

3. DELINEATING "RURAL" AND "URBAN" AREAS

The concepts of "rural" and "urban" now exist as part of a continuum. While few would argue about the extremes of that continuum--e.g., an isolated farming community in Texas at one extreme and New York City at the other--where to draw the line between urban and rural has become more difficult. Many Federal policies, however, rely on dichotomous rural/urban designations. This section describes the two most important dichotomous geographic designations: the Bureau of the Census' urban and rural areas (and populations), and the Office of Management and Budget's (OMB) metropolitan statistical areas and residual nonmetropolitan territory. Several geographic classification schemes are then described that portray the urban-rural continuum.

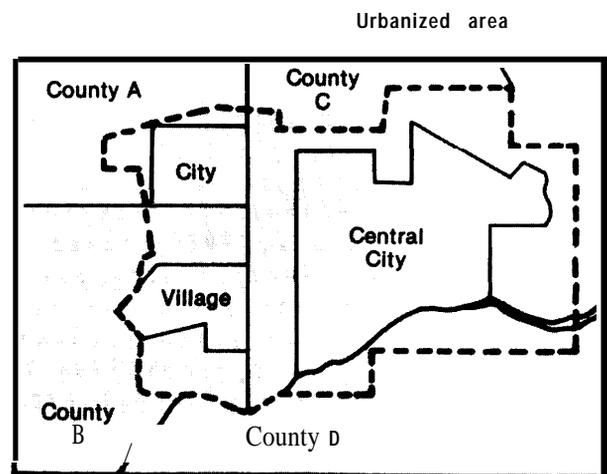
U.S. Bureau of the Census

According to the Census Bureau, urban and rural are "type-of-area concepts rather than specific areas outlined on maps" (50). The *urban population* includes persons living in urbanized areas (see below) and those living in places with 2,500 residents or more outside of urbanized areas. The population *not classified as urban* comprise the *rural population*; i.e., those living outside of urbanized areas in "places" with less than 2,500 residents and those living outside of "places" in the open countryside. Census-recognized "places" are either: 1) incorporated places such as cities, boroughs, towns, and villages; or 2) closely settled population centers that are outside of urbanized areas, do not have corporate limits, and have a population of at least 1,000.¹The rural population is divided fur-

ther into farm (see below) and nonfarm populations.

Urbanized areas consist of a central core (a "central city or cities") and the contiguous, closely settled territory outside the city's political boundaries (the "urban fringe") that combined have a total population of at least 50,000 (48). The boundary of an urbanized area is based primarily on a residential population density of at least 1,000 persons per square mile (the area generally also includes less densely settled areas, such as industrial parks) (49). The boundaries of urbanized areas are not limited to preexisting county or State lines; rather they often follow the boundaries of small Census-defined geographic units such as census tracts and enumeration districts. Many urbanized areas cross county and/or State lines (see figure 1).

Figure 1---Urbanized Areas



SOURCE: U.S. Department of Commerce, Bureau of the Census, "Census and Geography-Concepts and Products," *Factfinder* CFF No. 8 (Washington, DC: U.S. Government Printing Office, August 1985).

¹ The minimum population of these unincorporated areas, called census designated places, is lower in Alaska and Hawaii.

Table 1--- Urban and Rural Population by Size of Place (1980)

	Number of places	Population	Percent of Us.
U.S. total	22,529	226,545,805	100.0%
Urban areas	8,765	167,050,992	73.7
Places of 1,000,000 or more	6	17,530,248	7.7
Places of 500,000-999,999	16	10,834,121	4.8
Places of 250,000-499,999	34	12,157,578	5.4
Places of 100,000-249,999	117	17,015,074	7.5
Places of 50,000-99,999	290	19,786,487	8.7
Places of 25,000-49,999	675	23,435,654	10.3
Places of 10,000-24,999	1,765	27,644,903	12.2
Places of 5,000-9,999	2,181	15,356,137	6.8
Places of 2,500-4,999	2,665	9,367,826	4.1
Places of less than 2,500	1,016	1,260,246	0.6
Other urban area ^a		12,662,718	5.6
Rural areas	13,764	59,494,813	26.3
Places of 1,000-2,499	4,434	7,037,840	3.1
Places under 1,000	9,330	3,863,470	1.7
Other rural area ^b		48,593,503	21.4

^aIncludes urban residents not living in Census-designated places.

