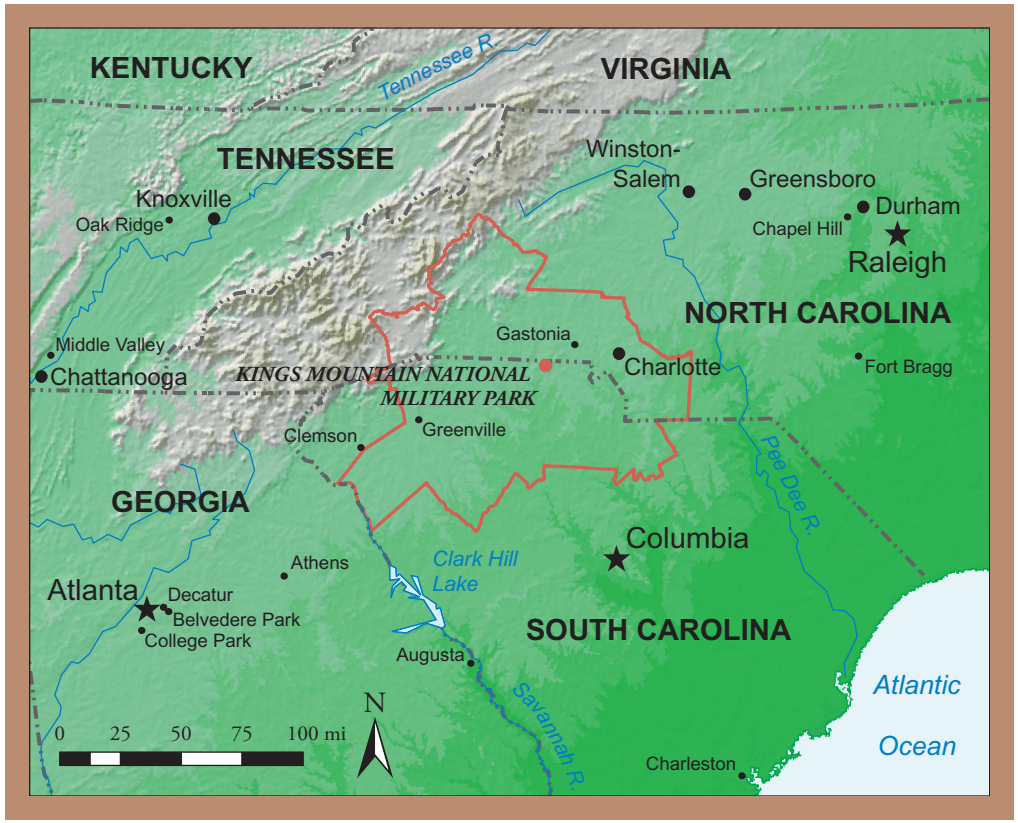
A Socioeconomic Atlas for



Kings Mountain National Military Park and its Region

2004

A Socioeconomic Atlas for Kings Mountain National Military Park and its Region

by

Jean E. McKendry

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Joel M. Staub

2004

Acknowledgments

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About this Atlas

This atlas is one in a developing National Park Service atlas series. The purpose of the atlas series is to show socioeconomic trends for regions around individual national park units. Pilot atlases were completed for Harpers Ferry National Historical Park, Joshua Tree National Park, Mount Rainier National Park, and Wilson's Creek National Battlefield. The potential to link these atlases to park planning, e.g., updating the General Management Plan, is being explored with a second series of atlases that began with the Blue Ridge Parkway.

After NPS produced the Blue Ridge Parkway atlas, atlases in the second series have been created in collaboration with the Department of Geography at the Pennsylvania State University. Kings Mountain National Military Park is one of the atlases in the second series. For more information about the atlas series, contact Jean McKendry, National Park Service, 1849 C Street NW (3130), Washington, DC 20240 (jean_mckendry@partner.nps.gov).

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Preface

Protection of the National Park System requires active and scientifically informed management. If park resources – both natural and cultural – are to be protected for future generations, the NPS must develop efficient ways to monitor the condition and trends of natural and human systems. Such monitoring must provide usable knowledge that managers can apply to the preservation of resources. And the NPS must share this information with surrounding communities, stakeholders, and partners to help them make important choices about their future.

Because of these reasons and more, the NPS has embarked on a significant initiative – the Natural Resource Challenge, an action plan for preserving natural resources and our country's natural heritage within the complexities of modern landscapes (http://www1.nature.nps.gov/challenge/index.htm).

This atlas is one component in that effort. It is a tool for park managers, planners, community leaders, and others to use in addressing the challenge of preserving the natural and cultural resources of Kings Mountain National Military Park. Part of that challenge involves understanding conditions outside park boundaries – conditions which can have significant impacts on park resources. Systematic study and monitoring of regional conditions involves, to a large degree, investigation of human activities. This atlas focuses on such human activities, characterizing them in terms of standardized measures known as socioeconomic indicators.

The atlas can currently serve as an aid to management and planning, as a training tool, and as a means to facilitate public participation. It can be of long-term benefit by establishing baseline data for monitoring changing conditions and trends in the region. Through these and other potential uses, the atlas supports the critical goal of improving park management through a greater reliance on usable scientific knowledge, and contributes to meeting the Natural Resource Challenge.

Gary E. Machlis
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Introduction

The purpose of this atlas is to provide park managers, planners, community leaders, and others with a better understanding of changing human activities and socioeconomic conditions in the region surrounding Kings Mountain National Military Park. These changes outside a park's boundaries can create complex park management challenges. Information about regional trends and conditions is needed in order to manage and conserve park resources – both natural and cultural – more effectively. This atlas provides such information in a series of maps, complemented by tables, other graphics, and explanatory text.

Maps are effective ways of conveying information. A map can highlight geographical patterns in data by showing the relationship between what is happening and where it is happening. For example, a map that shows a park's road network and also shows the locations of traffic accidents may indicate that certain sections of park roadway are particularly hazardous. Or a map that plots where park visitors come from might show that the park is popular with residents from a particular part of the region or the nation.

The maps in this atlas combine *contextual* information (such as boundary lines, roads, and key towns) with *thematic* information (such as demographic or economic statistics). This combination of contextual and thematic information helps the reader observe general trends inherent in the distribution of data. For example, a map that shows the population growth rate for each county in the park region may reveal that all of the highest growth rates are concentrated in counties south of the park.

Each map is designed to allow for easy comparison, so readers can see how conditions and trends in their own counties compare with those in other counties and relate to larger regional patterns. The consistent map design allows readers to make useful comparisons among two or more maps. For example, comparing maps of federal expenditures per person and poverty rates might reveal that federal expenditures tend to be higher in a region's poorer counties.

There are many potential uses for this atlas. For example, park managers can share the atlas with new park staff, regional staff, the media, or policy makers as a way of orienting them to the basic facts about the region. Planners can use the atlas to examine emerging trends outside the park and to prioritize actions to mitigate any anticipated adverse impacts on park resources. Local and regional leaders can consult the atlas to develop environmental policies that support park management goals while remaining responsive to local needs. Researchers can use the atlas to design studies that have practical benefit to park and ecosystem management. Additional uses are discussed in the atlas' concluding section, pages 76 - 77. Regardless of how it is used, the atlas can serve as a useful reference tool that adds to the body of usable scientific knowledge about Kings Mountain National Military Park and its surrounding region.

Socioeconomic Indicators: Valuable Management Tools

The Relevance of Human Activities to Park Resource Management

The management of park resources always requires attention to human behavior and activities. Protection of a threatened archaeological site can mean educating visitors about the Antiquities Act. Controlling non-native plant species can require close collaboration with park neighbors and volunteers. Preservation of scenic values can depend upon the monitoring of emissions from electrical generation plants several states away.

While there is an on-going and healthy debate about how to address this "human factor" in park management, a consensus has emerged about three basic principles:

- people are part of park ecosystems, and their needs and activities must be considered in management plans;
- park managers should be concerned with short and long-term trends, as well as the local, regional, and national consequences of actions; and
- where appropriate, decisions about park resources should be made collaboratively, including federal agencies, local governments, and citizens in the process.

Managing parks in accordance with these principles requires careful planning, for people have many competing needs.

Careful planning requires an accurate and objective assessment of current conditions as well as on-going trends. Hence, understanding the social, cultural, and economic characteristics of the park region is crucial for successful park management.

The Value of Socioeconomic Indicators

One approach to understanding social, cultural, and economic conditions and trends is to use *socioeconomic indicators*. Socioeconomic indicators are regularly collected economic or social statistics that describe or predict changes and trends in the general state of society. For example, the consumer price index (CPI) keeps track of changes in the price of a typical group of consumer goods. The CPI is used to monitor inflation, to compare the cost-of-living in one region of the country to another, and to support economic policy-making. Socioeconomic indicators can address historical trends, present conditions, or future projections.

An integrated set of socioeconomic indicators can be effective in presenting the "basic facts" about the people of a region. Such basic facts are important to park management, and can be used in many ways: assessing the potential impact of government policies, developing sound resource management strategies, designing effective interpretive programs, increasing public involvement in the planning process, and so forth. Like measures of water quality or wildlife populations, socioeconomic indicators enable managers and citizens to make scientifically informed decisions concerning public resources.

The Integrated Set of Indicators

The indicators in this atlas are not simply a collection of various statistics displayed in maps, but an integrated set of indicators organized around broad areas of human activity that are of particular relevance to park management. The selection of a broad range of relevant indicators is important because the dynamics of human interaction on a regional scale are complex. For example, the growth of a new industry can influence a rise in immigration, which in turn can influence other human activities such as housing development. While industry, immigration, and housing are categorically different indicators, each one could be important for a park manager trying to anticipate growth issues that might impact park visitation or ecological systems.

The integrated set of indicators displayed in this atlas encompasses six general categories:

- *General population* indicators measure how many people live in a given area, where those people are concentrated, their ages, patterns of migration, and so forth. General population indicators provide a profile of the people who are neighbors to the park and potential partners in park management.

- *Economy and commerce* indicators measure the flow and distribution of money, materials, and labor. Economy and commerce indicators provide an overview of the interdependent economic relationships among people, businesses, industries, and government within the park region.

- *Social and cultural* indicators measure aspects of personal and group identity such as cultural origin, political and religious beliefs, health, and language. Social and cultural indicators provide insights into the varying perceptions and expectations that people bring with them when they go to their place of work, participate in a public meeting, or visit a park interpretive site.

- *Recreation and tourism* indicators measure activities specifically related to the provision of accommodations, entertainment, and personal services. Recreation and tourism indicators provide a way to analyze the economic role that travelers, vacationers, and other recreationists play in the region surrounding the park, which is itself closely linked to the recreation/tourism sector.

- *Administration and government* indicators measure the structure, resources, and actions of government organizations. Administration and government indicators provide an orientation to the role of government – local, state, and federal – in the park region.

- *Land use* indicators measure the interactions between people and terrestrial resources such as land, water supply, and vegetation. Land use indicators provide a way to gauge the impact of human activities such as farming, forestry, and urban development upon ecosystems within the park region.

Selecting Specific Indicators

Drawing from the six general categories of socioeconomic indicators described above, a menu of 67 socioeconomic indicators was developed. Each indicator was determined to be readily available and mappable at the county level. From this menu, 17 *core indicators* were selected that would be common to all atlases published in this series. The core indicators provide information useful to all park managers. Incorporating these core indicators throughout the series of atlases enables park managers to make comparisons among parks in different regions of the country. Kings Mountain National Military Park staff chose additional indicators from the menu described above. Park staff selected these indicators to customize the atlas so that it would target information relevant to their particular management needs. Figure 1 shows the six general categories and the specific indicators included in this atlas; for each category, indicators are listed in the order they appear in the atlas.

The maps in this atlas are based on county-level data wherever possible. County-level data have several advantages. Good quality data are available at this scale, consistently collected at regular intervals, and comparable across all U.S. counties. Also, counties are stable geographic units for monitoring trends, as little change in county boundaries occurs over time. Finally, as administrative and political units, counties significantly influence environmental change and can be important partners in park management.

Technical Notes

Appendix 1 provides the data sources for the indicators presented in this atlas. Appendix 2 provides technical information on the design of the maps. Appendix 3 includes endnotes and text that provide additional information on the measurement of selected indicators.

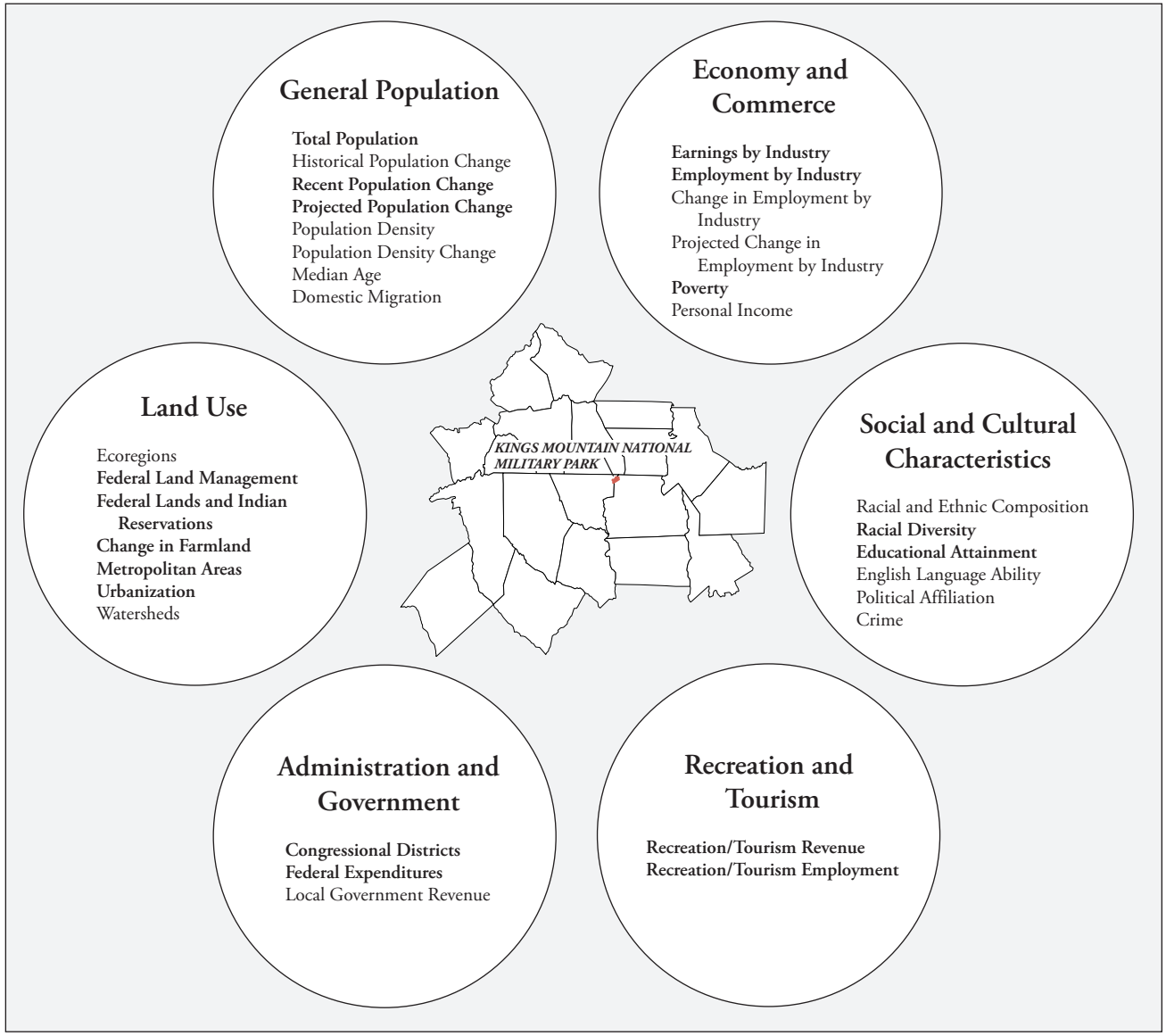


Figure 1. Indicators Included in this Atlas **core indicator** additional indicator

The Region

In selecting the boundaries of the region of interest covered by this atlas, Kings Mountain National Military Park (NMP) staff were asked to define the geographic area that has the most significant impact on the park's management. Because the atlas relies on county-level socioeconomic data, the region of interest was restricted to entire counties, rather than parts of counties. The region selected includes nine counties in South Carolina and ten counties in North Carolina. The map on the facing page depicts the region in its larger context.

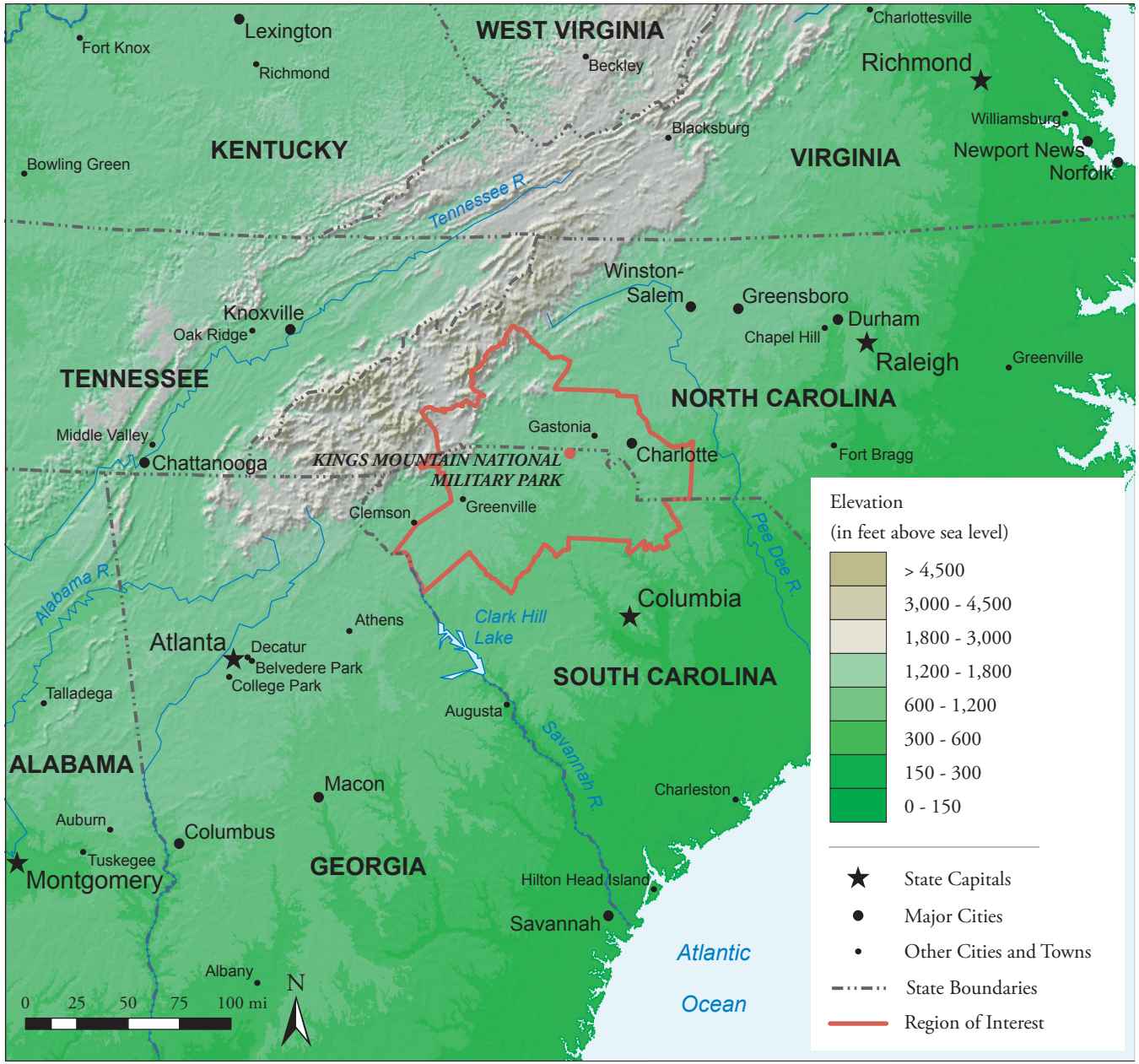
Kings Mountain NMP preserves an important battle site from the Southern Campaign of the American Revolution. It is located in South Carolina, near the North Carolina border, and is approximately 45 miles west of Charlotte, North Carolina and 125 miles north of Columbia, South Carolina. This 6.2 square mile park is adjacent to Kings Mountain State Park in South Carolina. The state park offers a range of recreational activities.

The region is located in the Piedmont Plateau. The Piedmont is characterized by low hills with stony, clay soils and deep valleys. It extends diagonally across the Carolinas and north through Virginia, sloping from the Appalachian Mountains towards the Atlantic Coastal Plain. Kings Mountain rises 150 feet above the surrounding area, suggesting its importance as a landform during the war. Summers in the region are hot and humid, while winters are generally mild and rainy.

Charlotte, North Carolina is the most important economic and cultural city in the region. The region contains most of the Greenville-Spartanburg-Anderson metropolitan area and parts of the Charlotte-Gastonia-Rock Hill and Hickory-Morganton-Lenoir metropolitan areas. These areas have developed similar economies, with slightly more than 20% of workers in each of the sectors of manufacturing, trade, and services. Much of the convergence in this economy has come about in the Charlotte area as manufacturing jobs have been lost and workers have moved into other sectors. Conversely, the Greenville area has gained manufacturing positions through a build up in automotive industries. Charlotte is also home to several national banks.

In addition to Kings Mountain NMP, the region contains Cowpens National Battlefield and part of the Overmountain Victory National Historical Trail.

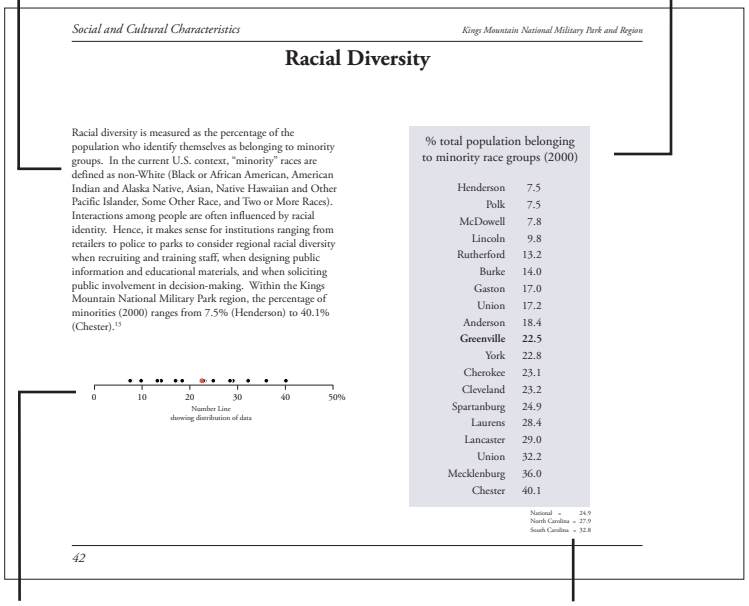
Kings Mountain National Military Park and its Region



Using the Socioeconomic Indicators and Maps

The socioeconomic indicators for the Kings Mountain National Military Park region of interest are presented in a series of maps. The best available county-level data are presented for each indicator. The following information is provided for each indicator:

- a brief description of the socioeconomic indicator and an observation about the spatial variation in the data as displayed on the map.
- a table that shows the data and relative rank for each county. The median value is highlighted in bold. The table allows the reader to look up and compare specific indicator values for each county.
- a map legend describing how the indicator is measured, the year that the data were gathered, and the range of values for each quartile grouping.
- the name of the general category to which this particular indicator belongs (such as general population or land use). Maps in the same general category share similar sets of color symbols.



