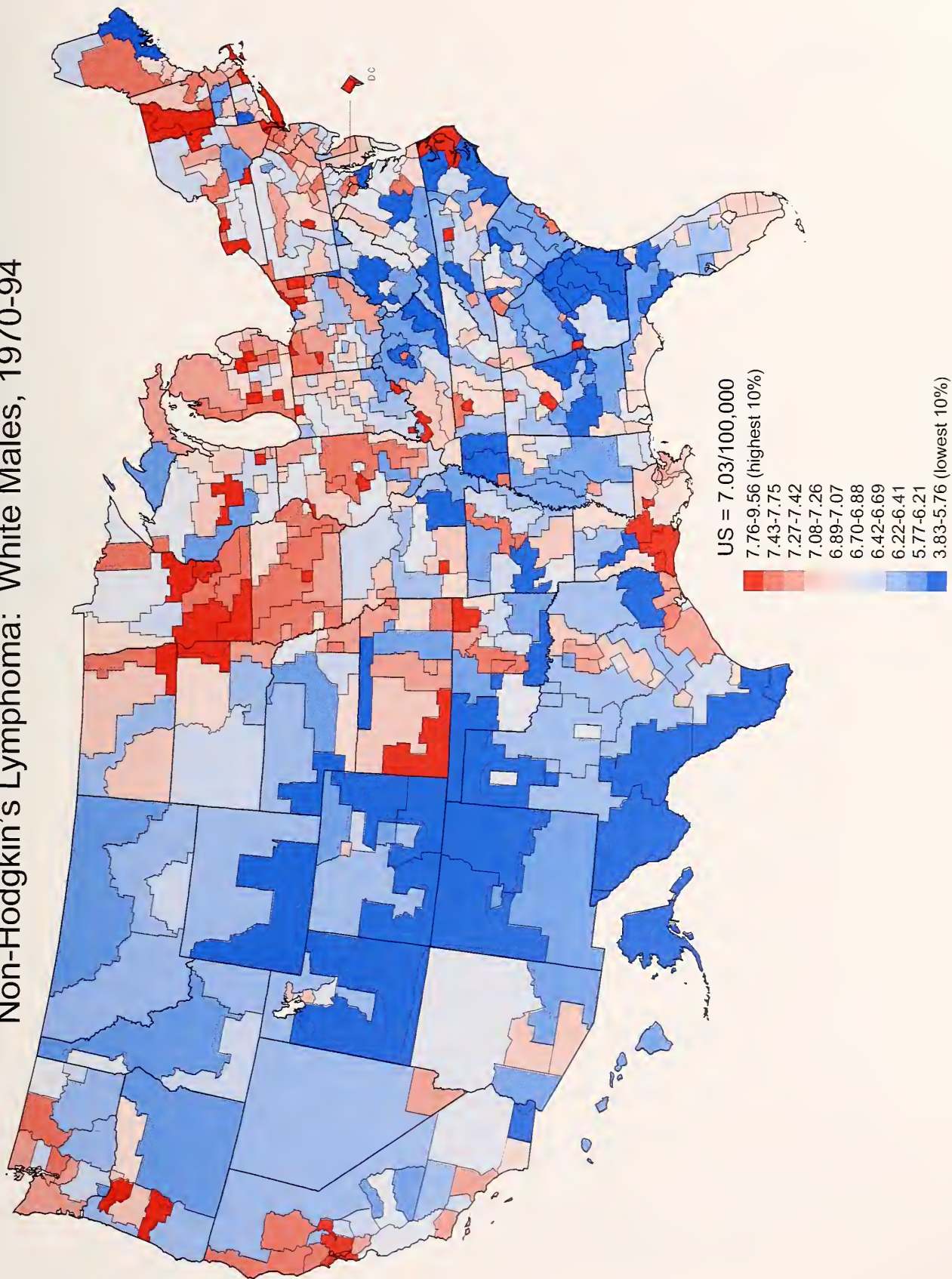
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Non-Hodgkin's Lymphoma: White Males, 1970-94



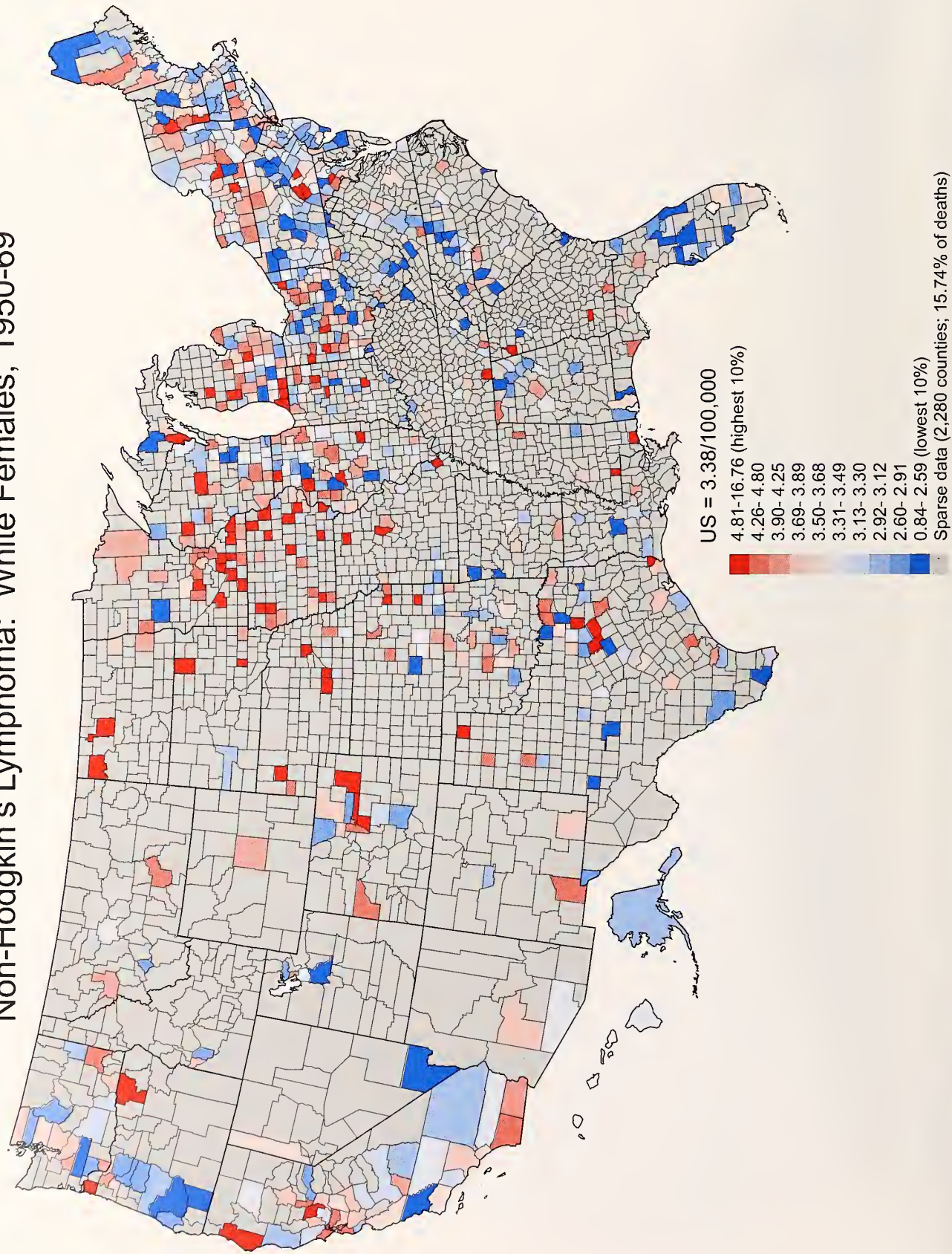
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Non-Hodgkin's Lymphoma: White Males, 1950-69



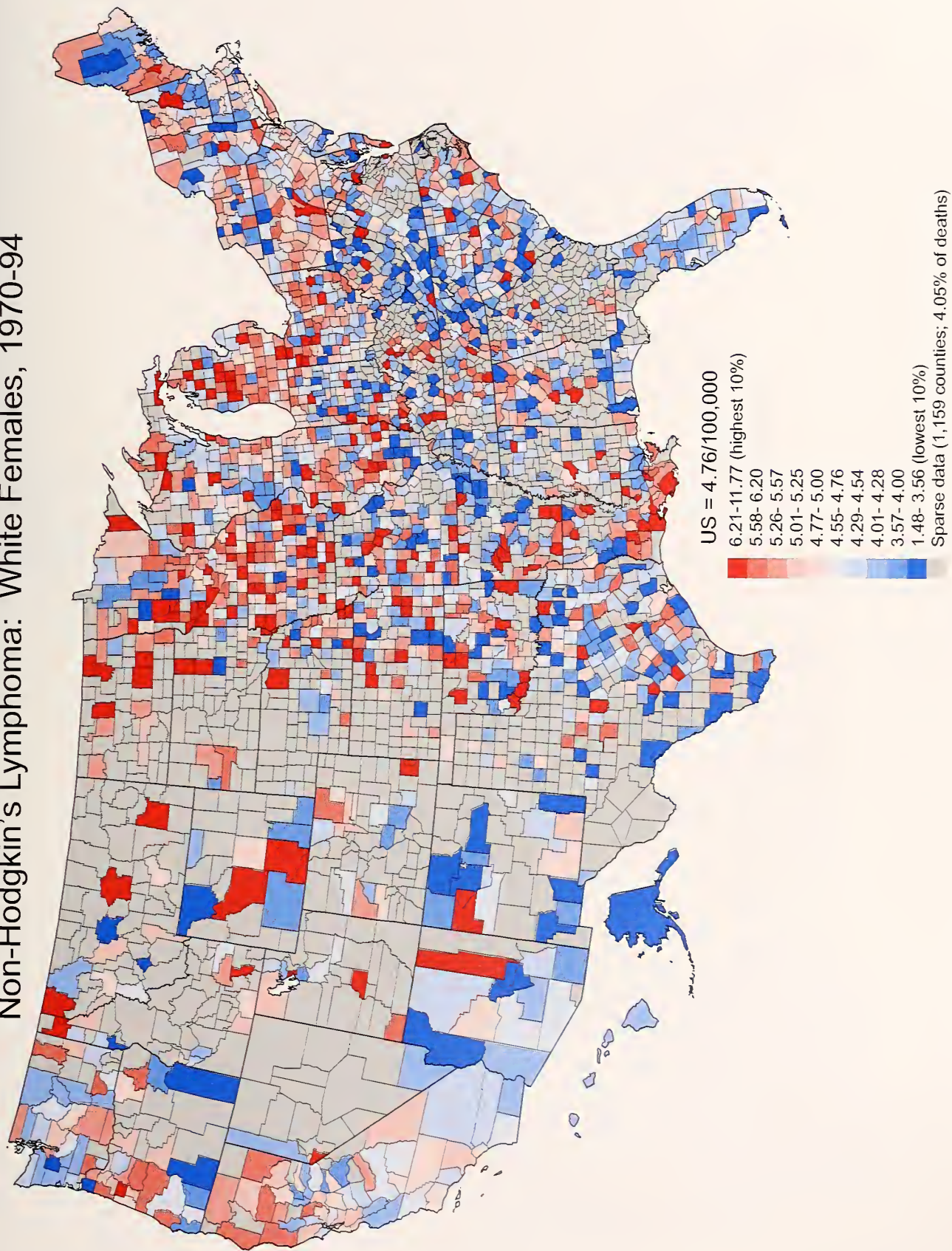
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Non-Hodgkin's Lymphoma: White Males, 1970-94



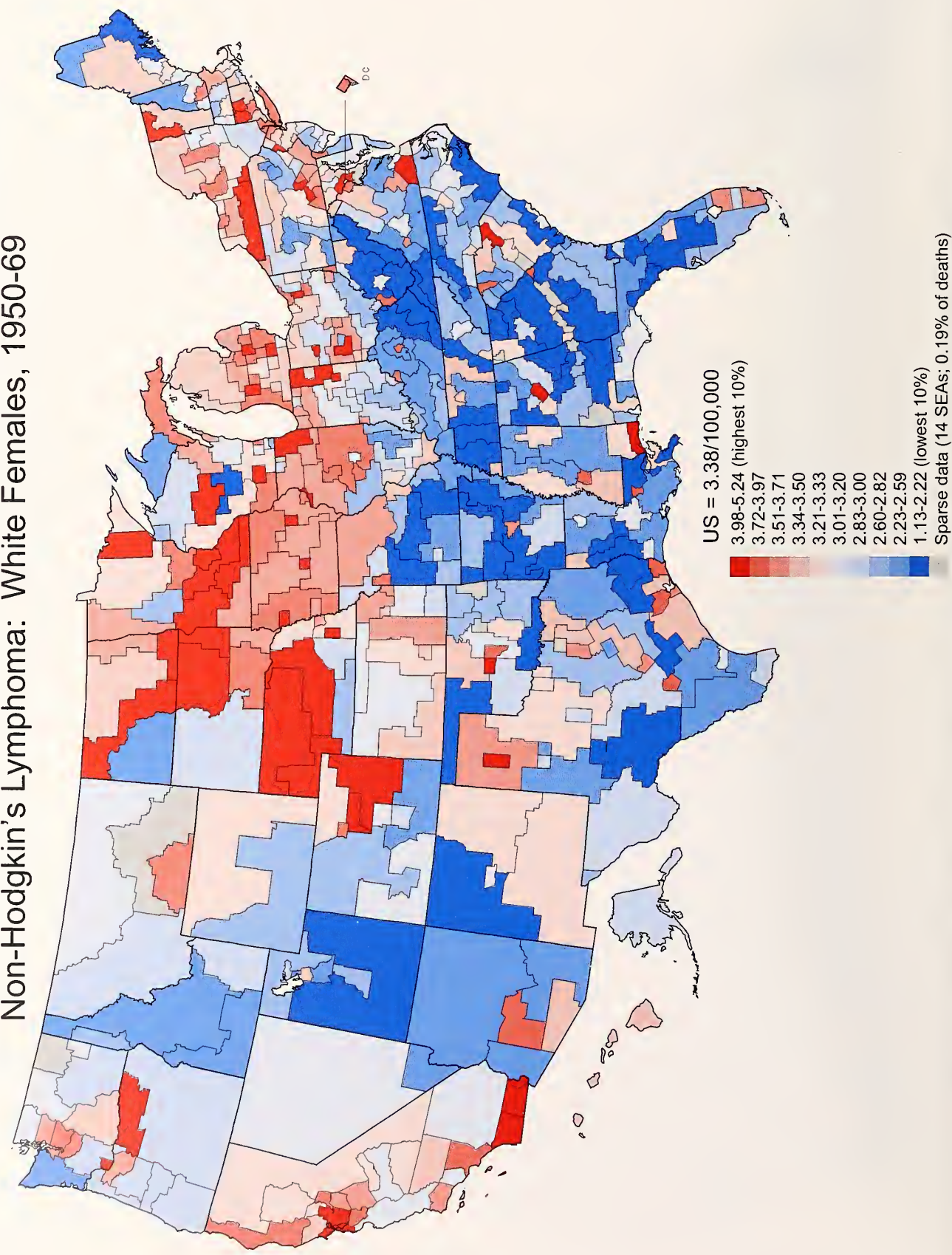
Cancer Mortality Rates by County (Age-adjusted 1970 US Population) Non-Hodgkin's Lymphoma: White Females, 1950-69



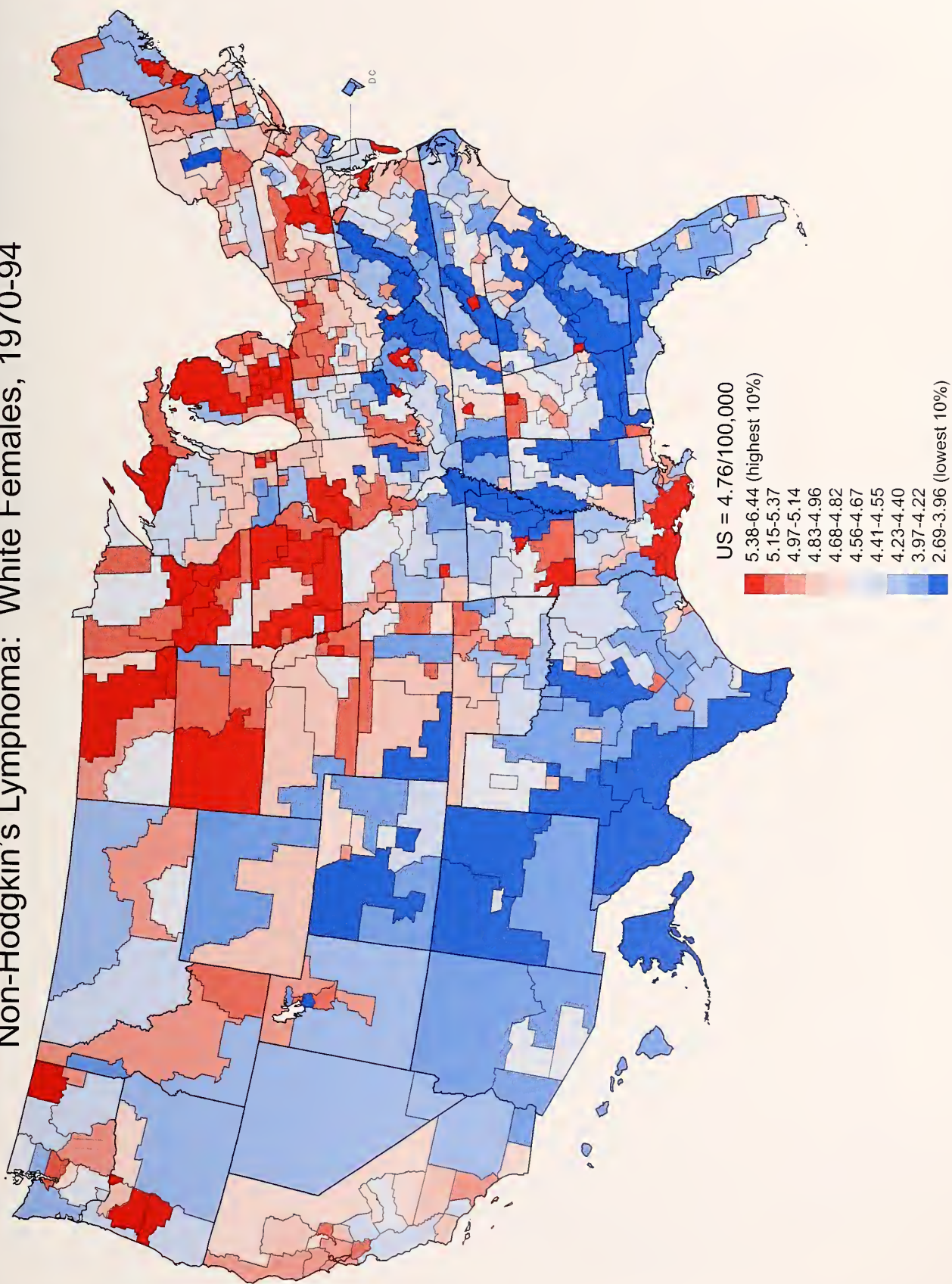
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Non-Hodgkin's Lymphoma: White Females, 1970-94



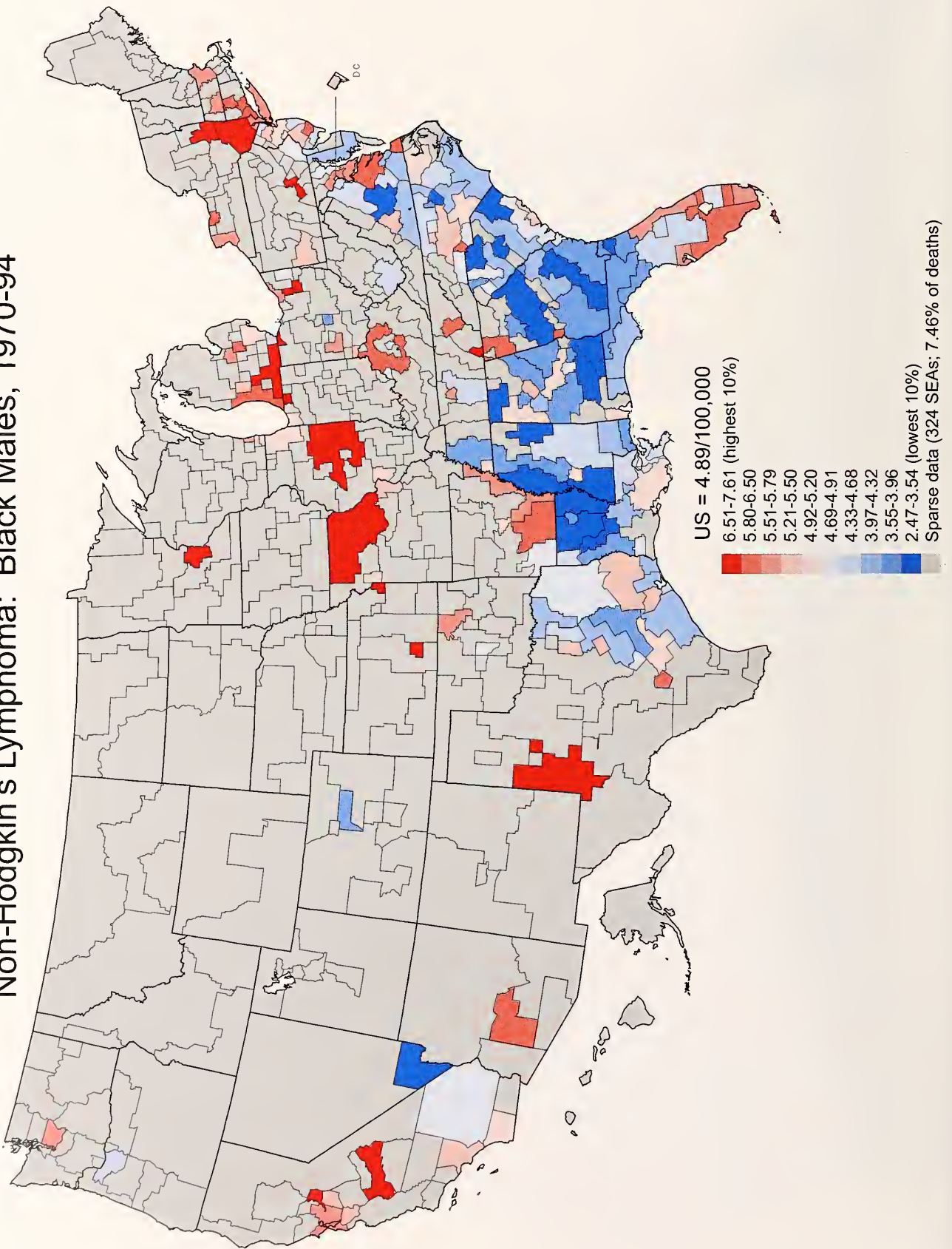
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Non-Hodgkin's Lymphoma: White Females, 1950-69



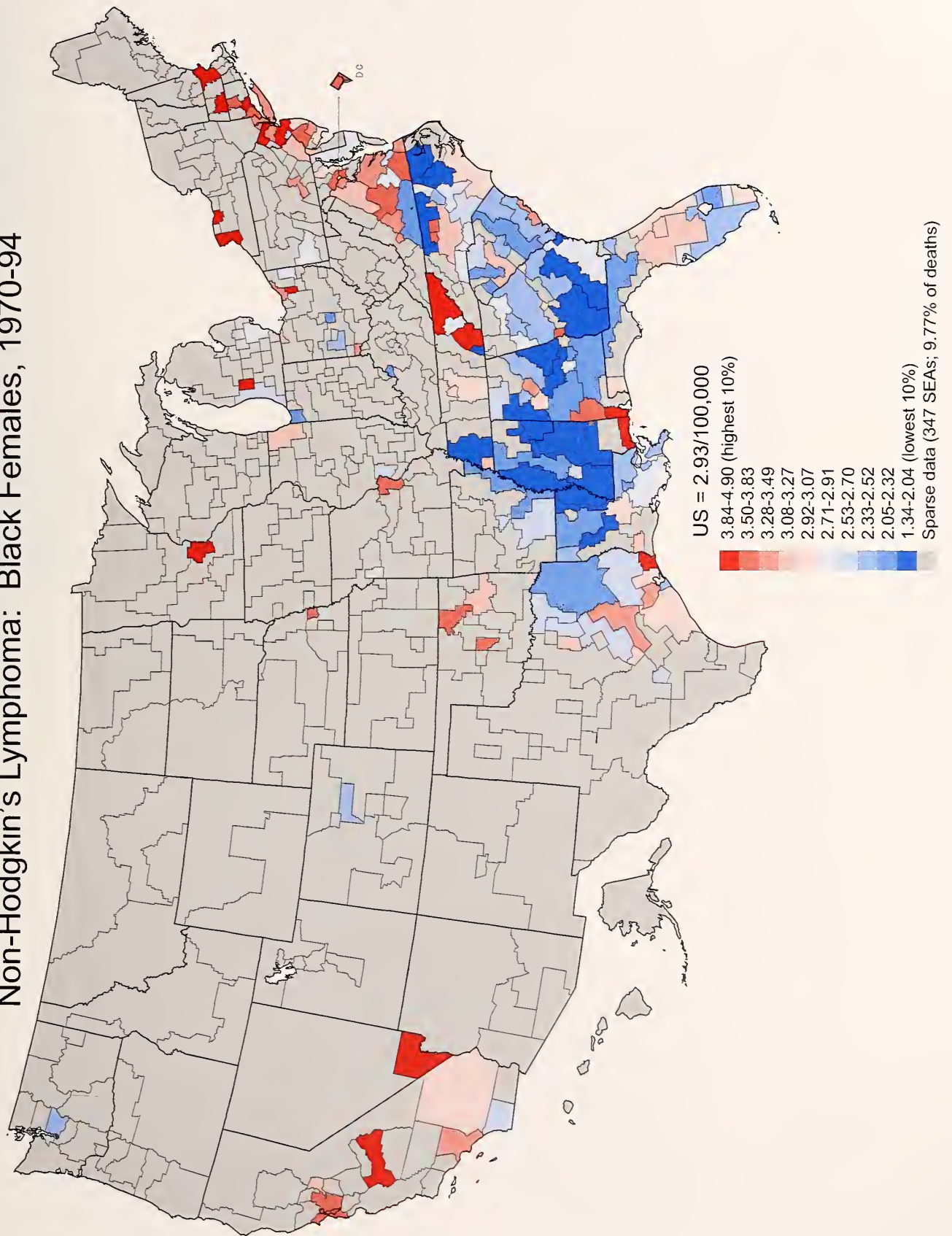
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Non-Hodgkin's Lymphoma: White Females, 1970-94



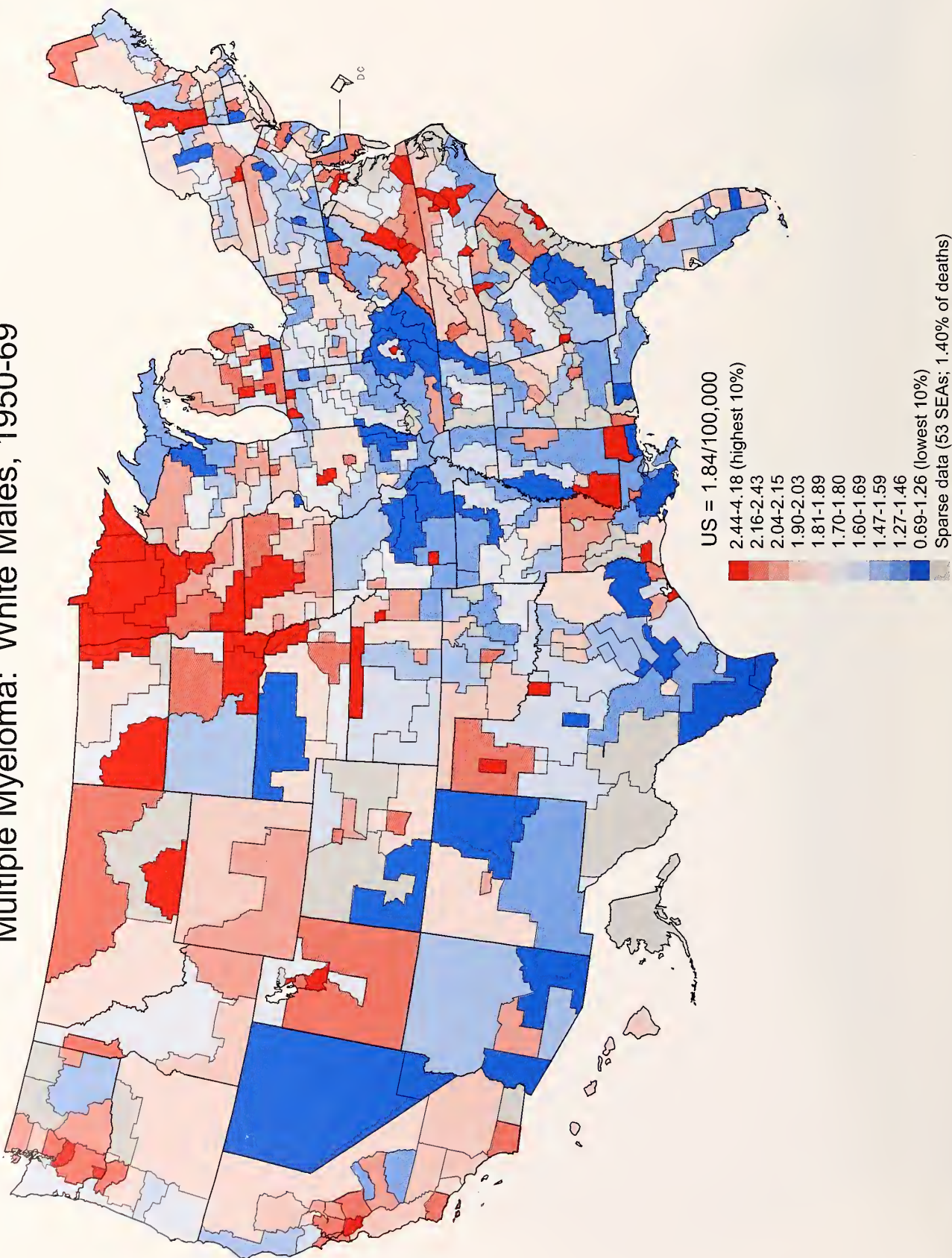
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Non-Hodgkin's Lymphoma: Black Males, 1970-94