^bIncludes rural residents not living in Census-designated places and residents of the rural portion of extended cities.

SOURCE: 1980 Census of Population, Volume 1, Characteristics of the Population, 1981, table 5, p. 1-37.

The 1980 Census identified 373 urbanized areas in the United States and Puerto Rico (52).²

The Census definition of urban areas has changed considerably over time. Prior to 1900, the lower population limit for the size of places considered urban was set at either 4,000 or 8,000. The limit was lowered to 2,500 residents in 1900(47). This definition worked well until suburban development outside corporate boundaries became extensive. To improve the definition, people living in fairly densely populated areas (at least 1,000

persons per square mile) in the immediate vicinity of cities of 50,000 or more population were counted as urban instead of rural beginning in 1950 (21). With the exclusion of these suburban residents, the size of the 1950 rural population dropped from 62 million to 54 million (47).

The *rural population* has been divided by the Census Bureau into the farm and nonfarm populations. The *farm population* includes people living in rural-areas on properties of 1 acre of land or more where \$1,000 or more of agricultural products were sold (or would have been sold) during the previous 12 months.³ In 1987, the farm population was

² Since 1970, rural areas have been recognized within certain cities whose corporate limits include large areas lacking urban development. The rural portion of these "extended cities" is at least 5 square miles in area and has a population density of less than 100 persons per square mile. Together, such areas must constitute at least 25 percent of the land area of the legal city or include at least 25 square miles (50). In 1980 there were 87 extended cities with a total of 161,140 rural residents (41).

³ From 1960 to the mid 1970s, the farm population consisted of all persons living in rural territory on places of 10 or more acres, if at least \$50 worth of agricultural products were sold from the place during the preceding 12 months. Persons living on places of under 10 acres were also included if agricultural sales totaled \$250 or more (55).

Table 2.--Ten States With The Largest Rural Population (1980)

State	Rural population (in 1,000s)	Percent of State
Pennsylvania a	3,643	30.7
North Carolina	3,059	52.0
Texas	2,896	20.4
Ohio	2,879	26.7
Michigan	2,711	29.3
New York	2,700	15.4
California	2,060	8.7
Georgia	2,054	37.6
Indiana	1,965	35.8
Illinois	1,908	16.7

SOURCE: U.S. Department of Commerce, Bureau of the Census, County and City Data Book: 1983 (Washington, DC: U.S. Government Printing Office, 1983).

estimated at 4,986,000, or about 8 percent of the rural population and 2 percent of the total resident U.S. population. In contrast, farm residents represented 30 percent of the population in 1920(55).

According to the 1980 Census, 73.7 percent of the U.S. population was urban, but the proportion ranged from a low of 33.8 percent in Vermont to 100 percent in the District of Columbia (51). Table 1 shows the distribution of the 1980 urban and rural population by size of place. Over 85 percent of the rural population live in places or areas with fewer than 1,000 residents. Table 2 shows the ten States with the largest rural populations. Table 3 shows the seven States with more than one-half of their population residing in rural areas.

The Census Bureau's "urbanized" area concept does not apply to towns, cities, or population concentrations of less than 50,000. Those living nearby, but outside of the limits of smaller cities or towns are not counted as being part of an "urbanized" area, even though the "suburban" population may be large and economically integrated with the town. For example, the population surrounding the incorporated village of Hayward, Wisconsin (county seat of Sawyer County), ex-

ceeds the 1,456 population of Hayward. The residents of the surrounding area use Hayward's facilities such as a nursing home and fire station but are not included in the village population. This "undercount" has hampered the village's ability to obtain grants to improve area services (13). Numerous areas such as Hayward, that are considered "rural" by virtue of the fact that they are outside of an urbanized area and have a population of 2,500 or less, would be considered urban if the population immediately surrounding the corporate area were included. Many towns and villages have resolved this problem by annexing surrounding developed territory (12).

Table 3--- States With More Than One-Half of Their Population Residing in Rural Areas (1980)

State	Rural population (in 1,000s)	Percent of State
Vermont	339	66.2
West Virginia	1,244	63.8
South Dakota	370	53.6
Mississippi	1,328	52.7
Maine	591	52.5
North Carolina	3,059	52.0
North Dakota	334	51.2

SOURCE: U.S. Department of Commerce, Bureau of the Census, County and City Data Book: 1983, (Washington, DC: U.S. Government Printing Office, 1983).