Social and Cultural Characteristics *Kings Mountain National Military Park and Region*

Racial Diversity

Racial diversity is measured as the percentage of the population who identify themselves as belonging to minority groups. In the current U.S. context, "minority" races are defined as non-White (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, and Two or More Races). Interactions among people are often influenced by racial identity. Hence, it makes sense for institutions ranging from retailers to police to parks to consider regional racial diversity when recruiting and training staff, when designing public information and educational materials, and when soliciting public involvement in decision-making. Within the Kings Mountain National Military Park region, the percentage of minorities (2000) ranges from 7.5% (Henderson) to 40.1% (Chester).[13]

% total population belonging to minority race groups (2000)	
Henderson	7.5
Polk	7.5
McDowell	7.8
Lincoln	9.8
Rutherford	13.2
Burke	14.0
Gaston	17.0
Union	17.2
Anderson	18.4
Greenville	**22.5**
York	22.8
Cherokee	23.1
Cleveland	23.2
Spartanburg	24.9
Laurens	28.4
Lancaster	29.0
Union	32.2
Mecklenburg	36.0
Chester	40.1

National	24.9
North Carolina	27.9
South Carolina	32.8

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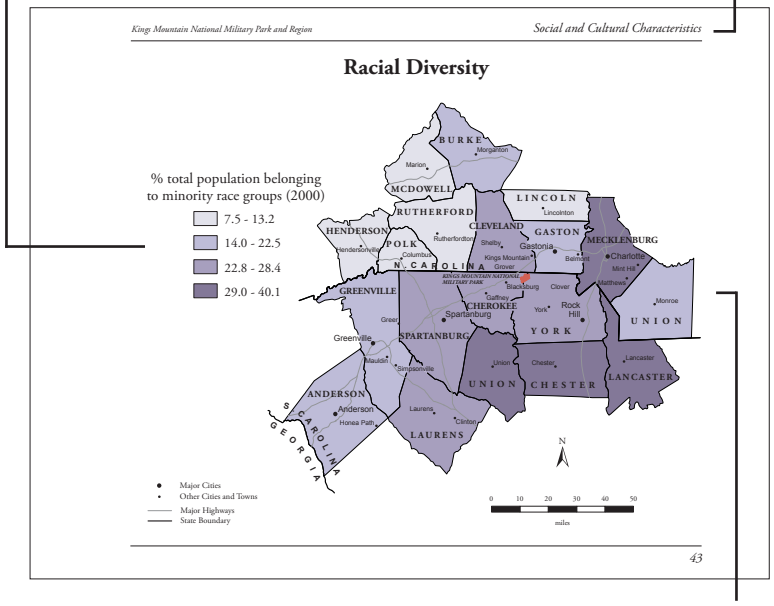

Kings Mountain National Military Park and Region *Social and Cultural Characteristics*

Racial Diversity

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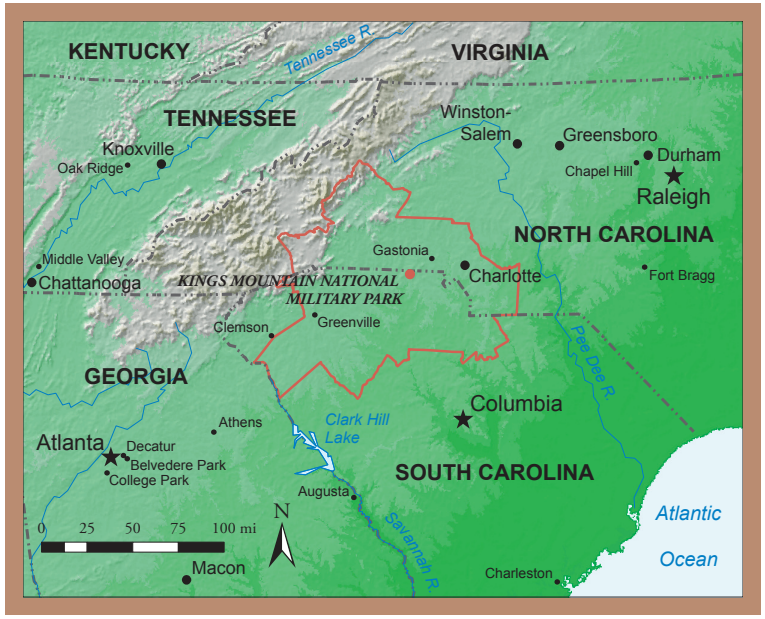
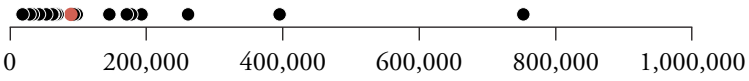
- a number line that shows the distribution of values for the indicator, useful in understanding patterns in the data. The median value is represented by a **red** dot.
- a section displaying national and state data that can be compared with regional county data.
- a map that displays general patterns inherent in the data. For most indicators, counties are grouped into four classes that correspond to four sub-ranges of data values. These groups are called quartiles. The highest-ranked quartile receives the darkest shading. For more information on quartile classification, see Appendix 2, page 83.

The Socioeconomic Indicators



Total Population

Population size is one of the most important influences on the character of human activities in a place and a key influence on resource use. People bring labor, knowledge, and economic activity to a place. At the same time, they generate demand for natural resources, goods, and services ranging from food to recreational opportunities. Within the Kings Mountain National Military Park region, county population (2003) ranges from 18,824 (Polk) to 752,366 (Mecklenburg).[1]

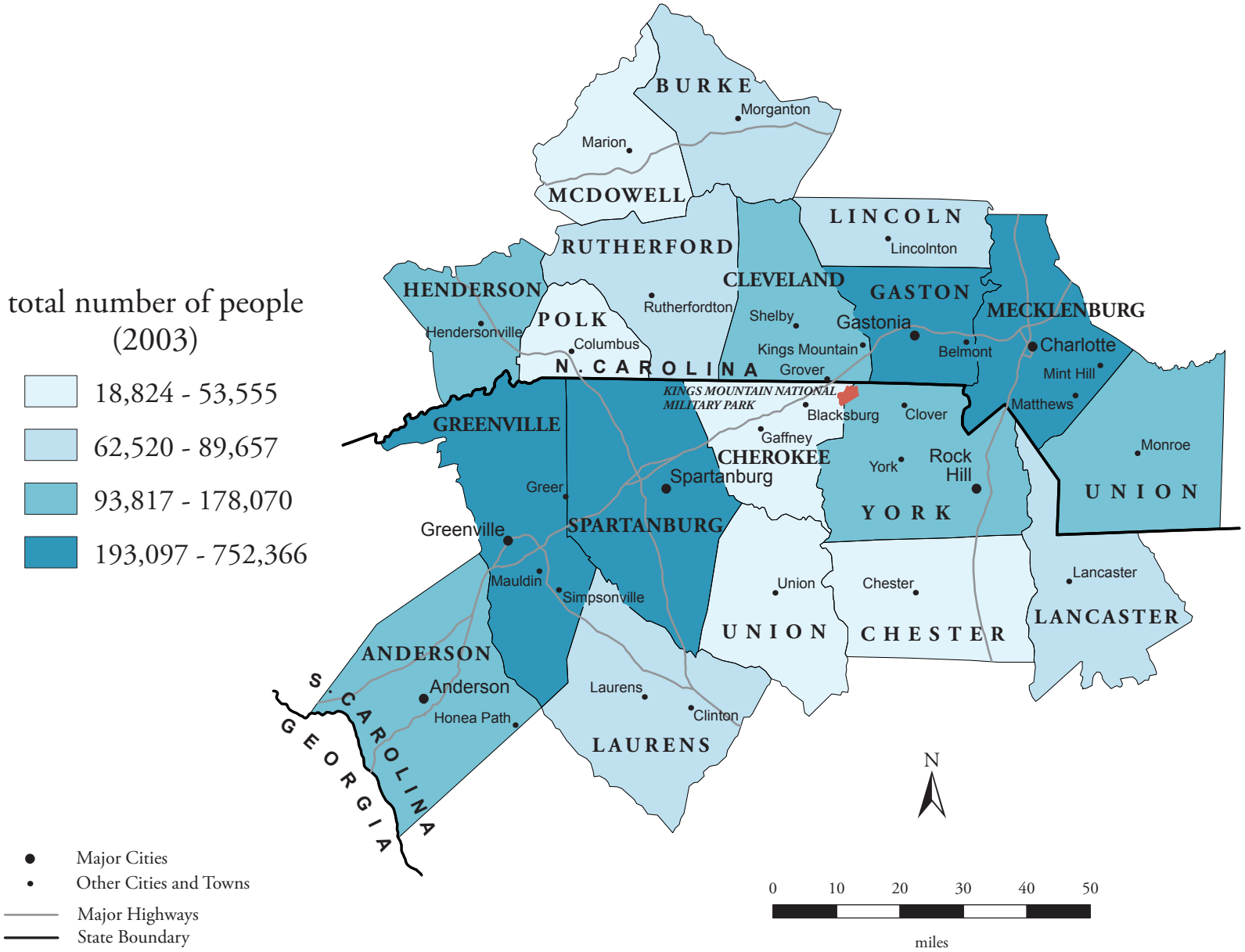


Number Line
showing distribution of data

total number of people (2003)	
Polk	18,824
Union, SC	29,105
Chester	33,906
McDowell	42,867
Cherokee	53,555
Lancaster	62,520
Rutherford	63,540
Lincoln	67,275
Laurens	70,269
Burke	**89,657**
Henderson	93,817
Cleveland	98,249
Union, NC	145,986
Anderson	171,510
York	178,070
Gaston	193,097
Spartanburg	261,281
Greenville	395,357
Mecklenburg	752,366

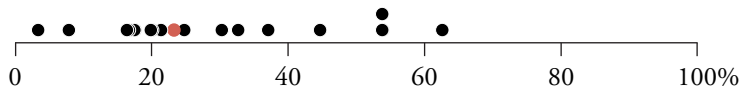
National = 290,809,777
North Carolina = 8,407,248
South Carolina = 4,147,152

Total Population



Historical Population Change

Population change is due to birth, deaths, and migration. Trends in historical population change (1970 - 1990) provide a context from which to view recent population change (1990 - 2000). The direction and rate of population change are important socioeconomic trends. For example, population growth increases the size of the economy and can generate changes in land use that affect natural ecosystems. Within the Kings Mountain National Military Park region, county growth rates (1970 - 1990) ranged from 3.4% (Union, SC) to 62.6% (Henderson).

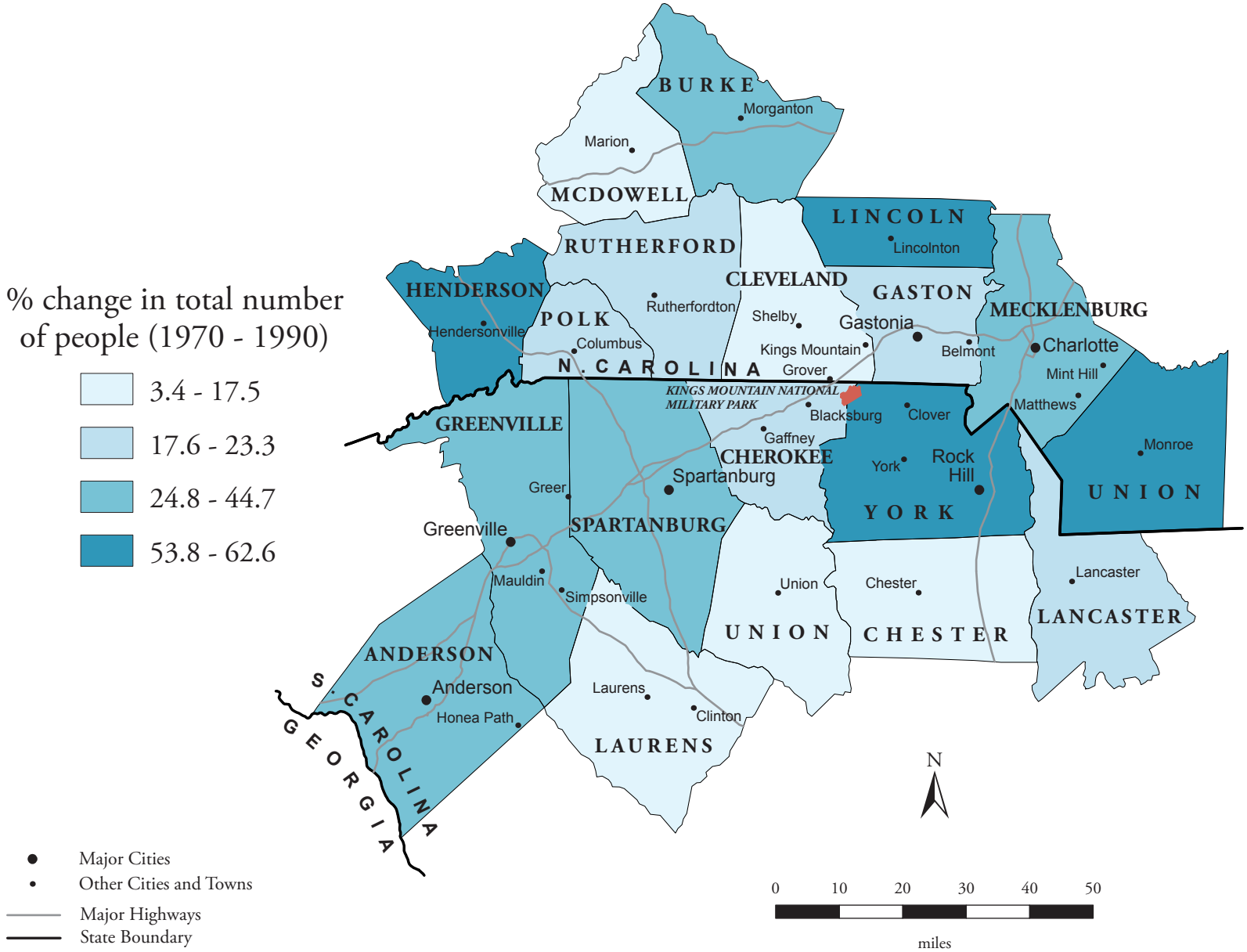


Number Line
showing distribution of data

% change in total number of people (1970 - 1990)	
Union, SC	3.4
Chester	7.9
McDowell	16.4
Cleveland	16.7
Laurens	17.5
Gaston	17.6
Rutherford	19.9
Lancaster	20.1
Cherokee	21.4
Polk	**23.3**
Burke	24.8
Spartanburg	30.3
Greenville	32.7
Anderson	37.1
Mecklenburg	44.7
Union, NC	53.8
York	53.8
Lincoln	53.9
Henderson	62.6

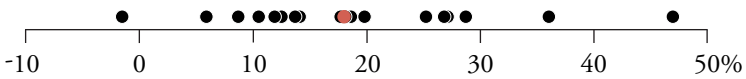
National = 22.3
North Carolina = 30.4
South Carolina = 34.4

Historical Population Change



Recent Population Change

Measuring recent population change provides an indication of the extent to which population change is influencing current local or regional priorities. For example, population growth changes the tax base, adds new voters, and can increase demand for services ranging from schools to transportation to outdoor recreation. Within the Kings Mountain National Military Park region, the recent increase in county population (1990 - 2000) ranges from -1.5% (Union, SC) to 46.9% (Union, NC).

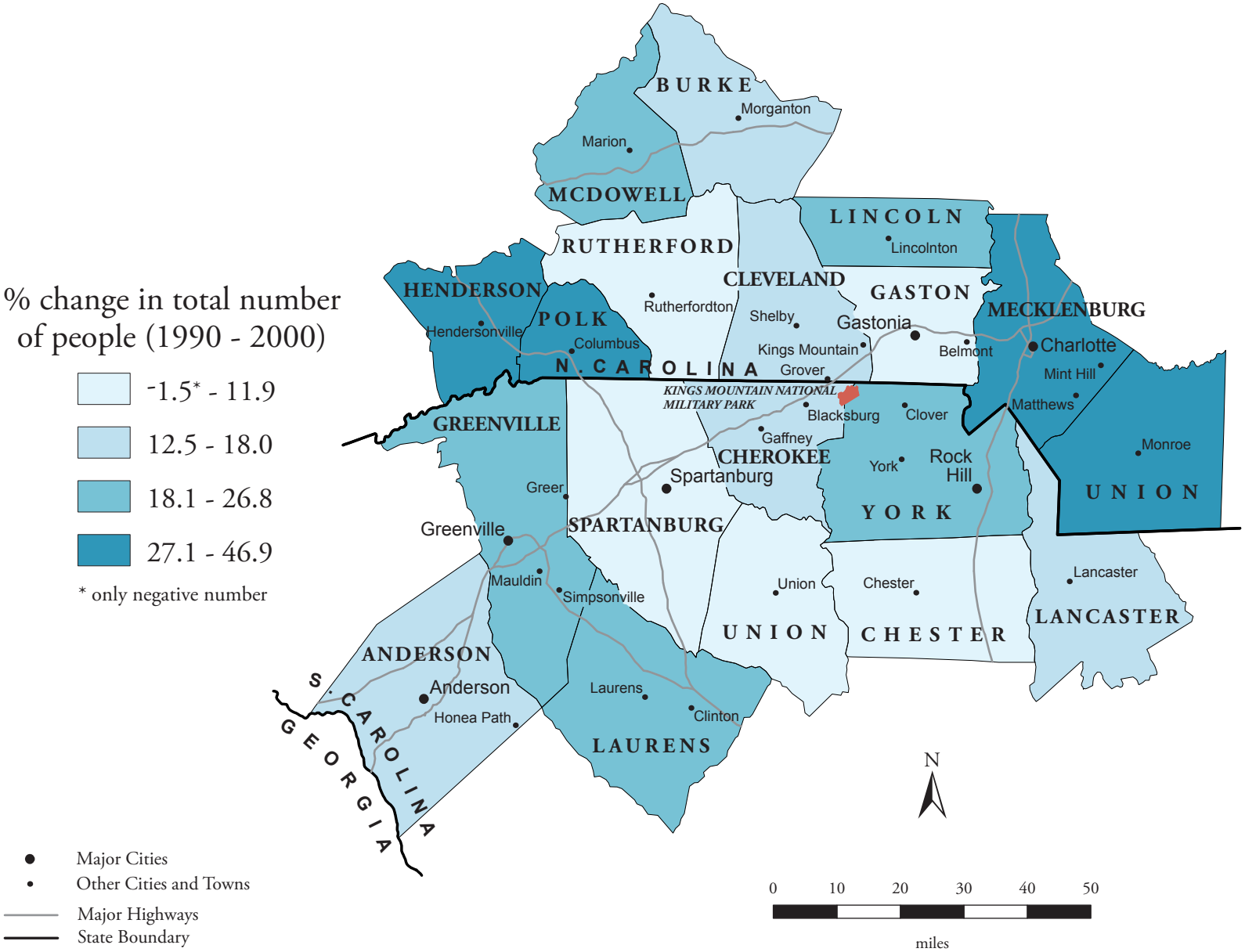


Number Line
showing distribution of data

% change in total number of people (1990 - 2000)	
Union, SC	-1.5
Chester	5.9
Gaston	8.7
Rutherford	10.5
Spartanburg	11.9
Lancaster	12.5
Cleveland	13.7
Anderson	14.1
Burke	17.7
Cherokee	**18.0**
McDowell	18.1
Greenville	18.6
Laurens	19.8
York	25.2
Lincoln	26.8
Polk	27.1
Henderson	28.7
Mecklenburg	36.0
Union, NC	46.9

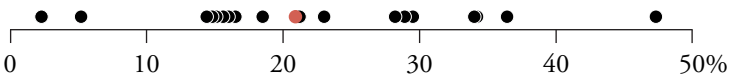
National = 13.2
North Carolina = 21.4
South Carolina = 15.1

Recent Population Change



Projected Population Change

Population projections can be made with some accuracy for short and mid-range time spans. Projections can help planners anticipate potential impacts on park resources. For example, population growth can generate changes in land use and transportation, growth of new and existing communities, and increases in the demand for park experiences. Within the Kings Mountain National Military Park region, the projected increase in county population by the year 2020 ranges from 2.3% (Union, SC) to 47.3% (Mecklenburg).[2]



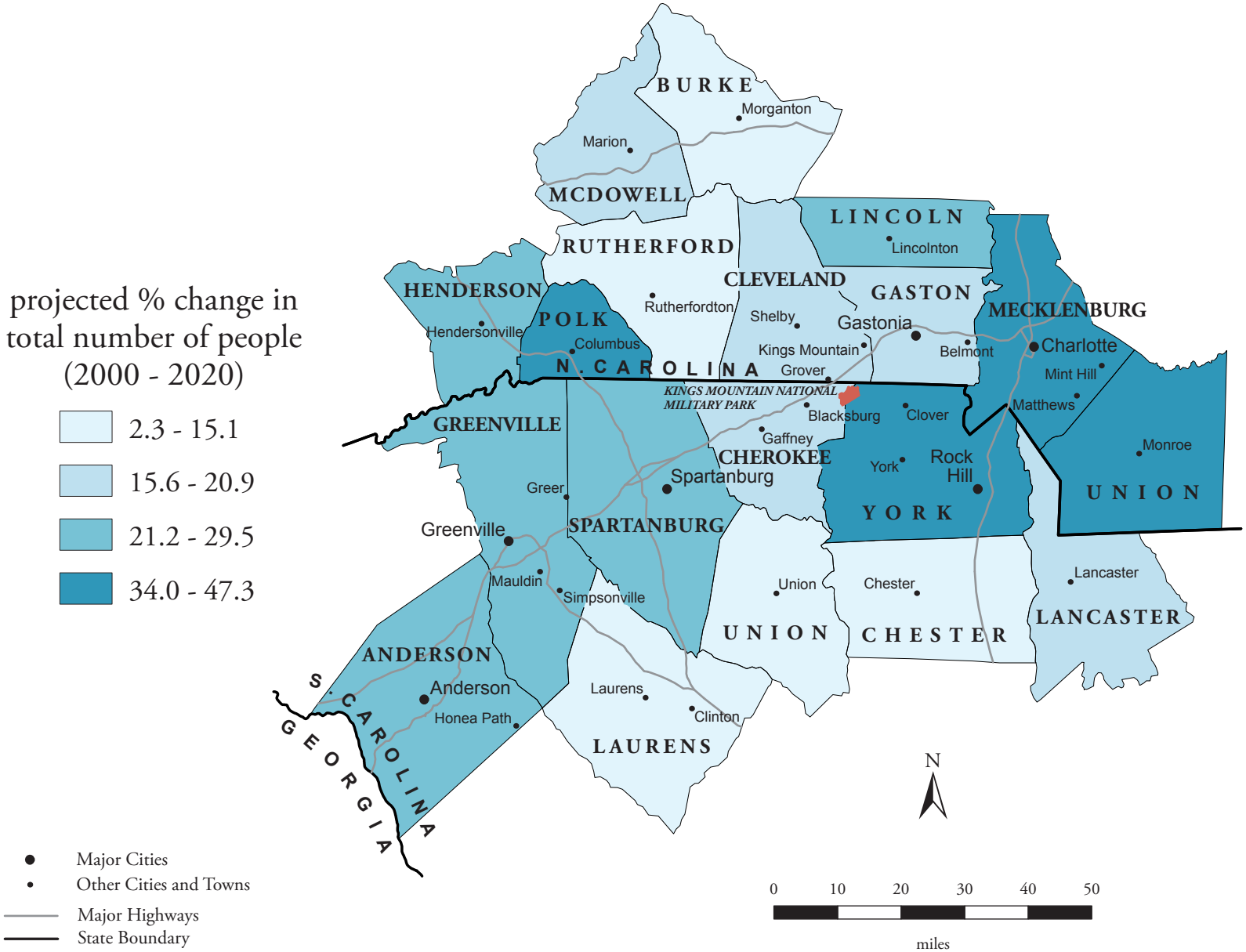
Number Line
showing distribution of data

projected % change in total number of people (2000 - 2020)