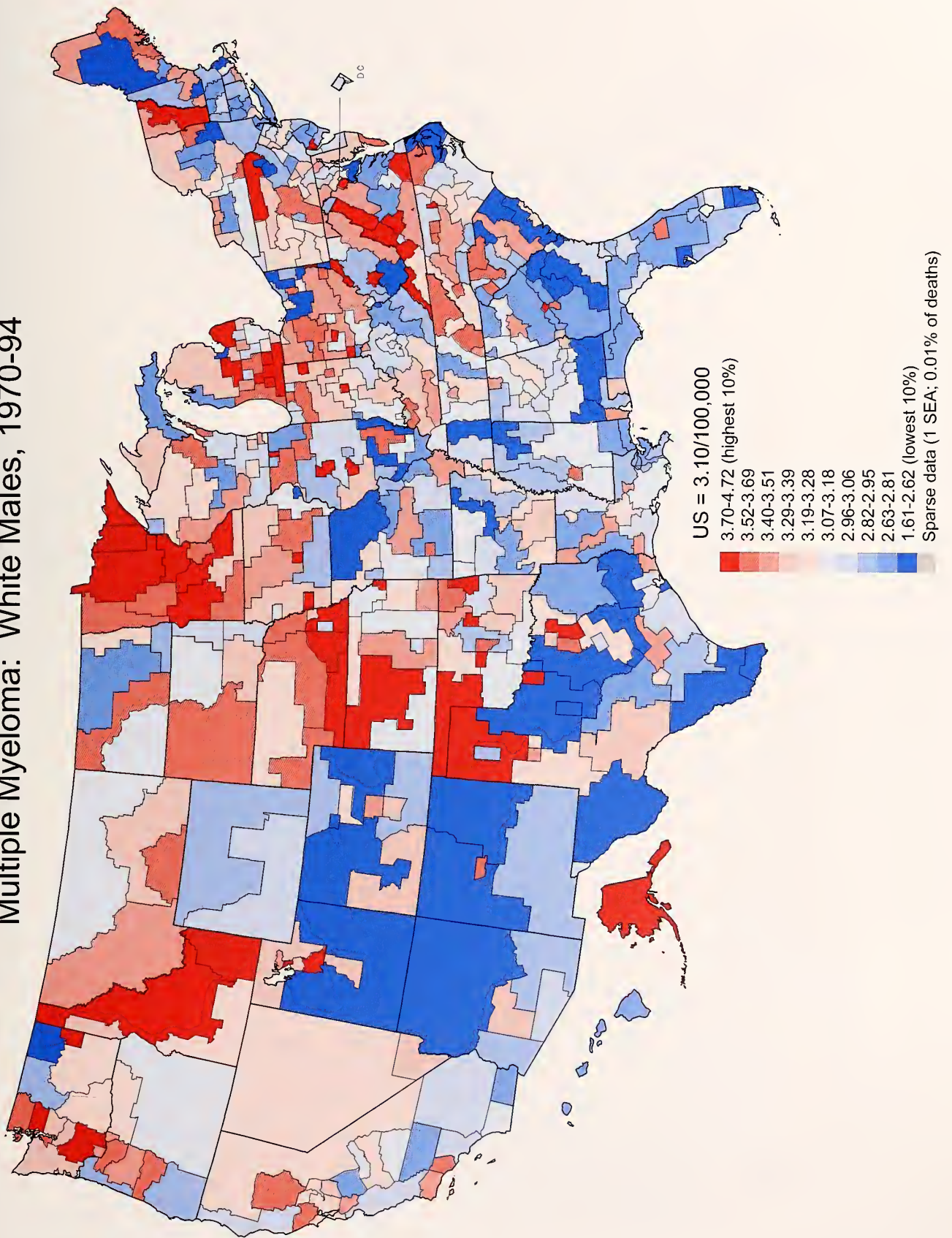
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Non-Hodgkin's Lymphoma: Black Females, 1970-94



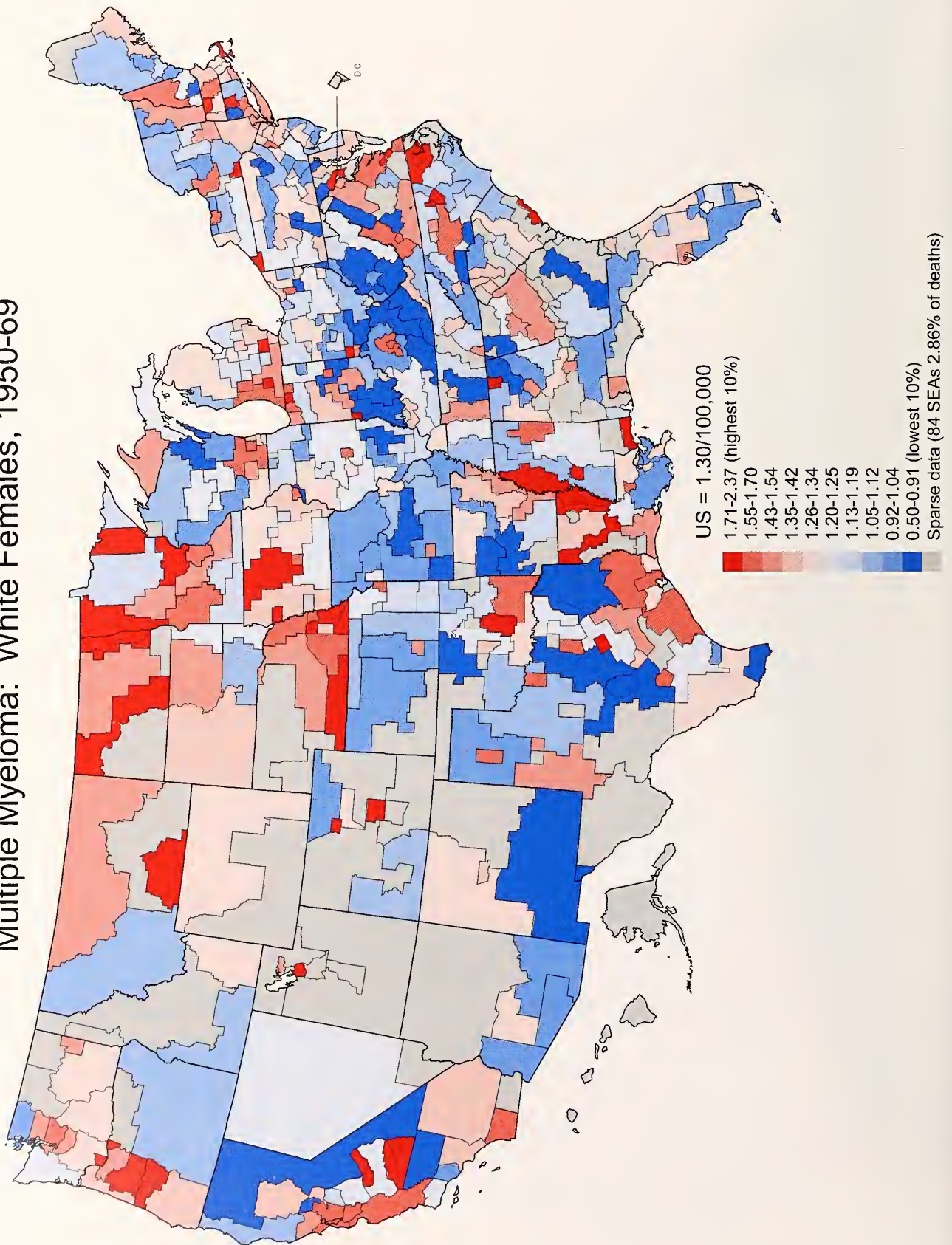
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Multiple Myeloma: White Males, 1950-69



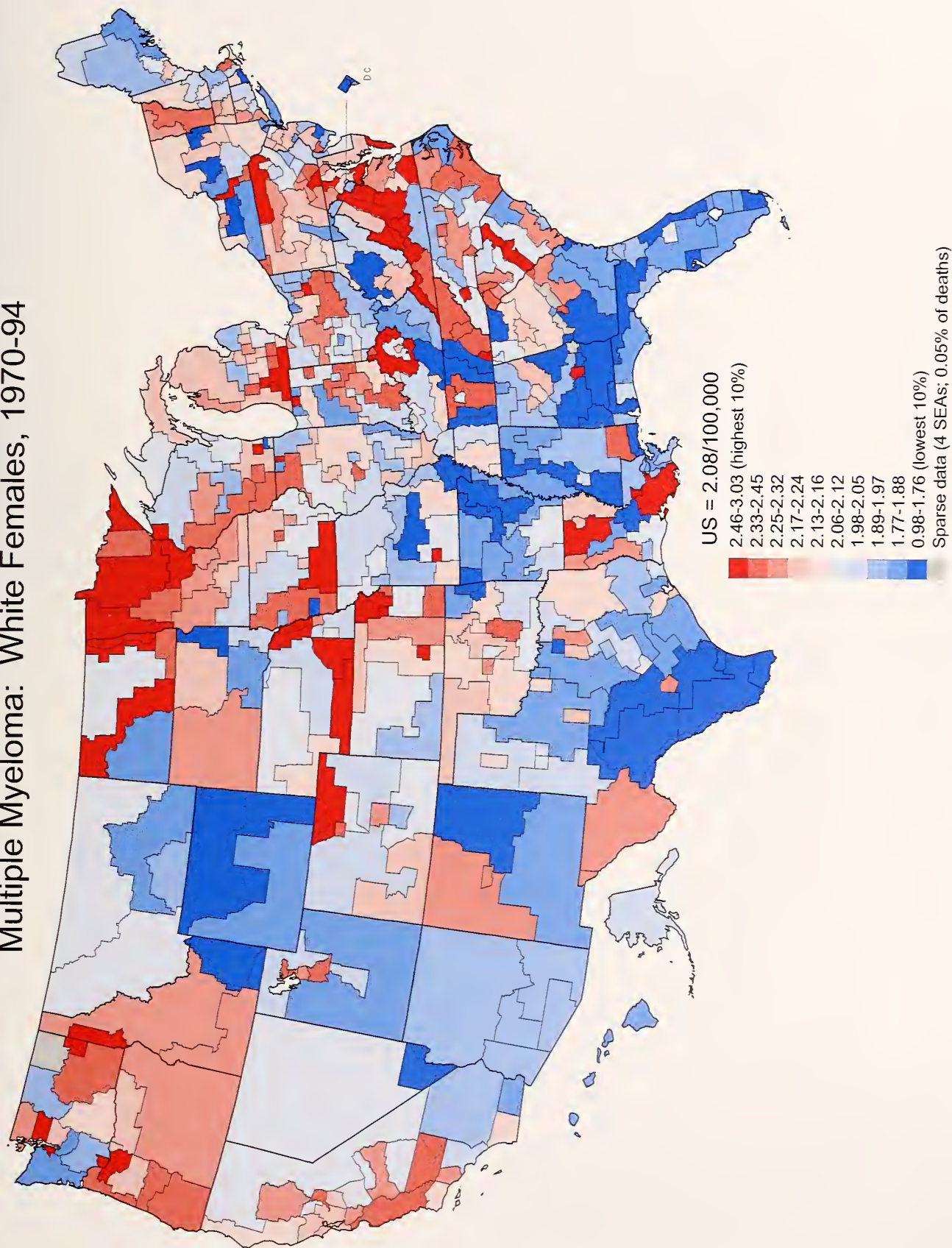
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Multiple Myeloma: White Males, 1970-94



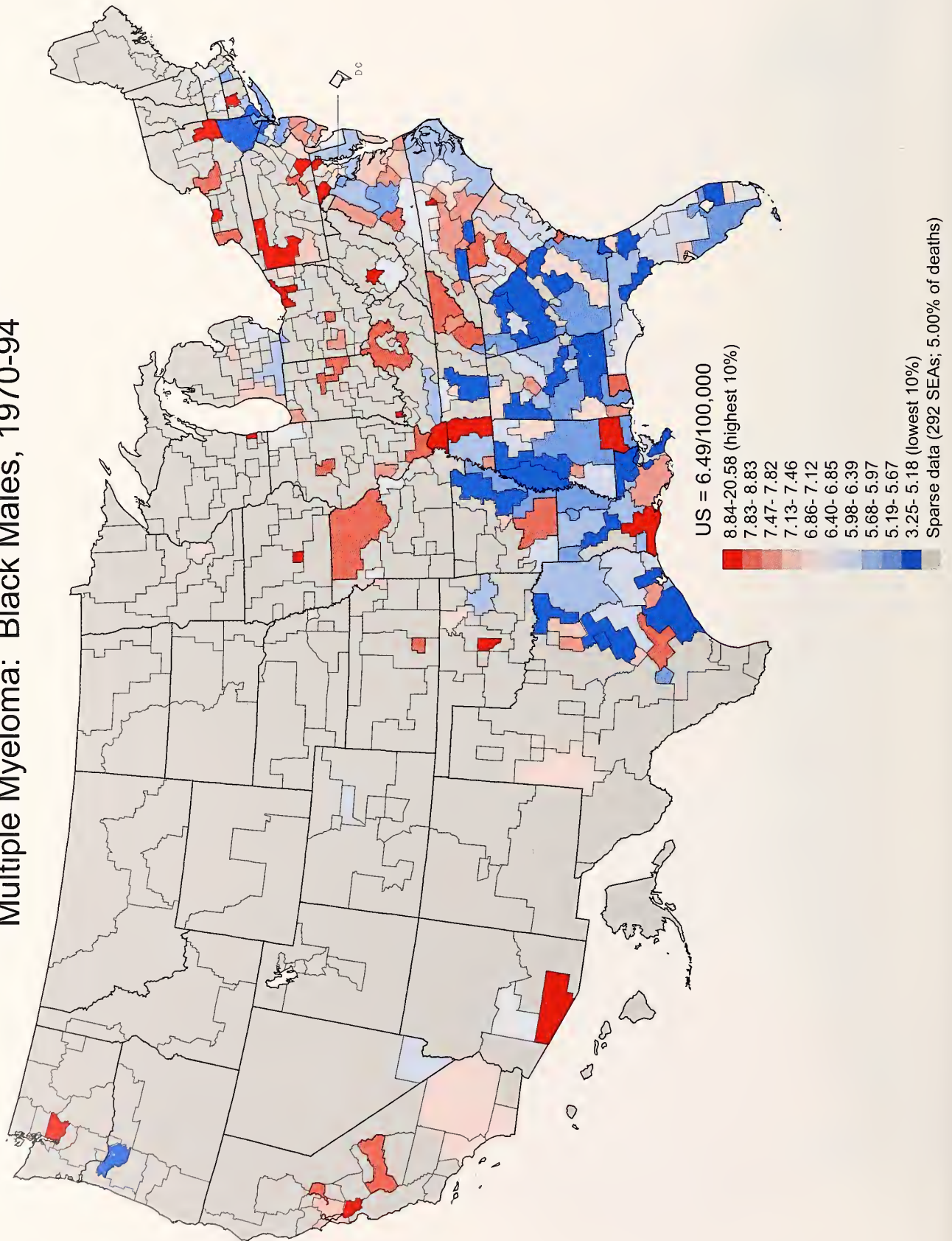
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Multiple Myeloma: White Females, 1950-69



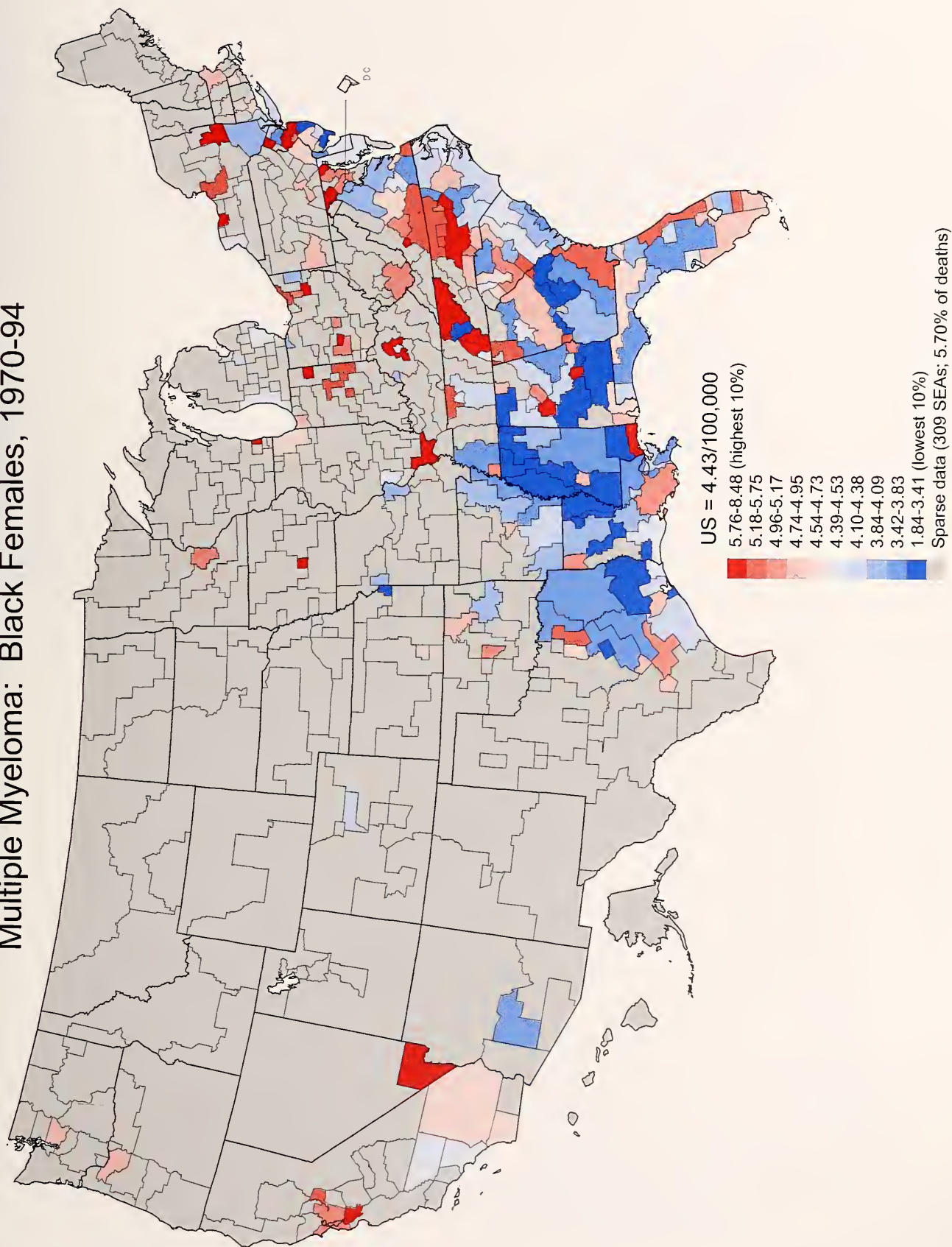
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Multiple Myeloma: White Females, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Multiple Myeloma: Black Males, 1970-94

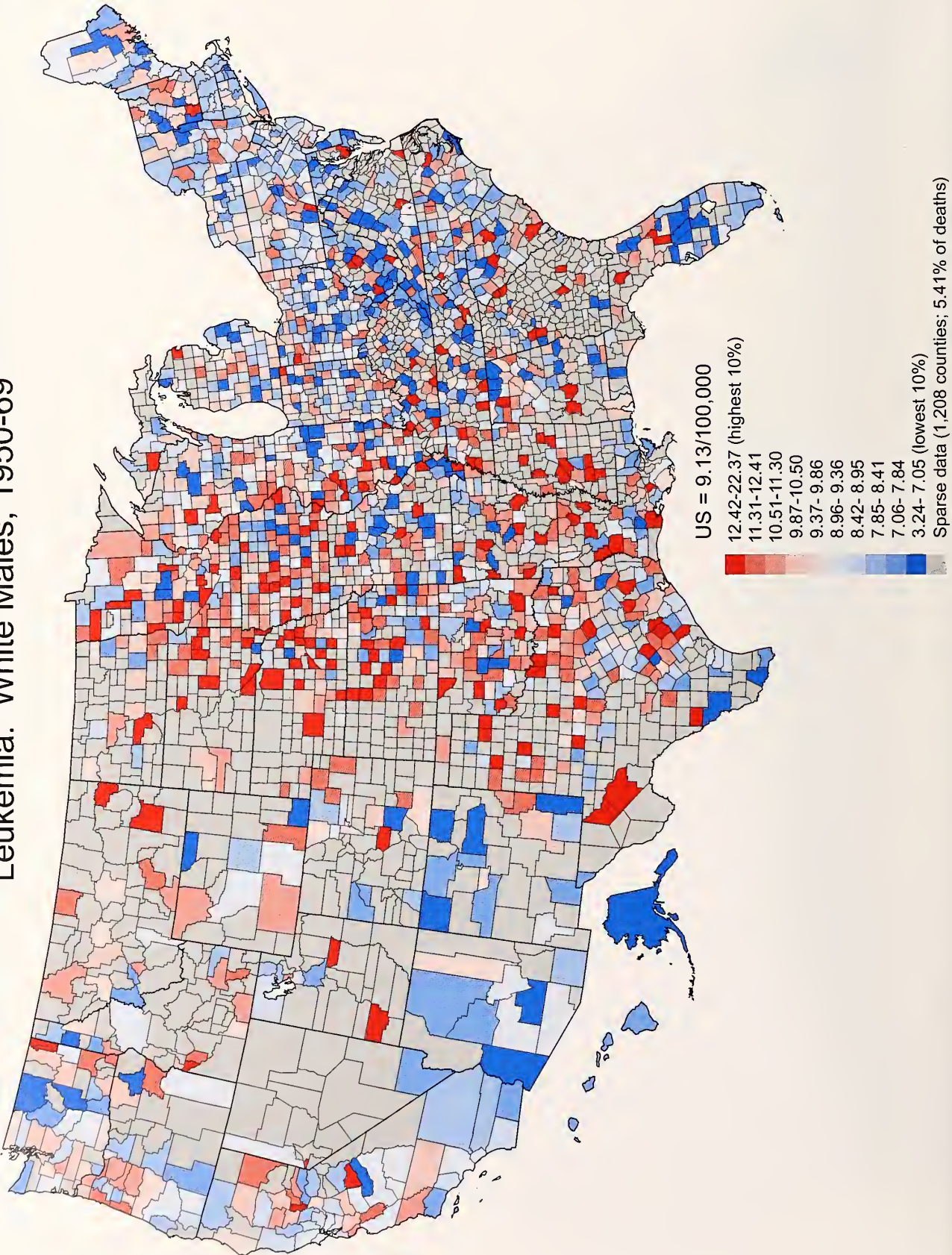


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Multiple Myeloma: Black Females, 1970-94

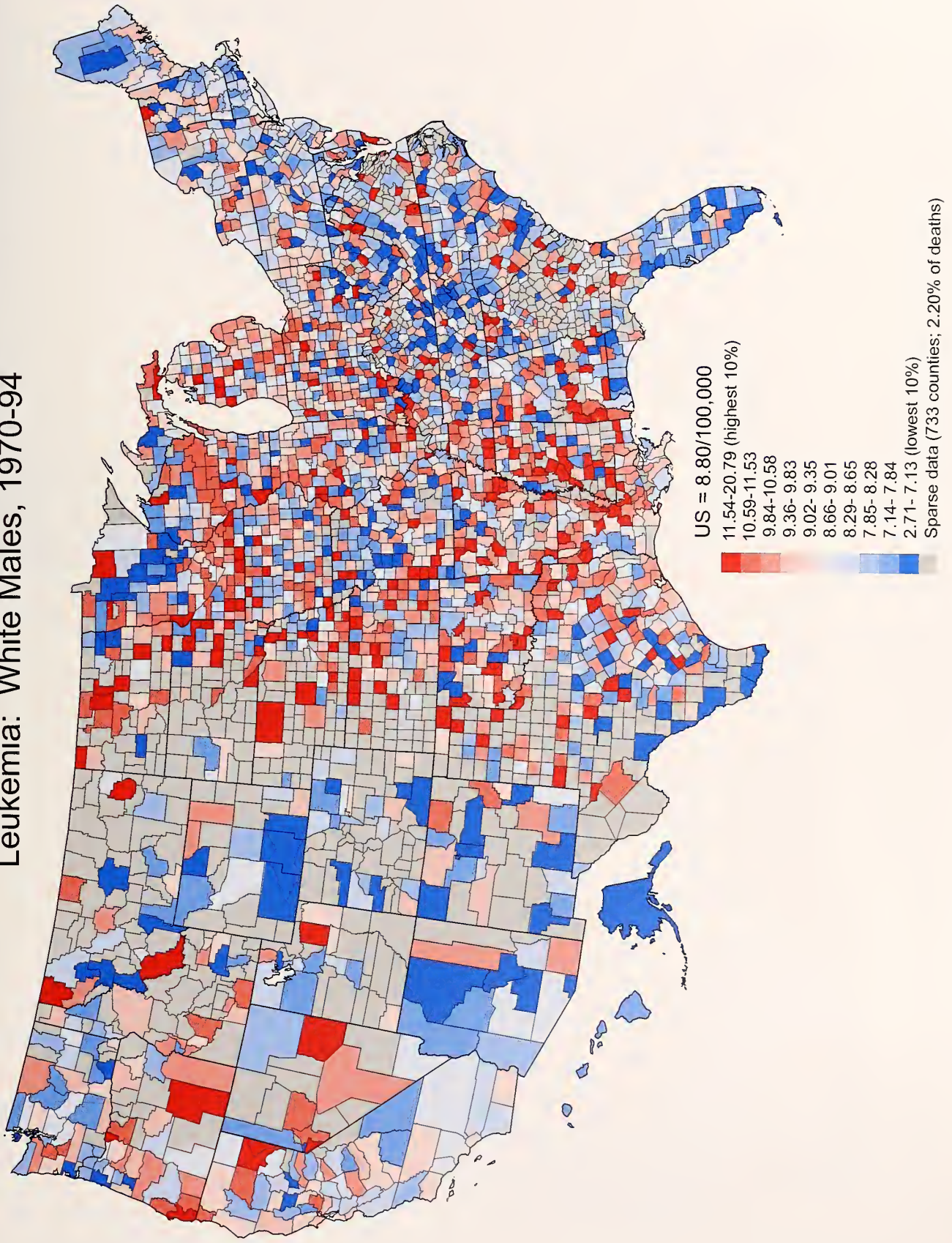


Leukemia

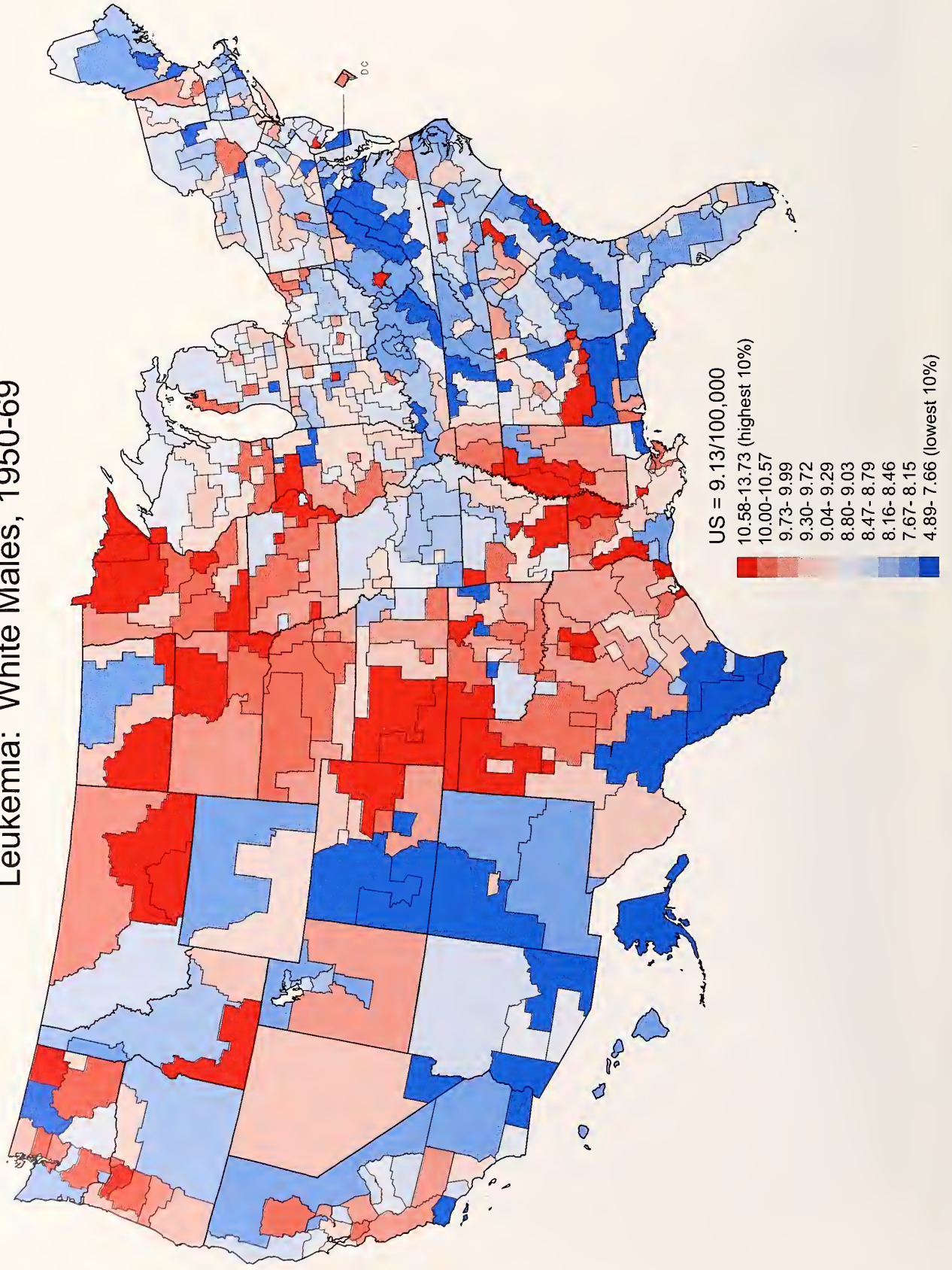
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Leukemia: White Males, 1950-69