The Office of Management and Budget: Metropolitan Statistical Areas

A metropolitan statistical area (MSA)⁴ is an economically and socially integrated geographic unit centered on a large urban area. In general terms, an MSA includes a large population center and adjacent communities that have a high degree of economic and so-

4 From 1959 to 1983, MSAs were called Standard Metropolitan Statistical Areas (SMSAs) (53 FR 51175). The term MSA is used throughout this paper, even when referring to 1980 Census data.

cial integration with that center (54). This contrasts with Census' urban area, which is defined solely on the basis of where people reside (i. e., population size and density). MSAs are defined by OMB⁵ and are used by Federal agencies for collecting, tabulating, and publishing statistical data. Some Federal agencies also use MSA designations to implement programs and allocate resources although OMB does not define them with such applications in mind. The business community uses MSA data and rankings extensively, for example to make investment decisions and to assess the desirability of markets (38).

The official standards that are used to define MSAs are reviewed prior to each decennial Census.⁶ According to standards adopted for the 1980 Census, an MSA must have:⁷

- a city with 50,000 or more residents; or
- an urbanized area (as defined by the Census Bureau) with at least 50,000 people that is part of a county or counties that have at least 100,000 people.

In most areas, counties are the building blocks of MSAs. In the six New England States, MSAs are composed of cities and towns, rather than whole counties.⁸ MSAs

⁵ The metropolitan area concept appeared in U.S. Census publications as early as 1910 but was not widely incorporated or used until the 1950 census when the concept was generalized to county lines (12,47) .

⁶ The Office of Management and Budget's Statistical Policy Office, Office of Information and Regulatory Affairs, reviews and revises MSAs with advice from the interagency Federal Executive Committee on Metropolitan Statistical Areas (56).

⁷ See appendix A for a summary of the 1980 MSA standards.

⁸ New England USA standards are based primarily on population density and commuting patterns (56). The six New England States are Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

often include more than one county; i.e., one or more central counties containing the area's main population concentration and outlying counties that have close economic and social relationships with those central counties. To be included in the MSA, the outlying counties must have a specified level of commuting to the central counties and must also meet certain standards regarding metropolitan character, such as population density (see appendix A). Consolidated MSAs (CMSAs) are large metropolitan complexes within which individual components are defined, designated as primary MSAs (PMSAs) (see appendix A).