Union, SC	2.3
Chester	5.2
Rutherford	14.4
Laurens	14.8
Burke	15.1
Lancaster	15.6
Gaston	16.0
Cleveland	16.5
McDowell	18.5
Cherokee	**20.9**
Spartanburg	21.2
Anderson	23.0
Greenville	28.2
Lincoln	28.9
Henderson	29.5
Union, NC	34.0
Polk	34.2
York	36.4
Mecklenburg	47.3

National = 21.1
North Carolina = 28.2
South Carolina = 25.4

Projected Population Change



Population Density

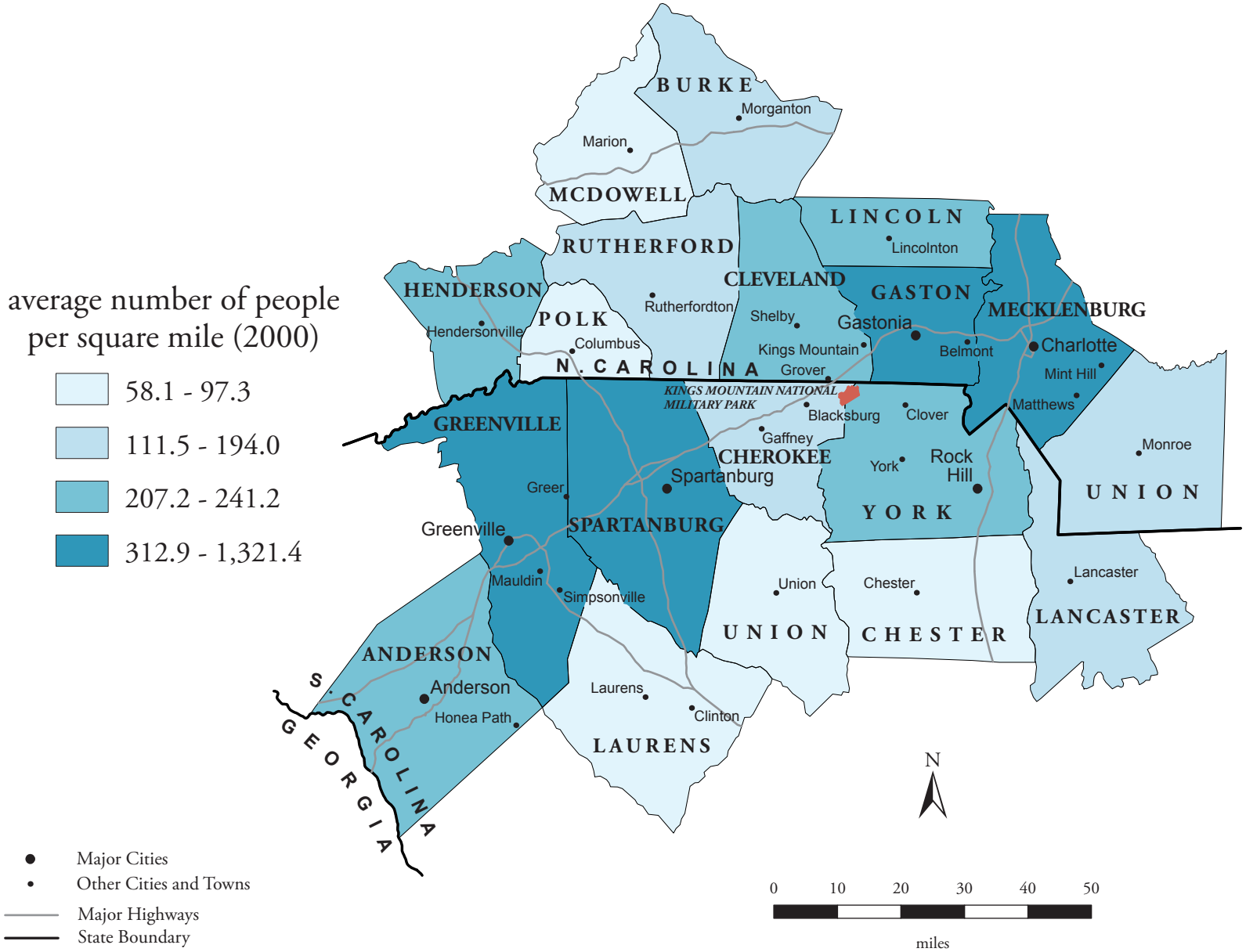
Population density is a measure of population in terms of persons per square mile. Higher concentrations of people tend to support more business activities and can generate greater demand for public goods ranging from roads to open space. Thus, monitoring differences in population density can be an important way to detect potential stresses and impacts on natural resources in the park region. Within the Kings Mountain National Military Park region, county population density (2000) ranges from 58.1 people per square mile (Union, SC) to 1,321.4 people per square mile (Mecklenburg).[3]

Number Line
showing distribution of data

average number of people per square mile (2000)	
Union, SC	58.1
Chester	58.7
Polk	77.0
McDowell	95.4
Laurens	97.3
Rutherford	111.5
Lancaster	111.7
Cherokee	133.8
Burke	175.9
Union, NC	**194.0**
Cleveland	207.2
Lincoln	213.4
Anderson	230.8
Henderson	238.4
York	241.2
Spartanburg	312.9
Greenville	480.4
Gaston	534.4
Mecklenburg	1,321.4

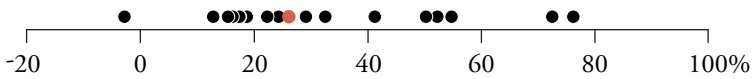
National = 79.6
North Carolina = 165.2
South Carolina = 133.2

Population Density



Population Density Change

Population density change is an alternate means to describe population growth, stability, or decline. Steady or decelerating growth over a 20-year time period suggests that government and institutions can anticipate and plan for needs in advance. Accelerating population growth may be placing stress on government and institutions to respond rapidly to changes in civic life, industry, infrastructure, and the use of land and resources. Within the Kings Mountain National Military Park region, the change in county population density (1980 - 2000) ranges from -2.7% (Chester) to 76.2% (Union, NC).[4]



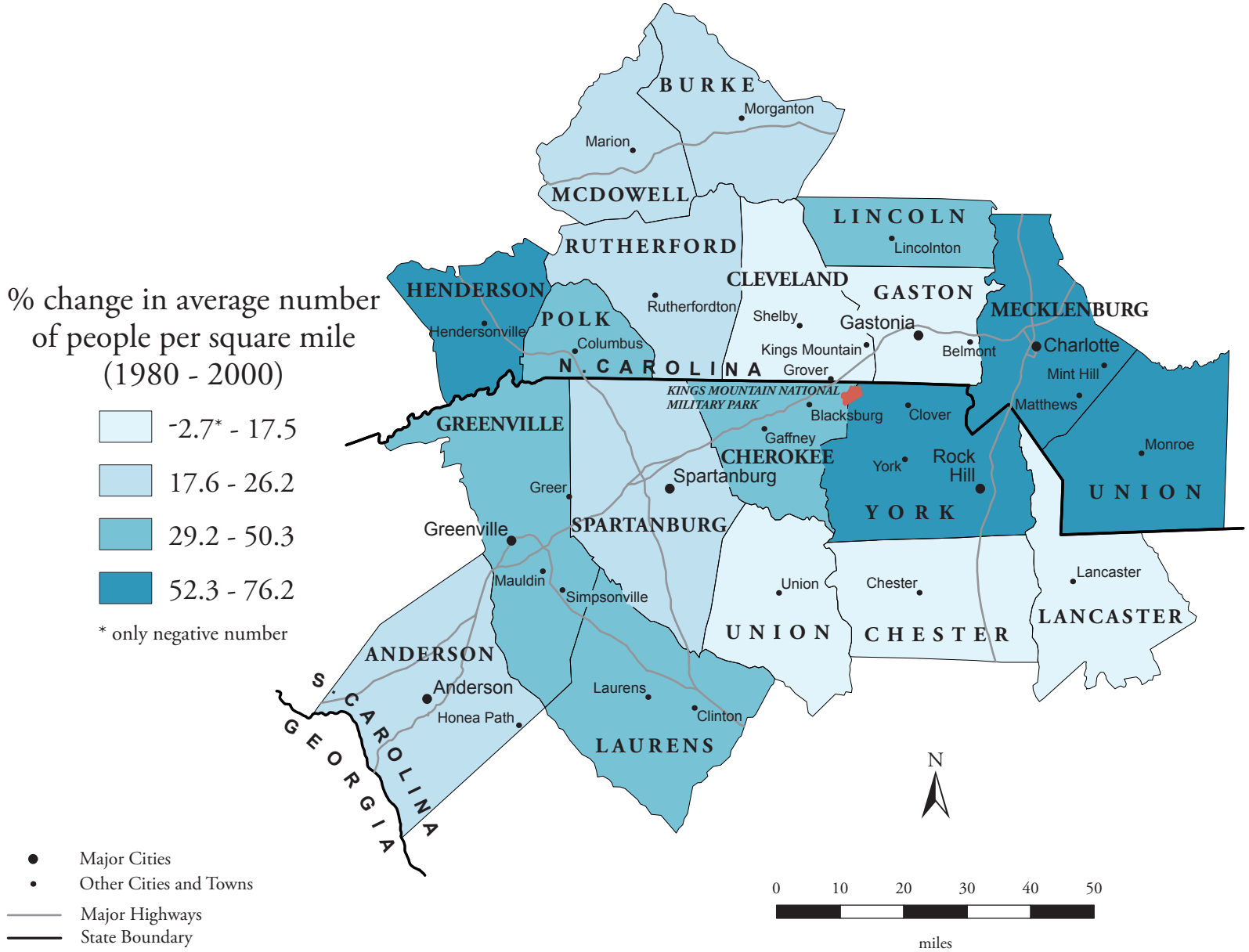
Number Line
showing distribution of data

% change in average number of people per square mile (1980 - 2000)

Chester	-2.7
Rutherford	12.9
Gaston	15.5
Cleveland	16.3
Lincoln	17.5
York	17.6
Union, SC	18.8
Burke	22.4
Anderson	24.4
Lancaster	**26.2**
McDowell	29.2
Mecklenburg	32.6
Polk	32.7
Cherokee	41.3
Greenville	50.3
Henderson	52.3
Laurens	54.8
Spartanburg	72.5
Union, NC	76.2

National = 24.3
North Carolina = 37.2
South Carolina = 28.8

Population Density Change



Median Age

Median age expresses the age of a "typical" county resident for whom half the population is older and half is younger. Just as age is an important influence on individual behavior, the median age of a county's population can influence its character in many ways. For example, a relatively young county population might place a higher priority on schools, while a relatively old county population might place a higher priority on health care. Within the Kings Mountain National Military Park region, the median age of total population (2000) ranges from 33.1 (Mecklenburg) to 44.9 (Polk).

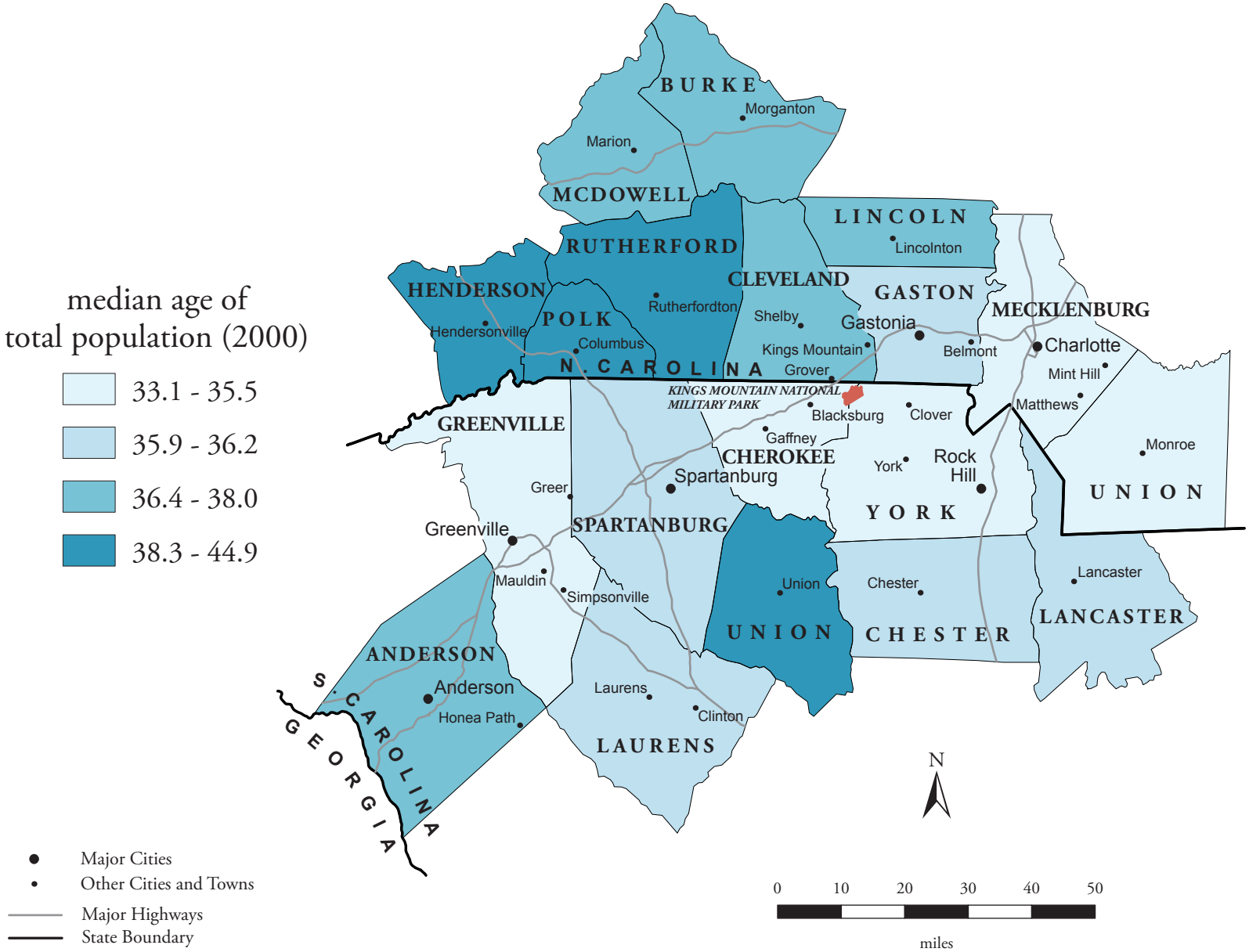
Number Line
showing distribution of data

median age of
total population (2000)

Mecklenburg	33.1
Union, NC	34.0
York	34.9
Cherokee	35.3
Greenville	35.5
Lancaster	35.9
Chester	36.0
Spartanburg	36.1
Gaston	**36.2**
Laurens	**36.2**
Lincoln	36.4
Cleveland	36.5
Burke	36.9
Anderson	37.3
McDowell	38.0
Rutherford	38.3
Union, SC	38.6
Henderson	42.7
Polk	44.9

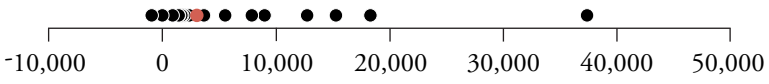
National = 35.3
North Carolina = 35.5
South Carolina = 35.4

Median Age


median age of
total population (2000)
33.1 - 35.5
35.9 - 36.2
36.4 - 38.0
38.3 - 44.9
BURKE
Morganton
Marion
MCDOWELL
RUTHERFORD
LINCOLN
Lincolnton
HENDERSON
Hendersonville
POLK
Columbus
Rutherfordton
CLEVELAND
Shelby
GASTON
Gastonia
MECKLENBURG
Charlotte
Mint Hill
Matthews
Belmont
Kings Mountain
Grover
N. CAROLINA
KINGS MOUNTAIN NATIONAL MILITARY PARK
Blacksburg
Clover
GREENVILLE
Gaffney
CHEROKEE
Spartanburg
York
Rock Hill
Monroe
UNION
Greer
Greenville
SPARTANBURG
YORK
Mauldin
Simpsonville
Union
Chester
Lancaster
LANCASTER
UNION
CHESTER
ANDERSON
Anderson
Honea Path
S. CAROLINA
GEORGIA
Laurens
Clinton
LAURENS
N
0 10 20 30 40 50
miles
Major Cities
Other Cities and Towns
Major Highways
State Boundary

Domestic Migration

Domestic migration measures the net movement of U.S. residents into or out of a county. These indicators provide a way of monitoring whether a county is attracting new residents or losing current residents. Factors that can encourage migration into a county include new industry, recreation or retirement offerings, and suburban development. Out-migration may occur when employment opportunities in an area are reduced or when opportunities elsewhere are more attractive. Domestic migration into the park region can have significant impacts for park management, such as increased visitor use, development pressure on adjacent lands, and new challenges for protecting thematically-related cultural landmarks or natural resources in the park region. Out-migration may reduce demands on park resources. Within the Kings Mountain National Military Park region (1995 - 2000), one county experienced net out-migration, and 18 counties experienced net in-migration. The changes ranged from a net loss of ⁻890 people (Union, SC) to a net gain of 37,373 people (Mecklenburg).[5]



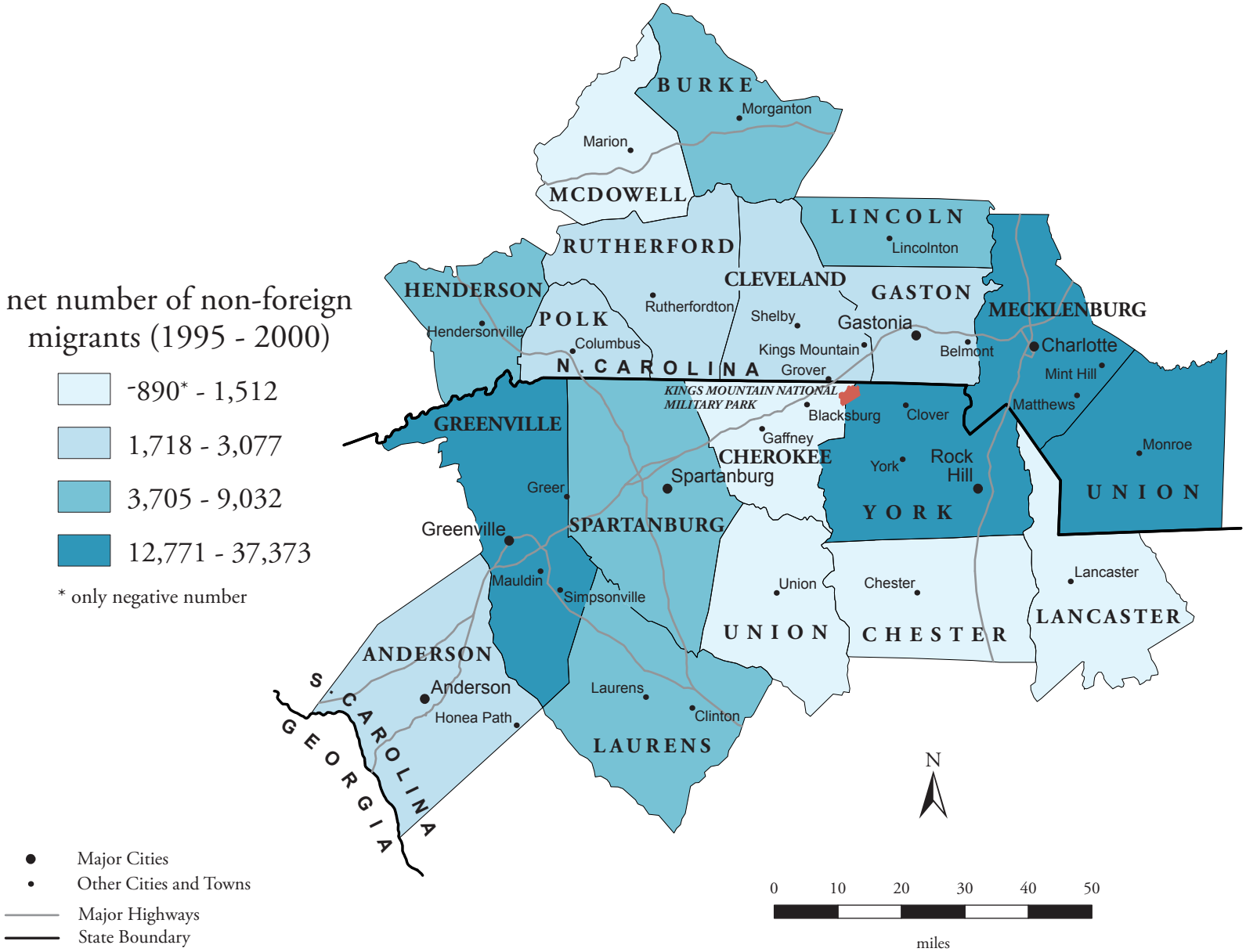
Number Line
showing distribution of data

net number of non-foreign migrants (1995 - 2000)

Union, SC	⁻890
Lancaster	44
Chester	951
McDowell	1,483
Cherokee	1,512
Polk	1,718
Cleveland	1,792
Rutherford	1,982
Gaston	2,406
Anderson	**3,077**
Laurens	3,705
Lincoln	3,720
Burke	5,567
Henderson	7,910
Spartanburg	9,032
York	12,771
Greenville	15,303
Union, NC	18,332
Mecklenburg	37,373