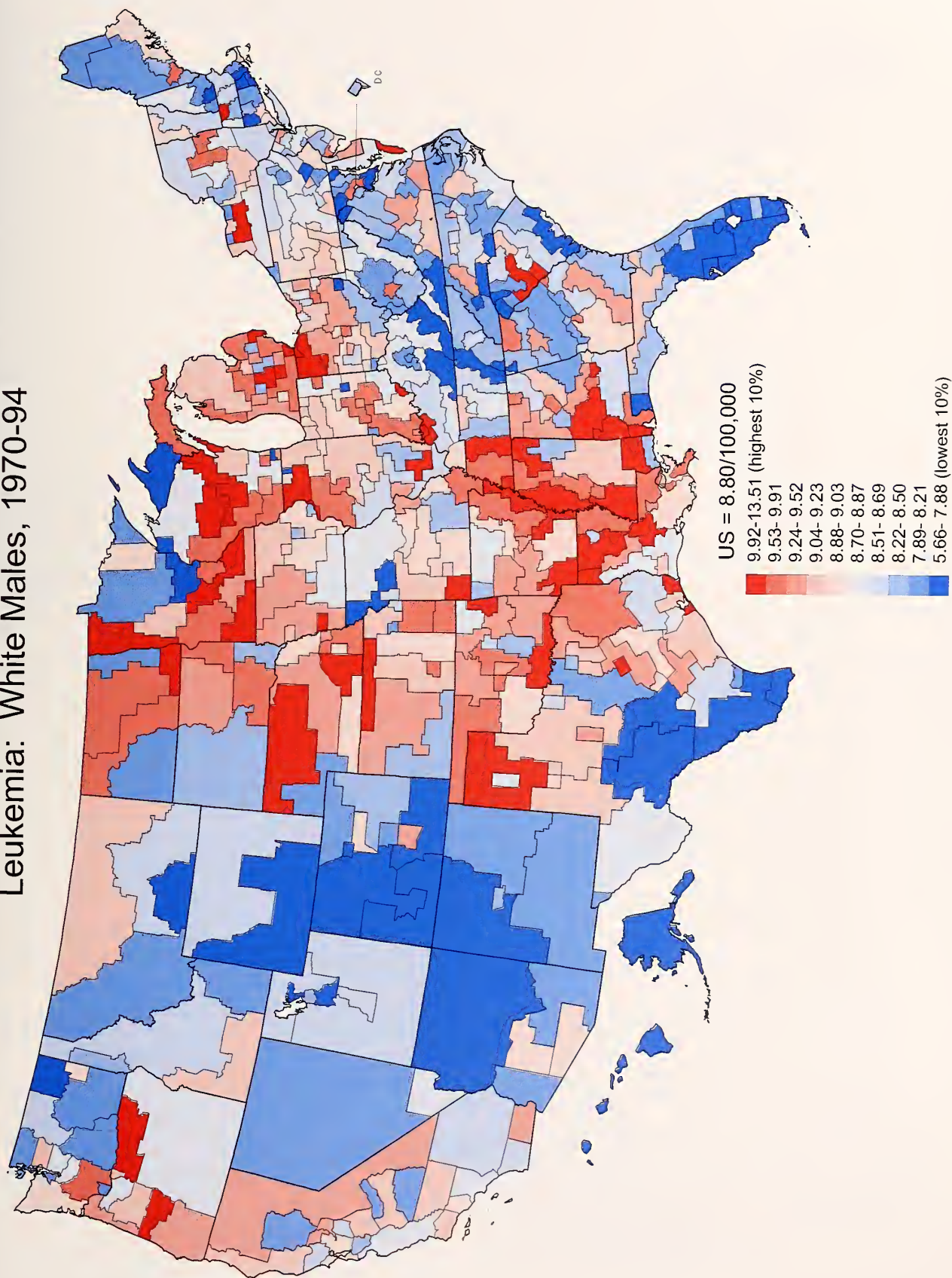
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Leukemia: White Males, 1970-94



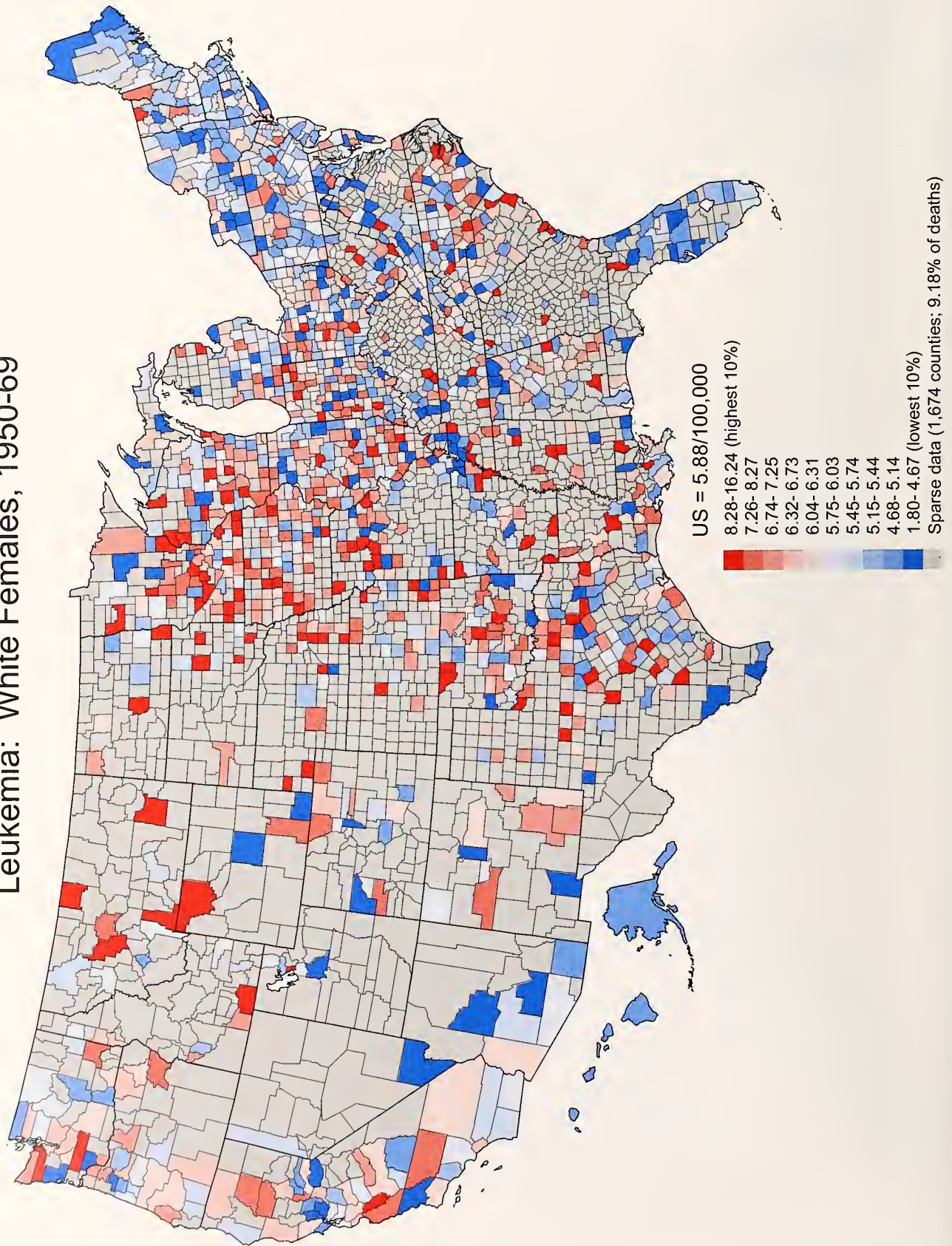
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Leukemia: White Males, 1950-69



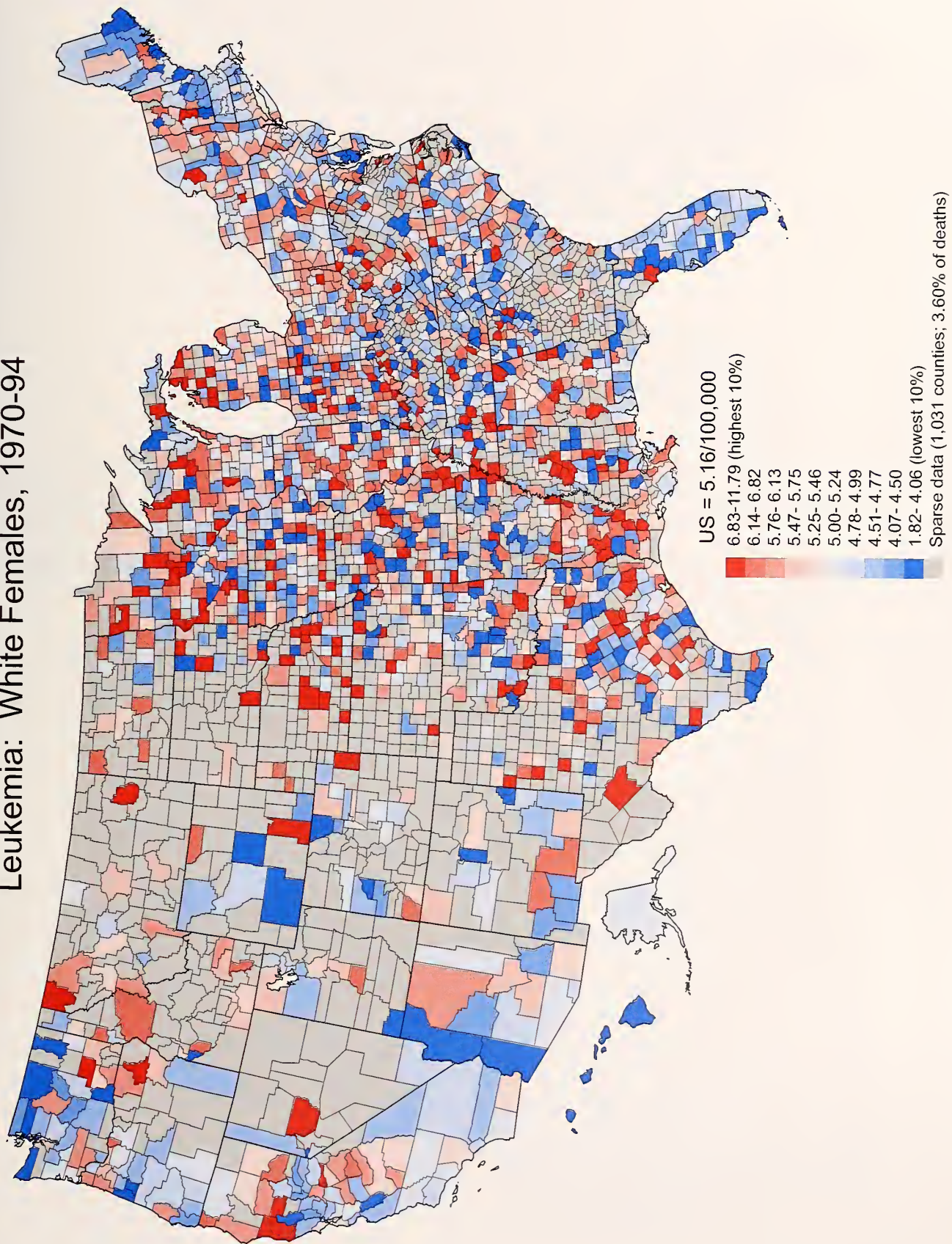
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Leukemia: White Males, 1970-94



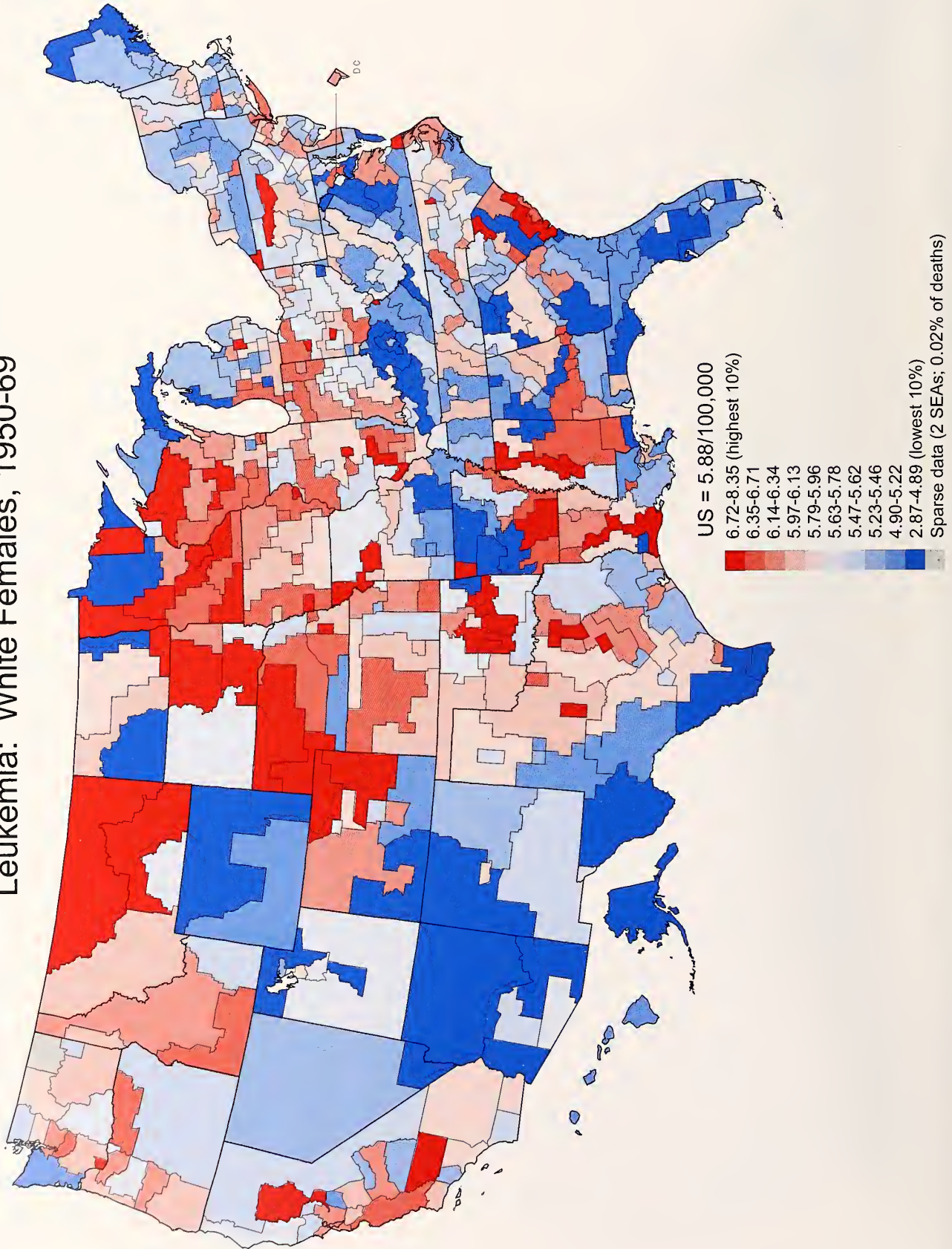
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Leukemia: White Females, 1950-69



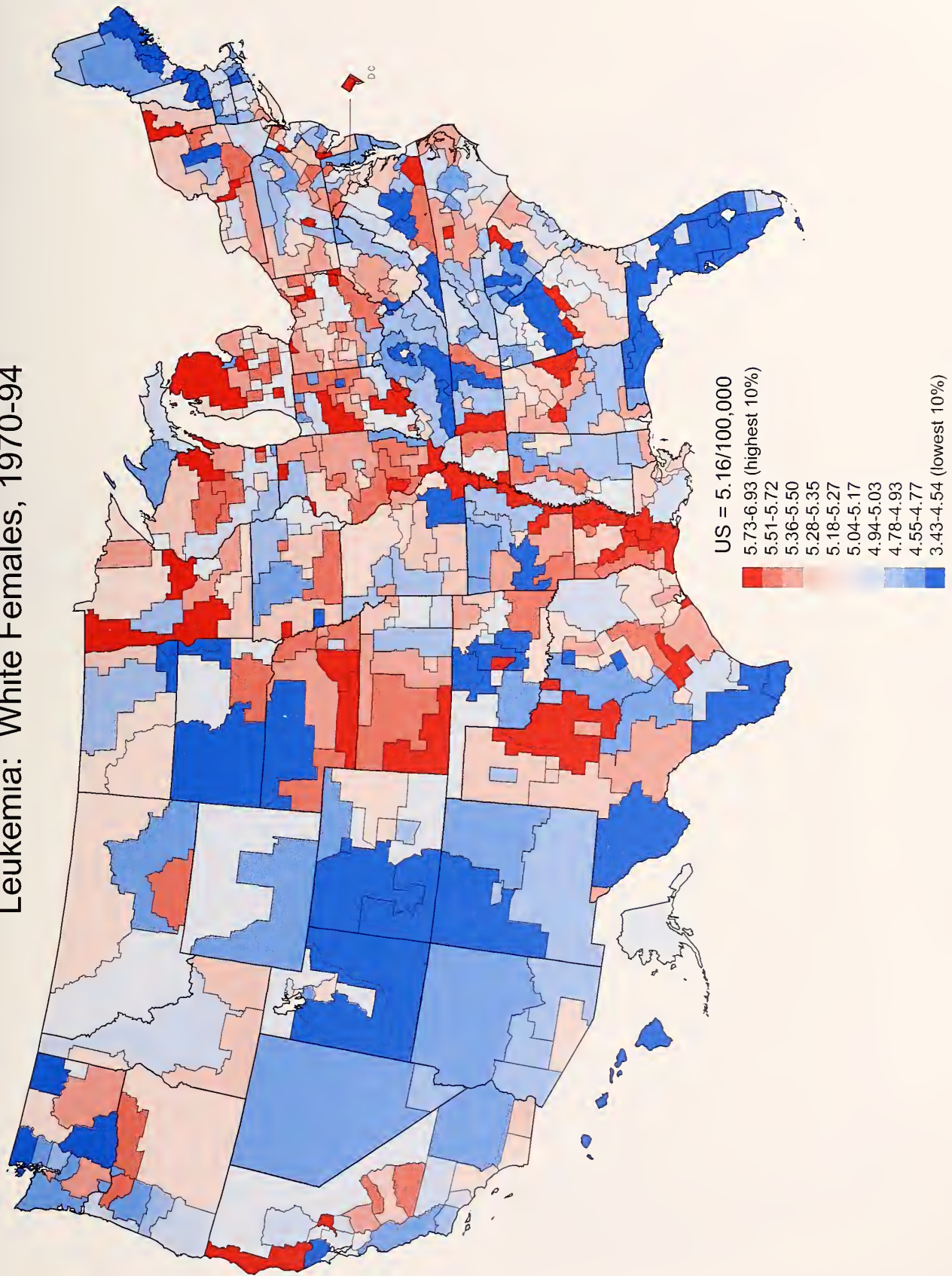
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Leukemia: White Females, 1970-94



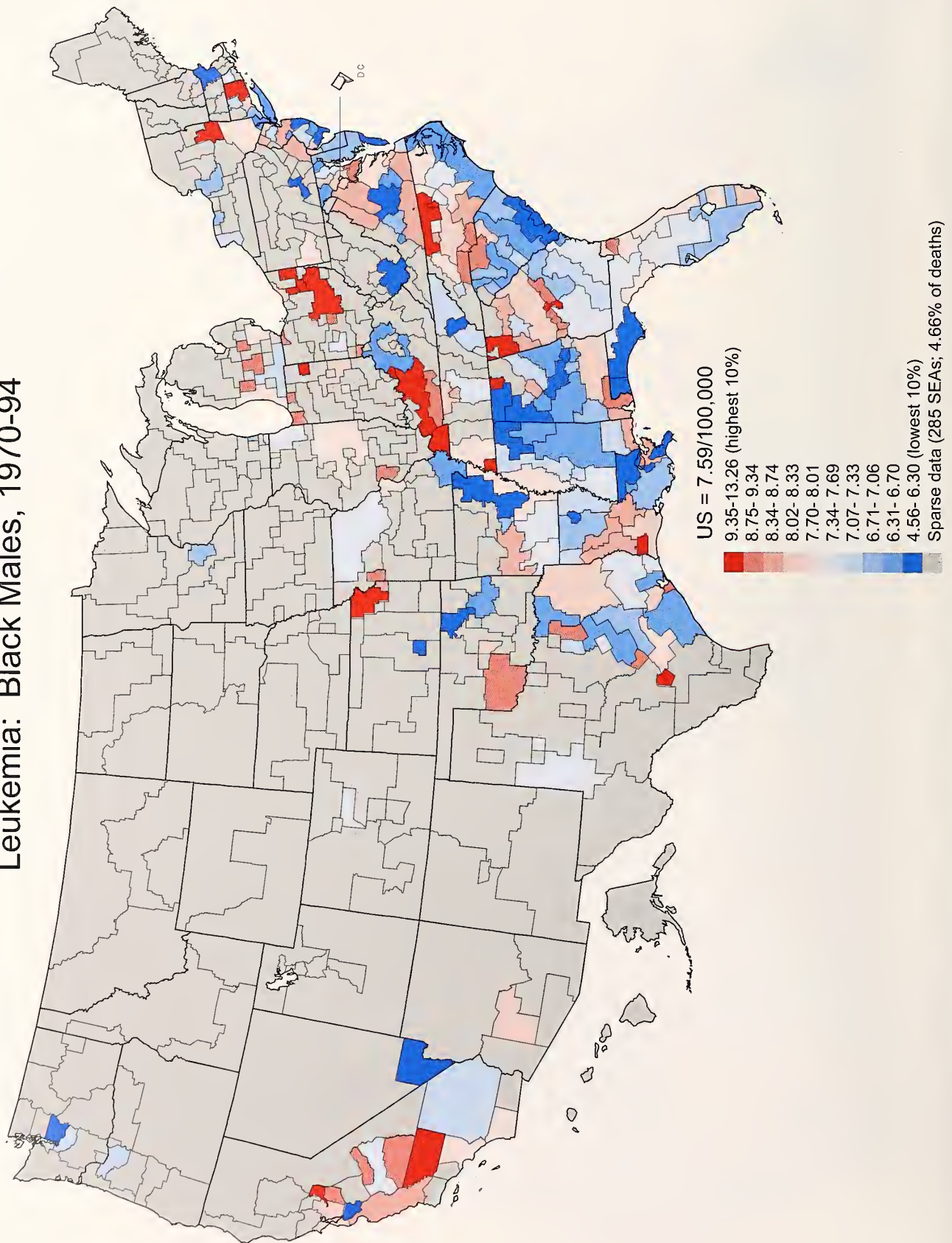
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Leukemia: White Females, 1950-69



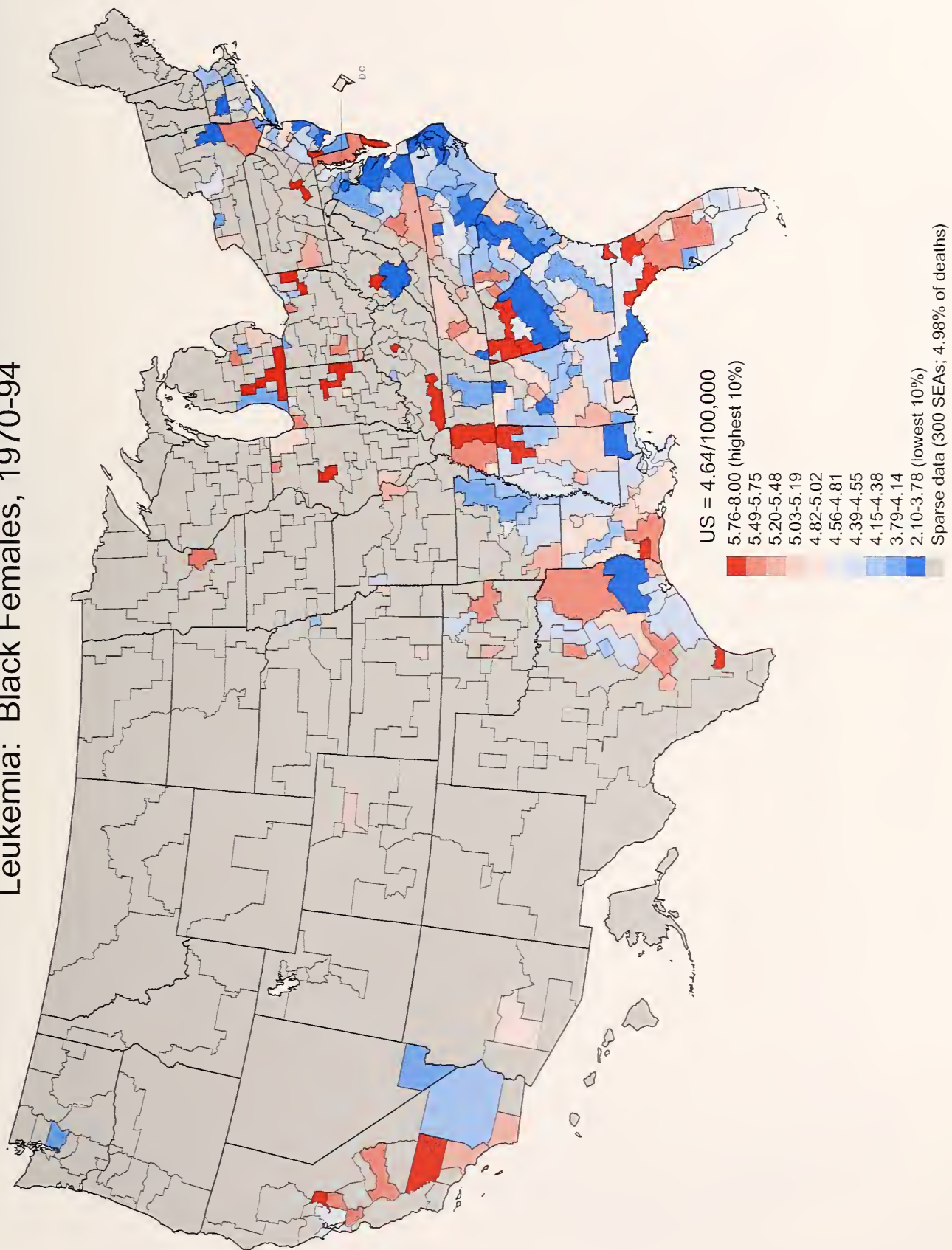
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Leukemia: White Females, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Leukemia: Black Males, 1970-94