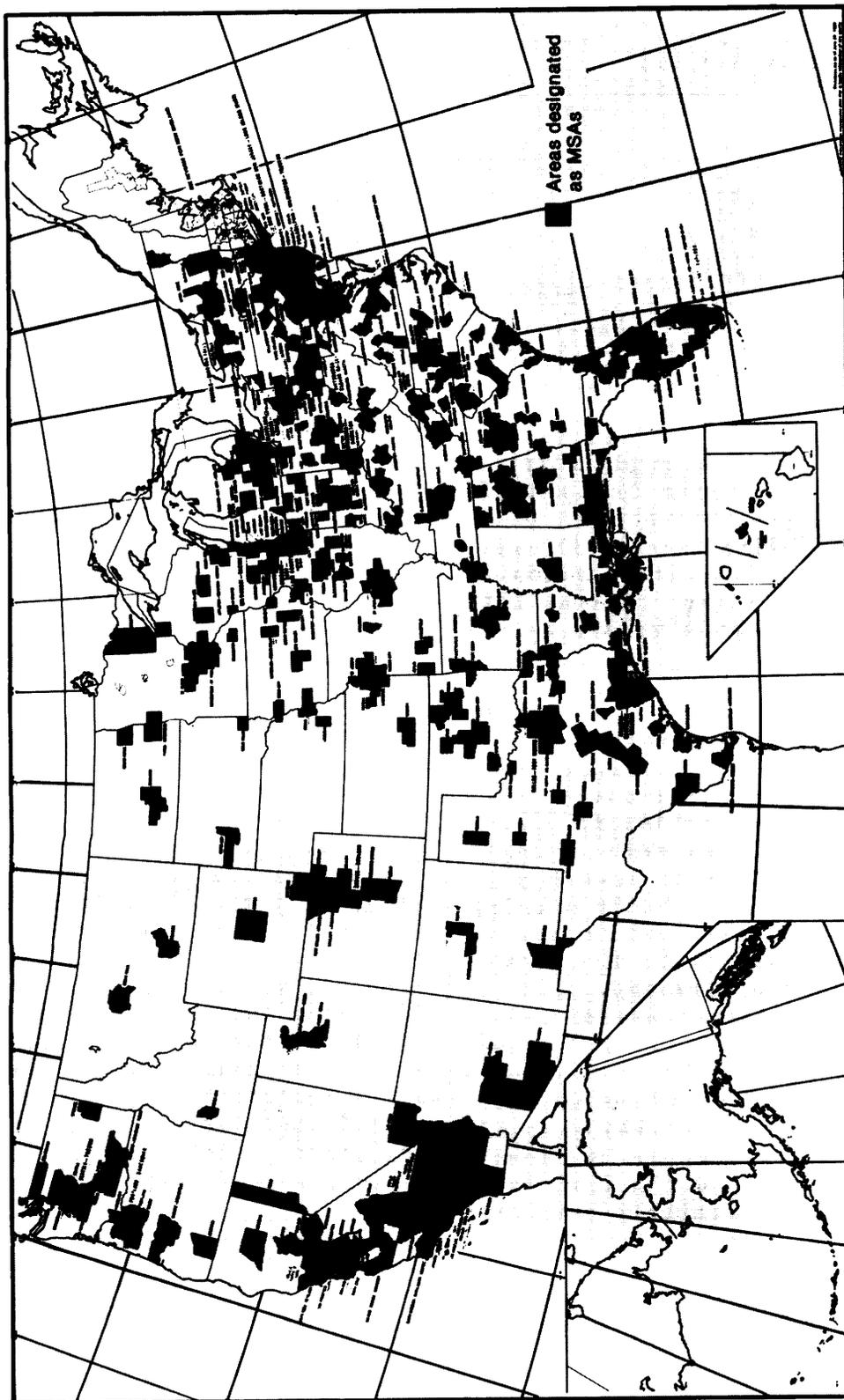
Problems in MSA classification may occur when county boundaries do not conform closely to actual urban or suburban development. An MSA may inappropriately include nonsuburban areas located in the outlying sections of some counties. For example, in a spatially large county with a concentrated metropolitan area, a large, sparsely populated area maybe included in the MSA. This problem occurs more frequently in the West, where counties are bigger than those in the East. On the other hand, an MSA may exclude suburban areas just across the county line. For example, a county with a suburban population that commutes to a neighboring MSA may be excluded from that MSA because it also includes a large, sparsely populated section and therefore has a low average population density.⁹ While these problems occur, they occur infrequently (56).

About three-quarters (76.6 percent) of the U.S. population lived in the 275 MSAs designated as of 1983.¹⁰ These MSAs represent only 16.2 percent of the total U.S.

⁹ See appendix B for a description of criteria used in including outlying counties in an USA.

¹⁰ By June 30, 1988, intercensal population estimates or special census population counts had been used to add seven newly qualified MSAs and to designate three new central cities within existing MSAs (12).

Figure 2.--Metropolitan Statistical Areas (June 30, 1986)



SOURCE Adapted from U.S. Department of Commerce, Bureau of the Census, "Metropolitan Statistical Areas (MSAs), PMSA's, and MSA's" (GE-50, No. 84) Stock No. 003-024-06506-1 (Washington, DC: U.S. Government Printing Office, 1986).

Table 4---Ten States With The Largest Nonmetropolitan Population (1986)

State	Nonmetropolitan population (in 1,000s)	Percent of State
Texas	3,209	19.2
North Carolina	2,847	45.0
Ohio	2,277	21.2
Georgia	2,182	35.7
Illinois	2,033	17.6
Kentucky	2,033	54.5
Mississippi	1,837	70.0
Pennsylvania a	1,830	15.4
Michigan	1,811	19.8
Indiana	1,760	32.0

SOURCE: U.S. Bureau of the Census, Statistical Abstract of the United States: 1988, 108th ed. (Washington, DC: 1987), table 33.

land area (figure 2.--MSA map). Seventy-seven percent of U.S. counties (2,422 of 3,139 counties and county equivalents) are non-metropolitan.¹¹ Table 4 shows the 10 States with the largest nonmetropolitan populations. Table 5 shows the 15 States with more than one-half of their population residing in non-metropolitan areas.