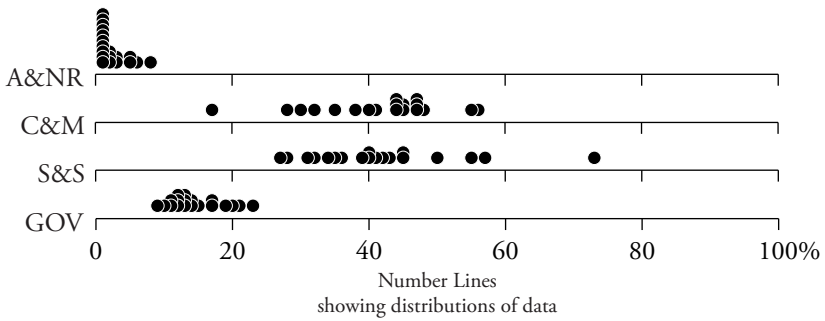
National = 0
North Carolina = 337,883
South Carolina = 132,205

Domestic Migration



Earnings by Industry

Earnings by industry are indicative of the overall size of a local economy as well as the relative importance of each major industrial sector within that economy. The diversity of economic activities in the region presents an array of challenges to park management. For example, relatively mobile industries such as light manufacturing or financial services may be concerned with land costs and tax rates, whereas natural resource dependent industries such as farming or mining may be concerned with land use regulations and other environmental policies. Within the Kings Mountain National Military Park region (1999), the leading sector of earnings in 11 of the 19 counties is construction and manufacturing. The second-ranking sector is sales and services.[6]



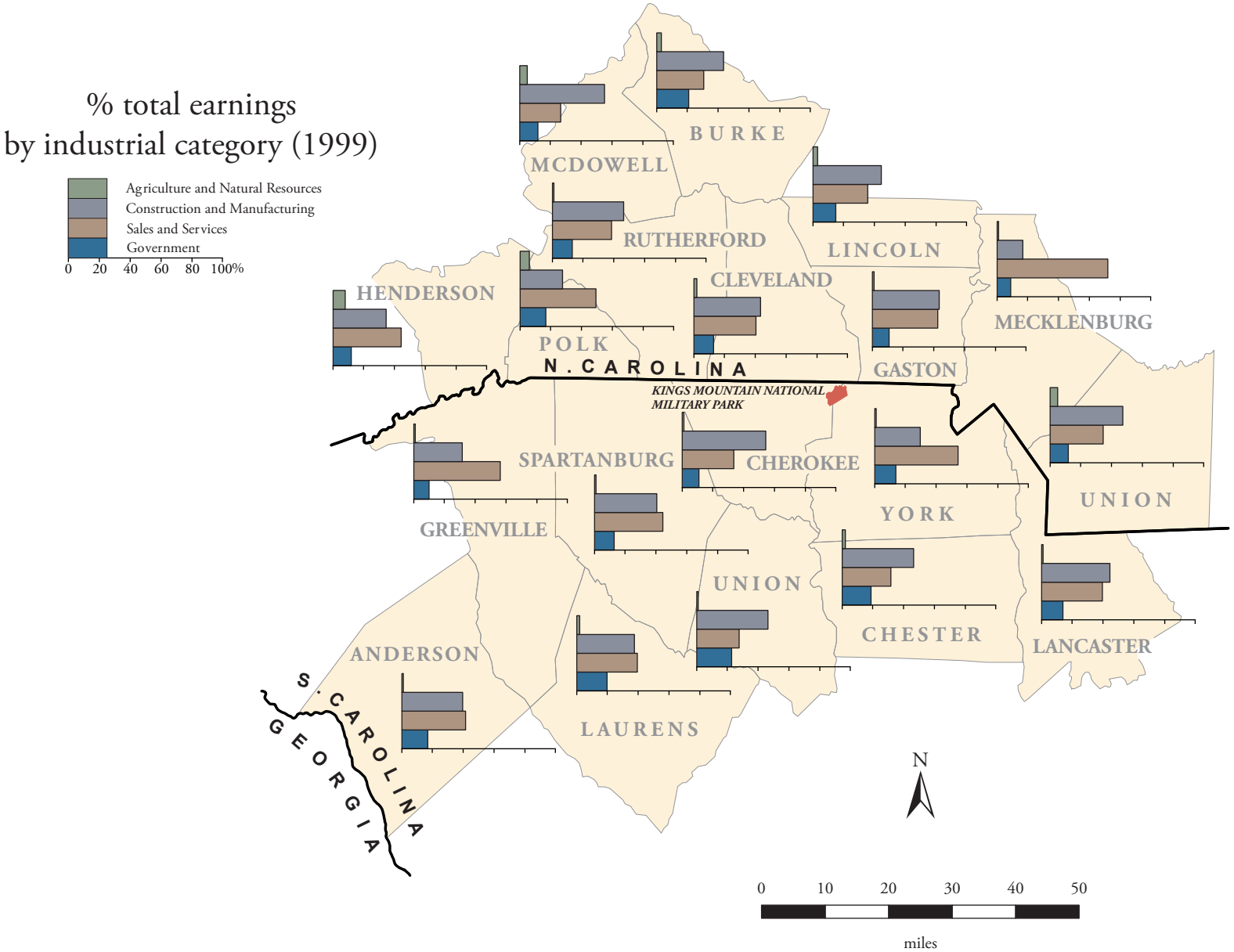
A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

Percentages may not add to one hundred due to rounding.

% total earnings
by industrial category (1999)

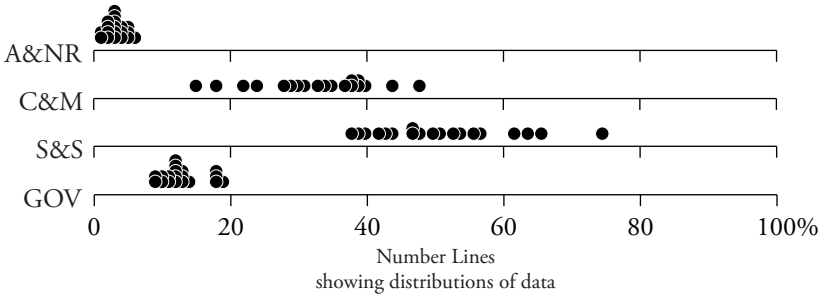
	A&NR	C&M	S&S	GOV
Anderson	1	40	42	17
Burke	3	44	31	21
Cherokee	1	55	34	11
Chester	2	47	32	19
Cleveland	2	44	41	13
Gaston	1	44	43	11
Greenville	1	32	57	10
Henderson	8	35	45	12
Lancaster	1	45	40	14
Laurens	2	38	40	20
Lincoln	3	45	36	15
McDowell	5	56	27	12
Mecklenburg	1	17	73	9
Polk	6	28	50	17
Rutherford	1	47	39	13
Spartanburg	1	41	45	13
Union, NC	5	48	35	12
Union, SC	1	47	28	23
York	1	30	55	14
National	2	22	60	16
North Carolina	2	28	52	18
South Carolina	1	28	51	20

Earnings by Industry



Employment by Industry

One indicator of the way a particular county's job market is structured is the percentage of workers employed in each of the four major industrial sectors. This employment distribution is indicative of the kinds of skills, knowledge, and concerns that are most prevalent among workers. Occupational patterns can influence people's priorities and actions with regard to parks and resource protection. For example, construction workers might welcome the prospect of rapid growth, whereas government workers such as teachers and police might worry that rapid growth would stress existing government resources. Within the Kings Mountain National Military Park region (1999), the leading sector of employment in 16 of the 19 counties is sales and services. The second-ranking sector is construction and manufacturing.[7]



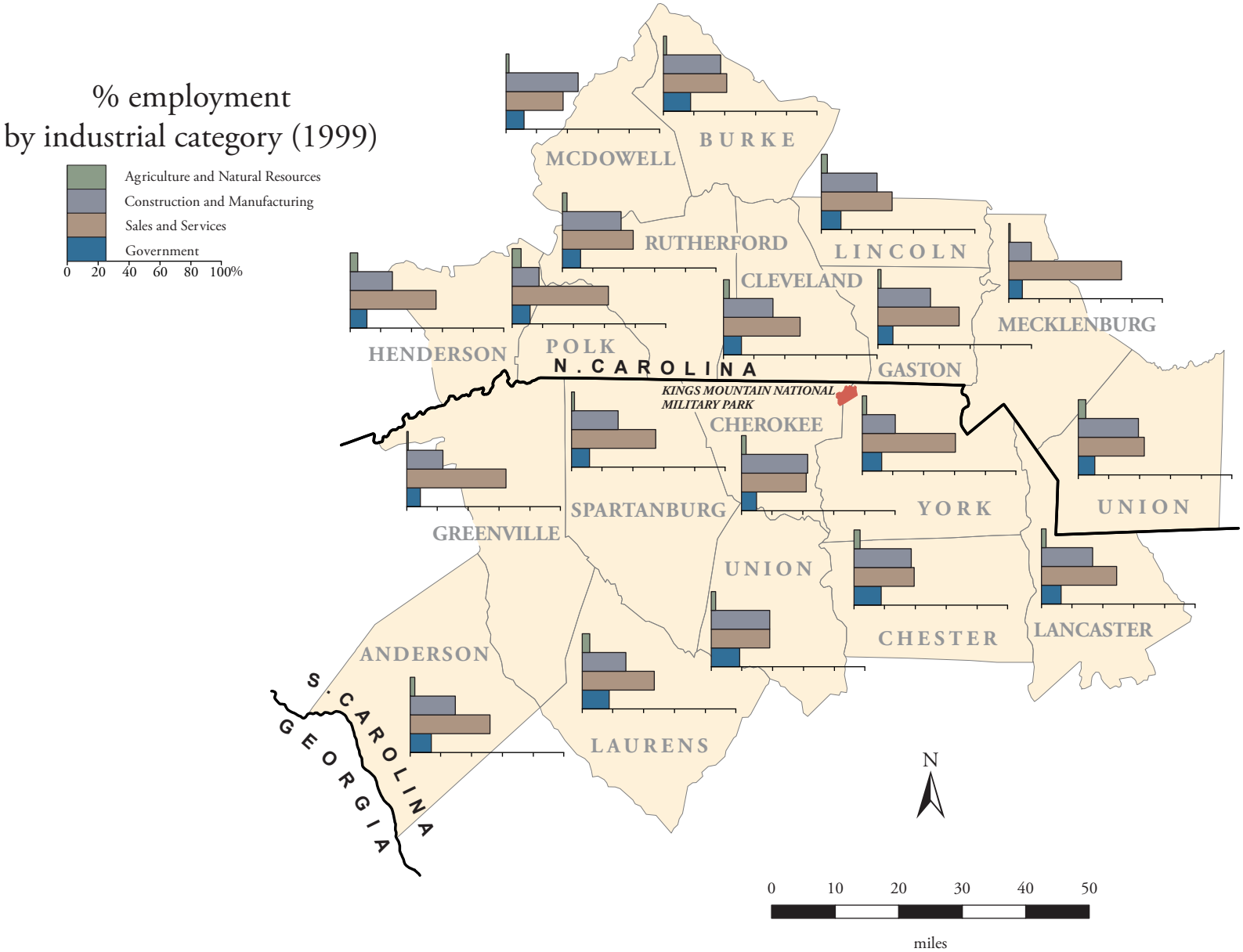
A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

Percentages may not add to one hundred due to rounding.

% employment
by industrial category (1999)

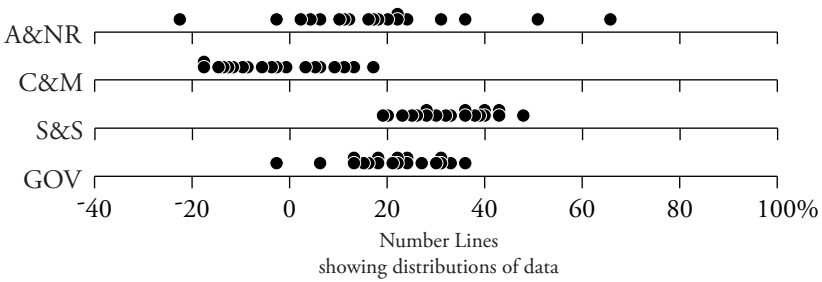
	A&NR	C&M	S&S	GOV
Anderson	3	30	53	14
Burke	2	38	42	18
Cherokee	3	44	43	10
Chester	4	38	40	18
Cleveland	4	33	51	12
Gaston	2	35	54	10
Greenville	1	24	66	9
Henderson	5	28	57	11
Lancaster	3	34	50	13
Laurens	5	29	48	18
Lincoln	4	37	47	13
McDowell	2	48	38	12
Mecklenburg	1	15	75	9
Polk	6	18	64	12
Rutherford	3	39	47	12
Spartanburg	2	31	56	12
Union, NC	5	40	44	11
Union, SC	3	39	39	19
York	3	22	62	13
National	4	17	65	14
North Carolina	3	24	58	15
South Carolina	3	22	59	16

Employment by Industry



Change in Employment by Industry

Jobs are of critical importance to individuals, families, and communities. Change in the proportion of people employed by various industries within an economy can create a cascading set of impacts. A declining industry's displacement of workers whose skills are in less demand can generate stress among households and communities. A growing industry's demand for new sets of skills can influence migration patterns and educational priorities. Local and regional political decisions, including those that impact park management goals, often place priority on protecting existing jobs or attracting new employment opportunities. Within the Kings Mountain National Military Park region (1990 - 1999), 12 counties experienced the greatest employment decreases in construction and manufacturing while 16 counties had the greatest increases in sales and services.[8]

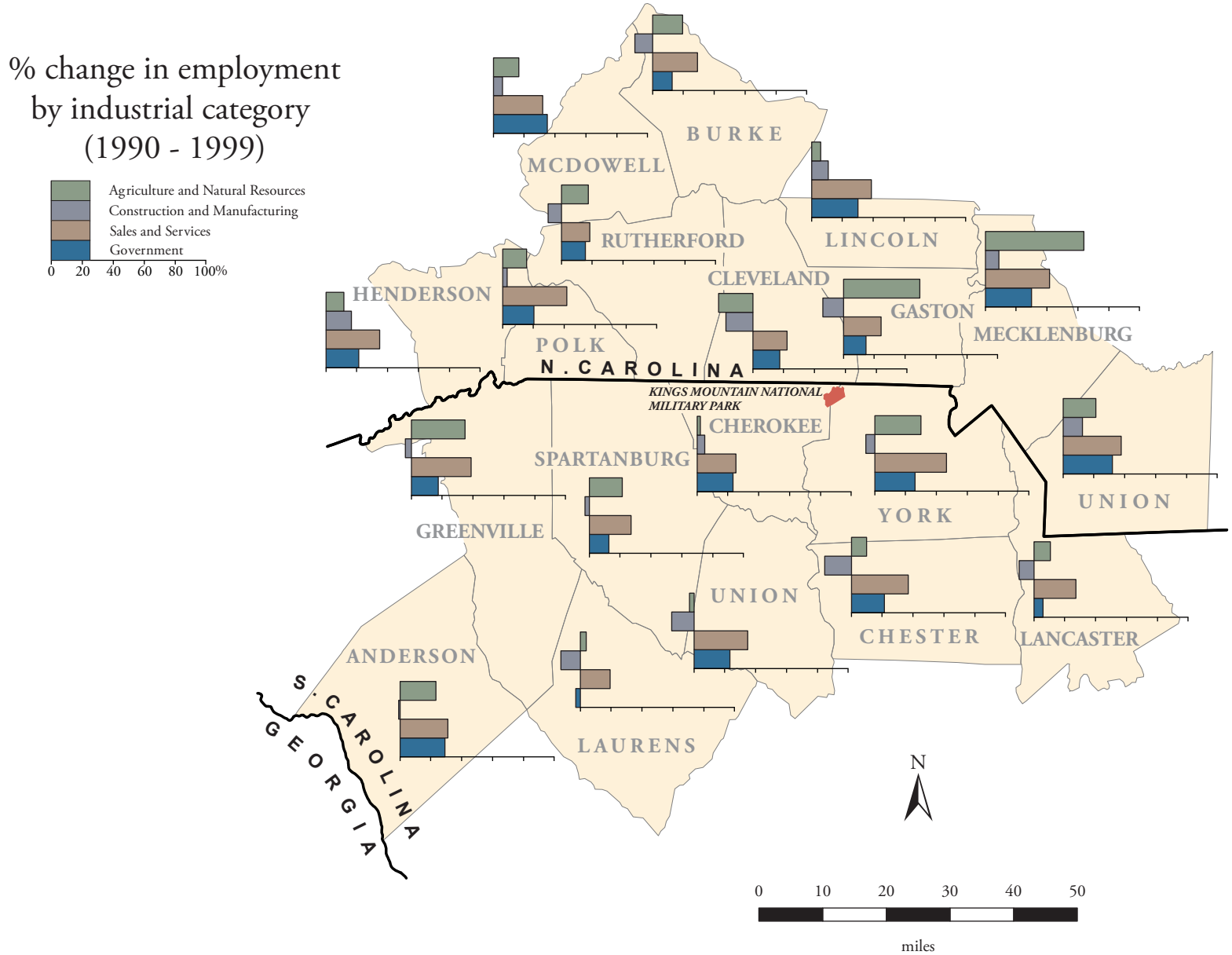


A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

% change in employment by industrial category (1990 - 1999)

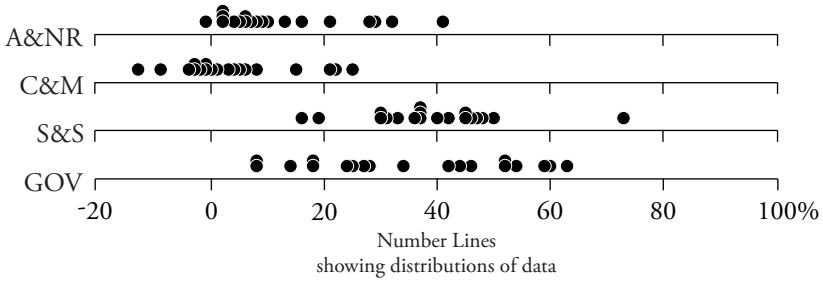
	A&NR	C&M	S&S	GOV
Anderson	24	-1	32	30
Burke	20	-12	30	13
Cherokee	2	5	26	24
Chester	10	-18	38	22
Cleveland	-23	-18	23	18
Gaston	51	-14	25	15
Greenville	36	-4	40	18
Henderson	12	17	36	22
Lancaster	11	-10	28	6
Laurens	4	-13	20	-3
Lincoln	6	11	40	31
McDowell	17	6	33	36
Mecklenburg	66	9	43	31
Polk	16	3	43	21
Rutherford	18	-9	19	16
Spartanburg	22	-3	28	13
Union, NC	22	13	39	33
Union, SC	-3	-15	36	24
York	31	-6	48	27
National	6	6	25	5
North Carolina	12	2	37	18
South Carolina	10	-3	35	3

Change in Employment by Industry



Projected Change in Employment by Industry

Jobs in the four industrial sectors are in a constant state of flux. A projected decline or increase in a certain industrial sector may show which skills could be in demand at a future date. This could lead to a change in migration patterns in the counties around the park as new people arrive to take advantage of the new employment opportunities. Within the Kings Mountain National Military Park region (2000 - 2020), 10 counties have the greatest projected increases in employment in the government sector and nine counties have the greatest projected increases in sales and services.[9]

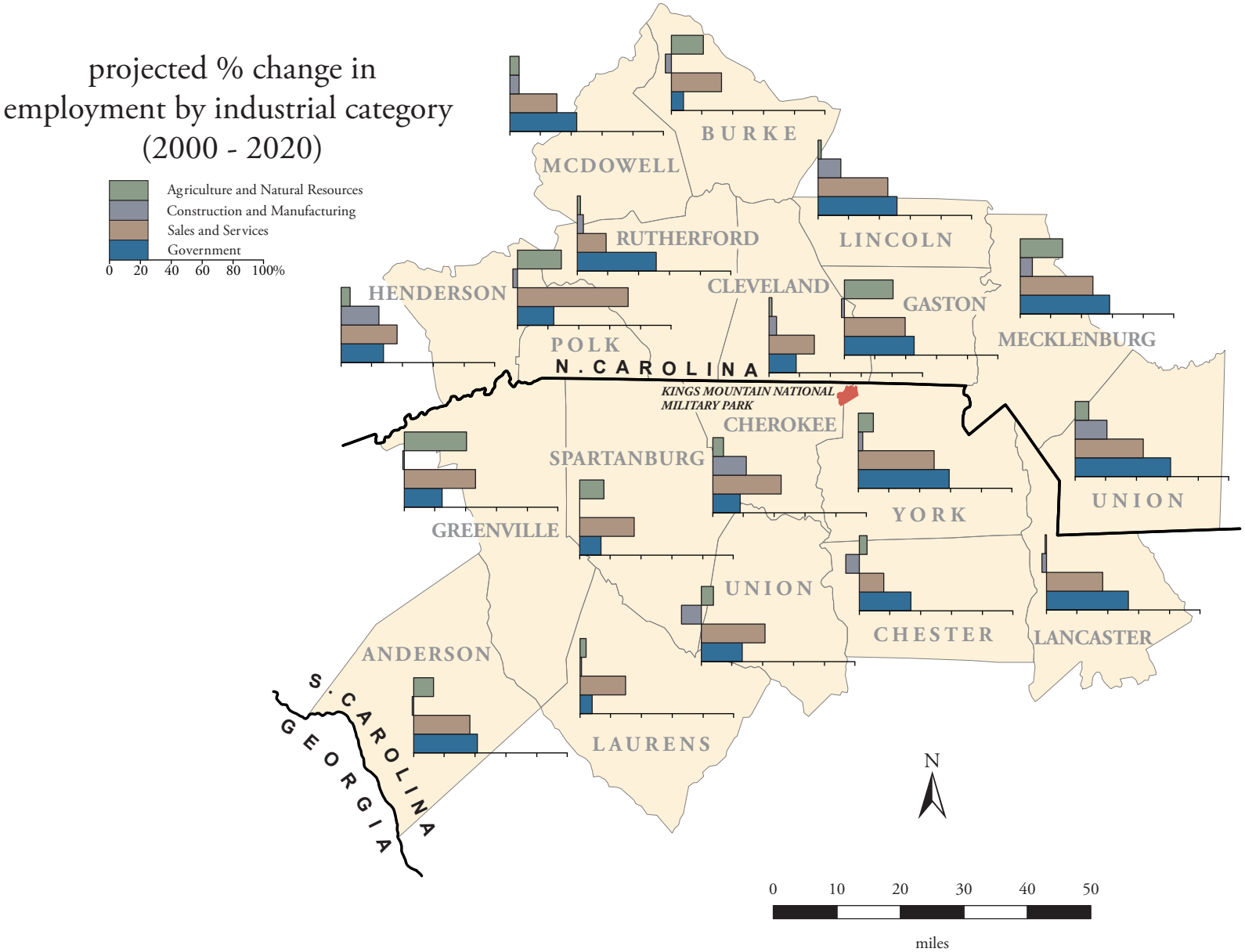


A&NR = Agriculture and Natural Resources
C&M = Construction and Manufacturing
S&S = Sales and Services
GOV = Government

projected % change in employment by industrial category (2000 - 2020)