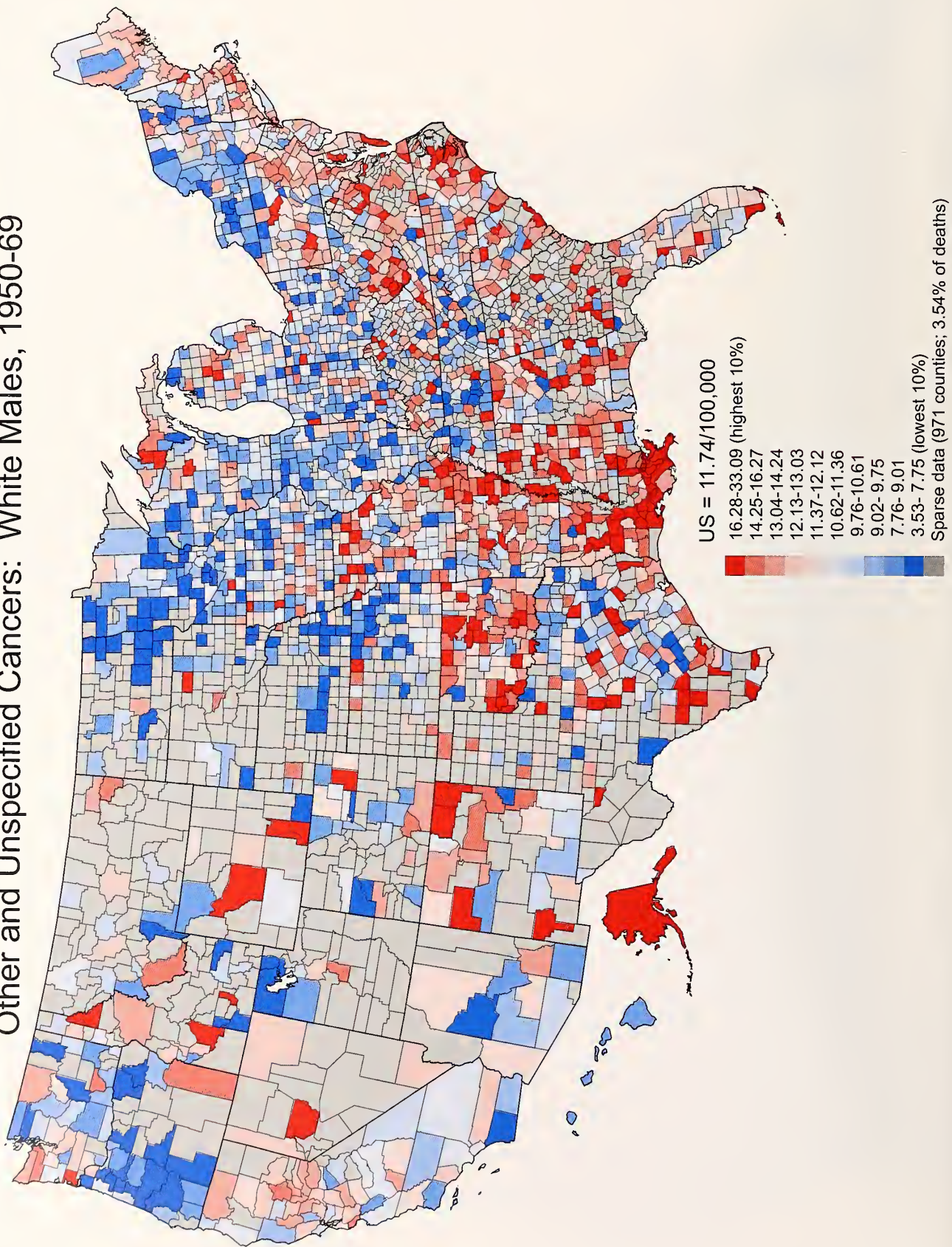


Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population) Leukemia: Black Females, 1970-94

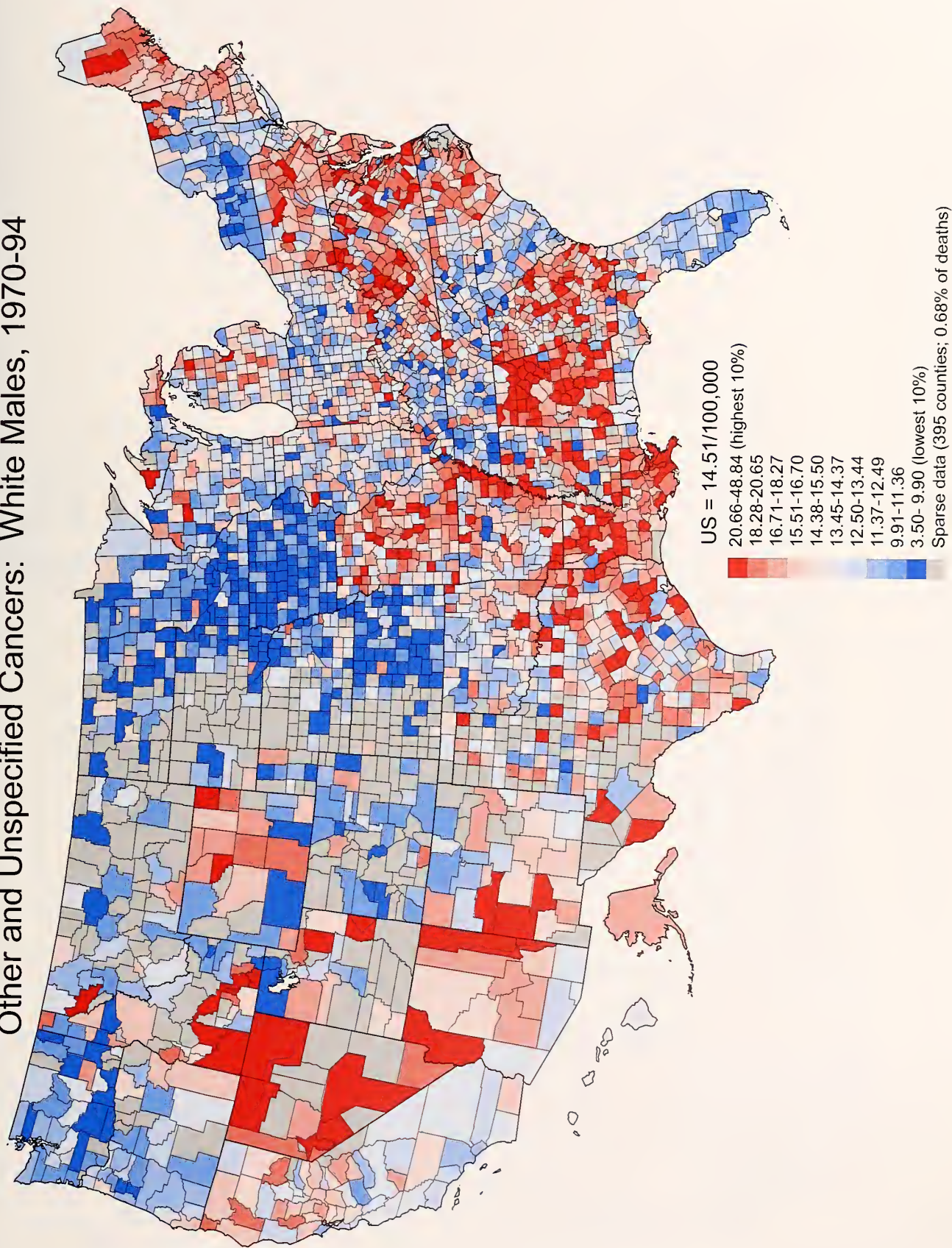


Other and Unspecified Cancers

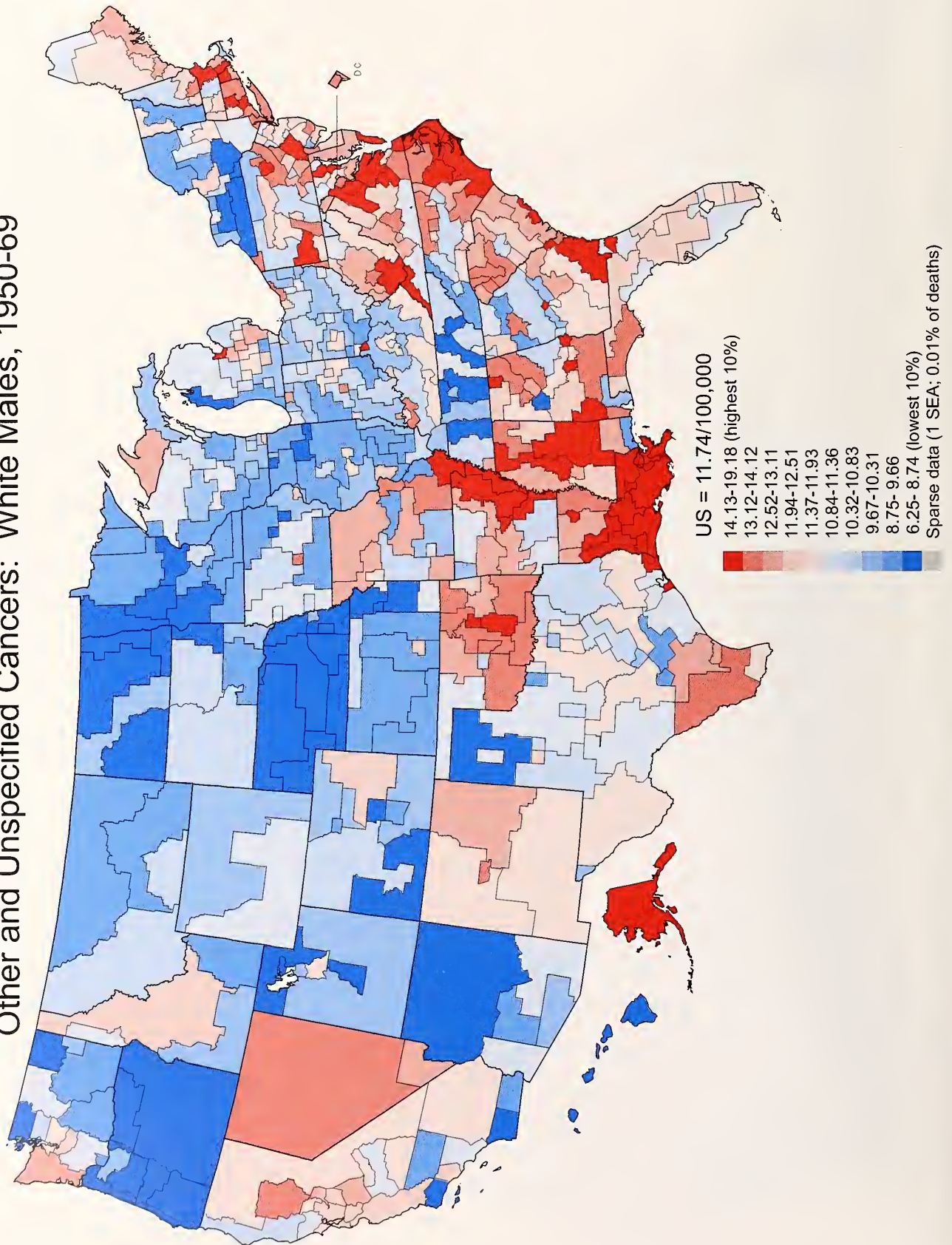
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Males, 1950-69



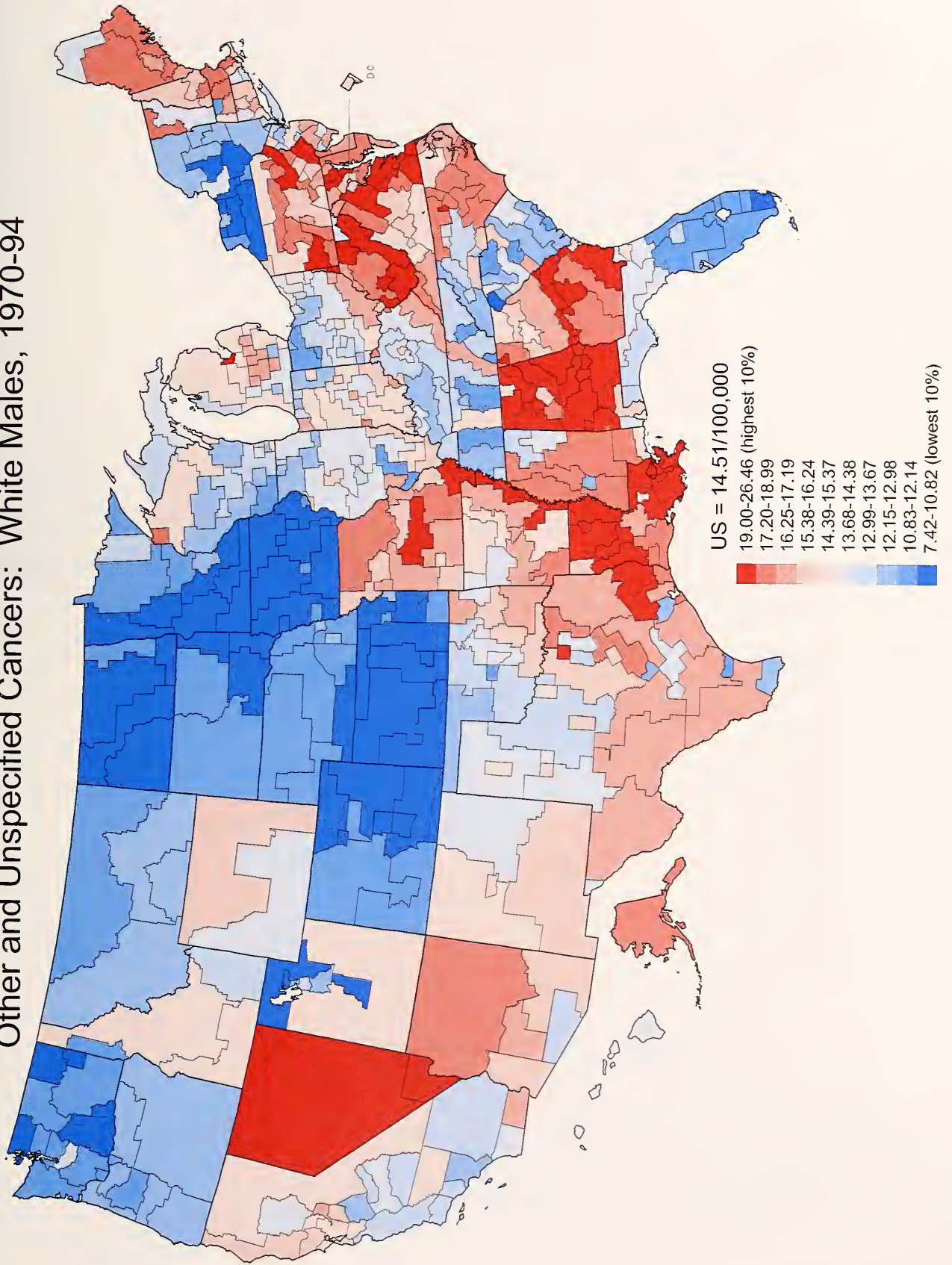
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Males, 1970-94



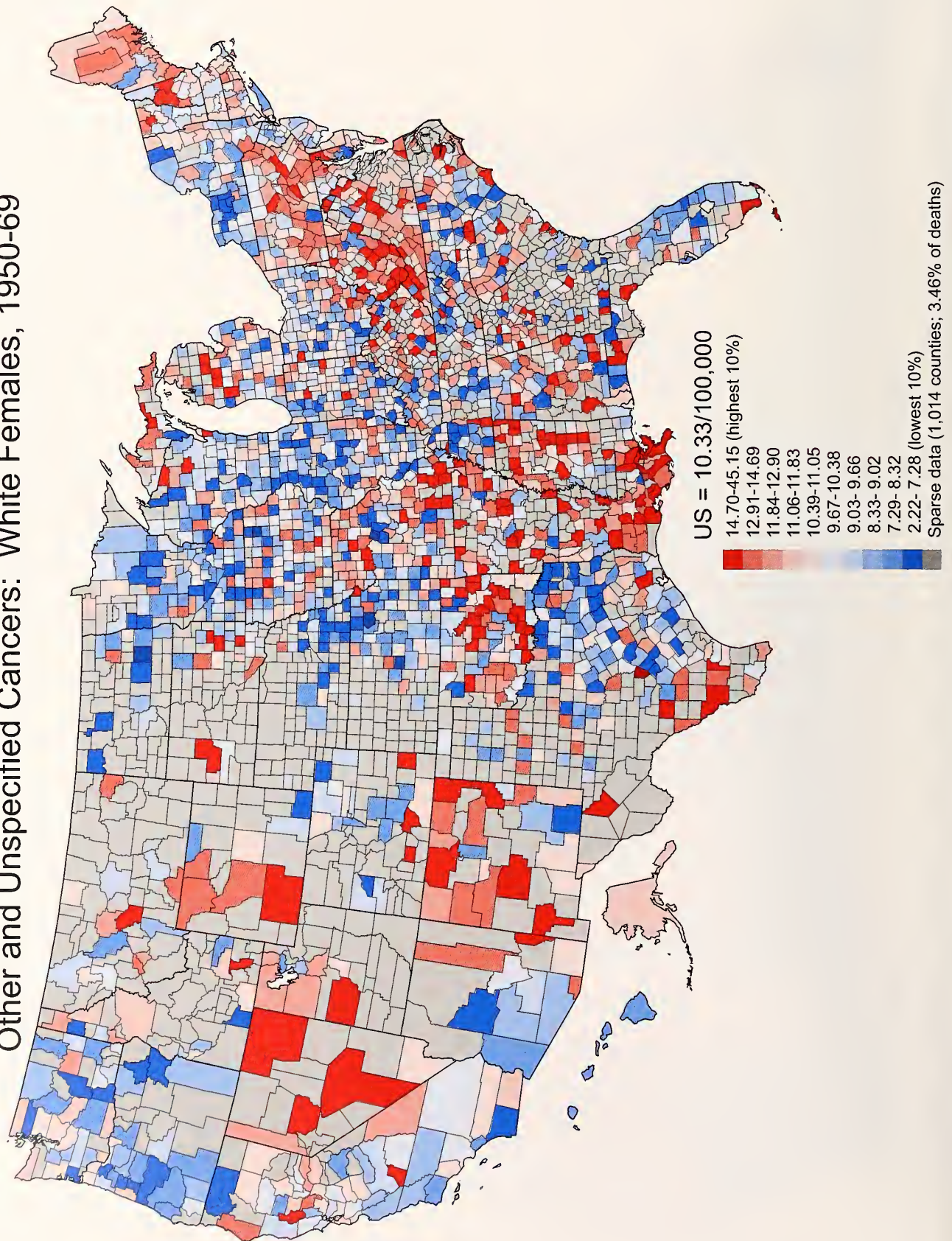
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other and Unspecified Cancers: White Males, 1950-69



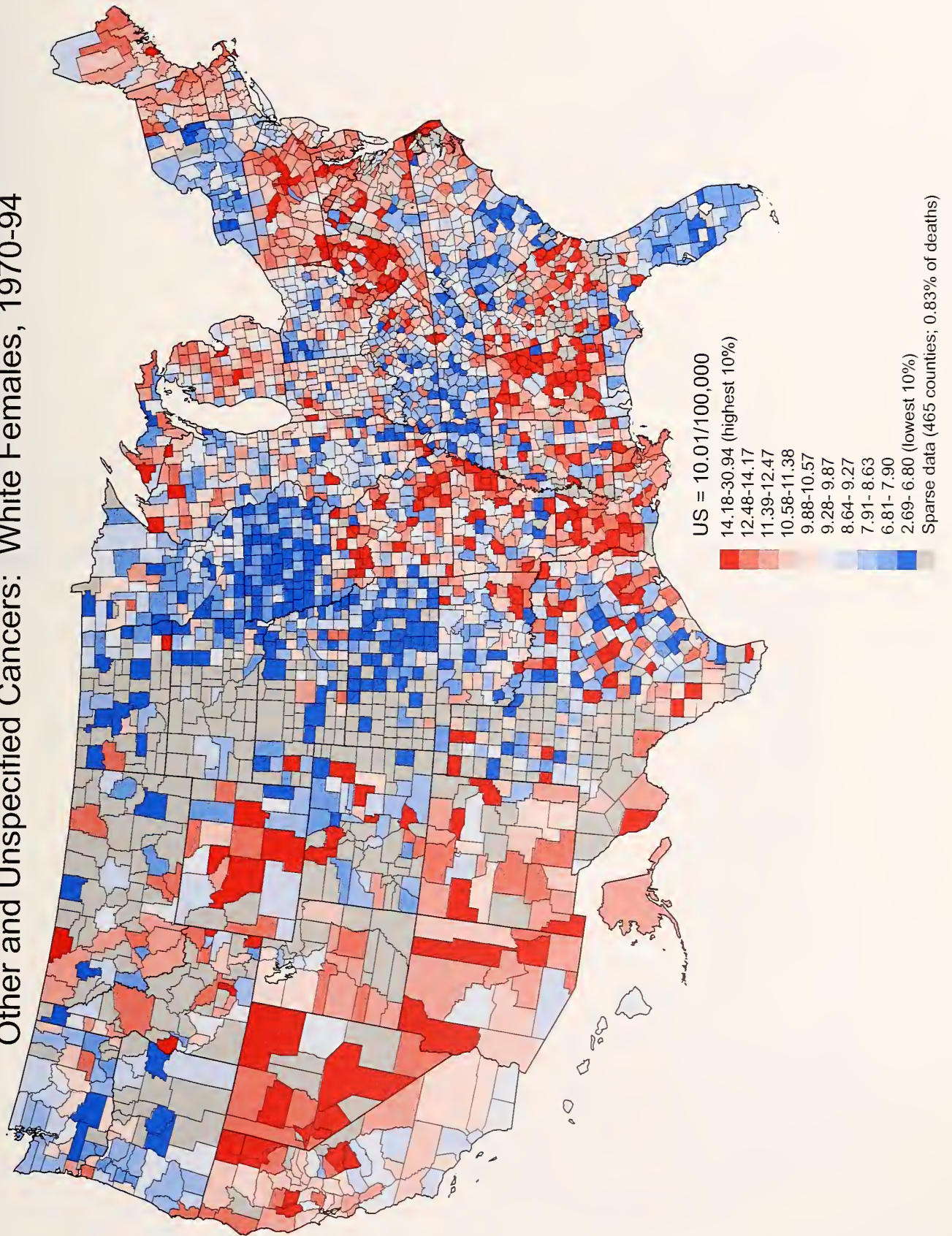
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Males, 1970-94



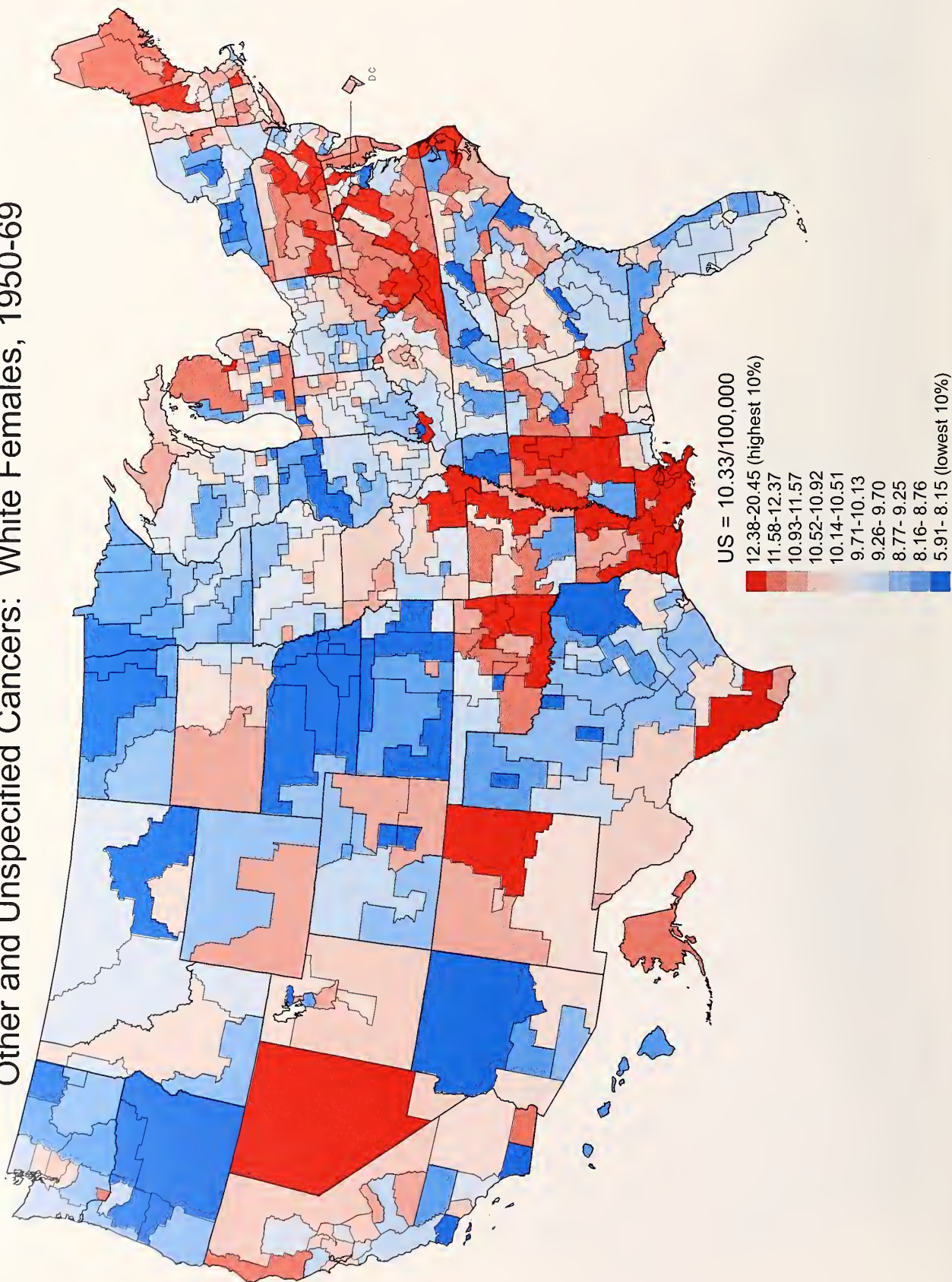
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
 Other and Unspecified Cancers: White Females, 1950-69



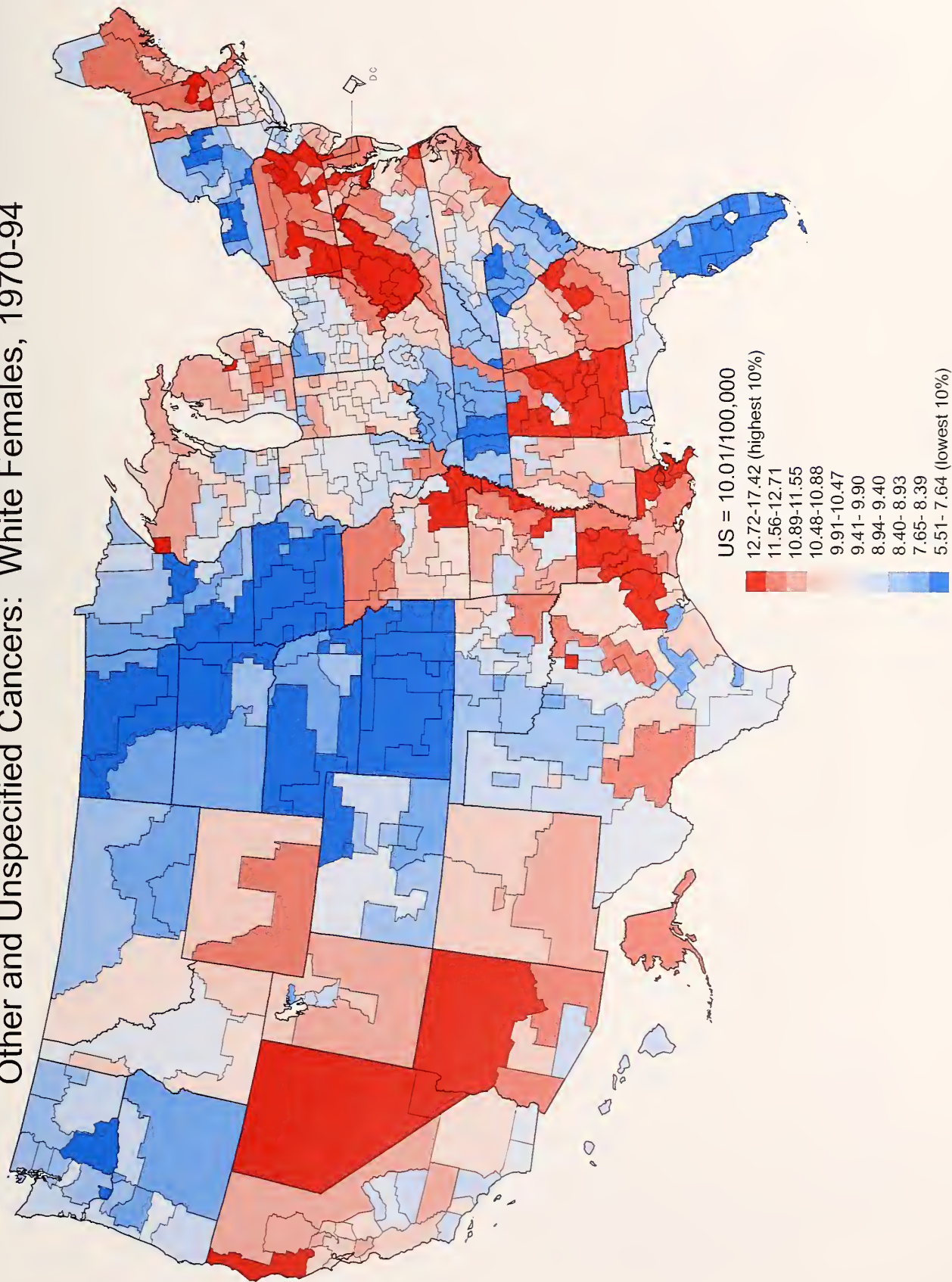
Cancer Mortality Rates by County (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Females, 1970-94