Before 1970, an MSA's "recognized large population nucleus" had to include a central city of at least 50,000 population or twin cities with a total population this large. Now there is no minimum population size for an MSA's central city, and it is easier to include contiguous populations in the urbanized area (6). With the relaxation of MSA criteria, some of the 58 MSAs designated following the 1970 and 1980 censuses are demographically dissimilar from those MSAs meeting earlier standards. For example, of the 33 MSAs newly designated after the 1980 census that lacked a city of 50,000 or more residents, 25 had rural population percentages that were closer to nonmetropolitan norms (62 percent) than metropolitan norms (15 percent) (6). Furthermore, many of these do not have facilities and services traditionally associated

¹¹ There were 717 metropolitan counties (excluding New England) as of June 30, 1988 (12).

Table 5---States With More Than One-Half of Their Population Residing in Non-metropolitan Areas (1986)

State	Nonmetropolitan population (in 1,000s)	Percent of State
Idaho	809	80.7
Vermont	416	76.9
Montana	619	75.6
South Dakota	508	71.8
Wyoming	361	71.2
Mississippi	1,837	70.0
Maine		63.9
West Virginia	1,217	63.4
North Dakota	426	62.7
Arkansas	1,439	60.7
Iowa	1,629	57.1
Alaska	299	56.0
Kentucky	2,033	54.5
Nebraska	848	53.1
New Mexico	776	52.5

SOURCE: U.S. Bureau of the Census, Statistical Abstract of the United States: 1988, 108th ed. (Washington, DC: 1987), table 33.

with metropolitan areas, such as hospitals with comprehensive services, a 4-year college, a local bus service, a TV station, or a Sunday paper (6).

A few counties that have not qualified for MSA status on the basis of demographic characteristics have become designated as MSAs through the Federal legislative process. Specifically, since 1983, one new MSA (Decatur, Alabama) has been created (comprising two counties)¹² and the boundaries of two existing MSAs have been enlarged by statute (62).¹³ The proponents of the bill to create the Decatur, Alabama MSA argued that "MSA status would encourage a measure of economic recovery to this area... without any additional financial burden on the Federal Government" (45). Hospitals located in the newly designated MSA of Decatur, Alabama are expected to receive an additional \$3 million per year in Medicare reimbursements be-

¹² Public Law 100-258.

¹³ Public Law 100-202, Sec. 530 and Public Law 99-500.

cause of this change from nonmetropolitan (rural) to metropolitan status. The increase in Medicare outlays for these two counties would in aggregate decrease reimbursement to other hospitals because the total amount of funding for the Medicare program was not changed by this act (44).

The MSA definition is designed strictly for statistical applications and not as a general-purpose geographic framework. In fact, according to official standards, "no Federal department or agency should adopt these statistical definitions for a nonstatistical program unless the agency head has determined that this is an appropriate use of the classification" (56). The OMB does not take into account or attempt to anticipate any nonstatistical uses that may be made of the MSA definitions and will not modify the definitions to meet the requirements of any nonstatistical program (62). Nonetheless, Federal agencies often use MSA designations to implement their programs. Table 6 contains a partial list of Federal programs that use MSAs for the administration of programs or the distribution of funds.

Table 6---Selected Federal Department/Agencies Using MSA Designations for the Administration of Programs or the Distribution of Funds^a

Department of Agriculture
Farmers Home Administration
Rural Housing Assistance
Department of Education
Higher Education Assistance
Federal Impact Payments for Education
Summer Food Service Program
Department of Health and Human Services
Federal Grants for Residency Training
Aid to Organ Procurement Organizations
Medicare Prospective Payment System
Juvenile Delinquency Treatment Grants
Provision of Services to Medicare Beneficiaries by Health Maintenance Organizations (HMOs)
Department of Housing and Urban Development
Enterprise Zones
Public Housing Development
Community Development Block Grant Program
Urban Development Action Grants
Assisted Housing Fair Market Rents
Rental Rehabilitation Awards
Department of the Interior
Recreation Areas
Wastewater Treatment Works Grants
Department of Labor
Job Training Partnership Act

^aMost USA applications listed were identified by searching the U.S. Code and the Code of Federal Regulations (CFR) for the term "MSA." This list is not comprehensive.

SOURCE: Bea, K., "Metropolitan Statistical Area Standards: Applications in Federal Policy," (CRS Draft), 1989; U.S. Department of Commerce, OFSPS, "Report on the Impact of Standard Metropolitan Statistical Areas on Federal Programs," 1978.