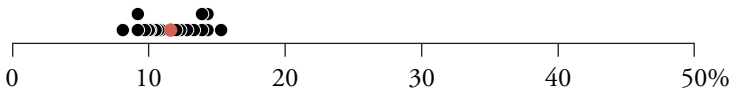
	A&NR	C&M	S&S	GOV
Anderson	13	-1	37	42
Burke	21	-4	33	8
Cherokee	7	22	45	18
Chester	5	-9	16	34
Cleveland	2	5	30	18
Gaston	32	-2	40	46
Greenville	41	-1	47	25
Henderson	6	25	37	28
Lancaster	-1	-3	37	54
Laurens	4	1	30	8
Lincoln	2	15	46	52
McDowell	6	6	31	44
Mecklenburg	28	8	48	59
Polk	29	-3	73	24
Rutherford	2	4	19	52
Spartanburg	16	0	36	14
Union, NC	9	21	45	63
Union, SC	8	-13	42	27
York	10	3	50	60
National	8	10	33	23
North Carolina	7	10	42	35
South Carolina	7	5	45	24

Projected Change in Employment by Industry



Poverty

Poverty is officially defined as the condition of living in a household with income below the federally-determined poverty threshold ($17,029 in 1999 for a family of four people). The extent of poverty can be measured as the percentage of the total population living below that threshold. Those living in poverty can face such difficulties as finding adequate housing and health care, getting enough food, and reaching job sites and government services, including parks. The level of poverty in the park region necessarily becomes significant to park management decisions and priorities. Within the Kings Mountain National Military Park region, the incidence of poverty (1999) ranges from 8.1% (Union, NC) to 15.3% (Chester).[10]

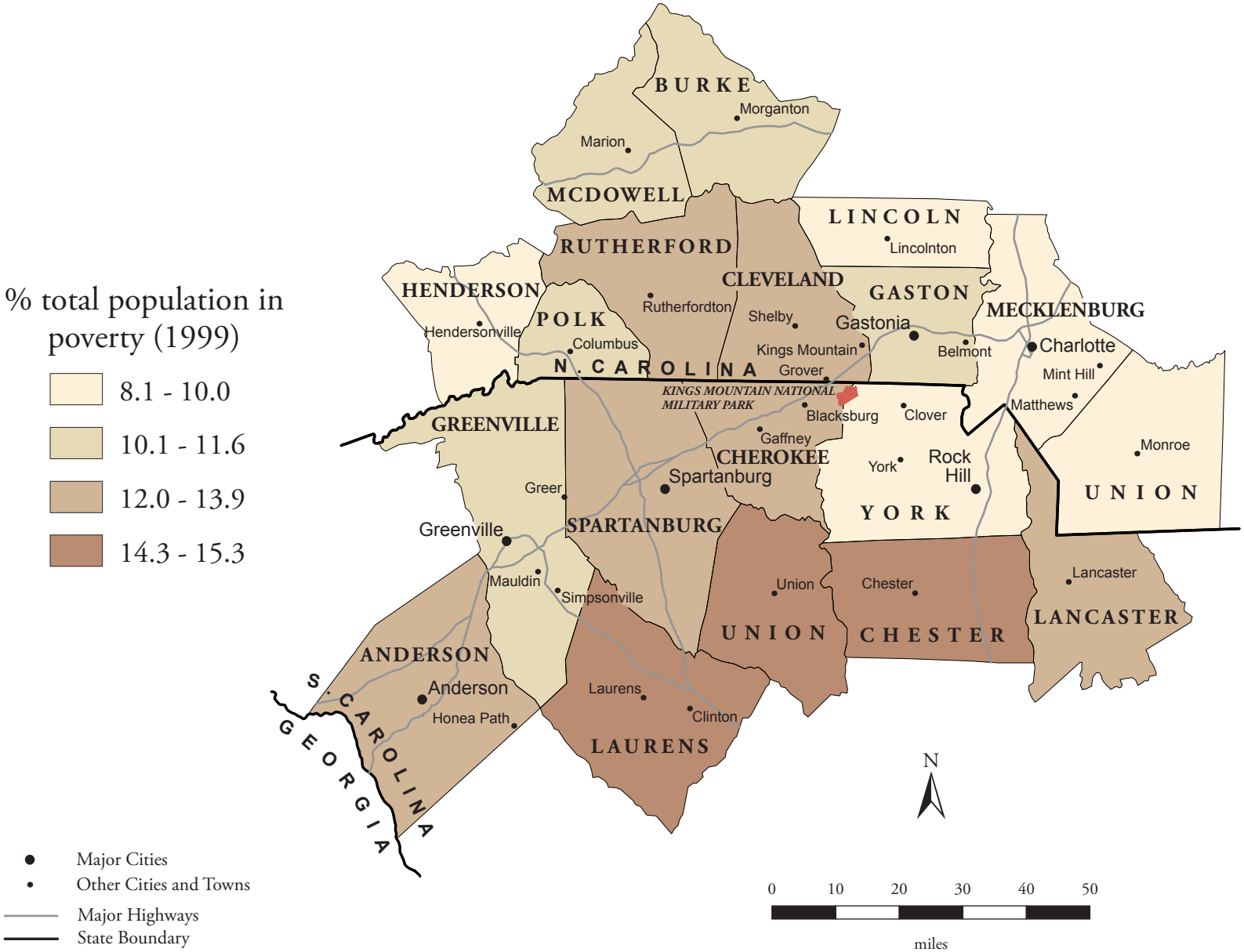


Number Line
showing distribution of data

% total population in poverty (1999)	
Union, NC	8.1
Lincoln	9.2
Mecklenburg	9.2
Henderson	9.7
York	10.0
Polk	10.1
Greenville	10.5
Burke	10.7
Gaston	10.9
McDowell	**11.6**
Anderson	12.0
Spartanburg	12.3
Lancaster	12.8
Cleveland	13.3
Cherokee	13.9
Rutherford	13.9
Laurens	14.3
Union, SC	14.3
Chester	15.3

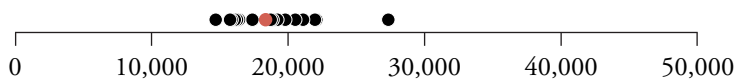
National = 12.4
North Carolina = 12.3
South Carolina = 14.1

Poverty


% total population in poverty (1999)
8.1 - 10.0
10.1 - 11.6
12.0 - 13.9
14.3 - 15.3
BURKE
Morganton
Marion
MCDOWELL
LINCOLN
Lincolnton
RUTHERFORD
HENDERSON
Hendersonville
POLK
Columbus
Rutherfordton
CLEVELAND
Shelby
GASTON
Gastonia
MECKLENBURG
Charlotte
Mint Hill
Matthews
Belmont
Kings Mountain
Grover
N. CAROLINA
KINGS MOUNTAIN NATIONAL MILITARY PARK
Blacksburg
Clover
Gaffney
CHEROKEE
Spartanburg
York
Rock Hill
YORK
UNION
Monroe
GREENVILLE
Greer
Greenville
SPARTANBURG
Mauldin
Simpsonville
Union
UNION
Chester
CHESTER
Lancaster
LANCASTER
ANDERSON
Anderson
Honea Path
S. CAROLINA
GEORGIA
Laurens
Clinton
LAURENS
N
0 10 20 30 40 50
miles
Major Cities
Other Cities and Towns
Major Highways
State Boundary

Personal Income

Personal income provides an indication of the relative affluence of counties in the region. Variations in average income per person across the region can influence the manner in which residents use tools, such as grassroots organizing, fundraising, legal action, or election cycles, to make local concerns a government priority. Park management and resource protection often require that local relationships be established that transcend differences in wealth and affluence. Within the Kings Mountain National Military Park region, average income per person (1999) ranges from $14,709 (Chester) to $27,352 (Mecklenburg).[11]

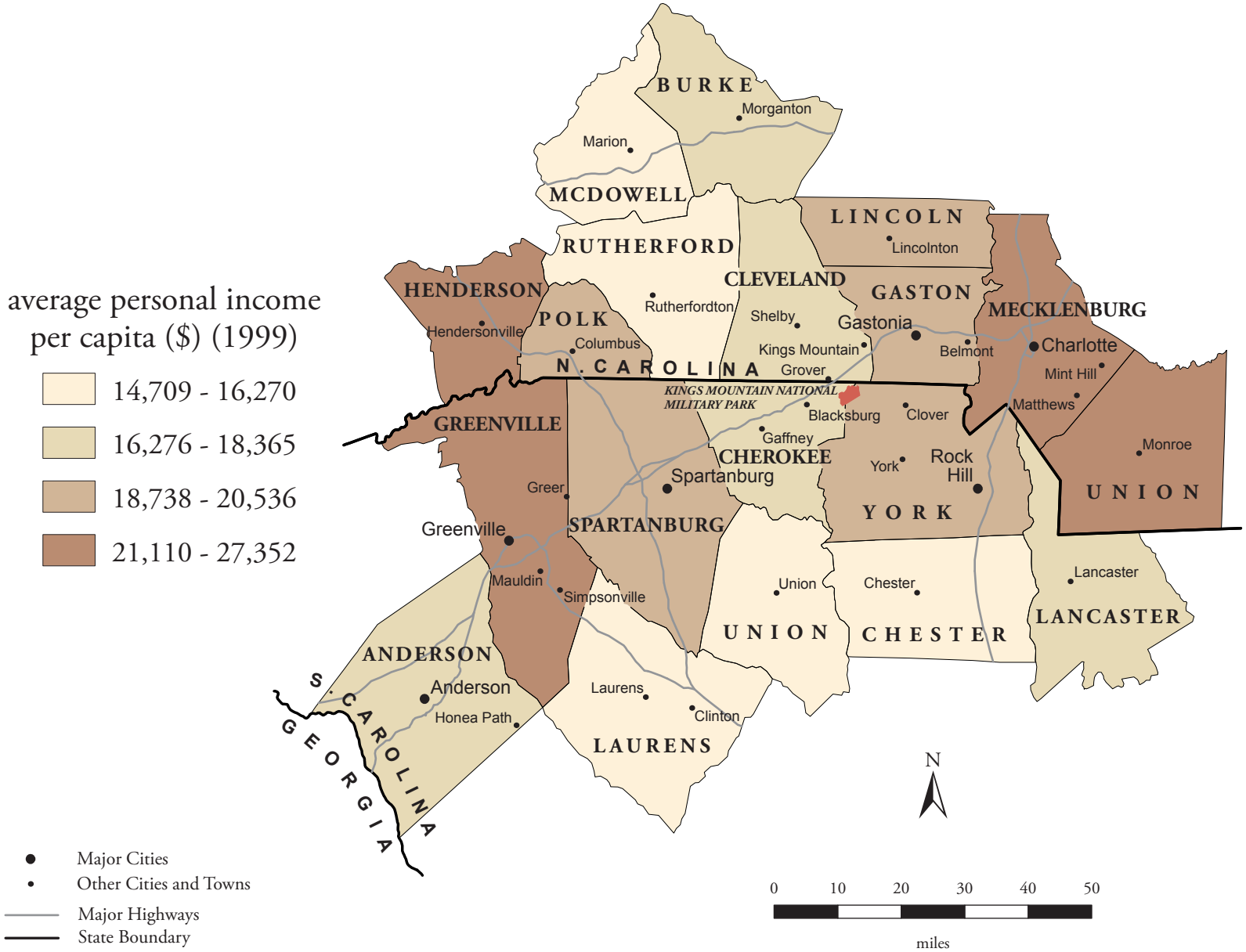


Number Line
showing distribution of data

average personal income per capita ($) (1999)	
Chester	14,709
Laurens	15,761
Union, SC	15,877
McDowell	16,109
Rutherford	16,270
Lancaster	16,276
Cherokee	16,421
Cleveland	17,395
Burke	17,397
Anderson	**18,365**
Spartanburg	18,738
Lincoln	18,877
Gaston	19,225
Polk	19,804
York	20,536
Henderson	21,110
Union, NC	21,978
Greenville	22,081
Mecklenburg	27,352

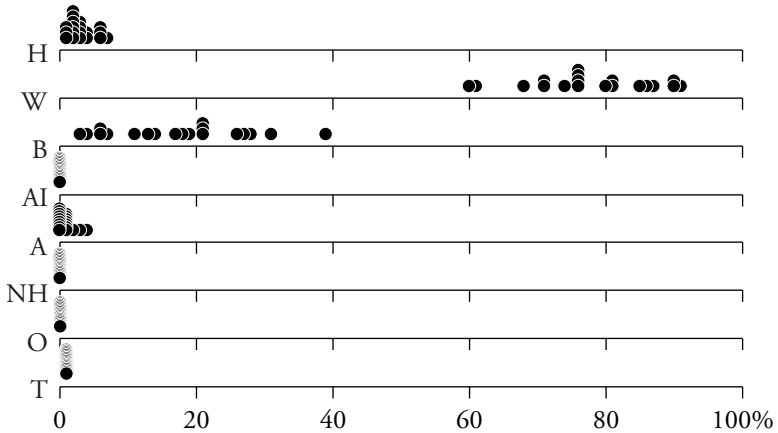
National = 21,587
North Carolina = 20,307
South Carolina = 18,795

Personal Income



Racial and Ethnic Composition

Racial and ethnic composition is indicated by the relative size of each of the major race groups and the separate Hispanic ethnic category as classified by the U.S. Census Bureau. These characteristics of the region's population reveal its diversity, which informs park activities such as interpretation and outreach. Within the Kings Mountain National Military Park region (2000), Whites constitute the largest racial group in 19 counties. Chester County has the largest percentage of Black persons.[12]



Number Lines
showing distributions of data

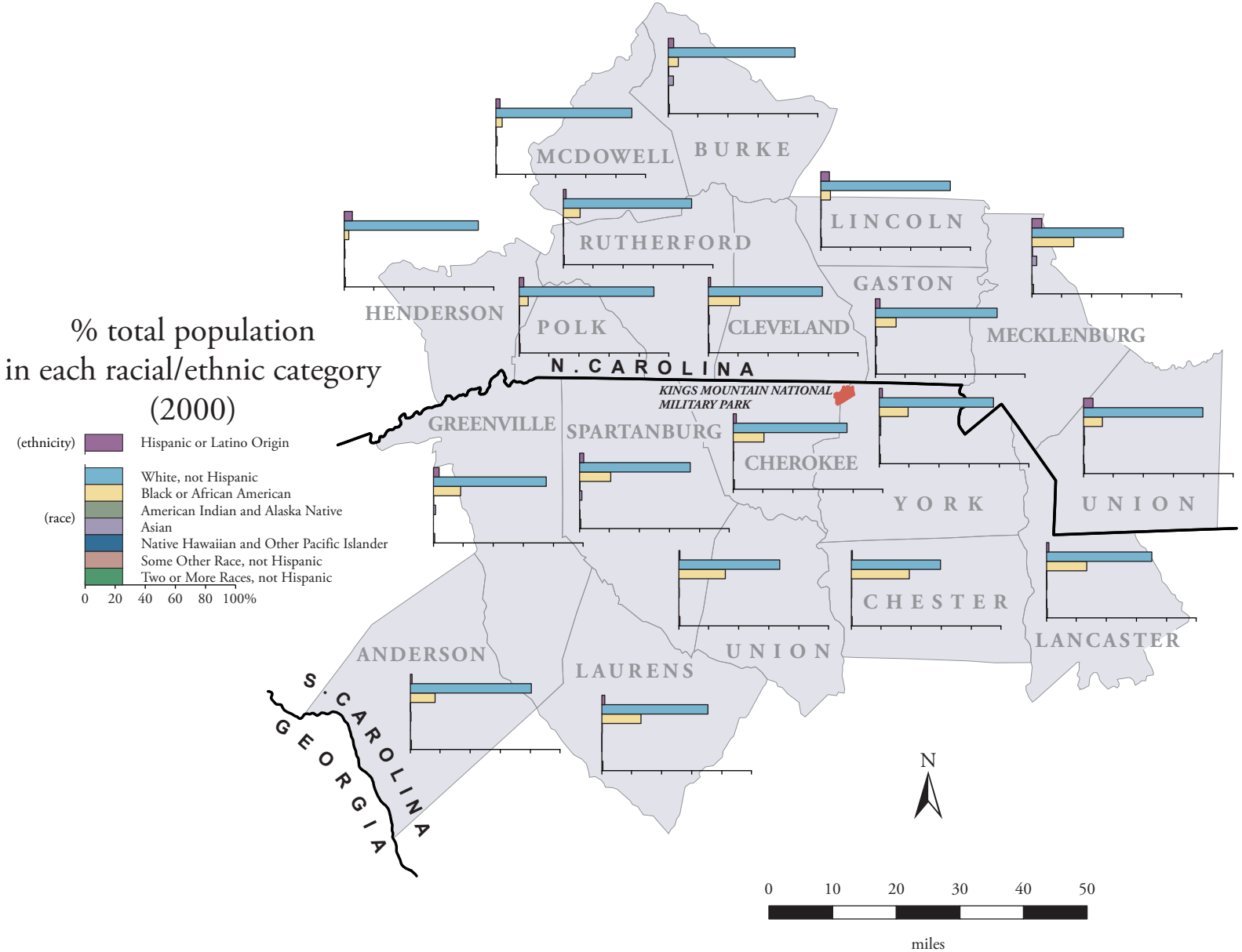
H = Hispanic or Latino Origin
W = White, not Hispanic
B = Black or African American
AI = American Indian and Alaska Native
A = Asian
NH = Native Hawaiian and Other Pacific Islander
O = Some Other Race, not Hispanic
T = Two or More Races, not Hispanic

Percentages for race may not add to one hundred due to rounding

% total population
in each racial/ethnic category
(2000)

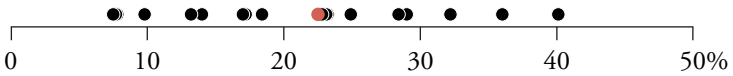
	H	W	B	AI	A	NH	O	T
Anderson	1	81	17	0	0	0	0	1
Burke	4	85	7	0	4	0	0	1
Cherokee	2	76	21	0	0	0	0	1
Chester	1	60	39	0	0	0	0	1
Cleveland	2	76	21	0	1	0	0	1
Gaston	3	81	14	0	1	0	0	1
Greenville	4	76	18	0	1	0	0	1
Henderson	6	90	3	0	1	0	0	1
Lancaster	2	71	27	0	0	0	0	1
Laurens	2	71	26	0	0	0	0	1
Lincoln	6	87	6	0	0	0	0	1
McDowell	3	91	4	0	1	0	0	1
Mecklenburg	7	61	28	0	3	0	0	1
Polk	3	90	6	0	0	0	0	1
Rutherford	2	86	11	0	0	0	0	1
Spartanburg	3	74	21	0	2	0	0	1
Union, NC	6	80	13	0	1	0	0	1
Union, SC	1	68	31	0	0	0	0	1
York	2	76	19	1	1	0	0	1
National	13	69	12	1	4	0	0	2
North Carolina	5	70	22	1	1	0	0	1
South Carolina	2	66	30	0	1	0	0	1

Racial and Ethnic Composition



Racial Diversity

Racial diversity is measured as the percentage of the population belonging to minority groups. In the current U.S. context, "minority" races are defined as non-White (Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, and Two or More Races). Interactions among people are often influenced by racial identity. Hence, it makes sense for institutions ranging from retailers to police to parks to consider regional racial diversity when recruiting and training staff, when designing public information and educational materials, and when soliciting public involvement in decision-making. Within the Kings Mountain National Military Park region, the percentage of racial minorities (2000) ranges from 7.5% (Henderson) to 40.1% (Chester).[13]



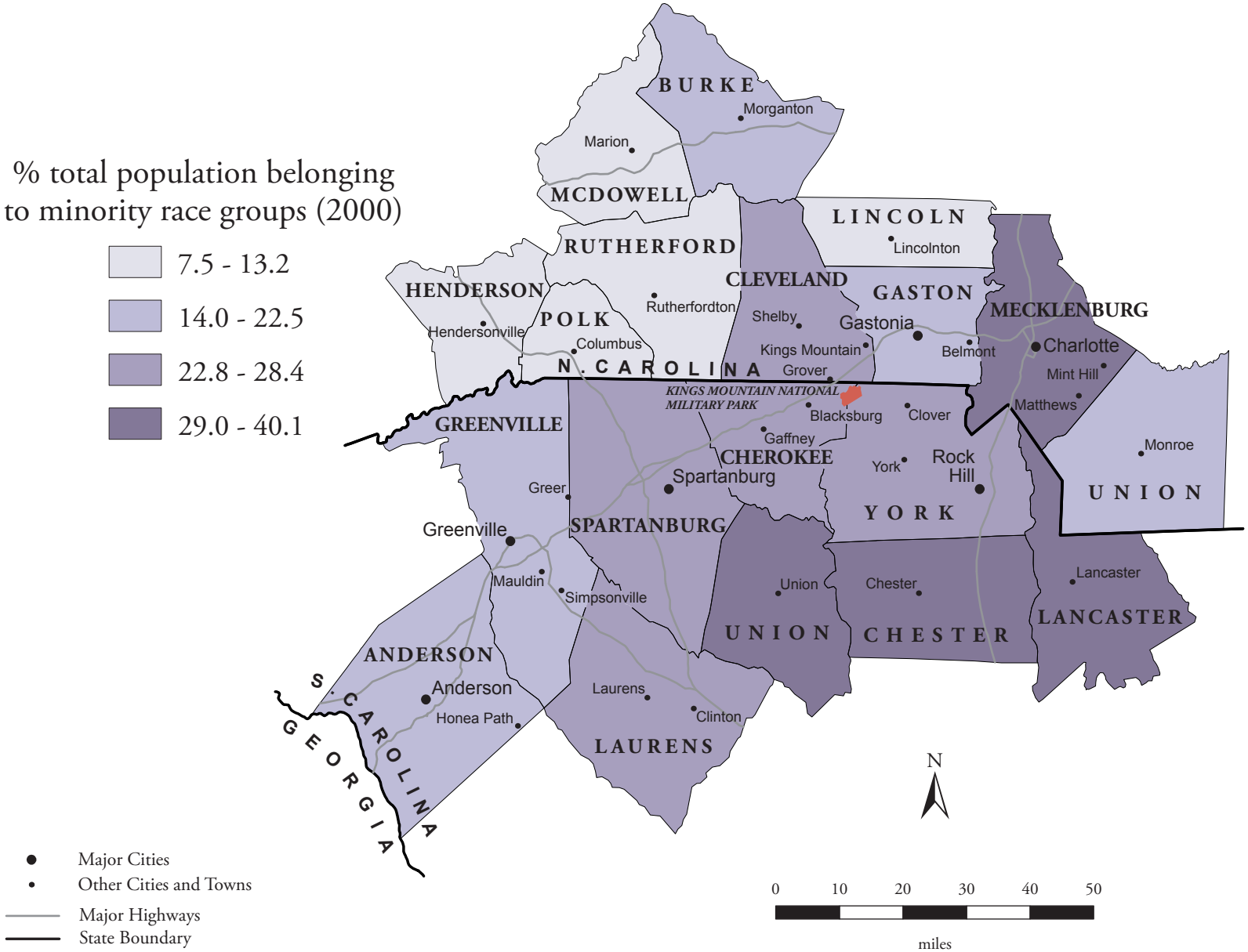
Number Line
showing distribution of data