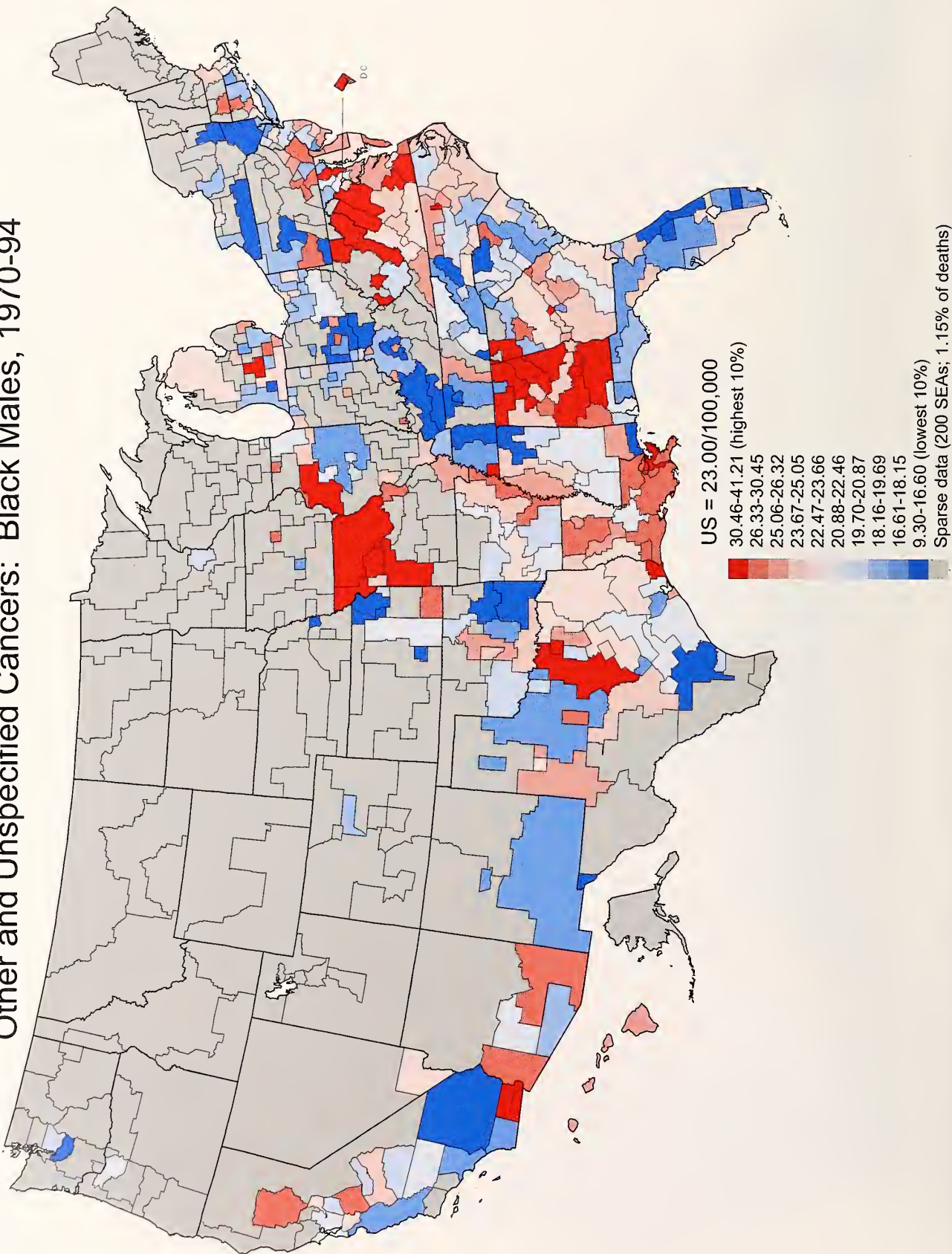
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Females, 1950-69



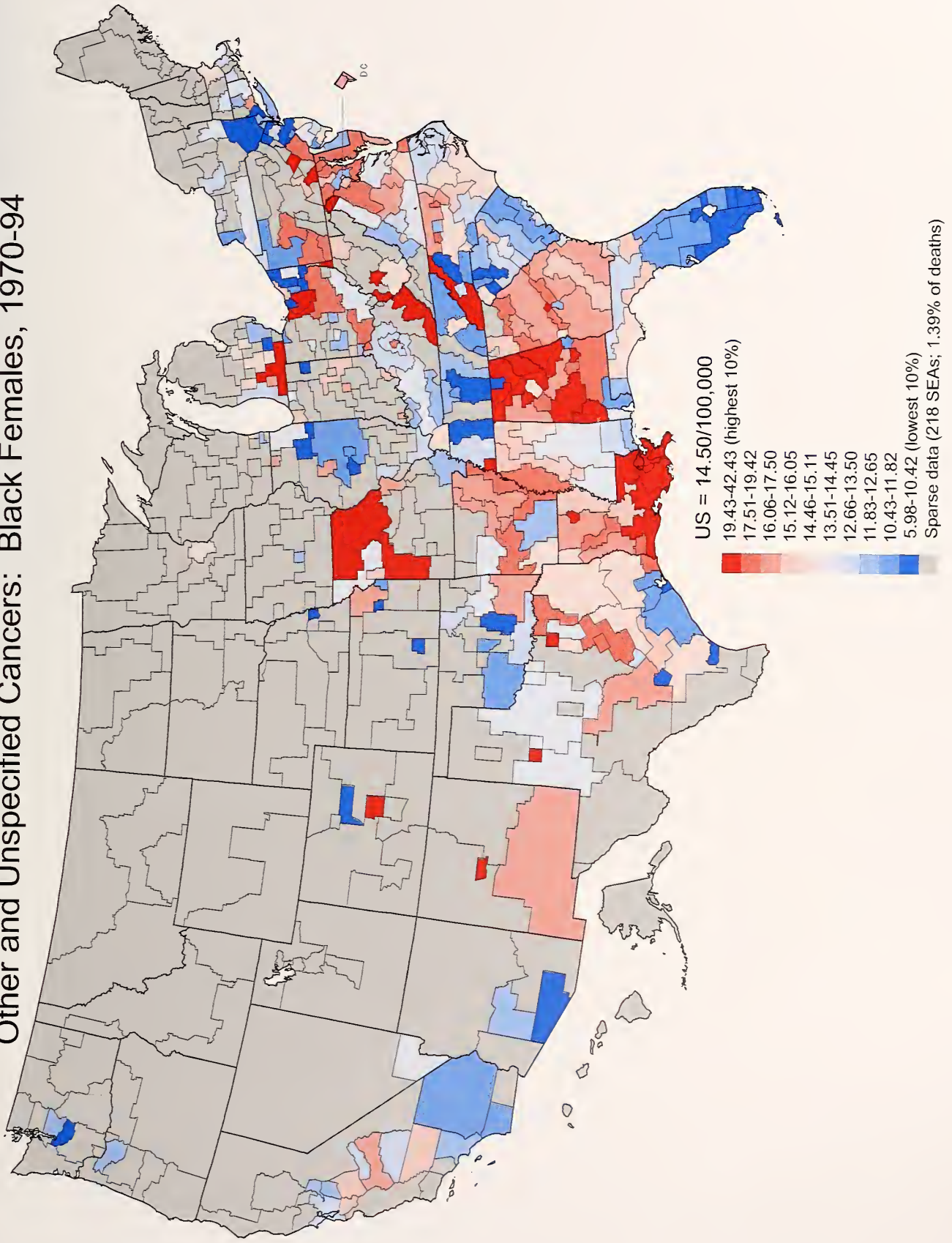
Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Other and Unspecified Cancers: White Females, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other and Unspecified Cancers: Black Males, 1970-94



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
 Other and Unspecified Cancers: Black Females, 1970-94



Appendix Tables

Appendix Table 1. State Economic Areas (SEAs) by State

The 508 SEAs are individual counties or groups of counties that are relatively homogeneous with respect to various demographic, economic, and cultural factors. Since mortality data for Alaska and Hawaii were available only at the state level, these two states are considered SEAs in this publication.

<u>SEA code</u> ¹	<u>SEA name</u>	<u>SEA code</u> ¹	<u>SEA name</u>	<u>SEA code</u> ¹	<u>SEA name</u>
Alabama					
001	Birmingham	037	Bakersfield	075	Daytona Beach
002	Phenix City	038	Santa Barbara	076	Lakeland
003	Montgomery	039	Eureka	077	Sarasota
004	Mobile	040	Santa Rosa	Georgia	
005	Huntsville	041	Santa Cruz	078	La Fayette
006	Florence	042	Chico	079	Atlanta
007	Cullman	043	Modesto	080	Columbus
008	Gadsden	044	Madera	081	Augusta
009	Auburn	045	Oxnard	082	Savannah
010	Prattville	046	El Centro	083	Macon
011	Selma	047	Woodland	084	Warner Robins
012	Jackson	Colorado		085	Rome
013	Atmore	048	Denver	086	Cornelia
014	Dothan	049	Colorado Springs	087	Gainesville
506	Tuscaloosa	050	Pueblo	088	Athens
Alaska					
507	Entire state	051	Boulder	089	Sandersville
Arizona					
015	Phoenix	052	Salida	090	Dublin
016	Tucson	053	Grand Junction	091	Albany
017	Flagstaff	054	Greeley	092	Valdosta
018	Yuma	055	Eads	093	Brunswick
Arkansas					
019	Little Rock	056	Trinidad	Hawaii	
020	Fayetteville	Connecticut		508	Entire state
021	Fort Smith	057	Bridgeport	Idaho	
022	Conway	058	Waterbury	094	Mountain Home
023	Hot Springs	059	Hartford	095	Coeur d'Alene
024	Texarkana	060	Torrington	096	Boise
025	El Dorado	061	New London	097	Idaho Falls
026	Jonesboro	Delaware		Illinois	
027	Pine Bluff	062	Wilmington	098	Rock Island
028	Harrison	063	Dover	099	Rockford
California					
029	San Francisco	District of Columbia		100	Chicago
030	San Jose	064	Washington	101	Peoria
031	Sacramento	Florida		102	Springfield
032	Stockton	065	Jacksonville	103	E. St. Louis
033	Fresno	066	Tampa	104	Decatur
034	Los Angeles	067	Miami	105	Freeport
035	San Diego	068	Pensacola	106	Belvidere
036	San Bernadino	069	Orlando	107	Galesburg
		070	West Palm Beach	108	Quincy
		071	Ft. Lauderdale	109	Kankakee
		072	Panama City	110	Champaign
		073	St. Augustine	111	Effingham
		074	Tallahassee	112	Olney

Appendix Table 1. State Economic Areas (SEAs) by State (*continued*)

<u>SEA code¹</u>	<u>SEA name</u>	<u>SEA code¹</u>	<u>SEA name</u>	<u>SEA code¹</u>	<u>SEA name</u>
Illinois <i>continued</i>		Kentucky		198	Brockton
113	Mount Carmel	156	Louisville	199	New Bedford
114	Mount Vernon	157	Covington	200	Pittsfield
115	Carbondale	158	Ashland	201	Greenfield
Indiana		159	Henderson	202	Barnstable
116	Gary	160	Lexington	Michigan	
117	South Bend	161	Paducah	203	Saginaw
118	Fort Wayne	162	Providence	204	Grand Rapids
119	Indianapolis	163	Madisonville	205	Bay City
120	Evansville	164	Bowling Green	206	Flint
121	Jeffersonville	165	Somerset	207	Lansing
122	Terre Haute	166	Frankfort	208	Detroit
123	Muncie	167	Winchester	209	Kalamazoo
124	Elkhart	168	Morehead	210	Jackson
125	Plymouth	169	Middlesboro	211	Ann Arbor
126	Lagrange	Louisiana		212	Marquette
127	Anderson	170	Shreveport	213	Sault Ste. Marie
128	Columbus	171	New Orleans	214	Traverse City
129	Vincennes	172	Baton Rouge	215	Alpena
130	Bloomington	173	Lake Charles	216	Midland
131	Seymour	174	Monroe	217	Muskegon
132	Lafayette	175	Natchitoches	218	Owosso
Iowa		176	Bastrop	219	Port Huron
133	Sioux City	177	Lafayette	220	Battle Creek
134	Council Bluffs	178	Ruston	Minnesota	
135	Des Moines	179	Bogalusa	221	Duluth
136	Davenport	180	New Iberia	222	Minneapolis
137	Waterloo	181	Jennings	223	Moorhead
138	Cedar Rapids	182	DeRidder	224	Brainerd
139	Cherokee	Maine		225	Fergus Falls
140	Fort Dodge	183	Portland	226	Little Falls
141	Ottumwa	184	Caribou	227	Willmar
142	Mason City	185	Bangor	228	Rochester
143	Marshalltown	186	Rockland	229	Austin
144	Dubuque	187	Lewiston	230	Fairmont
Kansas		Maryland		Mississippi	
145	Wichita	188	Baltimore	231	Jackson
146	Kansas City	189	Silver Spring	232	Greenville
147	Topeka	190	Ellicott City	233	Yazoo City
148	Liberal	191	Cumberland	234	Vicksburg
149	Great Bend	192	Hagerstown	235	Corinth
150	Salina	193	Prince Frederick	236	Columbus
151	Marysville	194	Salisbury	237	Meridian
152	Manhattan	Massachusetts		238	Hattiesburg
153	Lawrence	195	Springfield	239	Biloxi
154	Ottawa	196	Worcester		
155	Pittsburg	197	Boston		

Appendix Table 1. State Economic Areas (SEAs) by State (continued)

<u>SEA code</u> ¹	<u>SEA name</u>	<u>SEA code</u> ¹	<u>SEA name</u>	<u>SEA code</u> ¹	<u>SEA name</u>
Missouri		New Mexico		Ohio	
240	Kansas City	280	Albuquerque	322	Toledo
241	St. Louis	281	Santa Fe	323	Columbus
242	Springfield	282	Clovis	324	Dayton
243	St. Joseph	283	Roswell	325	Hamilton
244	Columbia	New York		326	Cleveland
245	Sedalia	284	Buffalo	327	Akron
246	Joplin	285	Rochester	328	Canton
247	Rolla	286	Syracuse	329	Youngstown
248	Jefferson City	287	Rome	330	St. Clairsville
249	Bolivar	288	Binghamton	331	Cincinnati
250	St. Francois	289	Albany	332	Ironton
251	Poplar Bluff	290	New York City	333	Lorain
Montana		291	Newark	334	Springfield
252	Butte	292	Batavia	335	Lima
253	Great Falls	293	Elmira	336	Fremont
254	Billings	294	Auburn	337	Marion
255	Miles City	295	Amsterdam	338	Sidney
Nebraska		296	Oneonta	339	Mansfield
256	Lincoln	297	Watertown	340	Ashtabula
257	Omaha	298	Glens Falls	341	Newark
258	Chadron	299	Poughkeepsie	342	Chillicothe
259	Scottsbluff	North Carolina		343	Portsmouth
260	Grand Island	300	Asheville	Oklahoma	
261	McCook	301	Winston-Salem	344	Tulsa
262	Hastings	302	Greensboro	345	Oklahoma City
263	Fremont	303	Charlotte	346	Sapulpa
264	Beatrice	304	Raleigh	347	El Reno
Nevada		305	Durham	348	Clinton
265	Las Vegas	306	Waynesville	349	Enid
266	Reno	307	Lenoir	350	Bartlesville
New Hampshire		308	Burlington	351	Lawton
267	Manchester	309	Salisbury	352	Shawnee
268	Berlin	310	Gastonia	353	Okmulgee
269	Concord	311	Sanford	354	Ardmore
New Jersey		312	Roanoke Rapids	355	Muskogee
270	Phillipsburg	313	Rocky Mount	356	McAlester
271	Newark	314	Fayettesville	357	Stilwell
272	Trenton	315	Elizabeth City	Oregon	
273	Camden	316	Wilmington	358	Portland
274	Atlantic City	North Dakota		359	Eugene
275	Salem	317	Mandan	360	Medford
276	Paterson	318	Bismarck	361	Salem
277	Jersey City	319	Minot	362	Pendleton
278	New Brunswick	320	Fargo	363	Klamath Falls
279	Vineland	321	Wahpeton		

Appendix Table 1. State Economic Areas (SEAs) by State (*continued*)

<u>SEA code¹</u>	<u>SEA name</u>	<u>SEA code¹</u>	<u>SEA name</u>	<u>SEA code¹</u>	<u>SEA name</u>
Pennsylvania		406	Jackson	Vermont	
364	Erie	407	Paris	450	Burlington
365	Philadelphia	408	Lawrenceburg	451	Rutland
366	Scranton	409	Clarksville	Virginia	
367	Pittsburgh	410	Murfreesboro	452	Roanoke
368	Johnstown	411	McMinnville	453	Arlington
369	Altoona	412	Crossville	454	Richmond
370	Wilkes-Barre	413	Johnson City	455	Norfolk
371	Harrisburg	Texas		456	Newport News
372	York	414	El Paso	457	Lynchburg
373	Lancaster	415	Fort Worth	458	Big Stone Gap
374	Reading	416	Dallas	459	Bristol
375	Allentown	417	Waco	460	Covington
376	New Castle	418	Austin	461	Staunton
377	Sayre	419	San Antonio	462	Charlottesville
378	Williamsport	420	Houston	463	Farmville
379	Uniontown	421	Beaumont	464	Danville
380	Lewistown	422	Amarillo	465	King and Queen
381	Sunbury	423	Wichita Falls	466	Accomac
382	Chambersburg	424	Lubbock	467	Suffolk
Rhode Island		425	Galveston	Washington	
383	Providence	426	Corpus Christi	468	Seattle
384	Newport	427	Abilene	469	Tacoma
South Carolina		428	Denton	470	Vancouver
385	Columbia	429	Pecos	471	Spokane
386	Aiken	430	San Angelo	472	Everett
387	Charleston	431	Laredo	473	Port Angeles
388	Greenville	432	Pampa	474	Bellingham
389	Easley	433	Odessa	475	Bremerton
390	Spartanburg	434	Brownwood	476	Longview
391	Rock Hill	435	Mineral Wells	477	Wenatchee
392	Newberry	436	Temple	478	Yakima
393	Camden	437	Bryan	479	Walla Walla
394	Sumter	438	Seguin	480	Colville
395	Florence	439	Alice	West Virginia	
396	Georgetown	440	Tyler	481	Wheeling
South Dakota		441	Lufkin	482	Huntington
397	Rapid City	442	Victoria	483	Charleston
398	Aberdeen	443	Brownsville	484	Parkersburg
399	Mitchell	444	Del Rio	485	Weston
400	Watertown	Utah		486	Fairmont
401	Sioux Falls	445	Salt Lake City	487	Beckley
Tennessee		446	Ogden	488	Elkins
402	Memphis	447	Logan	489	Martinsburg
403	Nashville	448	Provo	Wisconsin	
404	Chattanooga	449	Tooele	490	Superior
405	Knoxville			491	Madison

Appendix Table 1. State Economic Areas (SEAs) by State (*continued*)

SEA code¹ **SEA name**

Wisconsin *continued*

492	Milwaukee
493	Racine
494	Waukesha
495	Kenosha
496	Ashland
497	La Crosse
498	Monroe
499	Eau Claire
500	Stevens Point
501	Marinette
502	Green Bay
503	Janesville

Wyoming

504	Laramie
505	Cheyenne

¹Three-digit unique numeric code¹⁵⁵

Appendix Table 2. Counties within State Economic Areas (SEAs) by State

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Alabama			01093	010	Marion	05015	028	Carroll
01001	010	Autauga	01095	007	Marshall	05017	027	Chicot
01003	013	Baldwin	01097	004	Mobile	05019	025	Clark
01005	014	Barbour	01099	014	Monroe	05021	026	Clay
01007	010	Bibb	01101	003	Montgomery	05023	028	Cleburne
01009	007	Blount	01103	006	Morgan	05025	025	Cleveland
01011	011	Bullock	01105	011	Perry	05027	024	Columbia
01013	014	Butler	01107	010	Pickens	05029	022	Conway
01015	008	Calhoun	01109	014	Pike	05031	026	Craighead
01017	009	Chambers	01111	009	Randolph	05033	021	Crawford
01019	008	Cherokee	01113	002	Russell	05035	027	Crittenden
01021	010	Chilton	01115	008	St. Clair	05037	026	Cross
01023	012	Choctaw	01117	008	Shelby	05039	025	Dallas
01025	012	Clarke	01119	011	Sumter	05041	027	Desha
01027	009	Clay	01121	008	Talladega	05043	025	Drew
01029	009	Cleburne	01123	009	Tallapoosa	05045	022	Faulkner
01031	014	Coffee	01125	506	Tuscaloosa	05047	021	Franklin
01033	006	Colbert	01127	008	Walker	05049	028	Fulton
01035	014	Conecuh	01129	012	Washington	05051	023	Garland
01037	009	Coosa	01131	011	Wilcox	05053	025	Grant
01039	014	Covington	01133	010	Winston	05055	026	Greene
01041	014	Crenshaw	Alaska			05057	024	Hempstead
01043	007	Cullman	02999	507	Alaska	05059	023	Hot Spring
01045	014	Dale	Arizona			05061	024	Howard
01047	011	Dallas	04001	017	Apache	05063	022	Independence
01049	007	De Kalb	04003	018	Cochise	05065	028	Izard
01051	010	Elmore	04005	017	Coconino	05067	026	Jackson
01053	013	Escambia	04007	017	Gila	05069	027	Jefferson
01055	008	Etowah	04009	018	Graham	05071	021	Johnson
01057	010	Fayette	04011	018	Greenlee	05073	024	Lafayette
01059	010	Franklin	04013	015	Maricopa	05075	026	Lawrence
01061	014	Geneva	04015	017	Mohave	05077	027	Lee
01063	011	Greene	04017	017	Navajo	05079	027	Lincoln
01065	011	Hale	04019	016	Pima	05081	024	Little River
01067	014	Henry	04021	018	Pinal	05083	021	Logan
01069	014	Houston	04023	018	Santa Cruz	05085	026	Lonoke
01071	007	Jackson	04025	017	Yavapai	05087	028	Madison
01073	001	Jefferson	04027	018	Yuma	05089	028	Marion
01075	010	Lamar	Arkansas			05091	024	Miller
01077	006	Lauderdale	05001	026	Arkansas	05093	027	Mississippi
01079	006	Lawrence	05003	025	Ashley	05095	026	Monroe
01081	009	Lee	05005	028	Baxter	05097	023	Montgomery
01083	006	Limestone	05007	020	Benton	05099	024	Nevada
01085	011	Lowndes	05009	028	Boone	05101	028	Newton
01087	010	Macon	05011	025	Bradley	05103	025	Ouachita
01089	005	Madison	05013	025	Calhoun	05105	023	Perry
01091	011	Marengo				05107	027	Phillips

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Arkansas <i>continued</i>			06049	047	Modoc	08025	056	Crowley
05109	023	Pike	06051	047	Mono	08027	056	Custer
05111	026	Poinsett	06053	041	Monterey	08029	053	Delta
05113	023	Polk	06055	040	Napa	08031	048	Denver
05115	021	Pope	06057	047	Nevada	08033	053	Dolores
05117	026	Prairie	06059	034	Orange	08035	055	Douglas
05119	019	Pulaski	06061	047	Placer	08037	052	Eagle
05121	022	Randolph	06063	047	Plumas	08039	055	Elbert
05123	027	St. Francis	06065	036	Riverside	08041	049	El Paso
05125	023	Saline	06067	031	Sacramento	08043	056	Fremont
05127	023	Scott	06069	041	San Benito	08045	052	Garfield
05129	028	Searcy	06071	036	San Bernardino	08047	052	Gilpin
05131	021	Sebastian	06073	035	San Diego	08049	052	Grand
05133	023	Sevier	06075	029	San Francisco	08051	052	Gunnison
05135	022	Sharp	06077	032	San Joaquin	08053	052	Hinsdale
05137	028	Stone	06079	041	San Luis Obispo	08055	056	Huerfano
05139	025	Union	06081	029	San Mateo	08057	052	Jackson
05141	028	Van Buren	06083	038	Santa Barbara	08059	048	Jefferson
05143	020	Washington	06085	030	Santa Clara	08061	055	Kiowa
05145	022	White	06087	041	Santa Cruz	08063	055	Kit Carson
05147	026	Woodruff	06089	047	Shasta	08065	052	Lake
05149	021	Yell	06091	047	Sierra	08067	053	La Plata
California			06093	047	Siskiyou	08069	054	Larimer
06001	029	Alameda	06095	029	Solano	08071	056	Las Animas
06003	047	Alpine	06097	040	Sonoma	08073	055	Lincoln
06005	047	Amador	06099	043	Stanislaus	08075	054	Logan
06007	042	Butte	06101	042	Sutter	08077	053	Mesa
06009	047	Calaveras	06103	042	Tehama	08079	052	Mineral
06011	042	Colusa	06105	047	Trinity	08081	052	Moffat
06013	029	Contra Costa	06107	044	Tulare	08083	053	Montezuma
06015	039	Del Norte	06109	047	Tuolumne	08085	053	Montrose
06017	047	El Dorado	06111	045	Ventura	08087	054	Morgan
06019	033	Fresno	06113	047	Yolo	08089	056	Otero
06021	042	Glenn	06115	042	Yuba	08091	052	Ouray
06023	039	Humboldt	Colorado			08093	052	Park
06025	046	Imperial	08001	048	Adams	08095	055	Phillips
06027	047	Inyo	08003	053	Alamosa	08097	052	Pitkin
06029	037	Kern	08005	048	Arapahoe	08099	056	Prowers
06031	044	Kings	08007	053	Archuleta	08101	050	Pueblo
06033	039	Lake	08009	056	Baca	08103	052	Rio Blanco
06035	047	Lassen	08011	056	Bent	08105	053	Rio Grande
06037	034	Los Angeles	08013	051	Boulder	08107	052	Routt
06039	044	Madera	08015	052	Chaffee	08109	053	Saguache
06041	029	Marin	08017	055	Cheyenne	08111	052	San Juan
06043	047	Mariposa	08019	052	Clear Creek	08113	053	San Miguel
06045	039	Mendocino	08021	053	Conejos	08115	054	Sedgwick
06047	043	Merced	08023	053	Costilla	08117	052	Summit

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Colorado <i>continued</i>			12051	077	Hendry	13009	088	Baldwin
08119	052	Teller	12053	076	Hernando	13011	087	Banks
08121	055	Washington	12055	076	Highlands	13013	087	Barrow
08123	054	Weld	12057	066	Hillsborough	13015	085	Bartow
08125	055	Yuma	12059	074	Holmes	13017	091	Ben Hill
Connecticut			12061	075	Indian River	13019	092	Berrien
09001	057	Fairfield	12063	074	Jackson	13021	083	Bibb
09003	059	Hartford	12065	074	Jefferson	13023	090	Bleckley
09005	060	Litchfield	12067	074	Lafayette	13025	093	Brantley
09007	061	Middlesex	12069	076	Lake	13027	092	Brooks
09009	058	New Haven	12071	077	Lee	13029	093	Bryan
09011	061	New London	12073	074	Leon	13031	092	Bulloch
09013	061	Tolland	12075	073	Levy	13033	090	Burke
09015	061	Windham	12077	072	Liberty	13035	088	Butts
Delaware			12079	074	Madison	13037	091	Calhoun
10001	063	Kent	12081	077	Manatee	13039	093	Camden
10003	062	New Castle	12083	076	Marion	13043	092	Candler
10005	063	Sussex	12085	077	Martin	13045	087	Carroll
District of Columbia			12087	077	Monroe	13047	085	Catoosa
11001	064	District of Columbia	12089	073	Nassau	13049	093	Charlton
Florida			12091	072	Okaloosa	13051	082	Chatham
12001	074	Alachua	12093	077	Okeechobee	13053	080	Chattahoochee
12003	074	Baker	12095	069	Orange	13055	085	Chattooga
12005	072	Bay	12097	076	Osceola	13057	087	Cherokee
12007	073	Bradford	12099	070	Palm Beach	13059	088	Clarke
12009	075	Brevard	12101	076	Pasco	13061	091	Clay
12011	071	Broward	12103	066	Pinellas	13063	079	Clayton
12013	072	Calhoun	12105	076	Polk	13065	093	Clinch
12015	077	Charlotte	12107	073	Putnam	13067	079	Cobb
12017	076	Citrus	12109	073	St. Johns	13069	092	Coffee
12019	073	Clay	12111	075	St. Lucie	13071	092	Colquitt
12021	077	Collier	12113	068	Santa Rosa	13073	088	Columbia
12023	074	Columbia	12115	077	Sarasota	13075	092	Cook
12025	067	Dade	12117	069	Seminole	13077	088	Coweta
12027	076	De Soto	12119	076	Sumter	13079	089	Crawford
12029	073	Dixie	12121	074	Suwannee	13081	091	Crisp
12031	065	Duval	12123	073	Taylor	13083	085	Dade
12033	068	Escambia	12125	074	Union	13085	086	Dawson
12035	075	Flagler	12127	075	Volusia	13087	091	Decatur
12037	072	Franklin	12129	072	Wakulla	13089	079	De Kalb
12039	074	Gadsden	12131	072	Walton	13091	090	Dodge
12041	074	Gilchrist	12133	072	Washington	13093	091	Dooly
12043	077	Glades	Georgia			13095	091	Dougherty
12045	072	Gulf	13001	092	Appling	13097	087	Douglas
12047	074	Hamilton	13003	092	Atkinson	13099	091	Early
12049	076	Hardee	13005	092	Bacon	13101	093	Echols
			13007	091	Baker	13103	093	Effingham