% total population belonging to minority race groups (2000)

Henderson	7.5
Polk	7.7
McDowell	7.8
Lincoln	9.8
Rutherford	13.2
Burke	14.0
Gaston	17.0
Union, NC	17.2
Anderson	18.4
Greenville	**22.5**
York	22.8
Cherokee	23.1
Cleveland	23.2
Spartanburg	24.9
Laurens	28.4
Lancaster	29.0
Union, SC	32.2
Mecklenburg	36.0
Chester	40.1

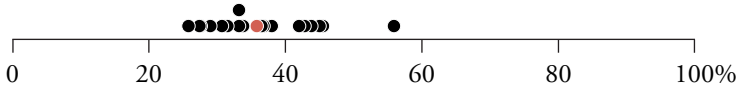
National = 24.9
North Carolina = 27.9
South Carolina = 32.8

Racial Diversity



Educational Attainment

Educational attainment indicators measure the average amount of formal education that a county's residents have received. One indicator of educational attainment is the percentage of adults who have attended or graduated from college. Educational attainment influences many aspects of life, such as how much money people earn, what they do for recreation, where they get their information, and how they participate in civic life. With regard to park management, the educational attainment of the general public is an important consideration in activities, such as marketing, public participation processes, and the design of interpretive programs. Within the Kings Mountain National Military Park region, the percentage of adults with some college education (2000) ranges from 25.8% (Cherokee) to 55.9% (Mecklenburg).[14]



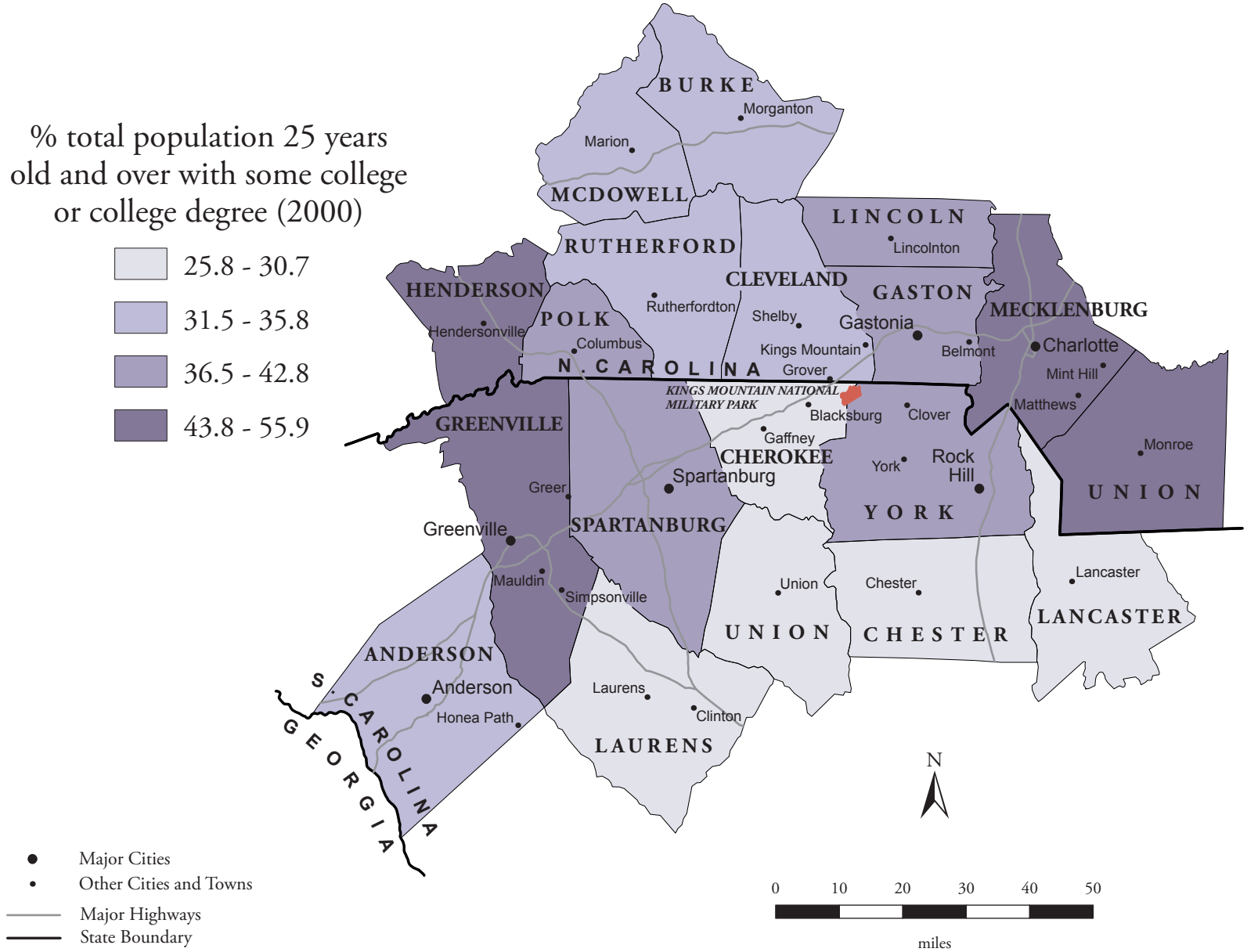
Number Line
showing distribution of data

% total population 25 years old and over with some college or college degree (2000)

Cherokee	25.8
Union, SC	27.4
Chester	27.6
Laurens	29.0
Lancaster	30.7
McDowell	31.5
Burke	33.2
Rutherford	33.2
Cleveland	33.8
Anderson	**35.8**
Lincoln	36.5
Spartanburg	36.8
Gaston	38.0
York	42.0
Polk	42.8
Union, NC	43.8
Greenville	45.0
Henderson	45.5
Mecklenburg	55.9

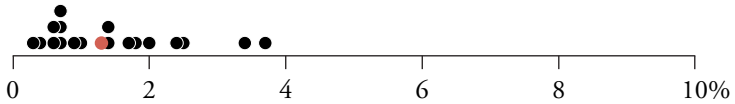
National = 42.9
North Carolina = 42.5
South Carolina = 39.5

Educational Attainment



English Language Ability

Indicators of English language ability measure how familiar people are with either spoken or written English. One indicator of English language ability is the percentage of the total county population 5 years old and over that reports that they do not speak English, or do not speak it well. Knowledge of English can influence people's ability to access basic public information, to obtain services such as education and health care, to gain many types of employment, and to exercise political power. An awareness of the characteristics of the region's non-English speaking community can help park managers design effective public relations, public participation, and interpretive programs. Within the Kings Mountain National Military Park region, the percentage of people with little or no English language ability (2000) ranges from 0.3% (Union, SC) to 3.7% (Mecklenburg).[15]



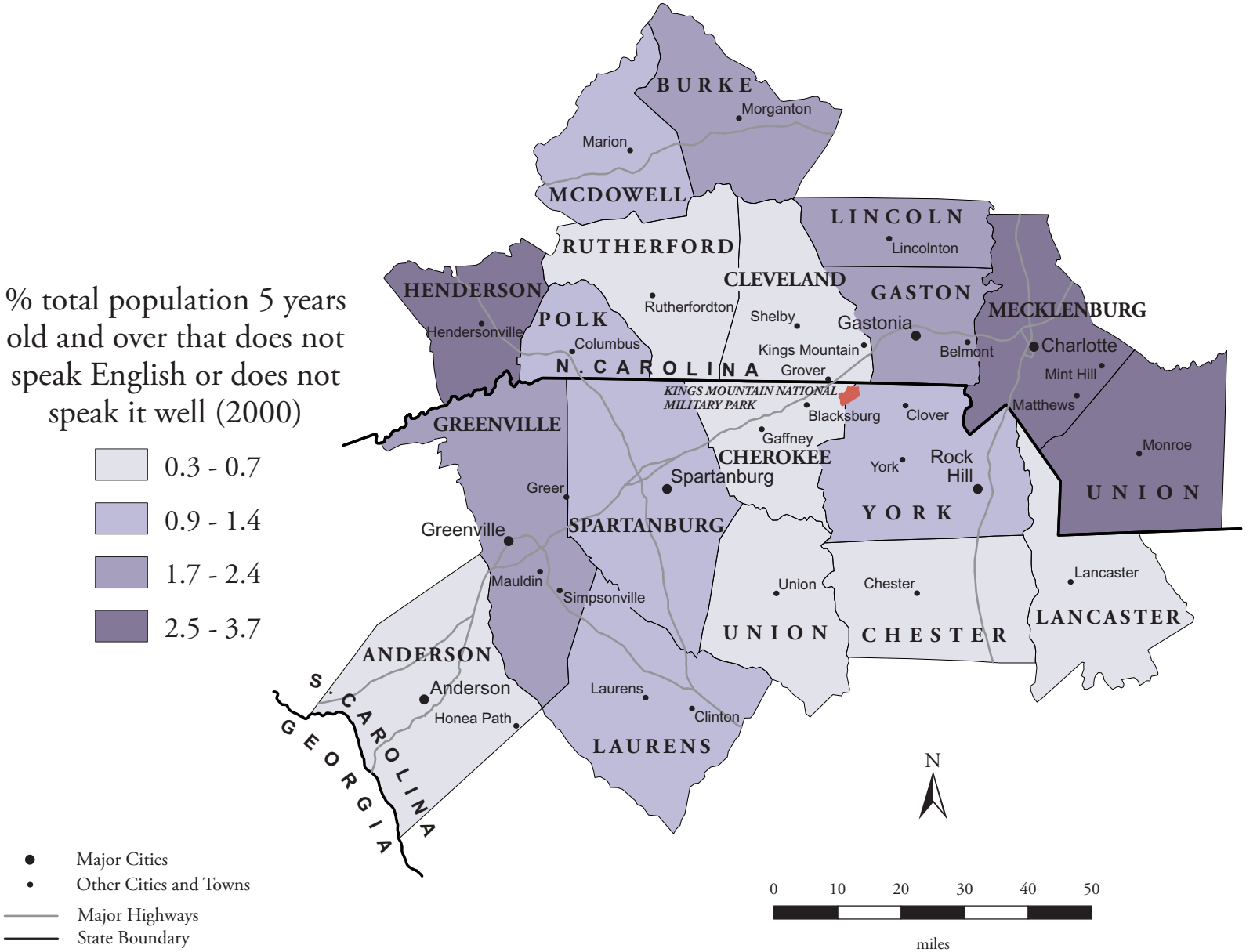
Number Line
showing distribution of data

% total population 5 years old and over that does not speak English or does not speak it well (2000)

Union, SC	0.3
Chester	0.4
Anderson	0.6
Cherokee	0.6
Cleveland	0.7
Lancaster	0.7
Rutherford	0.7
Laurens	0.9
York	1.0
Polk	**1.3**
McDowell	1.4
Spartanburg	1.4
Gaston	1.7
Greenville	1.8
Lincoln	2.0
Burke	2.4
Henderson	2.5
Union, NC	3.4
Mecklenburg	3.7

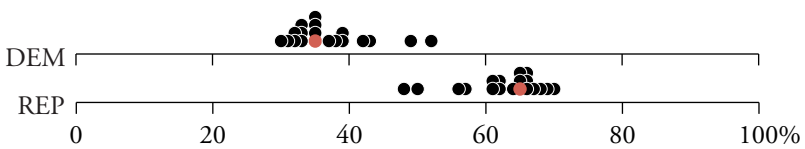
National = 3.9
North Carolina = 2.3
South Carolina = 1.1

English Language Ability



Political Affiliation

Indicators of political affiliation measure, in general terms, the political beliefs and priorities of voters. Such beliefs may be influenced and shaped by complex interactions that involve age, family experiences, education, mobility, religion, employment, culture, mass media, and the salient issues of the day. While one measure of political affiliation is voter registration, actual votes cast may be a more reliable indicator of political beliefs at a particular moment in time. Within the Kings Mountain NMP region, 18 of the 19 counties voted in favor of the Republican candidate in the 2004 presidential election.



Number Lines
showing distributions of data

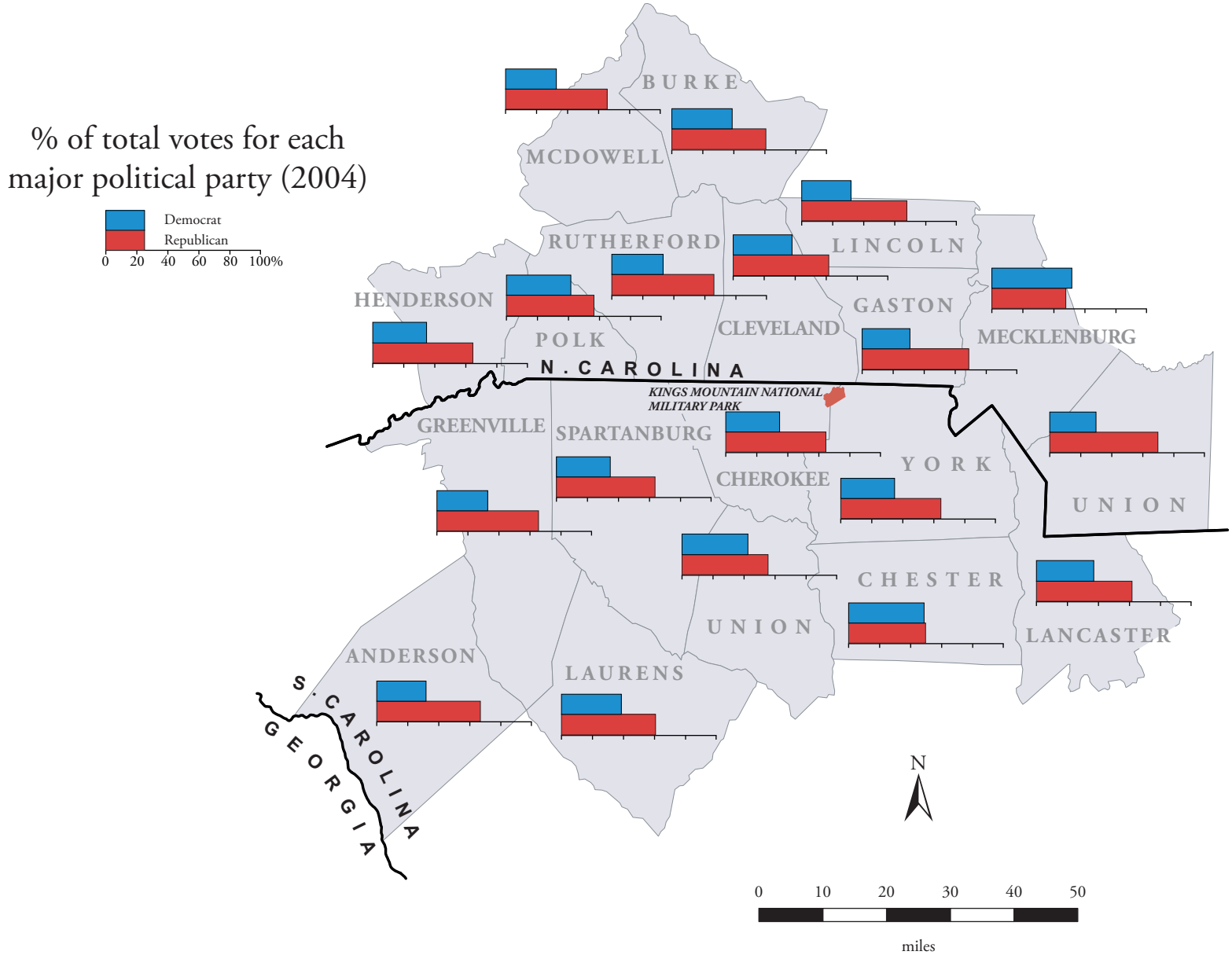
DEM = Democrat
REP = Republican

Percentages may not add to one hundred due to votes cast for other parties.

% of total votes for each major political party (2004)

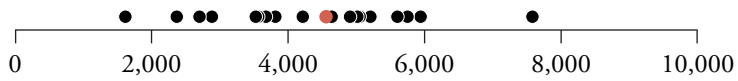
	DEM	REP
Anderson	32	67
Burke	39	61
Cherokee	35	65
Chester	49	50
Cleveland	38	62
Gaston	31	69
Greenville	33	66
Henderson	35	65
Lancaster	37	62
Laurens	39	61
Lincoln	32	68
McDowell	33	66
Mecklenburg	52	48
Polk	42	57
Rutherford	33	66
Spartanburg	35	64
Union, NC	30	70
Union, SC	43	56
York	35	65
National	48	51
North Carolina	44	56
South Carolina	41	58

Political Affiliation



Crime

Crime indicators measure the frequency of various types of lawbreaking. One commonly used crime indicator is the number of serious crimes reported per 100,000 people. Serious crimes refer to murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, arson, and motor vehicle theft. A high crime rate has many impacts on the general population, such as higher insurance rates and a reduced sense of security. Crime also affects government by increasing the demand for police, court services, and prisons. Crime presents direct challenges to park management, as the protection of visitors, park property, and resources becomes a greater priority. Within the Kings Mountain National Military Park region, the number of serious crimes reported per 100,000 people (2000) ranges from 1,615 (Polk) to 7,578 (Mecklenburg).

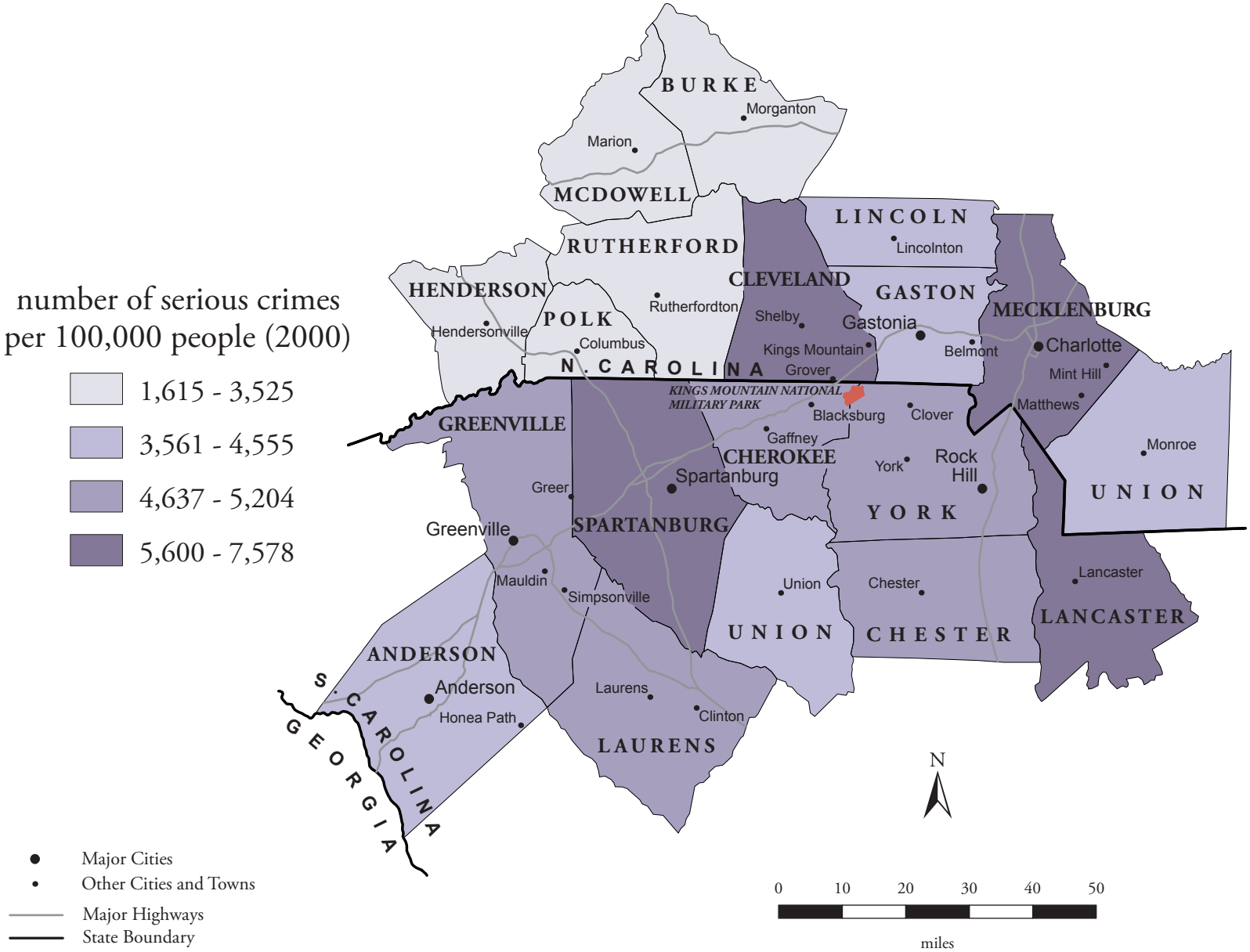


Number Line
showing distribution of data

number of serious crimes per 100,000 people (2000)	
Polk	1,615
McDowell	2,368
Henderson	2,701
Burke	2,883
Rutherford	3,525
Lincoln	3,561
Union, NC	3,674
Union, SC	3,812
Gaston	4,214
Anderson	**4,555**
Cherokee	4,637
Laurens	4,906
Greenville	5,013
York	5,047
Chester	5,204
Cleveland	5,600
Spartanburg	5,748
Lancaster	5,940
Mecklenburg	7,578

National = N/A
North Carolina = 4,850
South Carolina = 5,299

Crime


number of serious crimes per 100,000 people (2000)
1,615 - 3,525
3,561 - 4,555
4,637 - 5,204
5,600 - 7,578
BURKE
Morganton
Marion
MCDOWELL
RUTHERFORD
Rutherfordton
HENDERSON
Hendersonville
POLK
Columbus
CLEVELAND
Shelby
LINCOLN
Lincolnton
GASTON
Gastonia
Kings Mountain
Grover
Belmont
MECKLENBURG
Charlotte
Mint Hill
Matthews
N. CAROLINA
KINGS MOUNTAIN NATIONAL MILITARY PARK
Blacksburg
Clover
Gaffney
CHEROKEE
Spartanburg
York
Rock Hill
Monroe
UNION
YORK
GREENVILLE
Greer
Greenville
SPARTANBURG
Mauldin
Simpsonville
Union
UNION
Chester
CHESTER
Lancaster
LANCASTER
ANDERSON
Anderson
Honea Path
S. CAROLINA
GEORGIA
Laurens
Clinton
LAURENS
N
0 10 20 30 40 50
miles
Major Cities
Other Cities and Towns
Major Highways
State Boundary