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Georgia <i>continued</i>			13197	089	Marion	13293	088	Upson
13105	088	Elbert	13199	088	Meriwether	13295	078	Walker
13107	092	Emanuel	13201	091	Miller	13297	088	Walton
13109	092	Evans	13205	091	Mitchell	13299	093	Ware
13111	086	Fannin	13207	088	Monroe	13301	088	Warren
13113	088	Fayette	13209	092	Montgomery	13303	089	Washington
13115	085	Floyd	13211	088	Morgan	13305	093	Wayne
13117	087	Forsyth	13213	085	Murray	13307	091	Webster
13119	087	Franklin	13215	080	Muscogee	13309	090	Wheeler
13121	079	Fulton	13217	088	Newton	13311	086	White
13123	086	Gilmer	13219	088	Oconee	13313	085	Whitfield
13125	089	Glascock	13221	088	Oglethorpe	13315	091	Wilcox
13127	093	Glynn	13223	087	Paulding	13317	088	Wilkes
13129	085	Gordon	13225	091	Peach	13319	089	Wilkinson
13131	091	Grady	13227	086	Pickens	13321	091	Worth
13133	088	Greene	13229	093	Pierce	Hawaii		
13135	079	Gwinnett	13231	088	Pike	15999	508	Hawaii
13137	086	Habersham	13233	085	Polk	Idaho		
13139	087	Hall	13235	091	Pulaski	16001	096	Ada
13141	088	Hancock	13237	088	Putnam	16003	094	Adams
13143	087	Haralson	13239	091	Quitman	16005	097	Bannock
13145	088	Harris	13241	086	Rabun	16007	097	Bear Lake
13147	088	Hart	13243	091	Randolph	16009	095	Benewah
13149	087	Heard	13245	081	Richmond	16011	097	Bingham
13151	088	Henry	13247	088	Rockdale	16013	094	Blaine
13153	084	Houston	13249	091	Schley	16015	094	Boise
13155	091	Irwin	13251	090	Screven	16017	094	Bonner
13157	087	Jackson	13253	091	Seminole	16019	097	Bonneville
13159	088	Jasper	13255	088	Spalding	16021	094	Boundary
13161	092	Jeff Davis	13257	087	Stephens	16023	094	Butte
13163	090	Jefferson	13259	091	Stewart	16025	094	Camas
13165	090	Jenkins	13261	091	Sumter	16027	096	Canyon
13167	090	Johnson	13263	088	Talbot	16029	097	Caribou
13169	088	Jones	13265	088	Taliaferro	16031	096	Cassia
13171	088	Lamar	13267	092	Tattnall	16033	094	Clark
13173	092	Lanier	13269	089	Taylor	16035	094	Clearwater
13175	090	Laurens	13271	090	Telfair	16037	094	Custer
13177	091	Lee	13273	091	Terrell	16039	094	Elmore
13179	093	Liberty	13275	092	Thomas	16041	097	Franklin
13181	088	Lincoln	13277	091	Tift	16043	097	Fremont
13183	093	Long	13279	092	Toombs	16045	096	Gem
13185	092	Lowndes	13281	086	Towns	16047	096	Gooding
13187	086	Lumpkin	13283	090	Treutlen	16049	094	Idaho
13189	088	McDuffie	13285	088	Troup	16051	097	Jefferson
13191	093	McIntosh	13287	091	Turner	16053	096	Jerome
13193	091	Macon	13289	089	Twiggs	16055	095	Kootenai
13195	087	Madison	13291	086	Union			

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Idaho <i>continued</i>			17059	113	Gallatin	17153	115	Pulaski
16057	095	Latah	17061	108	Greene	17155	107	Putnam
16059	094	Lemhi	17063	109	Grundy	17157	111	Randolph
16061	095	Lewis	17065	112	Hamilton	17159	112	Richland
16063	096	Lincoln	17067	107	Hancock	17161	098	Rock Island
16065	097	Madison	17069	115	Hardin	17163	103	St. Clair
16067	096	Minidoka	17071	107	Henderson	17165	114	Saline
16069	095	Nez Perce	17073	107	Henry	17167	102	Sangamon
16071	097	Oneida	17075	110	Iroquois	17169	108	Schuyler
16073	096	Owyhee	17077	115	Jackson	17171	108	Scott
16075	096	Payette	17079	112	Jasper	17173	110	Shelby
16077	097	Power	17081	114	Jefferson	17175	107	Stark
16079	094	Shoshone	17083	108	Jersey	17177	105	Stephenson
16081	097	Teton	17085	105	Jo Daviess	17179	101	Tazewell
16083	096	Twin Falls	17087	115	Johnson	17181	115	Union
16085	094	Valley	17089	100	Kane	17183	110	Vermilion
16087	096	Washington	17091	109	Kankakee	17185	113	Wabash
			17093	109	Kendall	17187	107	Warren
			17095	107	Knox	17189	111	Washington
			17097	100	Lake	17191	112	Wayne
			17099	109	La Salle	17193	113	White
			17101	113	Lawrence	17195	105	Whiteside
			17103	105	Lee	17197	100	Will
			17105	110	Livingston	17199	114	Williamson
			17107	110	Logan	17201	099	Winnebago
			17109	107	McDonough	17203	110	Woodford
Illinois			17111	100	McHenry	Indiana		
17001	108	Adams	17113	110	McLean	18001	126	Adams
17003	115	Alexander	17115	104	Macon	18003	118	Allen
17005	111	Bond	17117	108	Macoupin	18005	128	Bartholomew
17007	106	Boone	17119	103	Madison	18007	132	Benton
17009	108	Brown	17121	112	Marion	18009	126	Blackford
17011	107	Bureau	17123	107	Marshall	18011	128	Boone
17013	108	Calhoun	17125	110	Mason	18013	130	Brown
17015	105	Carroll	17127	115	Massac	18015	132	Carroll
17017	110	Cass	17129	110	Menard	18017	132	Cass
17019	110	Champaign	17131	107	Mercer	18019	121	Clark
17021	110	Christian	17133	111	Monroe	18021	129	Clay
17023	113	Clark	17135	108	Montgomery	18023	132	Clinton
17025	112	Clay	17137	108	Morgan	18025	130	Crawford
17027	111	Clinton	17139	110	Moultrie	18027	129	Daviess
17029	110	Coles	17141	105	Ogle	18029	131	Dearborn
17031	100	Cook	17143	101	Peoria	18031	128	Decatur
17033	113	Crawford	17145	114	Perry	18033	126	De Kalb
17035	112	Cumberland	17147	110	Piatt	18035	123	Delaware
17037	105	De Kalb	17149	108	Pike	18037	130	Dubois
17039	110	De Witt	17151	115	Pope	18039	124	Elkhart
17041	110	Douglas						
17043	100	DuPage						
17045	110	Edgar						
17047	113	Edwards						
17049	111	Effingham						
17051	111	Fayette						
17053	110	Ford						
17055	114	Franklin						
17057	107	Fulton						

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Indiana <i>continued</i>			18133	128	Putnam	19039	141	Clarke
18041	127	Fayette	18135	127	Randolph	19041	140	Clay
18043	121	Floyd	18137	131	Ripley	19043	142	Clayton
18045	132	Fountain	18139	128	Rush	19045	144	Clinton
18047	131	Franklin	18141	117	St. Joseph	19047	139	Crawford
18049	125	Fulton	18143	131	Scott	19049	140	Dallas
18051	129	Gibson	18145	128	Shelby	19051	141	Davis
18053	127	Grant	18147	129	Spencer	19053	141	Decatur
18055	129	Greene	18149	125	Starke	19055	142	Delaware
18057	128	Hamilton	18151	126	Steuben	19057	144	Des Moines
18059	128	Hancock	18153	129	Sullivan	19059	140	Dickinson
18061	130	Harrison	18155	131	Switzerland	19061	144	Dubuque
18063	128	Hendricks	18157	132	Tippecanoe	19063	140	Emmet
18065	127	Henry	18159	128	Tipton	19065	142	Fayette
18067	127	Howard	18161	127	Union	19067	142	Floyd
18069	126	Huntington	18163	120	Vanderburgh	19069	140	Franklin
18071	131	Jackson	18165	132	Vermillion	19071	139	Fremont
18073	125	Jasper	18167	122	Vigo	19073	140	Greene
18075	126	Jay	18169	132	Wabash	19075	143	Grundy
18077	131	Jefferson	18171	132	Warren	19077	141	Guthrie
18079	131	Jennings	18173	129	Warrick	19079	140	Hamilton
18081	128	Johnson	18175	130	Washington	19081	140	Hancock
18083	129	Knox	18177	127	Wayne	19083	140	Hardin
18085	125	Kosciusko	18179	126	Wells	19085	139	Harrison
18087	126	Lagrange	18181	132	White	19087	143	Henry
18089	116	Lake	18183	126	Whitley	19089	142	Howard
18091	124	La Porte				19091	140	Humboldt
18093	130	Lawrence	Iowa			19093	139	Ida
18095	127	Madison	19001	141	Adair	19095	143	Iowa
18097	119	Marion	19003	141	Adams	19097	144	Jackson
18099	125	Marshall	19005	142	Allamakee	19099	143	Jasper
18101	130	Martin	19007	141	Appanoose	19101	141	Jefferson
18103	132	Miami	19009	139	Audubon	19103	144	Johnson
18105	130	Monroe	19011	143	Benton	19105	144	Jones
18107	132	Montgomery	19013	137	Black Hawk	19107	143	Keokuk
18109	129	Morgan	19015	140	Boone	19109	140	Kossuth
18111	125	Newton	19017	142	Bremer	19111	144	Lee
18113	126	Noble	19019	142	Buchanan	19113	138	Linn
18115	131	Ohio	19021	139	Buena Vista	19115	144	Louisa
18117	130	Orange	19023	142	Butler	19117	141	Lucas
18119	129	Owen	19025	140	Calhoun	19119	139	Lyon
18121	132	Parke	19027	139	Carroll	19121	141	Madison
18123	130	Perry	19029	139	Cass	19123	143	Mahaska
18125	129	Pike	19031	144	Cedar	19125	141	Marion
18127	116	Porter	19033	142	Cerro Gordo	19127	143	Marshall
18129	129	Posey	19035	139	Cherokee	19129	139	Mills
18131	125	Pulaski	19037	142	Chickasaw	19131	142	Mitchell

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Iowa <i>continued</i>			20023	149	Cheyenne	20117	151	Marshall
19133	139	Monona	20025	148	Clark	20119	148	Meade
19135	141	Monroe	20027	150	Clay	20121	154	Miami
19137	139	Montgomery	20029	150	Cloud	20123	149	Mitchell
19139	144	Muscatine	20031	154	Coffey	20125	155	Montgomery
19141	139	O'Brien	20033	148	Comanche	20127	152	Morris
19143	140	Osceola	20035	152	Cowley	20129	148	Morton
19145	139	Page	20037	155	Crawford	20131	153	Nemaha
19147	140	Palo Alto	20039	149	Decatur	20133	155	Neosho
19149	139	Plymouth	20041	150	Dickinson	20135	149	Ness
19151	140	Pocahontas	20043	153	Doniphan	20137	151	Norton
19153	135	Polk	20045	153	Douglas	20139	154	Osage
19155	134	Pottawattamie	20047	149	Edwards	20141	149	Osborne
19157	143	Poweshiek	20049	152	Elk	20143	150	Ottawa
19159	141	Ringgold	20051	149	Ellis	20145	149	Pawnee
19161	139	Sac	20053	149	Ellsworth	20147	151	Phillips
19163	136	Scott	20055	149	Finney	20149	152	Pottawatomie
19165	139	Shelby	20057	148	Ford	20151	149	Pratt
19167	139	Sioux	20059	154	Franklin	20153	149	Rawlins
19169	140	Story	20061	152	Geary	20155	150	Reno
19171	143	Tama	20063	149	Gove	20157	151	Republic
19173	141	Taylor	20065	149	Graham	20159	150	Rice
19175	141	Union	20067	148	Grant	20161	152	Riley
19177	141	Van Buren	20069	148	Gray	20163	149	Rooks
19179	141	Wapello	20071	148	Greeley	20165	149	Rush
19181	141	Warren	20073	152	Greenwood	20167	149	Russell
19183	143	Washington	20075	148	Hamilton	20169	150	Saline
19185	141	Wayne	20077	150	Harper	20171	148	Scott
19187	140	Webster	20079	150	Harvey	20173	145	Sedgwick
19189	142	Winnebago	20081	148	Haskell	20175	148	Seward
19191	142	Winneshiek	20083	149	Hodgeman	20177	147	Shawnee
19193	133	Woodbury	20085	153	Jackson	20179	149	Sheridan
19195	142	Worth	20087	153	Jefferson	20181	149	Sherman
19197	140	Wright	20089	151	Jewell	20183	151	Smith
Kansas			20091	146	Johnson	20185	149	Stafford
20001	154	Allen	20093	148	Kearny	20187	148	Stanton
20003	154	Anderson	20095	150	Kingman	20189	148	Stevens
20005	153	Atchison	20097	149	Kiowa	20191	150	Sumner
20007	148	Barber	20099	155	Labette	20193	149	Thomas
20009	149	Barton	20101	149	Lane	20195	149	Trego
20011	154	Bourbon	20103	153	Leavenworth	20197	152	Wabaunsee
20013	153	Brown	20105	149	Lincoln	20199	148	Wallace
20015	152	Butler	20107	154	Linn	20201	151	Washington
20017	152	Chase	20109	148	Logan	20203	148	Wichita
20019	152	Chautauqua	20111	152	Lyon	20205	155	Wilson
20021	155	Cherokee	20113	150	McPherson	20207	154	Woodson
			20115	150	Marion	20209	146	Wyandotte

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Kentucky			21093	163	Hardin	21187	166	Owen
21001	165	Adair	21095	169	Harlan	21189	168	Owsley
21003	165	Allen	21097	167	Harrison	21191	166	Pendleton
21005	166	Anderson	21099	163	Hart	21193	169	Perry
21007	161	Ballard	21101	159	Henderson	21195	169	Pike
21009	164	Barren	21103	166	Henry	21197	168	Powell
21011	166	Bath	21105	161	Hickman	21199	165	Pulaski
21013	169	Bell	21107	163	Hopkins	21201	166	Robertson
21015	166	Boone	21109	168	Jackson	21203	165	Rockcastle
21017	167	Bourbon	21111	156	Jefferson	21205	168	Rowan
21019	158	Boyd	21113	167	Jessamine	21207	165	Russell
21021	166	Boyle	21115	169	Johnson	21209	167	Scott
21023	166	Bracken	21117	157	Kenton	21211	166	Shelby
21025	169	Breathitt	21119	169	Knott	21213	164	Simpson
21027	163	Breckinridge	21121	169	Knox	21215	166	Spencer
21029	163	Bullitt	21123	163	Larue	21217	163	Taylor
21031	163	Butler	21125	168	Laurel	21219	164	Todd
21033	163	Caldwell	21127	168	Lawrence	21221	164	Trigg
21035	161	Calloway	21129	168	Lee	21223	166	Trimble
21037	157	Campbell	21131	169	Leslie	21225	162	Union
21039	161	Carlisle	21133	169	Letcher	21227	164	Warren
21041	166	Carroll	21135	168	Lewis	21229	166	Washington
21043	168	Carter	21137	165	Lincoln	21231	165	Wayne
21045	165	Casey	21139	163	Livingston	21233	162	Webster
21047	164	Christian	21141	164	Logan	21235	169	Whitley
21049	167	Clark	21143	163	Lyon	21237	168	Wolfe
21051	168	Clay	21145	161	McCracken	21239	167	Woodford
21053	165	Clinton	21147	169	McCreary	Louisiana		
21055	163	Crittenden	21149	162	McLean	22001	181	Acadia
21057	165	Cumberland	21151	166	Madison	22003	181	Allen
21059	162	Daviess	21153	168	Magoffin	22005	180	Ascension
21061	163	Edmonson	21155	166	Marion	22007	180	Assumption
21063	168	Elliott	21157	161	Marshall	22009	177	Avoyelles
21065	168	Estill	21159	169	Martin	22011	182	Beauregard
21067	160	Fayette	21161	166	Mason	22013	178	Bienville
21069	166	Fleming	21163	163	Meade	22015	170	Bossier
21071	169	Floyd	21165	168	Menifee	22017	170	Caddo
21073	166	Franklin	21167	167	Mercer	22019	173	Calcasieu
21075	161	Fulton	21169	165	Metcalfe	22021	178	Caldwell
21077	166	Gallatin	21171	165	Monroe	22023	181	Cameron
21079	166	Garrard	21173	166	Montgomery	22025	176	Catahoula
21081	166	Grant	21175	168	Morgan	22027	178	Claiborne
21083	161	Graves	21177	163	Muhlenberg	22029	176	Concordia
21085	163	Grayson	21179	166	Nelson	22031	182	De Soto
21087	163	Green	21181	166	Nicholas	22033	172	East Baton Rouge
21089	168	Greenup	21183	163	Ohio	22035	176	East Carroll
21091	163	Hancock	21185	166	Oldham			

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

County code ¹	SEA code ²	County name	County code ¹	SEA code ²	County name	County code ¹	SEA code ²	County name
Louisiana <i>continued</i>			Maine			25007	202	Dukes
22037	179	East Feliciana	23001	187	Androscoggin	25009	197	Essex
22039	177	Evangeline	23003	184	Aroostook	25011	201	Franklin
22041	176	Franklin	23005	183	Cumberland	25013	195	Hampden
22043	178	Grant	23007	185	Franklin	25015	195	Hampshire
22045	180	Iberia	23009	186	Hancock	25017	197	Middlesex
22047	180	Iberville	23011	187	Kennebec	25019	202	Nantucket
22049	178	Jackson	23013	186	Knox	25021	197	Norfolk
22051	171	Jefferson	23015	186	Lincoln	25023	198	Plymouth
22053	181	Jefferson Davis	23017	185	Oxford	25025	197	Suffolk
22055	177	Lafayette	23019	185	Penobscot	25027	196	Worcester
22057	180	Lafourche	23021	185	Piscataquis	Michigan		
22059	178	La Salle	23023	187	Sagadahoc	26001	215	Alcona
22061	178	Lincoln	23025	185	Somerset	26003	213	Alger
22063	179	Livingston	23027	186	Waldo	26005	217	Allegan
22065	176	Madison	23029	186	Washington	26007	215	Alpena
22067	176	Morehouse	23031	187	York	26009	215	Antrim
22069	175	Natchitoches	Maryland			26011	215	Arenac
22071	171	Orleans	24001	191	Allegany	26013	212	Baraga
22073	174	Ouachita	24003	188	Anne Arundel	26015	220	Barry
22075	179	Plaquemines	24005	188	Baltimore	26017	205	Bay
22077	177	Pointe Coupee	24009	193	Calvert	26019	214	Benzie
22079	175	Rapides	24011	194	Caroline	26021	217	Berrien
22081	175	Red River	24013	190	Carroll	26023	220	Branch
22083	176	Richland	24015	194	Cecil	26025	220	Calhoun
22085	182	Sabine	24017	193	Charles	26027	220	Cass
22087	171	St. Bernard	24019	194	Dorchester	26029	215	Charlevoix
22089	179	St. Charles	24021	192	Frederick	26031	215	Cheboygan
22091	179	St. Helena	24023	191	Garrett	26033	213	Chippewa
22093	180	St. James	24025	192	Harford	26035	215	Clare
22095	180	St. John the Baptist	24027	190	Howard	26037	207	Clinton
22097	177	St. Landry	24029	194	Kent	26039	215	Crawford
22099	180	St. Martin	24031	189	Montgomery	26041	213	Delta
22101	180	St. Mary	24033	189	Prince George's	26043	212	Dickinson
22103	179	St. Tammany	24035	194	Queen Anne's	26045	207	Eaton
22105	179	Tangipahoa	24037	193	St. Mary's	26047	215	Emmet
22107	176	Tensas	24039	194	Somerset	26049	206	Genesee
22109	180	Terrebonne	24041	194	Talbot	26051	215	Gladwin
22111	178	Union	24043	192	Washington	26053	212	Gogebic
22113	181	Vermilion	24045	194	Wicomico	26055	214	Grand Traverse
22115	182	Vernon	24047	194	Worcester	26057	216	Gratiot
22117	179	Washington	24510	188	Baltimore City	26059	220	Hillsdale
22119	178	Webster	Massachusetts			26061	212	Houghton
22121	180	West Baton Rouge	25001	202	Barnstable	26063	216	Huron
22123	176	West Carroll	25003	200	Berkshire	26065	207	Ingham
22125	179	West Feliciana	25005	199	Bristol	26067	218	Ionia
22127	178	Winn				26069	215	Iosco

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Michigan	<i>continued</i>		26163	208	Wayne	27087	225	Mahnomen
26071	212	Iron	26165	215	Wexford	27089	223	Marshall
26073	216	Isabella				27091	230	Martin
26075	210	Jackson	Minnesota			27093	228	Meeker
26077	209	Kalamazoo	27001	224	Aitkin	27095	226	Mille Lacs
26079	215	Kalkaska	27003	222	Anoka	27097	226	Morrison
26081	204	Kent	27005	225	Becker	27099	229	Mower
26083	212	Keweenaw	27007	224	Beltrami	27101	230	Murray
26085	215	Lake	27009	226	Benton	27103	229	Nicollet
26087	218	Lapeer	27011	227	Big Stone	27105	230	Nobles
26089	214	Leelanau	27013	229	Blue Earth	27107	223	Norman
26091	220	Lenawee	27015	229	Brown	27109	228	Olmsted
26093	218	Livingston	27017	224	Carlton	27111	225	Otter Tail
26095	213	Luce	27019	228	Carver	27113	223	Pennington
26097	213	Mackinac	27021	224	Cass	27115	226	Pine
26099	208	Macomb	27023	227	Chippewa	27117	230	Pipestone
26101	214	Manistee	27025	226	Chisago	27119	223	Polk
26103	212	Marquette	27027	223	Clay	27121	227	Pope
26105	214	Mason	27029	224	Clearwater	27123	222	Ramsey
26107	215	Mecosta	27031	224	Cook	27125	223	Red Lake
26109	213	Menominee	27033	230	Cottonwood	27127	227	Redwood
26111	216	Midland	27035	224	Crow Wing	27129	227	Renville
26113	215	Missaukee	27037	222	Dakota	27131	228	Rice
26115	219	Monroe	27039	228	Dodge	27133	230	Rock
26117	216	Montcalm	27041	225	Douglas	27135	223	Roseau
26119	215	Montmorency	27043	230	Faribault	27137	221	St. Louis
26121	217	Muskegon	27045	229	Fillmore	27139	228	Scott
26123	215	Newaygo	27047	229	Freeborn	27141	226	Sherburne
26125	208	Oakland	27049	228	Goodhue	27143	229	Sibley
26127	214	Oceana	27051	227	Grant	27145	228	Stearns
26129	215	Ogemaw	27053	222	Hennepin	27147	228	Steele
26131	212	Ontonagon	27055	229	Houston	27149	227	Stevens
26133	215	Osceola	27057	224	Hubbard	27151	227	Swift
26135	215	Oscoda	27059	226	Isanti	27153	225	Todd
26137	215	Otsego	27061	224	Itasca	27155	227	Traverse
26139	217	Ottawa	27063	230	Jackson	27157	228	Wabasha
26141	215	Presque Isle	27065	226	Kanabec	27159	225	Wadena
26143	215	Roscommon	27067	227	Kandiyohi	27161	229	Waseca
26145	203	Saginaw	27069	223	Kittson	27163	222	Washington
26147	219	St. Clair	27071	224	Koochiching	27165	230	Watonwan
26149	220	St. Joseph	27073	227	Lac qui Parle	27167	223	Wilkin
26151	216	Sanilac	27075	224	Lake	27169	228	Winona
26153	213	Schoolcraft	27077	224	Lake of the Woods	27171	228	Wright
26155	218	Shiawassee	27079	229	Le Sueur	27173	227	Yellow Medicine
26157	216	Tuscola	27081	230	Lincoln			
26159	217	Van Buren	27083	230	Lyon	Mississippi		
26161	211	Washtenaw	27085	228	McLeod	28001	234	Adams
						28003	235	Alcorn

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Mississippi <i>continued</i>			28097	237	Montgomery	29023	251	Butler
28005	234	Amite	28099	237	Neshoba	29025	244	Caldwell
28007	237	Attala	28101	237	Newton	29027	244	Callaway
28009	233	Benton	28103	236	Noxubee	29029	247	Camden
28011	232	Bolivar	28105	236	Oktibbeha	29031	248	Cape Girardeau
28013	235	Calhoun	28107	233	Panola	29033	243	Carroll
28015	233	Carroll	28109	238	Pearl River	29035	250	Carter
28017	236	Chickasaw	28111	238	Perry	29037	245	Cass
28019	237	Choctaw	28113	234	Pike	29039	245	Cedar
28021	234	Claiborne	28115	235	Pontotoc	29041	244	Chariton
28023	237	Clarke	28117	235	Prentiss	29043	249	Christian
28025	236	Clay	28119	232	Quitman	29045	244	Clark
28027	232	Coahoma	28121	237	Rankin	29047	240	Clay
28029	234	Copiah	28123	237	Scott	29049	243	Clinton
28031	237	Covington	28125	232	Sharkey	29051	248	Cole
28033	233	DeSoto	28127	237	Simpson	29053	245	Cooper
28035	238	Forrest	28129	237	Smith	29055	247	Crawford
28037	234	Franklin	28131	238	Stone	29057	245	Dade
28039	238	George	28133	232	Sunflower	29059	249	Dallas
28041	238	Greene	28135	232	Tallahatchie	29061	244	Daviess
28043	233	Grenada	28137	233	Tate	29063	244	De Kalb
28045	239	Hancock	28139	235	Tippah	29065	250	Dent
28047	239	Harrison	28141	235	Tishomingo	29067	249	Douglas
28049	231	Hinds	28143	232	Tunica	29069	251	Dunklin
28051	233	Holmes	28145	235	Union	29071	248	Franklin
28053	232	Humphreys	28147	237	Walthall	29073	248	Gasconade
28055	232	Issaquena	28149	234	Warren	29075	244	Gentry
28057	235	Itawamba	28151	232	Washington	29077	242	Greene
28059	239	Jackson	28153	237	Wayne	29079	244	Grundy
28061	237	Jasper	28155	237	Webster	29081	244	Harrison
28063	234	Jefferson	28157	234	Wilkinson	29083	245	Henry
28065	237	Jefferson Davis	28159	237	Winston	29085	247	Hickory
28067	237	Jones	28161	233	Yalobusha	29087	243	Holt
28069	237	Kemper	28163	233	Yazoo	29089	244	Howard
28071	235	Lafayette				29091	249	Howell
28073	238	Lamar	Missouri			29093	250	Iron
28075	237	Lauderdale	29001	244	Adair	29095	240	Jackson
28077	237	Lawrence	29003	243	Andrew	29097	246	Jasper
28079	237	Leake	29005	243	Atchison	29099	241	Jefferson
28081	236	Lee	29007	244	Audrain	29101	245	Johnson
28083	232	Leflore	29009	246	Barry	29103	244	Knox
28085	234	Lincoln	29011	245	Barton	29105	247	Laclede
28087	236	Lowndes	29013	245	Bates	29107	243	Lafayette
28089	233	Madison	29015	247	Benton	29109	246	Lawrence
28091	237	Marion	29017	248	Bollinger	29111	244	Lewis
28093	233	Marshall	29019	244	Boone	29113	244	Lincoln
28095	236	Monroe	29021	243	Buchanan	29115	244	Linn