Recreation/Tourism Revenue

Recreation and tourism revenue is a key indicator of the economic importance of recreation and tourism to a county. Recreation and tourism revenue can be expressed as a percentage of total sales and service receipts. Recreation and tourism establishments can occupy an important position within a county economy because they attract visitor dollars from elsewhere. Secondary economic benefits are realized when these dollars are re-spent within the local economy or deposited in banks, where they provide capital to other businesses. Within the Kings Mountain National Military Park region, the percentage of total sales from arts, entertainment, recreation, and accommodation services (1997) ranges from 0.2% (in 5 counties) to 2.6% (Lancaster).[16]

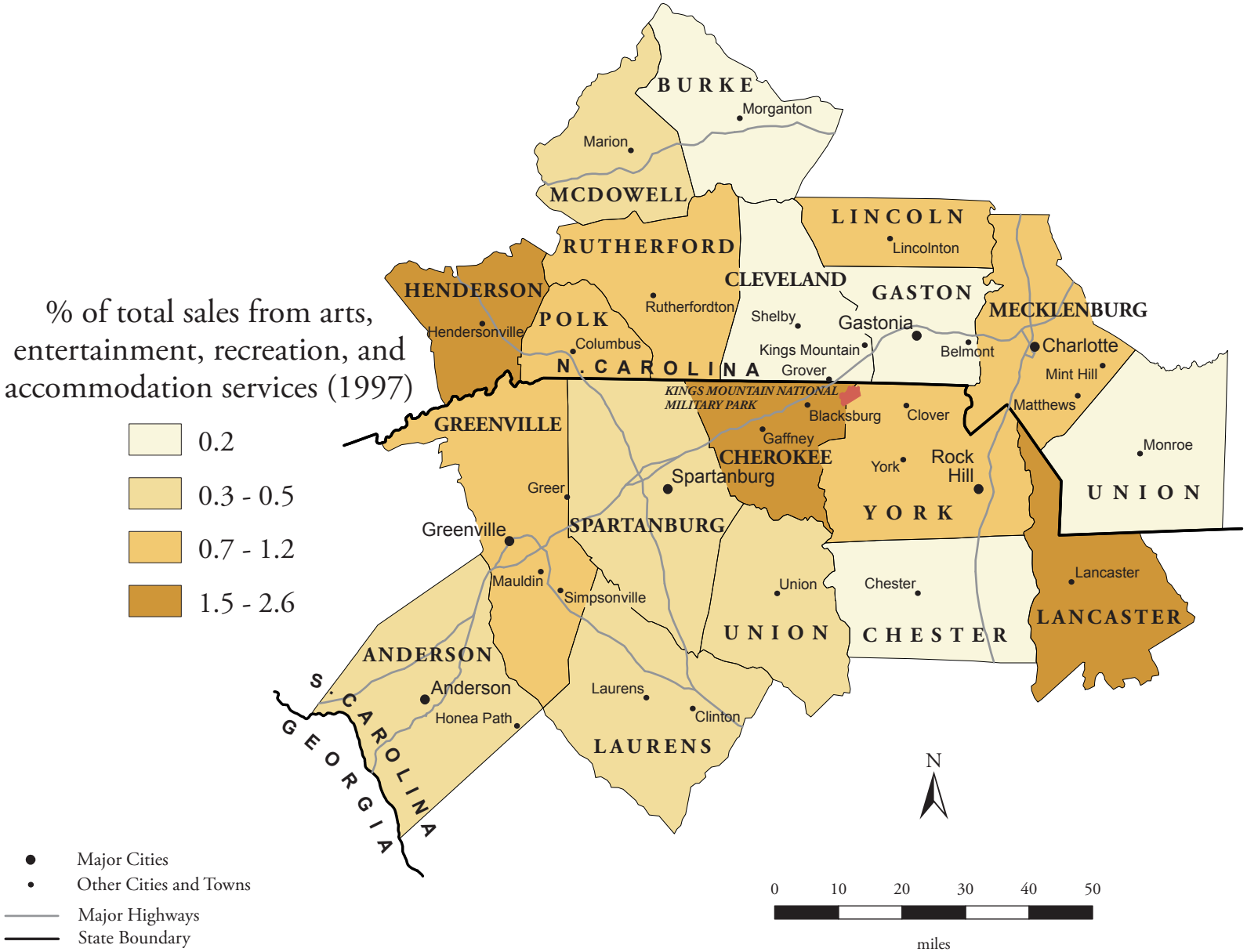
Number Line
showing distribution of data

% of total sales from arts, entertainment, recreation, and accommodation services (1997)

Chester	0.2
Cleveland	0.2
Gaston	0.2
Union, NC	0.2
Burke	0.2
Union, SC	0.3
Spartanburg	0.3
Laurens	**0.5**
McDowell	**0.5**
Anderson	**0.5**
Greenville	0.7
Rutherford	0.7
Lincoln	0.8
York	1.0
Polk	1.2
Mecklenburg	1.2
Henderson	1.5
Cherokee	1.6
Lancaster	2.6

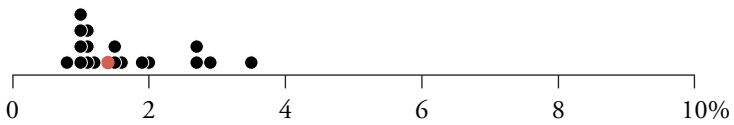
National = 1.1
North Carolina = 0.8
South Carolina = 1.3

Recreation/Tourism Revenue



Recreation/Tourism Employment

The significance of the recreation/tourism industry to a county economy can be indicated by the percentage of county workers that it employs. Workers counted as recreation and tourism employees include country club managers, blackjack dealers, campground employees, fishing guides, motel attendants, and other providers of recreation services. A high level of recreation/tourism employment may mean that residents have more disposable income or that the area attracts visitors or vacationers. Within the Kings Mountain National Military Park region, the percentage of total paid employees in arts, entertainment, recreation, and accommodation services (2001) ranges from 0.8% (Burke) to 3.5% (Henderson).[17]



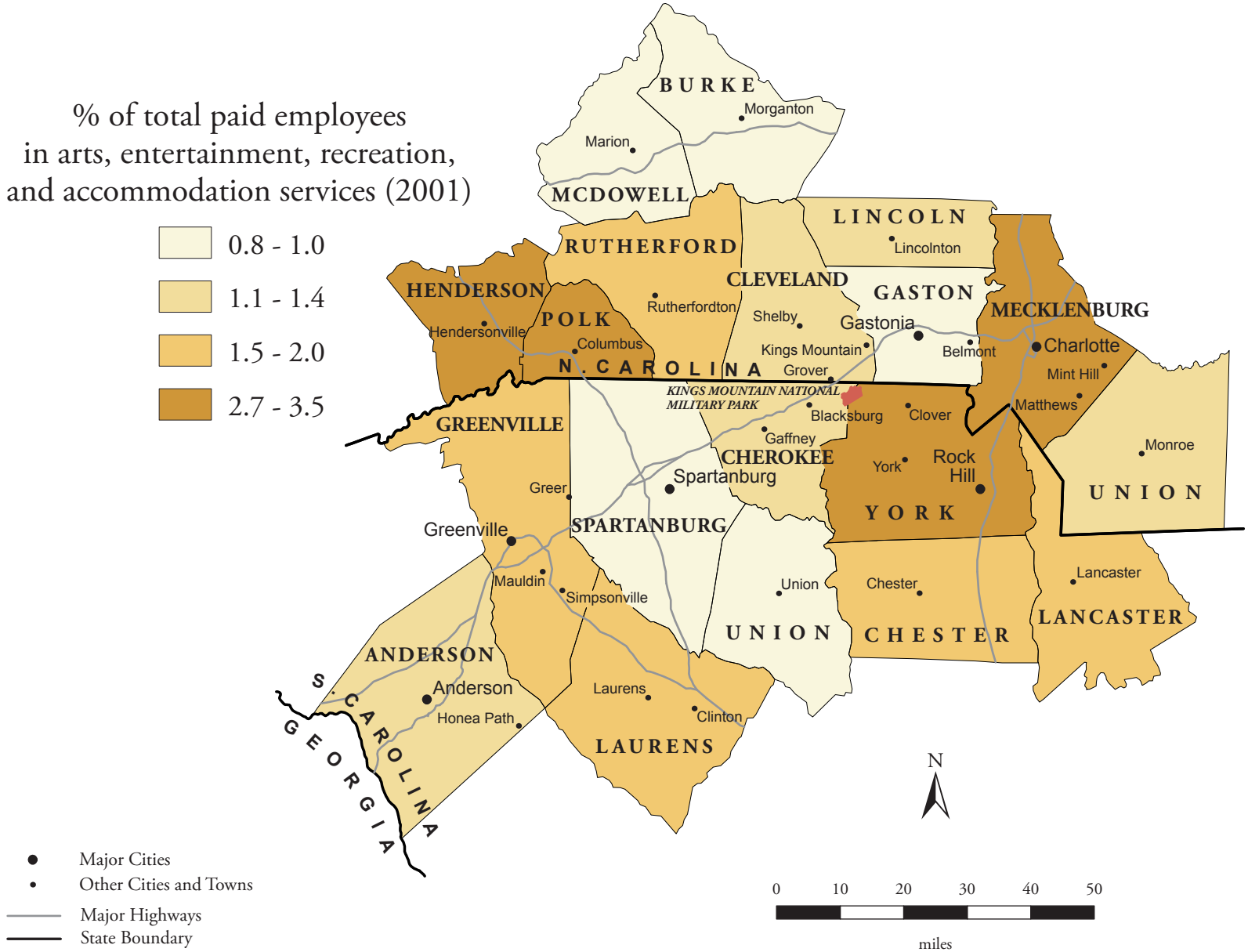
Number Line
showing distribution of data

% of total paid employees in arts, entertainment, recreation, and accommodation services (2001)

Burke	0.8
Spartanburg	1.0
McDowell	1.0
Union, SC	1.0
Gaston	1.0
Union, NC	1.1
Lincoln	1.1
Cherokee	1.1
Cleveland	1.2
Anderson	**1.4**
Rutherford	1.5
Laurens	1.5
Lancaster	1.6
Greenville	1.9
Chester	2.0
Mecklenburg	2.7
York	2.7
Polk	2.9
Henderson	3.5

National = 3.1
North Carolina = 2.4
South Carolina = 3.0

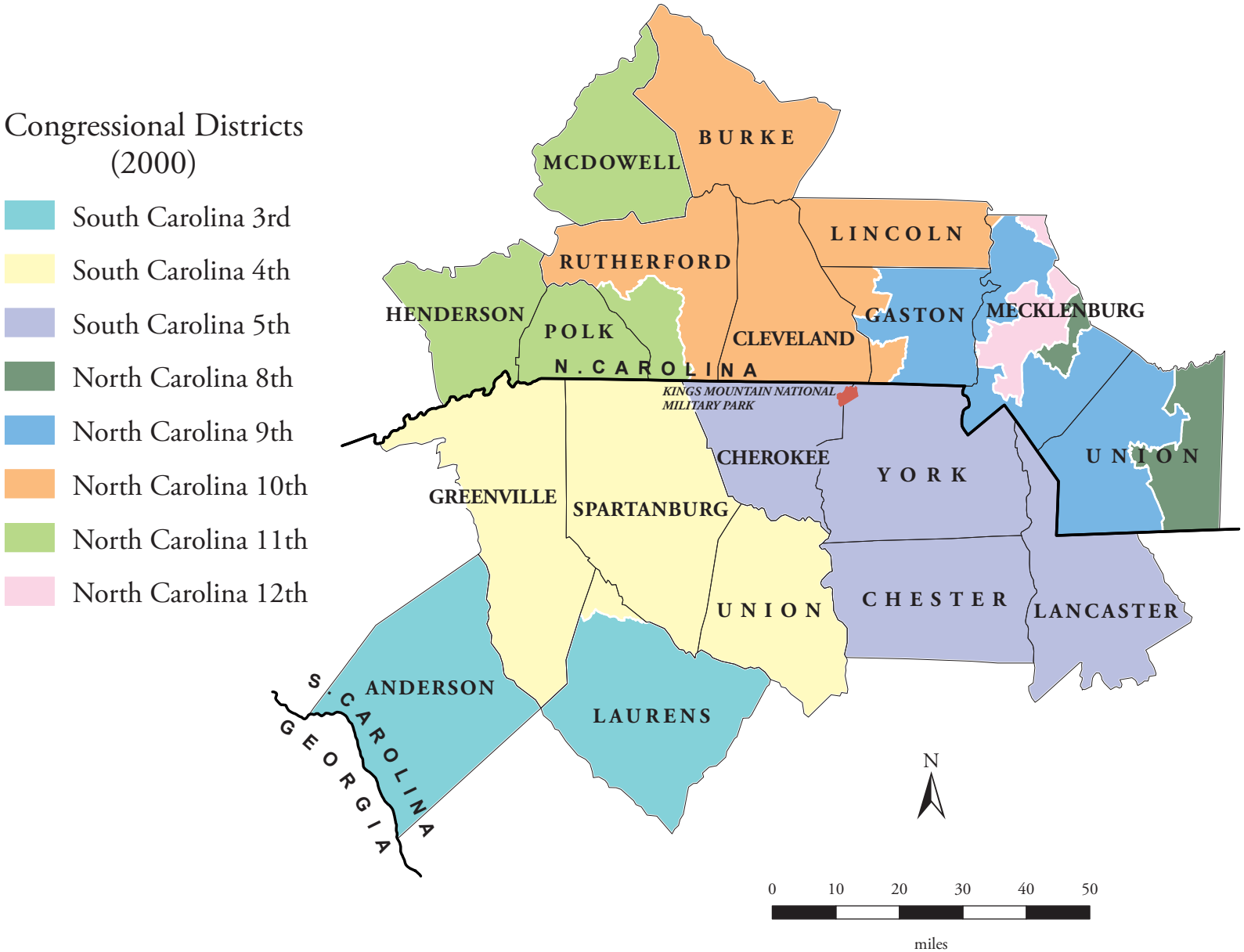
Recreation/Tourism Employment



Congressional Districts

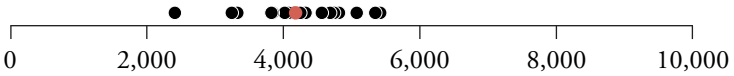
Congressional districts form a key layer in the political structure of a region of interest for a park. These districts, roughly equivalent in population, are defined by state legislatures based on the national census and redrawn every ten years. Members of Congress are key points of access for citizens seeking to influence federal-level policies and programs, including those related to federal lands such as national parks and national forests. The Kings Mountain National Military Park region includes all or portions of 8 Congressional districts, 5 of which fall in North Carolina. These districts are based on Census 2000.

Congressional Districts



Federal Expenditures

The importance of the federal government to a county economy can be indicated by the amount of federal expenditures per person. These expenditures can be a key source of dollars flowing into the county economy (in contrast, taxes and fees are an outflow of dollars). Federal spending can influence the park region through such wide-ranging initiatives as agricultural subsidies, social programs, military bases, and national parks. Within the Kings Mountain National Military Park region, federal expenditures per person (2002) range from $2,410 (Union, NC) to $5,418 (Polk).[18]



Number Line
showing distribution of data

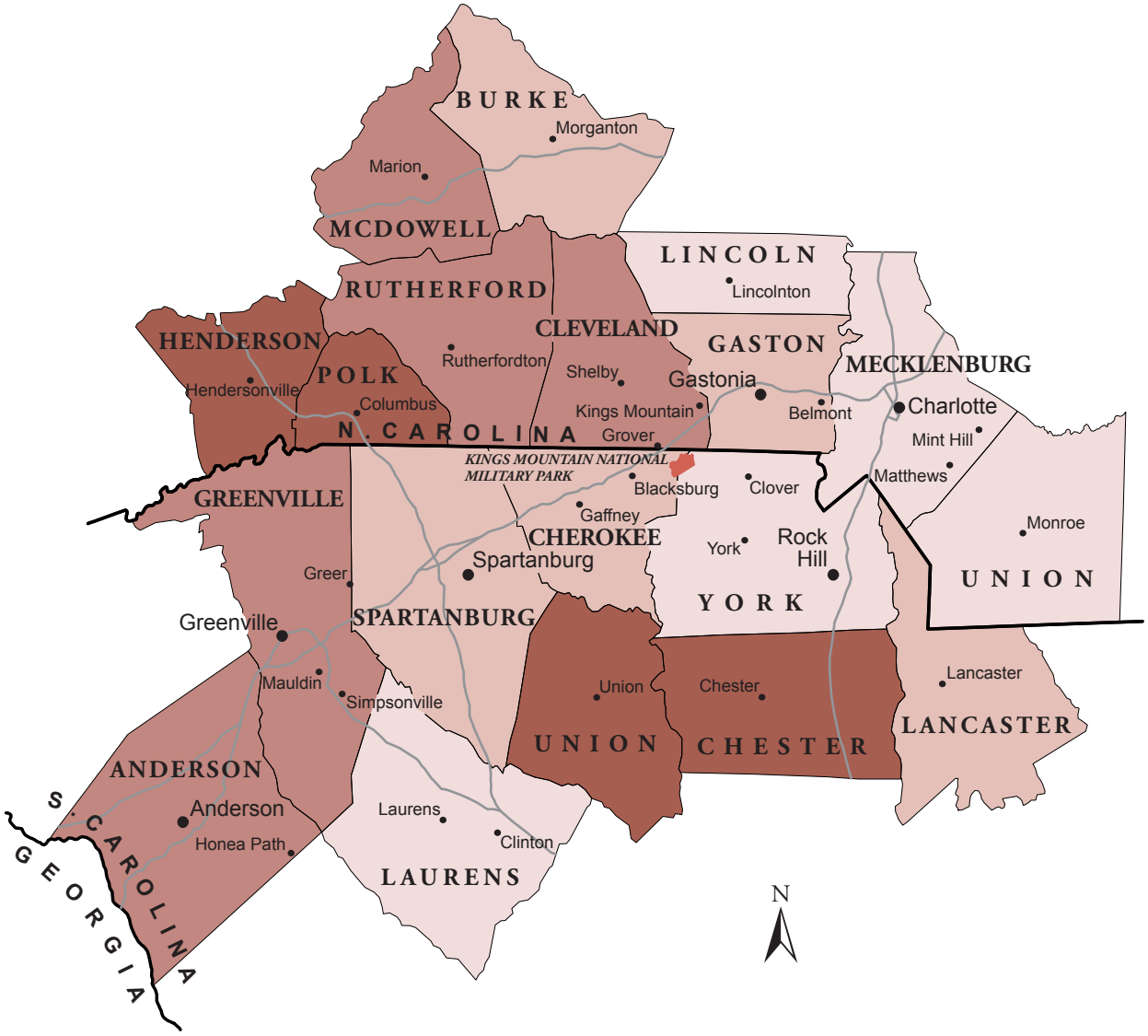
federal expenditures per capita ($) (2002)	
Union, NC	2,410
Lincoln	3,244
York	3,325
Laurens	3,825
Mecklenburg	3,845
Gaston	4,020
Lancaster	4,074
Spartanburg	4,090
Cherokee	4,137
Burke	**4,179**
Greenville	4,248
Anderson	4,324
McDowell	4,563
Rutherford	4,685
Cleveland	4,742
Chester	4,814
Union, SC	5,074
Henderson	5,346
Polk	5,418

National = 6,650
North Carolina = 5,791
South Carolina = 6,355

Federal Expenditures

federal expenditures per capita ($) (2002)

- 2,410 - 3,845
- 4,020 - 4,179
- 4,248 - 4,742
- 4,814 - 5,418



- Major Cities
- Other Cities and Towns
- Major Highways
- State Boundary

Local Government Revenue

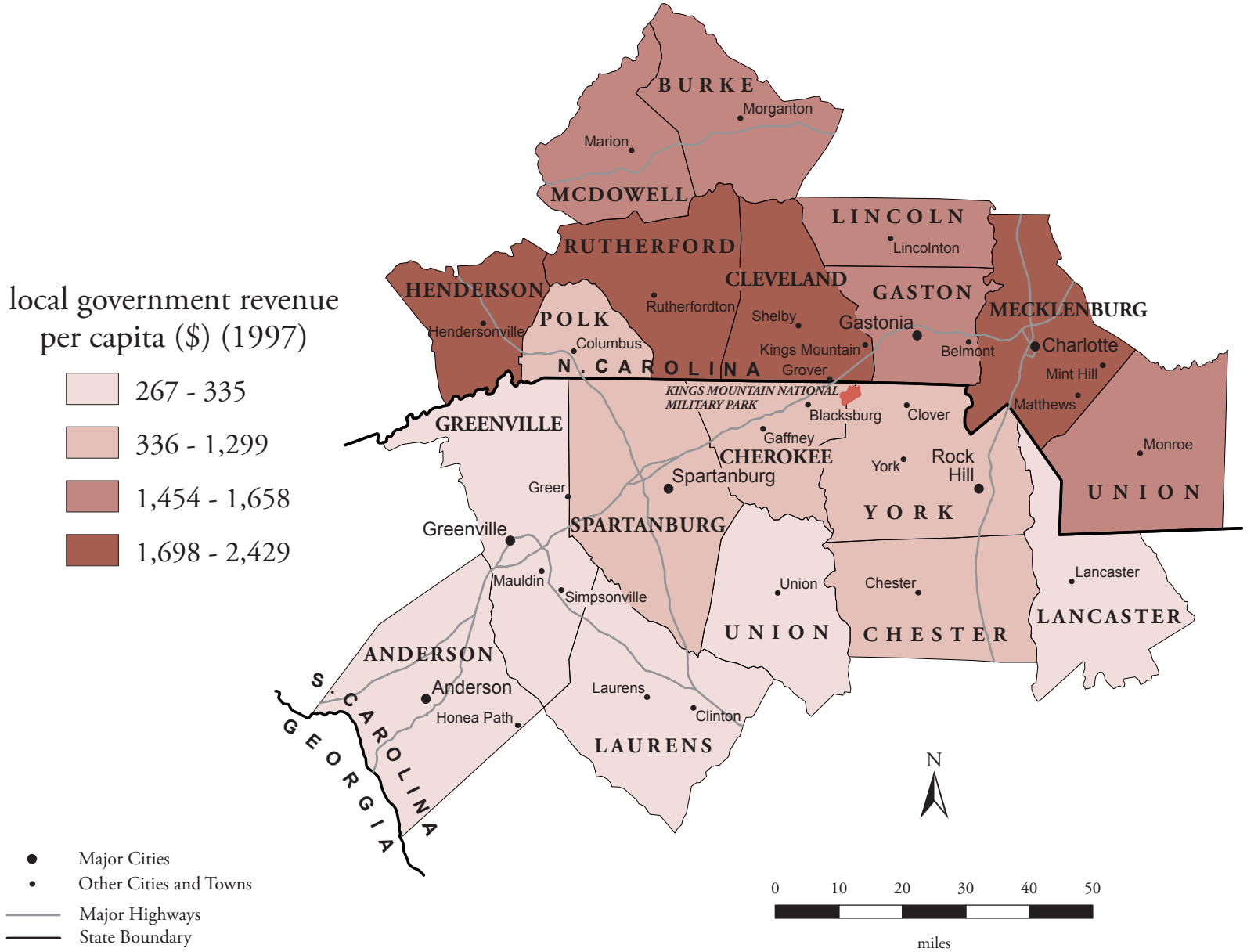
Local government revenue in the form of county taxes, state and federal fiscal aid, and other miscellaneous county service charges, may indicate the degree of local government activity that a county's residents demand or are willing to support. Sources of such state or federal fiscal aid, also known as intergovernmental revenue, can include grants-in-aid, reimbursements for established services such as the care of prisoners or contractual research, and payments in lieu of taxes. Residents of a county with high local government revenue may tend to be more accustomed to government taking an active role in a broad range of programs, whereas residents of a county with low local government revenue may be accustomed to government providing only essential services. Such expectations about the role of government can play a role in shaping local and regional responses to resource management challenges. Within the Kings Mountain National Military Park region, local government revenue per person (1997) ranges from $267 (Lancaster) to $2,429 (Henderson).