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Missouri <i>continued</i>			29211	244	Sullivan	30069	255	Petroleum
29117	244	Livingston	29213	249	Taney	30071	253	Phillips
29119	246	McDonald	29215	249	Texas	30073	253	Pondera
29121	244	Macon	29217	245	Vernon	30075	255	Powder River
29123	250	Madison	29219	248	Warren	30077	252	Powell
29125	247	Maries	29221	247	Washington	30079	253	Prairie
29127	244	Marion	29223	250	Wayne	30081	252	Ravalli
29129	244	Mercer	29225	249	Webster	30083	253	Richland
29131	247	Miller	29227	244	Worth	30085	253	Roosevelt
29133	251	Mississippi	29229	249	Wright	30087	255	Rosebud
29135	248	Moniteau	29510	241	St. Louis (city)	30089	252	Sanders
29137	244	Monroe				30091	253	Sheridan
29139	244	Montgomery	Montana			30093	252	Silver Bow
29141	247	Morgan	30001	252	Beaverhead	30095	254	Stillwater
29143	251	New Madrid	30003	254	Big Horn	30097	255	Sweet Grass
29145	246	Newton	30005	253	Blaine	30099	253	Teton
29147	243	Nodaway	30007	252	Broadwater	30101	253	Toole
29149	250	Oregon	30009	254	Carbon	30103	255	Treasure
29151	248	Osage	30011	255	Carter	30105	253	Valley
29153	249	Ozark	30013	253	Cascade	30107	255	Wheatland
29155	251	Pemiscot	30015	253	Chouteau	30109	253	Wibaux
29157	248	Perry	30017	255	Custer	30111	254	Yellowstone
29159	245	Pettis	30019	253	Daniels	Nebraska		
29161	247	Phelps	30021	253	Dawson	31001	262	Adams
29163	244	Pike	30023	252	Deer Lodge	31003	260	Antelope
29165	243	Platte	30025	253	Fallon	31005	258	Arthur
29167	249	Polk	30027	253	Fergus	31007	259	Banner
29169	247	Pulaski	30029	252	Flathead	31009	258	Blaine
29171	244	Putnam	30031	252	Gallatin	31011	260	Boone
29173	244	Ralls	30033	255	Garfield	31013	259	Box Butte
29175	244	Randolph	30035	253	Glacier	31015	260	Boyd
29177	243	Ray	30037	255	Golden Valley	31017	258	Brown
29179	250	Reynolds	30039	252	Granite	31019	260	Buffalo
29181	250	Ripley	30041	253	Hill	31021	263	Burt
29183	241	St. Charles	30043	252	Jefferson	31023	262	Butler
29185	245	St. Clair	30045	253	Judith Basin	31025	264	Cass
29186	250	Ste. Genevieve	30047	252	Lake	31027	263	Cedar
29187	241	St. Francois	30049	252	Lewis and Clark	31029	259	Chase
29189	248	St. Louis	30051	253	Liberty	31031	258	Cherry
29195	243	Saline	30053	252	Lincoln	31033	259	Cheyenne
29197	244	Schuyler	30055	253	McCone	31035	262	Clay
29199	244	Scotland	30057	252	Madison	31037	260	Colfax
29201	251	Scott	30059	252	Meagher	31039	263	Cuming
29203	250	Shannon	30061	252	Mineral	31041	260	Custer
29205	244	Shelby	30063	252	Missoula	31043	263	Dakota
29207	251	Stoddard	30065	255	Musselshell	31045	258	Dawes
29209	249	Stone	30067	252	Park			

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Nebraska <i>continued</i>			31139	260	Pierce	33007	268	Coos
31047	260	Dawson	31141	260	Platte	33009	268	Grafton
31049	259	Deuel	31143	262	Polk	33011	267	Hillsborough
31051	263	Dixon	31145	261	Red Willow	33013	269	Merrimack
31053	263	Dodge	31147	264	Richardson	33015	269	Rockingham
31055	257	Douglas	31149	258	Rock	33017	269	Strafford
31057	261	Dundy	31151	262	Saline	33019	268	Sullivan
31059	262	Fillmore	31153	257	Sarpy	New Jersey		
31061	261	Franklin	31155	264	Saunders	34001	274	Atlantic
31063	261	Frontier	31157	259	Scotts Bluff	34003	276	Bergen
31065	261	Furnas	31159	262	Seward	34005	273	Burlington
31067	264	Gage	31161	258	Sheridan	34007	273	Camden
31069	258	Garden	31163	260	Sherman	34009	279	Cape May
31071	258	Garfield	31165	258	Sioux	34011	279	Cumberland
31073	261	Gosper	31167	260	Stanton	34013	271	Essex
31075	258	Grant	31169	262	Thayer	34015	273	Gloucester
31077	260	Greeley	31171	258	Thomas	34017	277	Hudson
31079	260	Hall	31173	263	Thurston	34019	278	Hunterdon
31081	262	Hamilton	31175	260	Valley	34021	272	Mercer
31083	261	Harlan	31177	263	Washington	34023	278	Middlesex
31085	261	Hayes	31179	263	Wayne	34025	278	Monmouth
31087	261	Hitchcock	31181	261	Webster	34027	271	Morris
31089	258	Holt	31183	258	Wheeler	34029	279	Ocean
31091	258	Hooker	31185	262	York	34031	276	Passaic
31093	260	Howard	Nevada			34033	275	Salem
31095	262	Jefferson	32001	266	Churchill	34035	278	Somerset
31097	264	Johnson	32003	265	Clark	34037	278	Sussex
31099	261	Kearney	32005	266	Douglas	34039	271	Union
31101	259	Keith	32007	266	Elko	34041	270	Warren
31103	258	Keya Paha	32009	266	Esmeralda	New Mexico		
31105	259	Kimball	32011	266	Eureka	35001	280	Bernalillo
31107	260	Knox	32013	266	Humboldt	35003	281	Catron
31109	256	Lancaster	32015	266	Lander	35005	283	Chaves
31111	260	Lincoln	32017	266	Lincoln	35007	282	Colfax
31113	258	Logan	32019	266	Lyon	35009	282	Curry
31115	258	Loup	32021	266	Mineral	35011	282	DeBaca
31117	258	McPherson	32023	266	Nye	35013	283	Dona Ana
31119	260	Madison	32027	266	Pershing	35015	283	Eddy
31121	260	Merrick	32029	266	Storey	35017	283	Grant
31123	259	Morrill	32031	266	Washoe	35019	282	Guadalupe
31125	260	Nance	32033	266	White Pine	35021	282	Harding
31127	264	Nemaha	32510	266	Carson City	35023	283	Hidalgo
31129	261	Nuckolls	New Hampshire			35025	283	Lea
31131	264	Otoe	33001	268	Belknap	35027	283	Lincoln
31133	264	Pawnee	33003	268	Carroll	35028	281	Los Alamos
31135	259	Perkins	33005	269	Cheshire	35029	283	Luna
31137	261	Phelps						

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
New Mexico <i>continued</i>			36063	284	Niagara	37035	309	Catawba
35031	281	McKinley	36065	287	Oneida	37037	309	Chatham
35033	282	Mora	36067	286	Onondaga	37039	306	Cherokee
35035	283	Otero	36069	292	Ontario	37041	312	Chowan
35037	282	Quay	36071	299	Orange	37043	306	Clay
35039	281	Rio Arriba	36073	291	Orleans	37045	310	Cleveland
35041	282	Roosevelt	36075	286	Oswego	37047	316	Columbus
35043	281	Sandoval	36077	296	Otsego	37049	316	Craven
35045	281	San Juan	36079	299	Putnam	37051	314	Cumberland
35047	282	San Miguel	36083	289	Rensselaer	37053	315	Currituck
35049	281	Santa Fe	36087	290	Rockland	37055	315	Dare
35051	283	Sierra	36089	297	St. Lawrence	37057	309	Davidson
35053	283	Socorro	36091	289	Saratoga	37059	309	Davie
35055	281	Taos	36093	289	Schenectady	37061	316	Duplin
35057	282	Torrance	36095	296	Schoharie	37063	305	Durham
35059	282	Union	36097	293	Schuyler	37065	313	Edgecombe
35061	281	Valencia	36099	292	Seneca	37067	301	Forsyth
New York			36101	293	Steuben	37069	311	Franklin
36001	289	Albany	36103	290	Suffolk	37071	310	Gaston
36003	293	Allegany	36105	299	Sullivan	37073	312	Gates
36007	288	Broome	36107	293	Tioga	37075	306	Graham
36009	293	Cattaraugus	36109	293	Tompkins	37077	308	Granville
36011	294	Cayuga	36111	299	Ulster	37079	313	Greene
36013	293	Chautauqua	36113	298	Warren	37081	302	Guilford
36015	293	Chemung	36115	298	Washington	37083	312	Halifax
36017	296	Chenango	36117	291	Wayne	37085	311	Harnett
36019	297	Clinton	36119	290	Westchester	37087	306	Haywood
36021	299	Columbia	36121	292	Wyoming	37089	306	Henderson
36023	294	Cortland	36123	292	Yates	37091	312	Hertford
36025	296	Delaware	North Carolina			37093	314	Hoke
36027	299	Dutchess	37001	308	Alamance	37095	315	Hyde
36029	284	Erie	37003	307	Alexander	37097	309	Iredell
36031	297	Essex	37005	306	Alleghany	37099	306	Jackson
36033	297	Franklin	37007	310	Anson	37101	311	Johnston
36035	295	Fulton	37009	306	Ashe	37103	316	Jones
36037	292	Genesee	37011	306	Avery	37105	311	Lee
36039	299	Greene	37013	315	Beaufort	37107	313	Lenoir
36041	295	Hamilton	37015	312	Bertie	37109	310	Lincoln
36043	287	Herkimer	37017	316	Bladen	37111	307	McDowell
36045	297	Jefferson	37019	316	Brunswick	37113	306	Macon
36049	297	Lewis	37021	300	Buncombe	37115	306	Madison
36051	292	Livingston	37023	307	Burke	37117	312	Martin
36053	286	Madison	37025	309	Cabarrus	37119	303	Mecklenburg
36055	285	Monroe	37027	307	Caldwell	37121	306	Mitchell
36057	295	Montgomery	37029	315	Camden	37123	309	Montgomery
36059	290	Nassau	37031	316	Carteret	37125	314	Moore
36061	290	New York	37033	308	Caswell	37127	313	Nash

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
North Carolina <i>continued</i>			38017	320	Cass	Ohio		
37129	316	New Hanover	38019	319	Cavalier	39001	342	Adams
37131	312	Northampton	38021	321	Dickey	39003	335	Allen
37133	316	Onslow	38023	318	Divide	39005	339	Ashland
37135	308	Orange	38025	317	Dunn	39007	340	Ashtabula
37137	316	Pamlico	38027	319	Eddy	39009	343	Athens
37139	315	Pasquotank	38029	318	Emmons	39011	337	Auglaize
37141	316	Pender	38031	319	Foster	39013	330	Belmont
37143	312	Perquimans	38033	317	Golden Valley	39015	342	Brown
37145	308	Person	38035	320	Grand Forks	39017	325	Butler
37147	313	Pitt	38037	317	Grant	39019	341	Carroll
37149	310	Polk	38039	319	Griggs	39021	338	Champaign
37151	309	Randolph	38041	317	Hettinger	39023	334	Clark
37153	314	Richmond	38043	318	Kidder	39025	342	Clermont
37155	314	Robeson	38045	319	LaMoure	39027	338	Clinton
37157	308	Rockingham	38047	318	Logan	39029	340	Columbiana
37159	309	Rowan	38049	319	McHenry	39031	341	Coshocton
37161	310	Rutherford	38051	318	McIntosh	39033	337	Crawford
37163	311	Sampson	38053	317	McKenzie	39035	326	Cuyahoga
37165	314	Scotland	38055	318	McLean	39037	338	Darke
37167	309	Stanly	38057	317	Mercer	39039	336	Defiance
37169	308	Stokes	38059	317	Morton	39041	338	Delaware
37171	308	Surry	38061	318	Mountrail	39043	339	Erie
37173	306	Swain	38063	319	Nelson	39045	341	Fairfield
37175	306	Transylvania	38065	317	Oliver	39047	338	Fayette
37177	315	Tyrrell	38067	320	Pembina	39049	323	Franklin
37179	310	Union	38069	319	Pierce	39051	336	Fulton
37181	308	Vance	38071	319	Ramsey	39053	343	Gallia
37183	304	Wake	38073	321	Ransom	39055	340	Geauga
37185	311	Warren	38075	319	Renville	39057	324	Greene
37187	312	Washington	38077	321	Richland	39059	341	Guernsey
37189	306	Watauga	38079	319	Rolette	39061	331	Hamilton
37191	313	Wayne	38081	321	Sargent	39063	337	Hancock
37193	307	Wilkes	38083	318	Sheridan	39065	337	Hardin
37195	313	Wilson	38085	317	Sioux	39067	341	Harrison
37197	308	Yadkin	38087	317	Slope	39069	336	Henry
37199	306	Yancey	38089	317	Stark	39071	342	Highland
North Dakota			38091	319	Steele	39073	343	Hocking
38001	317	Adams	38093	319	Stutsman	39075	339	Holmes
38003	319	Barnes	38095	319	Towner	39077	339	Huron
38005	319	Benson	38097	320	Traill	39079	343	Jackson
38007	317	Billings	38099	320	Walsh	39081	341	Jefferson
38009	319	Bottineau	38101	319	Ward	39083	341	Knox
38011	317	Bowman	38103	319	Wells	39085	326	Lake
38013	318	Burke	38105	318	Williams	39087	332	Lawrence
38015	318	Burleigh				39089	341	Licking
						39091	337	Logan

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Ohio <i>continued</i>			40005	356	Atoka	40099	354	Murray
39093	333	Lorain	40007	348	Beaver	40101	355	Muskogee
39095	322	Lucas	40009	351	Beckham	40103	349	Noble
39097	338	Madison	40011	349	Blaine	40105	350	Nowata
39099	329	Mahoning	40013	354	Bryan	40107	353	Okfuskee
39101	337	Marion	40015	351	Caddo	40109	345	Oklahoma
39103	339	Medina	40017	347	Canadian	40111	355	Okmulgee
39105	343	Meigs	40019	354	Carter	40113	344	Osage
39107	337	Mercer	40021	357	Cherokee	40115	350	Ottawa
39109	324	Miami	40023	354	Choctaw	40117	352	Pawnee
39111	343	Monroe	40025	348	Cimarron	40119	352	Payne
39113	324	Montgomery	40027	345	Cleveland	40121	356	Pittsburg
39115	343	Morgan	40029	353	Coal	40123	353	Pontotoc
39117	341	Morrow	40031	351	Comanche	40125	352	Pottawatomie
39119	341	Muskingum	40033	351	Cotton	40127	356	Pushmataha
39121	343	Noble	40035	350	Craig	40129	348	Roger Mills
39123	336	Ottawa	40037	346	Creek	40131	350	Rogers
39125	336	Paulding	40039	348	Custer	40133	353	Seminole
39127	341	Perry	40041	357	Delaware	40135	355	Sequoyah
39129	338	Pickaway	40043	348	Dewey	40137	354	Stephens
39131	343	Pike	40045	348	Ellis	40139	348	Texas
39133	340	Portage	40047	349	Garfield	40141	351	Tillman
39135	338	Preble	40049	352	Garvin	40143	344	Tulsa
39137	336	Putnam	40051	351	Grady	40145	355	Wagoner
39139	339	Richland	40053	349	Grant	40147	350	Washington
39141	342	Ross	40055	351	Greer	40149	351	Washita
39143	336	Sandusky	40057	351	Harmon	40151	348	Woods
39145	343	Scioto	40059	348	Harper	40153	348	Woodward
39147	337	Seneca	40061	355	Haskell	Oregon		
39149	338	Shelby	40063	353	Hughes	41001	363	Baker
39151	328	Stark	40065	351	Jackson	41003	361	Benton
39153	327	Summit	40067	354	Jefferson	41005	358	Clackamas
39155	329	Trumbull	40069	354	Johnston	41007	360	Clatsop
39157	341	Tuscarawas	40071	349	Kay	41009	360	Columbia
39159	337	Union	40073	349	Kingfisher	41011	360	Coos
39161	336	Van Wert	40075	351	Kiowa	41013	363	Crook
39163	343	Vinton	40077	356	Latimer	41015	360	Curry
39165	338	Warren	40079	356	Le Flore	41017	363	Deschutes
39167	343	Washington	40081	352	Lincoln	41019	360	Douglas
39169	339	Wayne	40083	352	Logan	41021	362	Gilliam
39171	336	Williams	40085	354	Love	41023	363	Grant
39173	336	Wood	40087	352	McClain	41025	363	Harney
39175	337	Wyandot	40089	356	McCurtain	41027	361	Hood River
Oklahoma			40091	355	McIntosh	41029	360	Jackson
40001	357	Adair	40093	349	Major	41031	363	Jefferson
40003	349	Alfalfa	40095	354	Marshall	41033	360	Josephine
			40097	350	Mays			

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Oregon <i>continued</i>			42051	379	Fayette	44007	383	Providence
41035	363	Klamath	42053	378	Forest	44009	384	Washington
41037	363	Lake	42055	382	Franklin	South Carolina		
41039	359	Lane	42057	380	Fulton	45001	392	Abbeville
41041	360	Lincoln	42059	379	Greene	45003	386	Aiken
41043	361	Linn	42061	380	Huntingdon	45005	394	Allendale
41045	363	Malheur	42063	379	Indiana	45007	390	Anderson
41047	361	Marion	42065	379	Jefferson	45009	394	Bamberg
41049	362	Morrow	42067	380	Juniata	45011	394	Barnwell
41051	358	Multnomah	42069	366	Lackawanna	45013	396	Beaufort
41053	361	Polk	42071	373	Lancaster	45015	396	Berkeley
41055	362	Sherman	42073	376	Lawrence	45017	394	Calhoun
41057	360	Tillamook	42075	382	Lebanon	45019	387	Charleston
41059	362	Umatilla	42077	375	Lehigh	45021	391	Cherokee
41061	363	Union	42079	370	Luzerne	45023	391	Chester
41063	363	Wallowa	42081	378	Lycoming	45025	393	Chesterfield
41065	362	Wasco	42083	376	McKean	45027	394	Clarendon
41067	358	Washington	42085	376	Mercer	45029	396	Colleton
41069	363	Wheeler	42087	380	Mifflin	45031	394	Darlington
41071	361	Yamhill	42089	381	Monroe	45033	395	Dillon
Pennsylvania			42091	365	Montgomery	45035	396	Dorchester
42001	382	Adams	42093	381	Montour	45037	392	Edgefield
42003	367	Allegheny	42095	375	Northampton	45039	392	Fairfield
42005	376	Armstrong	42097	381	Northumberland	45041	395	Florence
42007	367	Beaver	42099	380	Perry	45043	396	Georgetown
42009	380	Bedford	42101	365	Philadelphia	45045	388	Greenville
42011	374	Berks	42103	381	Pike	45047	390	Greenwood
42013	369	Blair	42105	377	Potter	45049	394	Hampton
42015	377	Bradford	42107	381	Schuylkill	45051	395	Horry
42017	365	Bucks	42109	380	Snyder	45053	396	Jasper
42019	376	Butler	42111	368	Somerset	45055	393	Kershaw
42021	368	Cambria	42113	378	Sullivan	45057	391	Lancaster
42023	378	Cameron	42115	377	Susquehanna	45059	390	Laurens
42025	381	Carbon	42117	377	Tioga	45061	394	Lee
42027	380	Centre	42119	380	Union	45063	385	Lexington
42029	365	Chester	42121	376	Venango	45065	392	McCormick
42031	379	Clarion	42123	376	Warren	45067	395	Marion
42033	379	Clearfield	42125	367	Washington	45069	394	Marlboro
42035	378	Clinton	42127	377	Wayne	45071	392	Newberry
42037	381	Columbia	42129	367	Westmoreland	45073	389	Oconee
42039	376	Crawford	42131	377	Wyoming	45075	394	Orangeburg
42041	371	Cumberland	42133	372	York	45077	389	Pickens
42043	371	Dauphin	Rhode Island			45079	385	Richland
42045	365	Delaware	44001	383	Bristol	45081	392	Saluda
42047	378	Elk	44003	383	Kent	45083	390	Spartanburg
42049	364	Erie	44005	384	Newport	45085	394	Sumter

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

County code ¹	SEA code ²	County name	County code ¹	SEA code ²	County name	County code ¹	SEA code ²	County name
South Carolina <i>continued</i>			46087	399	McCook	47045	406	Dyer
45087	391	Union	46089	398	McPherson	47047	406	Fayette
45089	395	Williamsburg	46091	398	Marshall	47049	412	Fentress
45091	391	York	46093	397	Meade	47051	411	Franklin
South Dakota			46095	397	Mellette	47053	406	Gibson
46003	399	Aurora	46097	399	Miner	47055	410	Giles
46005	398	Beadle	46099	401	Minnehaha	47057	413	Grainger
46007	397	Bennett	46101	401	Moody	47059	413	Greene
46009	399	Bon Homme	46103	397	Pennington	47061	412	Grundy
46011	400	Brookings	46105	397	Perkins	47063	413	Hamblen
46013	398	Brown	46107	398	Potter	47065	404	Hamilton
46015	399	Brule	46109	400	Roberts	47067	413	Hancock
46017	399	Buffalo	46111	399	Sanborn	47069	406	Hardeman
46019	397	Butte	46113	397	Shannon	47071	407	Hardin
46021	398	Campbell	46115	398	Spink	47073	413	Hawkins
46023	399	Charles Mix	46117	397	Stanley	47075	406	Haywood
46025	398	Clark	46119	398	Sully	47077	407	Henderson
46027	401	Clay	46121	397	Todd	47079	407	Henry
46029	400	Codington	46123	399	Tripp	47081	408	Hickman
46031	397	Corson	46125	401	Turner	47083	408	Houston
46033	397	Custer	46127	401	Union	47085	408	Humphreys
46035	399	Davison	46129	398	Walworth	47087	411	Jackson
46037	398	Day	46135	401	Yankton	47089	413	Jefferson
46039	400	Deuel	46137	397	Ziebach	47091	413	Johnson
46041	397	Dewey	Tennessee			47093	405	Knox
46043	399	Douglas	47001	405	Anderson	47095	406	Lake
46045	398	Edmunds	47003	410	Bedford	47097	406	Lauderdale
46047	397	Fall River	47005	407	Benton	47099	408	Lawrence
46049	398	Faulk	47007	412	Bledsoe	47101	408	Lewis
46051	400	Grant	47009	405	Blount	47103	410	Lincoln
46053	399	Gregory	47011	413	Bradley	47105	413	Loudon
46055	397	Haakon	47013	413	Campbell	47107	413	McMinn
46057	400	Hamlin	47015	411	Cannon	47109	407	McNairy
46059	398	Hand	47017	407	Carroll	47111	411	Macon
46061	399	Hanson	47019	413	Carter	47113	406	Madison
46063	397	Harding	47021	409	Cheatham	47115	412	Marion
46065	398	Hughes	47023	407	Chester	47117	410	Marshall
46067	399	Hutchinson	47025	413	Claiborne	47119	410	Maury
46069	398	Hyde	47027	411	Clay	47121	413	Meigs
46071	397	Jackson	47029	413	Cocke	47123	413	Monroe
46073	399	Jerauld	47031	411	Coffee	47125	409	Montgomery
46075	397	Jones	47033	406	Crockett	47127	410	Moore
46077	400	Kingsbury	47035	412	Cumberland	47129	412	Morgan
46079	401	Lake	47037	403	Davidson	47131	406	Obion
46081	397	Lawrence	47039	407	Decatur	47133	411	Overton
46083	401	Lincoln	47041	411	De Kalb	47135	408	Perry
46085	397	Lyman	47043	408	Dickson	47137	411	Pickett

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Tennessee <i>continued</i>			48037	440	Bowie	48131	431	Duval
47139	413	Polk	48039	442	Brazoria	48133	435	Eastland
47141	411	Putnam	48041	437	Brazos	48135	433	Ector
47143	413	Rhea	48043	429	Brewster	48137	444	Edwards
47145	413	Roane	48045	432	Briscoe	48139	416	Ellis
47147	409	Robertson	48047	431	Brooks	48141	414	El Paso
47149	410	Rutherford	48049	434	Brown	48143	435	Erath
47151	412	Scott	48051	437	Burleson	48145	436	Falls
47153	412	Sequatchie	48053	435	Burnet	48147	436	Fannin
47155	413	Sevier	48055	438	Caldwell	48149	438	Fayette
47157	402	Shelby	48057	442	Calhoun	48151	434	Fisher
47159	410	Smith	48059	434	Callahan	48153	432	Floyd
47161	408	Stewart	48061	443	Cameron	48155	434	Foard
47163	413	Sullivan	48063	440	Camp	48157	442	Fort Bend
47165	409	Sumner	48065	432	Carson	48159	440	Franklin
47167	406	Tipton	48067	440	Cass	48161	437	Freestone
47169	410	Trousdale	48069	432	Castro	48163	439	Frio
47171	413	Unicoi	48071	442	Chambers	48165	433	Gaines
47173	413	Union	48073	440	Cherokee	48167	425	Galveston
47175	412	Van Buren	48075	434	Childress	48169	434	Garza
47177	411	Warren	48077	434	Clay	48171	430	Gillespie
47179	413	Washington	48079	433	Cochran	48173	444	Glasscock
47181	408	Wayne	48081	430	Coke	48175	439	Goliad
47183	407	Weakley	48083	434	Coleman	48177	438	Gonzales
47185	411	White	48085	416	Collin	48179	432	Gray
47187	410	Williamson	48087	434	Collingsworth	48181	436	Grayson
47189	410	Wilson	48089	442	Colorado	48183	440	Gregg
Texas			48091	430	Comal	48185	437	Grimes
48001	440	Anderson	48093	435	Comanche	48187	438	Guadalupe
48003	433	Andrews	48095	430	Concho	48189	432	Hale
48005	441	Angelina	48097	435	Cooke	48191	434	Hall
48007	439	Aransas	48099	435	Coryell	48193	435	Hamilton
48009	423	Archer	48101	434	Cottle	48195	432	Hansford
48011	432	Armstrong	48103	433	Crane	48197	434	Hardeman
48013	439	Atascosa	48105	444	Crockett	48199	441	Hardin
48015	442	Austin	48107	433	Crosby	48201	420	Harris
48017	433	Bailey	48109	429	Culberson	48203	440	Harrison
48019	430	Bandera	48111	432	Dallam	48205	432	Hartley
48021	437	Bastrop	48113	416	Dallas	48207	434	Haskell
48023	434	Baylor	48115	433	Dawson	48209	430	Hays
48025	439	Bee	48117	432	Deaf Smith	48211	432	Hemphill
48027	436	Bell	48119	436	Delta	48213	440	Henderson
48029	419	Bexar	48121	428	Denton	48215	443	Hidalgo
48031	430	Blanco	48123	439	DeWitt	48217	436	Hill
48033	434	Borden	48125	434	Dickens	48219	433	Hockley
48035	435	Bosque	48127	431	Dimmit	48221	435	Hood
			48129	434	Donley	48223	440	Hopkins

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Texas <i>continued</i>			48317	433	Martin	48411	430	San Saba
48225	440	Houston	48319	430	Mason	48413	444	Schleicher
48227	433	Howard	48321	442	Matagorda	48415	434	Scurry
48229	429	Hudspeth	48323	431	Maverick	48417	434	Shackelford
48231	436	Hunt	48325	430	Medina	48419	440	Shelby
48233	432	Hutchinson	48327	444	Menard	48421	432	Sherman
48235	444	Irion	48329	433	Midland	48423	440	Smith
48237	435	Jack	48331	436	Milam	48425	435	Somervell
48239	442	Jackson	48333	435	Mills	48427	431	Starr
48241	441	Jasper	48335	434	Mitchell	48429	434	Stephens
48243	429	Jeff Davis	48337	435	Montague	48431	444	Sterling
48245	421	Jefferson	48339	441	Montgomery	48433	434	Stonewall
48247	431	Jim Hogg	48341	432	Moore	48435	444	Sutton
48249	439	Jim Wells	48343	440	Morris	48437	432	Swisher
48251	415	Johnson	48345	434	Motley	48439	415	Tarrant
48253	427	Jones	48347	440	Nacogdoches	48441	427	Taylor
48255	439	Karnes	48349	436	Navarro	48443	444	Terrell
48257	436	Kaufman	48351	441	Newton	48445	433	Terry
48259	430	Kendall	48353	434	Nolan	48447	434	Throckmorton
48261	431	Kenedy	48355	426	Nueces	48449	440	Titus
48263	434	Kent	48357	432	Ochiltree	48451	430	Tom Green
48265	430	Kerr	48359	432	Oldham	48453	418	Travis
48267	444	Kimble	48361	421	Orange	48455	441	Trinity
48269	434	King	48363	435	Palo Pinto	48457	441	Tyler
48271	444	Kinney	48365	440	Panola	48459	440	Upshur
48273	431	Kleberg	48367	435	Parker	48461	444	Upton
48275	434	Knox	48369	432	Parmer	48463	444	Uvalde
48277	436	Lamar	48371	429	Pecos	48465	444	Val Verde
48279	433	Lamb	48373	441	Polk	48467	440	Van Zandt
48281	435	Lampasas	48375	422	Potter	48469	442	Victoria
48283	431	La Salle	48377	429	Presidio	48471	441	Walker
48285	438	Lavaca	48379	440	Rains	48473	442	Waller
48287	437	Lee	48381	422	Randall	48475	429	Ward
48289	437	Leon	48383	444	Reagan	48477	438	Washington
48291	442	Liberty	48385	444	Real	48479	431	Webb
48293	436	Limestone	48387	440	Red River	48481	442	Wharton
48295	432	Lipscomb	48389	429	Reeves	48483	434	Wheeler
48297	439	Live Oak	48391	439	Refugio	48485	423	Wichita
48299	430	Llano	48393	432	Roberts	48487	434	Wilbarger
48301	429	Loving	48395	437	Robertson	48489	443	Willacy
48303	424	Lubbock	48397	436	Rockwall	48491	436	Williamson
48305	433	Lynn	48399	434	Runnels	48493	439	Wilson
48307	430	McCulloch	48401	440	Rusk	48495	433	Winkler
48309	417	McLennan	48403	441	Sabine	48497	435	Wise
48311	431	McMullen	48405	441	San Augustine	48499	440	Wood
48313	437	Madison	48407	441	San Jacinto	48501	433	Yoakum
48315	440	Marion	48409	439	San Patricio	48503	434	Young

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>	<u>County code¹</u>	<u>SEA code²</u>	<u>County name</u>
Texas <i>continued</i>			50025	451	Windham	51101	465	King William
48505	431	Zapata	50027	451	Windsor	51103	465	Lancaster
48507	431	Zavala	Virginia			51105	458	Lee
Utah			51001	466	Accomack	51107	462	Loudoun
49001	449	Beaver	51003	462	Albemarle	51109	463	Louisa
49003	447	Box Elder	51005	460	Alleghany	51111	464	Lunenburg
49005	447	Cache	51007	463	Amelia	51113	462	Madison
49007	449	Carbon	51009	457	Amherst	51115	465	Mathews
49009	449	Daggett	51011	463	Appomattox	51117	464	Mecklenburg
49011	448	Davis	51015	461	Augusta	51119	465	Middlesex
49013	449	Duchesne	51017	460	Bath	51121	460	Montgomery
49015	449	Emery	51021	459	Bland	51125	463	Nelson
49017	449	Garfield	51023	460	Botetourt	51127	465	New Kent
49019	449	Grand	51025	464	Brunswick	51131	466	Northampton
49021	449	Iron	51027	458	Buchanan	51133	465	Northumberland
49023	449	Juab	51029	463	Buckingham	51135	463	Nottoway
49025	449	Kane	51033	465	Caroline	51137	462	Orange
49027	449	Millard	51035	459	Carroll	51139	461	Page
49029	447	Morgan	51036	465	Charles City	51141	464	Patrick
49031	449	Piute	51037	464	Charlotte	51143	464	Pittsylvania
49033	447	Rich	51041	454	Chesterfield	51145	463	Powhatan
49035	445	Salt Lake	51043	461	Clarke	51147	463	Prince Edward
49037	449	San Juan	51045	460	Craig	51153	462	Prince William
49039	447	Sanpete	51047	462	Culpeper	51157	462	Rappahannock
49041	447	Sevier	51049	463	Cumberland	51159	465	Richmond
49043	447	Summit	51051	458	Dickenson	51161	452	Roanoke
49045	449	Tooele	51057	465	Essex	51163	460	Rockbridge
49047	449	Uintah	51059	453	Fairfax/Arlington	51165	461	Rockingham
49049	448	Utah	51061	462	Fauquier	51167	459	Russell
49051	447	Wasatch	51063	460	Floyd	51169	459	Scott
49053	449	Washington	51065	463	Fluvanna	51171	461	Shenandoah
49055	449	Wayne	51067	464	Franklin	51173	459	Smyth
49057	446	Weber	51069	461	Frederick	51175	467	Southampton
Vermont			51071	460	Giles	51177	462	Spotsylvania
50001	450	Addison	51073	465	Gloucester	51181	467	Surry
50003	451	Bennington	51075	463	Goochland	51183	467	Sussex
50005	451	Caledonia	51079	462	Greene	51185	458	Tazewell
50007	450	Chittenden	51081	467	Greensville	51187	461	Warren
50009	451	Essex	51083	464	Halifax	51191	459	Washington
50011	450	Franklin	51085	465	Hanover	51193	465	Westmoreland
50013	450	Grand Isle	51089	464	Henry	51195	458	Wise
50015	451	Lamoille	51091	460	Highland	51197	459	Wythe
50017	451	Orange	51093	467	Isle of Wight	51550	455	Chesapeake
50019	450	Orleans	51095	456	James City	51800	467	Suffolk
50021	451	Rutland	51097	465	King and Queen			
50023	451	Washington	51099	465	King George			

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (continued)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Washington			54013	485	Calhoun	54107	484	Wood
53001	479	Adams	54015	485	Clay	54109	487	Wyoming
53003	479	Asotin	54017	485	Doddridge	Wisconsin		
53005	478	Benton	54019	487	Fayette	55001	500	Adams
53007	477	Chelan	54021	485	Gilmer	55003	496	Ashland
53009	473	Clallam	54023	488	Grant	55005	497	Barron
53011	470	Clark	54025	488	Greenbrier	55007	496	Bayfield
53013	479	Columbia	54027	488	Hampshire	55009	502	Brown
53015	476	Cowlitz	54029	484	Hancock	55011	497	Buffalo
53017	479	Douglas	54031	488	Hardy	55013	496	Burnett
53019	480	Ferry	54033	486	Harrison	55015	502	Calumet
53021	479	Franklin	54035	485	Jackson	55017	499	Chippewa
53023	479	Garfield	54037	489	Jefferson	55019	499	Clark
53025	479	Grant	54039	483	Kanawha	55021	503	Columbia
53027	473	Grays Harbor	54041	485	Lewis	55023	498	Crawford
53029	474	Island	54043	485	Lincoln	55025	491	Dane
53031	473	Jefferson	54045	487	Logan	55027	503	Dodge
53033	468	King	54047	487	McDowell	55029	501	Door
53035	475	Kitsap	54049	486	Marion	55031	490	Douglas
53037	478	Kittitas	54051	481	Marshall	55033	497	Dunn
53039	478	Klickitat	54053	485	Mason	55035	499	Eau Claire
53041	476	Lewis	54055	487	Mercer	55037	496	Florence
53043	479	Lincoln	54057	488	Mineral	55039	502	Fond Du Lac
53045	473	Mason	54059	487	Mingo	55041	496	Forest
53047	477	Okanogan	54061	486	Monongalia	55043	498	Grant
53049	473	Pacific	54063	488	Monroe	55045	498	Green
53051	480	Pend Oreille	54065	489	Morgan	55047	503	Green Lake
53053	469	Pierce	54067	485	Nicholas	55049	498	Iowa
53055	474	San Juan	54069	481	Ohio	55051	496	Iron
53057	474	Skagit	54071	488	Pendleton	55053	500	Jackson
53059	476	Skamania	54073	484	Pleasants	55055	503	Jefferson
53061	472	Snohomish	54075	488	Pocahontas	55057	500	Juneau
53063	471	Spokane	54077	486	Preston	55059	495	Kenosha
53065	480	Stevens	54079	485	Putnam	55061	501	Kewaunee
53067	476	Thurston	54081	487	Raleigh	55063	497	La Crosse
53069	473	Wahkiakum	54083	488	Randolph	55065	498	Lafayette
53071	479	Walla Walla	54085	485	Ritchie	55067	496	Langlade
53073	474	Whatcom	54087	485	Roane	55069	496	Lincoln
53075	479	Whitman	54089	488	Summers	55071	502	Manitowoc
53077	478	Yakima	54091	486	Taylor	55073	499	Marathon
West Virginia			54093	488	Tucker	55075	501	Marinette
54001	486	Barbour	54095	484	Tyler	55077	500	Marquette
54003	489	Berkeley	54097	485	Upshur	55078	501	Menominee
54005	487	Boone	54099	482	Wayne	55079	492	Milwaukee
54007	485	Braxton	54101	485	Webster	55081	497	Monroe
54009	484	Brooke	54103	484	Wetzel	55085	496	Oneida
54011	482	Cabell	54105	485	Wirt	55087	502	Outagamie

Appendix Table 2. Counties within State Economic Areas (SEAs) by State (*continued*)

<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>	<u>County code</u> ¹	<u>SEA code</u> ²	<u>County name</u>
Wisconsin <i>continued</i>			56031	505	Platte
55089	503	Ozaukee	56033	505	Sheridan
55091	497	Pepin	56035	504	Sublette
55093	497	Pierce	56037	504	Sweetwater
55095	497	Polk	56039	504	Teton
55097	500	Portage	56041	504	Uinta
55099	496	Price	56043	505	Washakie
55101	493	Racine	56045	505	Weston
55103	497	Richland			
55105	503	Rock			
55107	496	Rusk			
55109	497	St. Croix			
55111	497	Sauk			
55113	496	Sawyer			
55117	502	Sheboygan			
55119	499	Taylor			
55121	497	Trempealeau			
55123	497	Vernon			
55125	496	Vilas			
55127	503	Walworth			
55129	496	Washburn			
55131	503	Washington			
55133	494	Waukesha			
55135	501	Waupaca			
55137	500	Waushara			
55139	502	Winnebago			
55141	499	Wood			
Wyoming					
56001	504	Albany			
56003	505	Big Horn			
56005	505	Campbell			
56007	504	Carbon			
56009	505	Converse			
56011	505	Crook			
56013	505	Fremont			
56015	505	Goshen			
56017	505	Hot Springs			
56019	505	Johnson			
56021	505	Laramie			
56023	504	Lincoln			
56025	504	Natrona			
56027	505	Niobrara			
56029	505	Park			

¹Five-digit Federal Information Processing Standards (FIPS) code: the first two digits represent the state numeric code, and the last three digits represent the county numeric code within the state¹⁵⁵

²Three-digit SEA unique numeric code within the state¹⁵⁵

Appendix Table 3. ICD¹ Codes² Used for Mortality Tabulations

Cancer	1950-67 6th, 7th ICD	1968-78 8th ICDA³	1979-94 9th ICD
All cancers	140-205	140-207	140-208 except 202.2-.3, 202.5-.6
Lip	140	140	140
Salivary glands	142	142	142
Nasopharynx (NPC)	146	147	147
Other oral cavity and pharynx	141, 143-5, 147-8	141, 143-6, 148-9	141, 143-6, 148-9
Esophagus	150	150	150
Stomach	151	151	151
Colon	153	153	153, 159.0
Rectum	154	154	154 except 154.3
Liver, ⁴ gallbladder, and other biliary tract	155, 156.1	155, 156, 197.8	155, 156
Liver ⁴	n/a ⁵	155.0-.1, 197.8	155.0-.1, 155.2
Gallbladder	n/a	156.0	156.0
Other biliary tract ⁶	n/a	156.1-.9	156.1-.9
Pancreas	157	157	157
Nose, nasal cavity, sinuses	160	160	160
Larynx	161	161	161
Lung, bronchus, trachea, and pleura	162-3	162, 163.0	162, 163
Bones and joints	196	170	170
Connective tissue	197	171	171, 164.1
Melanoma of skin	190	172	172
Other skin	191	173 except 173.5	173, 154.3
Breast	170	174	174, 175
Cervix uteri	171	180	180
Corpus uteri and uterus NOS ⁷	172-4	181-2	179, 181-2
Ovary	175	183	183
Vagina ⁸	n/a	184.0	184.0
Vulva ⁸	n/a	184.1	184.1-.4
Prostate gland	177	185	185
Testis	178	186	186
Penis ⁸	n/a	187.0	187.1-187.4
Bladder ⁹	181	188, 189.9	188, 189.3-.9
Kidney, renal pelvis, and ureter	180	189.0-.2	189.0-.2
Eye	192	190	190
Brain and other nervous system	193	191-2	191-2
Thyroid gland	194	193	193
Other endocrine glands	195	194	194, 164.0
Hodgkin's disease	201	201	201
Non-Hodgkin's lymphoma	200, 202, 205	200, 202	159.1, 200, 202, except 202.2-.6
Multiple myeloma	203	203	203 except 203.1
Leukemia	204	204-7	202.4, 203.1, 204-208

Appendix Table 3. ICD¹ Codes² Used for Mortality Tabulations (*continued*)

Cancer	1950-67	1968-78	1979-94
	6 th , 7 th ICD	8 th ICDA ³	9 th ICD
Other and unspecified cancers ⁸	152, 156.2, 158-9, 164-5, 176, 179, 198-9	152, 158-9, 163.1, 163.9, 173.5, 184.8-9, 187.8-9, 195-9 except 197.8	152, 158, 159.2-.9, 164.2-.9, 165, 184.8-9, 187.5-.9, 195-9

¹ICD = International Classification of Diseases

²For cancers with only 3 digits given, codes .0-.9 and .(blank) are included

³ICDA = International Classification of Diseases Adapted for Use in the United States (8th revision)

⁴Includes primary and not specified

⁵n/a = not available

⁶Mostly extrahepatic bile ducts

⁷NOS = not otherwise specified

⁸Vagina, vulva, and penis tabulated with "Other and unspecified cancers" during 1950-69 and tabulated separately during 1970-94

⁹Includes other urinary tract

Appendix Table 4. Standard Population Used for Age-Adjustment, Proportional to the 1970 United States Population

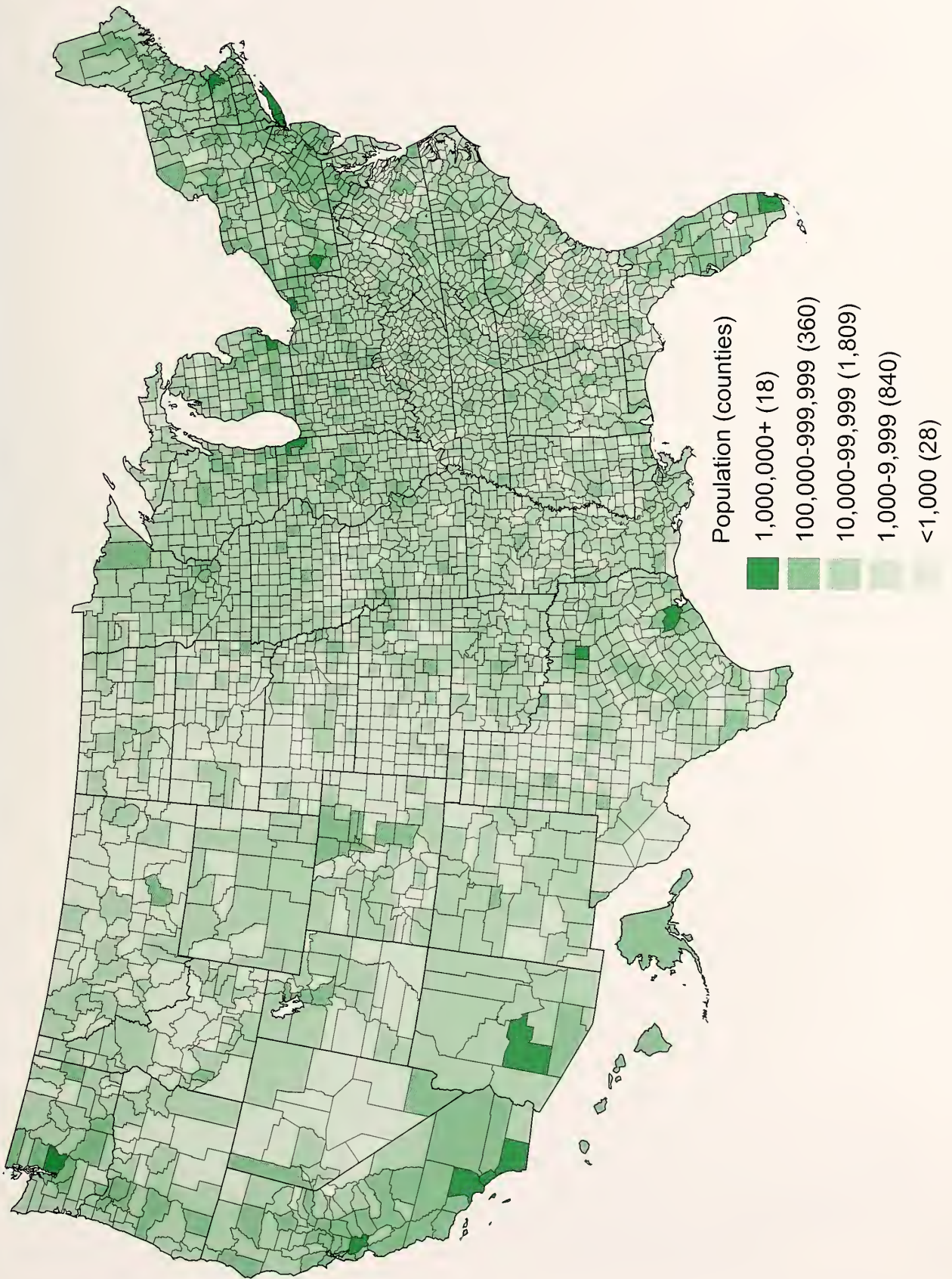
<u>Standard population by age</u>	
<u>Age</u>	<u>Population</u>
All Ages	1,000,000
<5	84,416
5-9	98,204
10-14	102,304
15-19	93,845
20-24	80,561
25-29	66,320
30-34	56,249
35-39	54,656
40-44	58,958
45-49	59,622
50-54	54,643
55-59	49,077
60-64	42,403
65-69	34,406
70-74	26,789
75-79	18,871
80-84	11,241
85+	7,435

Appendix Maps

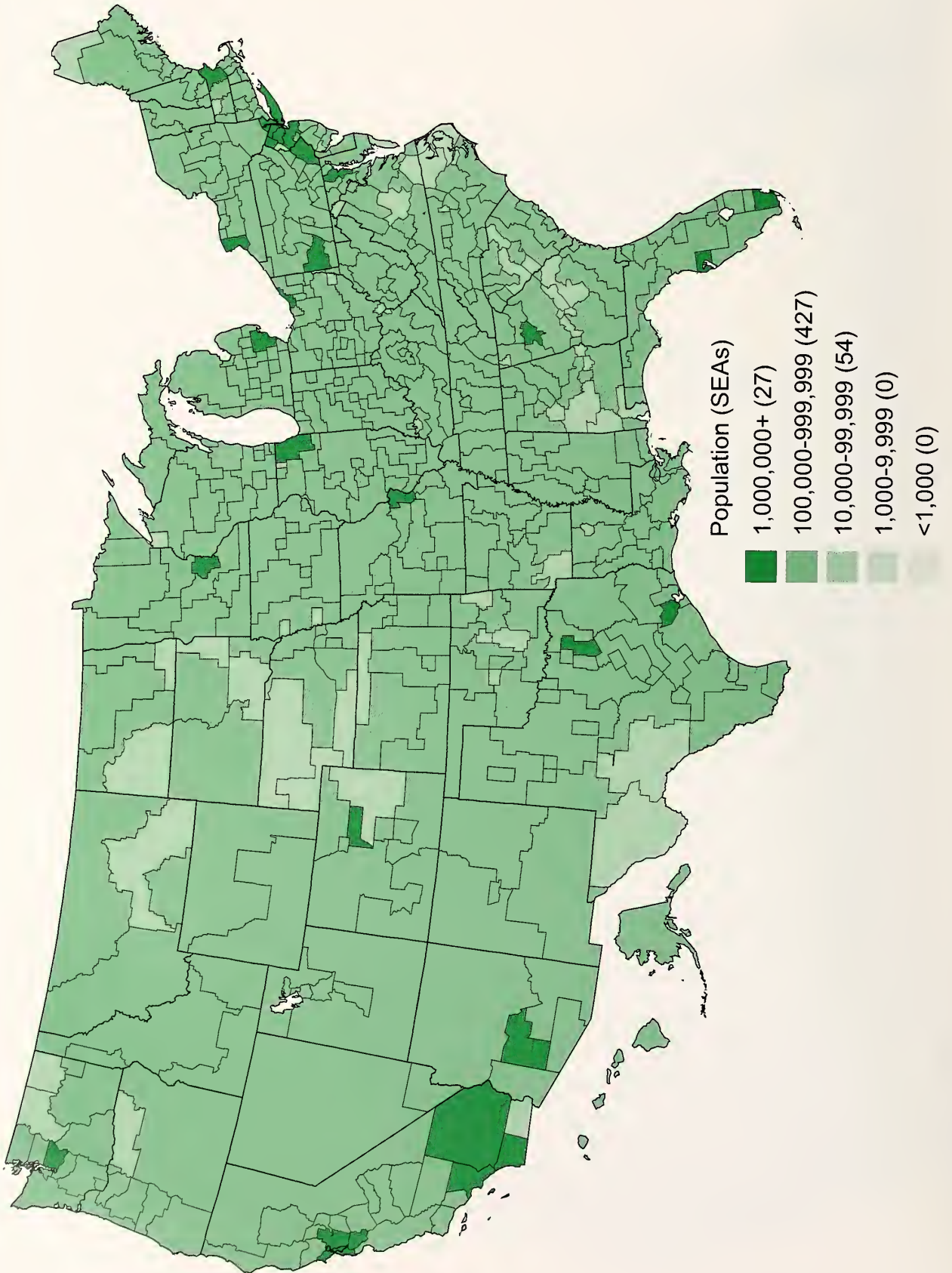




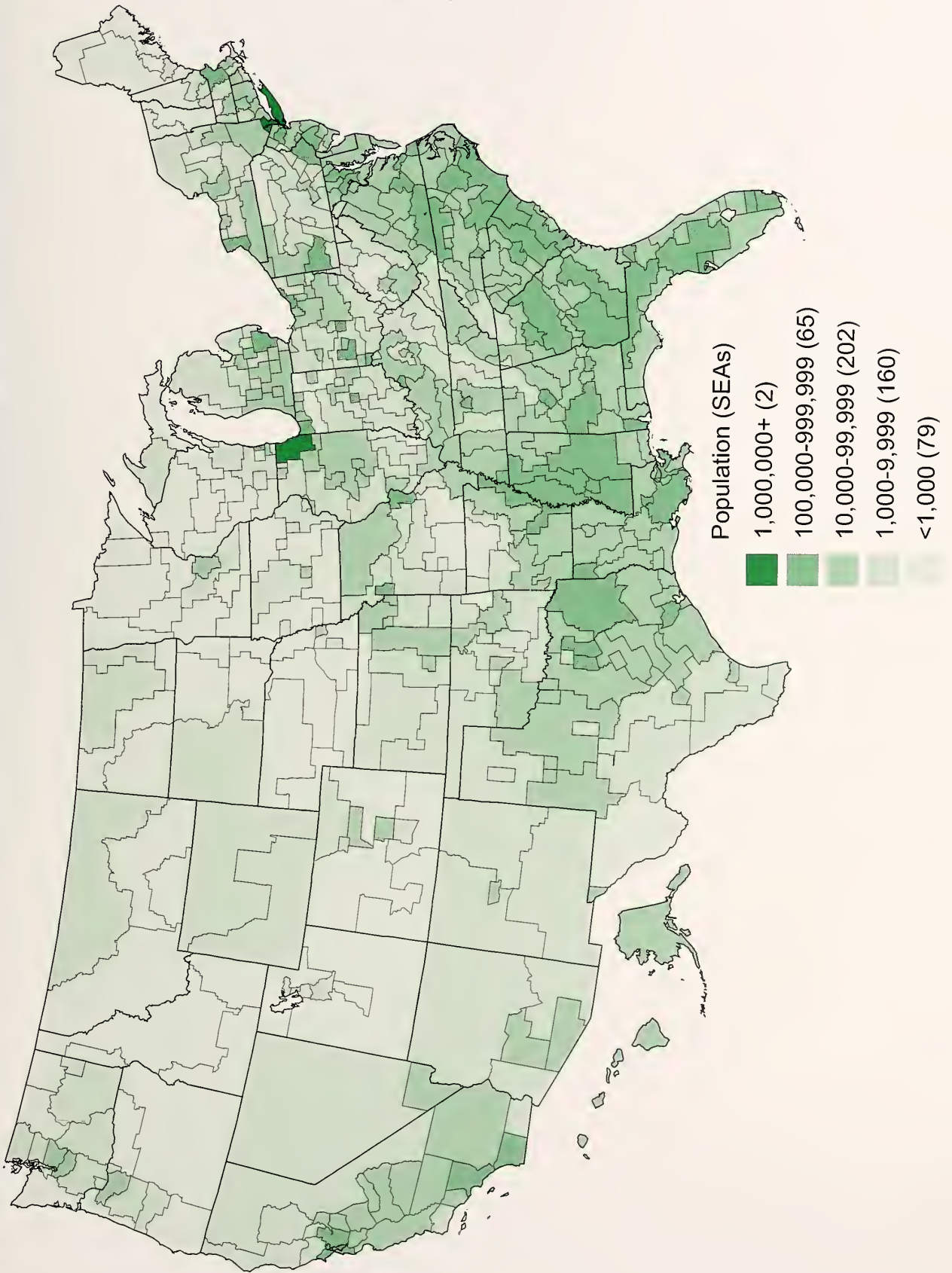
Appendix Map 2a. Distribution of 1980 US White Population by County

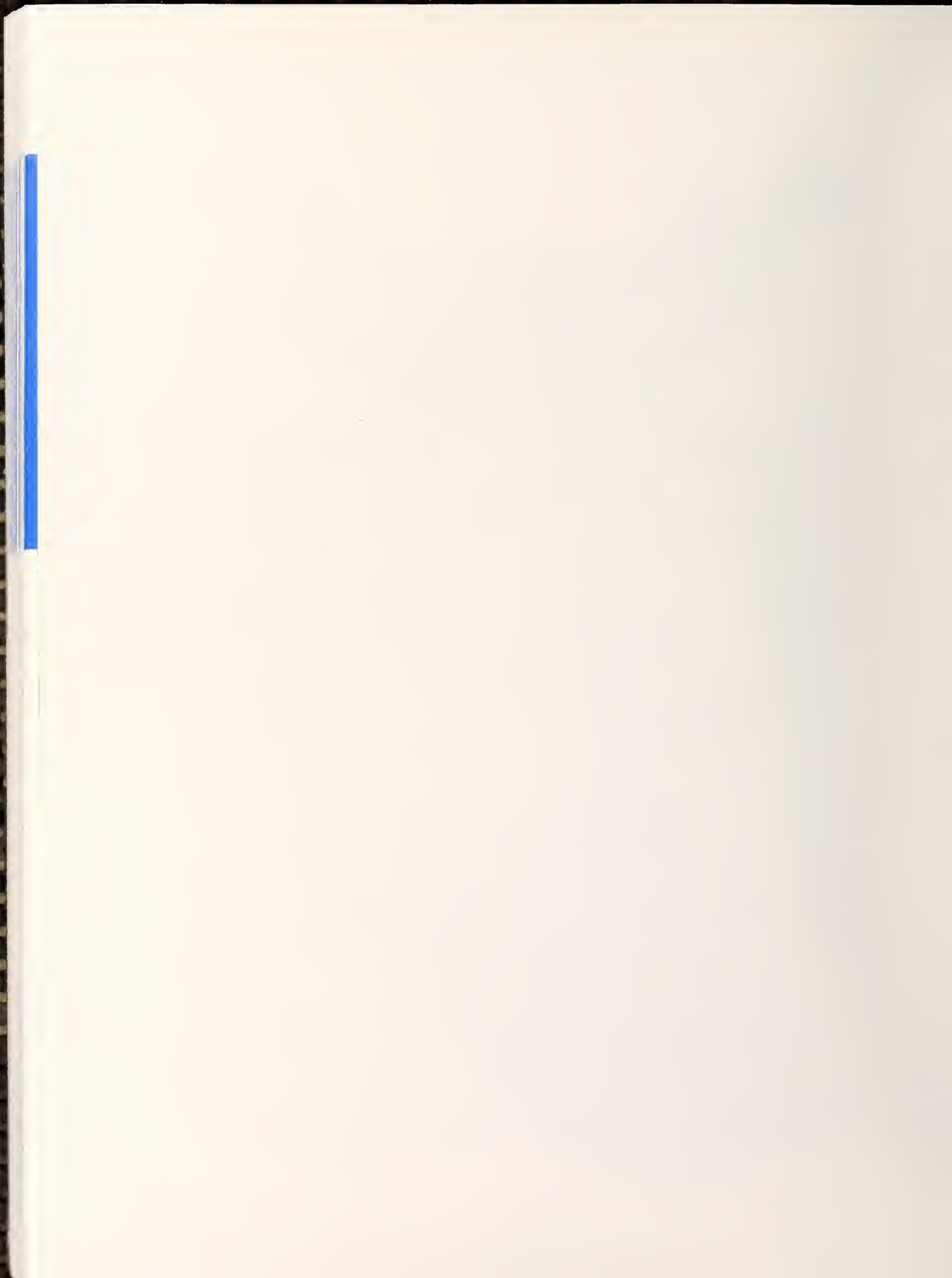


Appendix Map 2b. Distribution of 1980 US White Population by State Economic Area



Appendix Map 2c. Distribution of 1980 US Black Population by State Economic Area







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September 1999