Number Line
showing distribution of data

local government revenue per capita ($) (1997)	
Lancaster	267
Laurens	276
Greenville	323
Union, SC	332
Anderson	335
Cherokee	336
York	396
Chester	410
Spartanburg	437
Polk	**1,299**
McDowell	1,454
Burke	1,455
Lincoln	1,478
Union, NC	1,596
Gaston	1,658
Rutherford	1,698
Mecklenburg	1,842
Cleveland	2,366
Henderson	2,429

National = 838
North Carolina = 1,880
South Carolina = 595

Local Government Revenue



Ecoregions

Ecoregions are areas in which similar climate, landforms, and soil exist and support similar communities of vegetation and animals. People affect natural systems within an ecoregion through such activities as agriculture, development, the creation of protected areas, hunting, and the introduction of non-native species. Natural resource protection efforts throughout an ecoregion may share many of the same approaches and techniques, since these efforts often focus on maintaining or restoring similar communities of indigenous animals and plants. Hence, many challenges of resource protection can be addressed effectively at the ecoregion level.

The Kings Mountain NMP region includes parts of two ecoregion divisions. The majority of the region is classified as Subtropical. In the far northwestern portion of the region, parts of six counties are classified as Hot Continental Regime Mountains, indicating their proximity to the Appalachian Mountains.

Bailey's Ecoregions

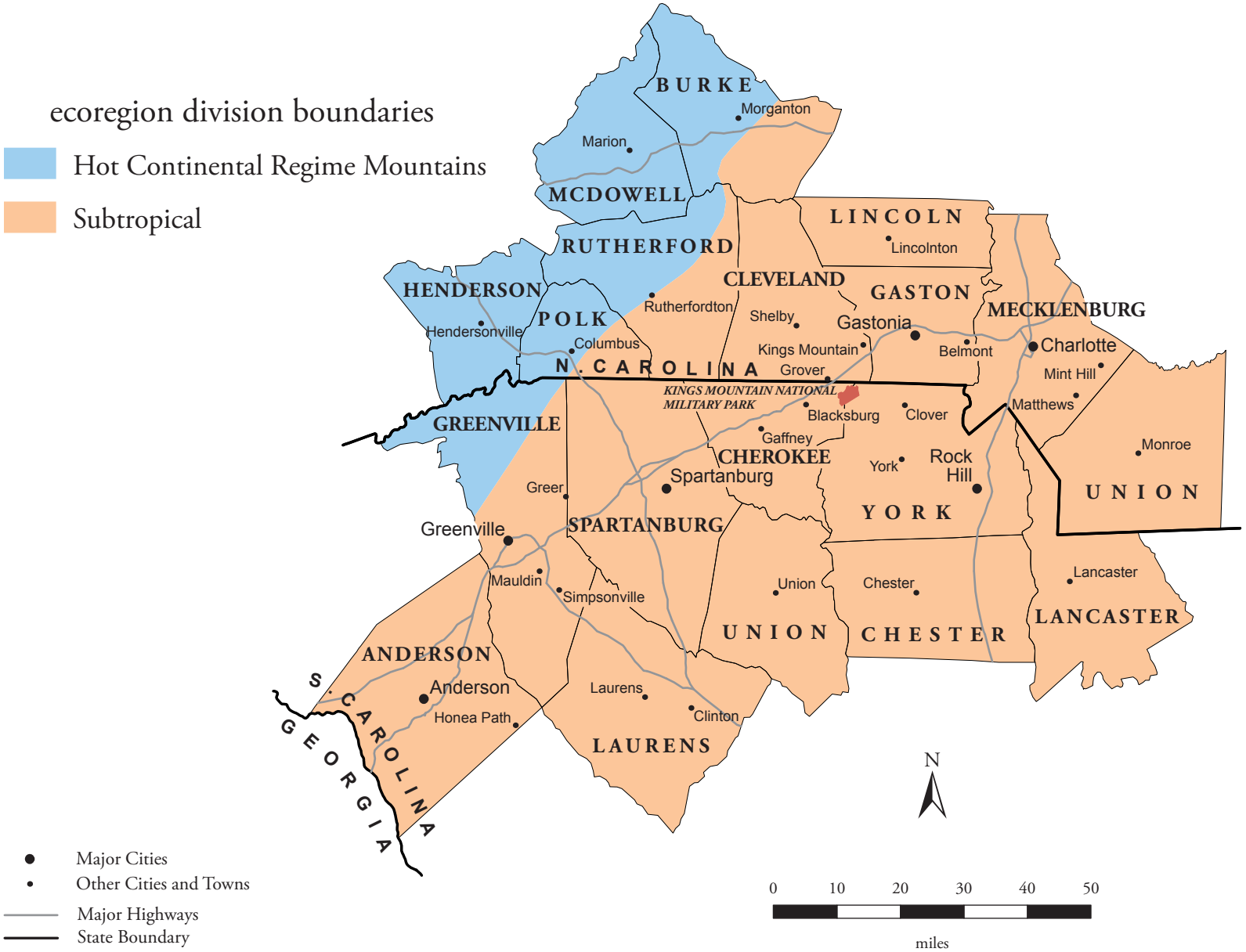
Ecoregions are ecosystems of regional extent, differentiated according to a hierarchical scheme that uses climate and vegetation as indicators of the extent of each unit. Robert Bailey of the U.S. Forest Service, U.S. Department of Agriculture, developed one system of ecoregional classifications (Bailey, R.G. 1995. *Description of the Ecoregions of the United States*, 2nd edition, Misc. Pub. No. 1391).

Descriptions of the two ecoregions that overlay the Kings Mountain NMP region are as follows:

Hot Continental Regime Mountains – climate is temperate, with distinct summer and winter seasons, and all areas are subject to frost. Precipitation is distributed throughout the year, with snow accumulating during the winter. The forest is typically composed of an oak-pine forest mix. Chestnut was once abundant here, but a blight has eliminated it as a canopy tree.

Subtropical – climate includes hot summers with high humidity and mild winters. However, frost occurs nearly every winter. Precipitation is distributed throughout the year, with a peak occurring during early spring or midsummer in the form of thunderstorms. Summer droughts can occur. Snow falls rarely and melts almost immediately. The forest is typically composed of broadleaf deciduous and needleleaf evergreen trees.

Ecoregions


ecoregion division boundaries
Hot Continental Regime Mountains
Subtropical
BURKE
Morganton
Marion
MCDOWELL
RUTHERFORD
LINCOLN
Lincolnton
HENDERSON
Hendersonville
POLK
Columbus
Rutherfordton
CLEVELAND
Shelby
GASTON
Gastonia
MECKLENBURG
Charlotte
Mint Hill
Matthews
Belmont
Kings Mountain
Grover
N. CAROLINA
KINGS MOUNTAIN NATIONAL MILITARY PARK
Blacksburg
Clover
GREENVILLE
Gaffney
CHEROKEE
Spartanburg
York
Rock Hill
Monroe
UNION
Greer
Greenville
SPARTANBURG
YORK
Mauldin
Simpsonville
Union
Chester
Lancaster
LANCASTER
UNION
CHESTER
ANDERSON
Anderson
Honea Path
Laurens
Clinton
LAURENS
S. CAROLINA
GEORGIA
N
0 10 20 30 40 50
miles
Major Cities
Other Cities and Towns
Major Highways
State Boundary

Federal Land Management

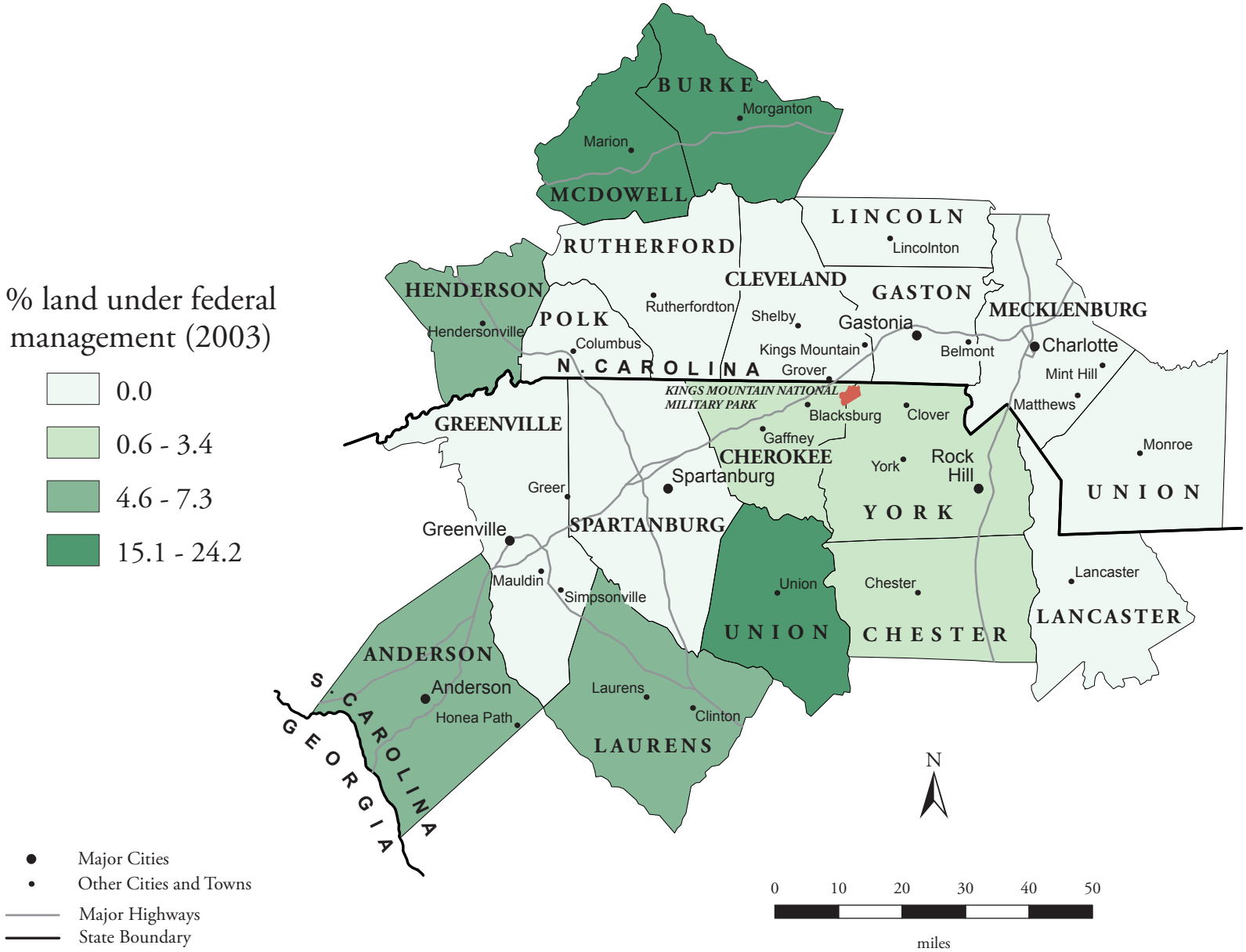
One indicator of the federal government's role in regional resource management is the amount of land under federal management. This amount can be measured as a percentage of the total land area in each county. Stewardship of private land is carried out through a combination of regulation, market forces, and voluntary action. In contrast, stewardship of public land is carried out through direct implementation of agency policies. Thus the variation in public versus private land ownership across the park region can significantly influence the design and implementation of resource protection strategies. Within the Kings Mountain National Military Park region, land under federal management (2003) ranges from 0.0% (in 10 counties) to 24.2% (McDowell).[19]

Number Line
showing distribution of data

% land under federal management (2003)	
Cleveland	**0.0**
Gaston	**0.0**
Greenville	**0.0**
Lancaster	**0.0**
Lincoln	**0.0**
Mecklenburg	**0.0**
Polk	**0.0**
Rutherford	**0.0**
Spartanburg	**0.0**
Union, NC	**0.0**
York	0.6
Cherokee	0.8
Chester	3.4
Laurens	4.6
Anderson	7.1
Henderson	7.3
Burke	15.1
Union, SC	18.2
McDowell	24.2

National = 27.2
North Carolina = 5.5
South Carolina = 4.0

Federal Land Management



Federal Lands and Indian Reservations

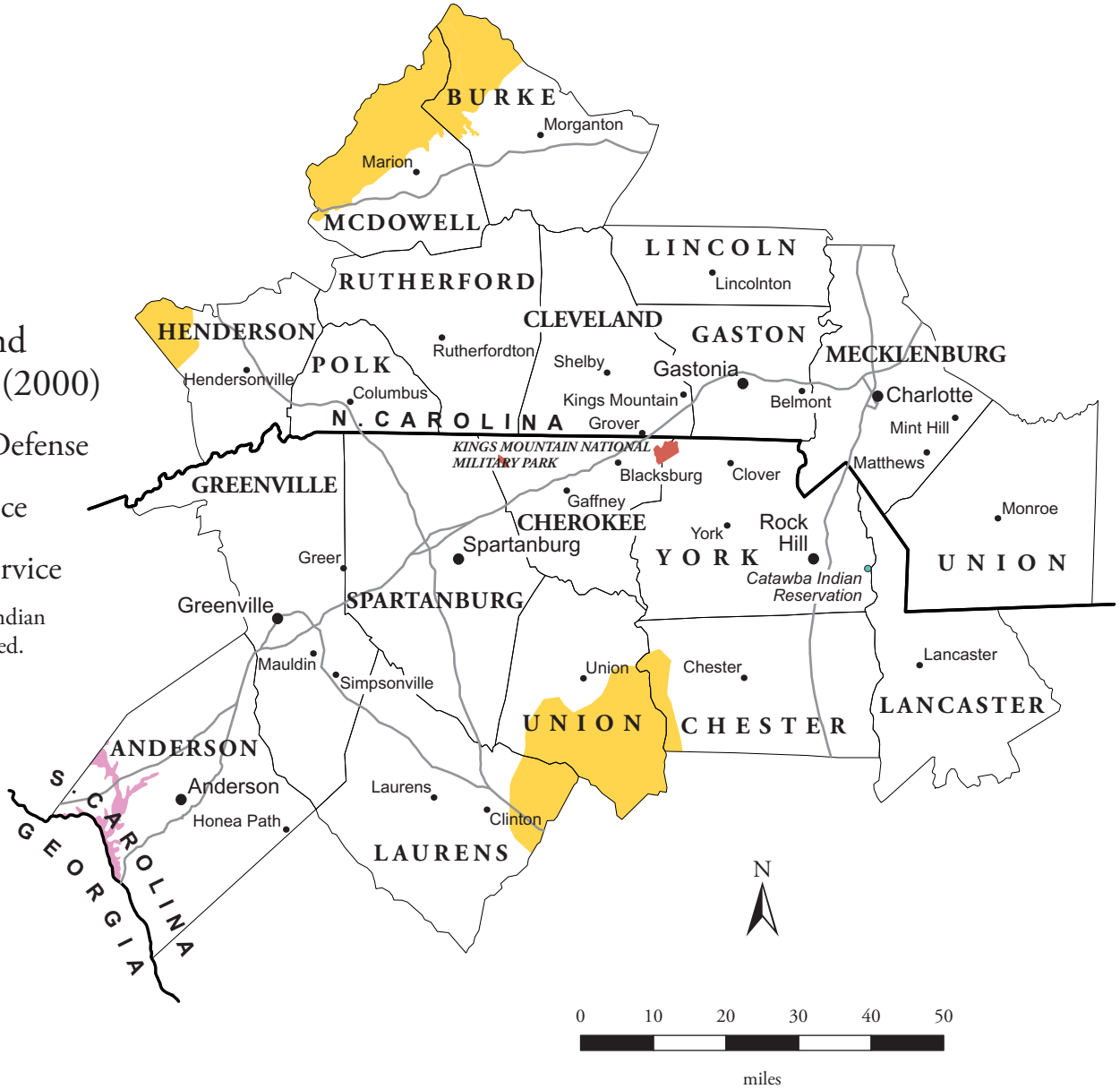
National park units, administered by the National Park Service, are part of a larger system of public lands. Other federal agencies that administer public lands include the Bureau of Land Management, Bureau of Reclamation, Department of Defense, U.S. Fish and Wildlife Service, and U.S. Forest Service. Indian reservations are also an important part of the landscape. Public land managed by one federal agency may share boundaries with land managed by a different federal agency or with an Indian reservation. Understanding the location and pattern of federal lands (by agency) and Indian reservations can help park managers and others in the region cooperate on resource protection and planning issues.[20]

Federal Lands and Indian Reservations

federal lands and Indian reservations* (2000)

- Department of Defense
- U.S. Forest Service
- National Park Service

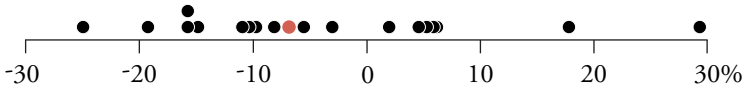
* The data source includes no Indian reservations in the region mapped.



- Major Cities
- Other Cities and Towns
- Major Highways
- State Boundary

Change in Farmland

Changes in the amount of farmland provide an indication of economic and land use trends among counties in the park region. Land can be converted to farming because of increased demand for agricultural products or because new technology, business practices, or government programs make farming profitable. Land can be taken out of farming due to soil depletion, competition from growers elsewhere, loss of labor, or conversion of land to other (often urban) uses. Within the Kings Mountain National Military Park region (1987 - 1997), the amount of farmland decreased in 12 of the 19 counties. The change ranged from a decrease of -24.9% (Henderson) to an increase of 29.3% (Lancaster).[21]

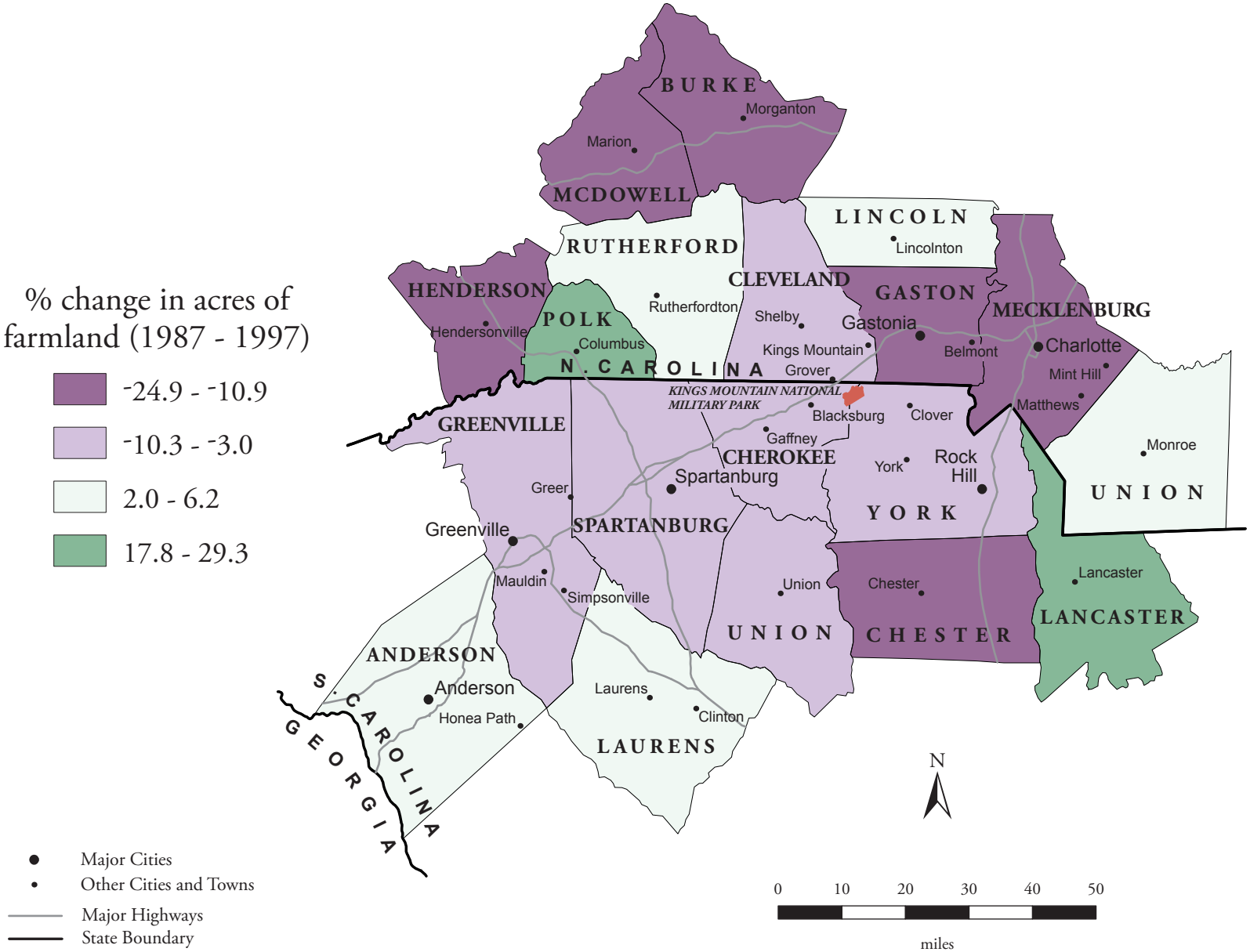


Number Line
showing distribution of data

% change in acres of farmland (1987 - 1997)	
Henderson	-24.9
Mecklenburg	-19.2
Chester	-15.7
Burke	-15.7
Gaston	-14.8
McDowell	-10.9
York	-10.3
Spartanburg	-9.7
Cherokee	-8.1
Union, SC	**-6.8**
Greenville	-5.5
Cleveland	-3.0
Laurens	2.0
Union, NC	4.6
Rutherford	5.3
Anderson	5.9
Lincoln	6.2
Polk	17.8
Lancaster	29.3

National = -3.4
North Carolina = -3.4
South Carolina = -3.5

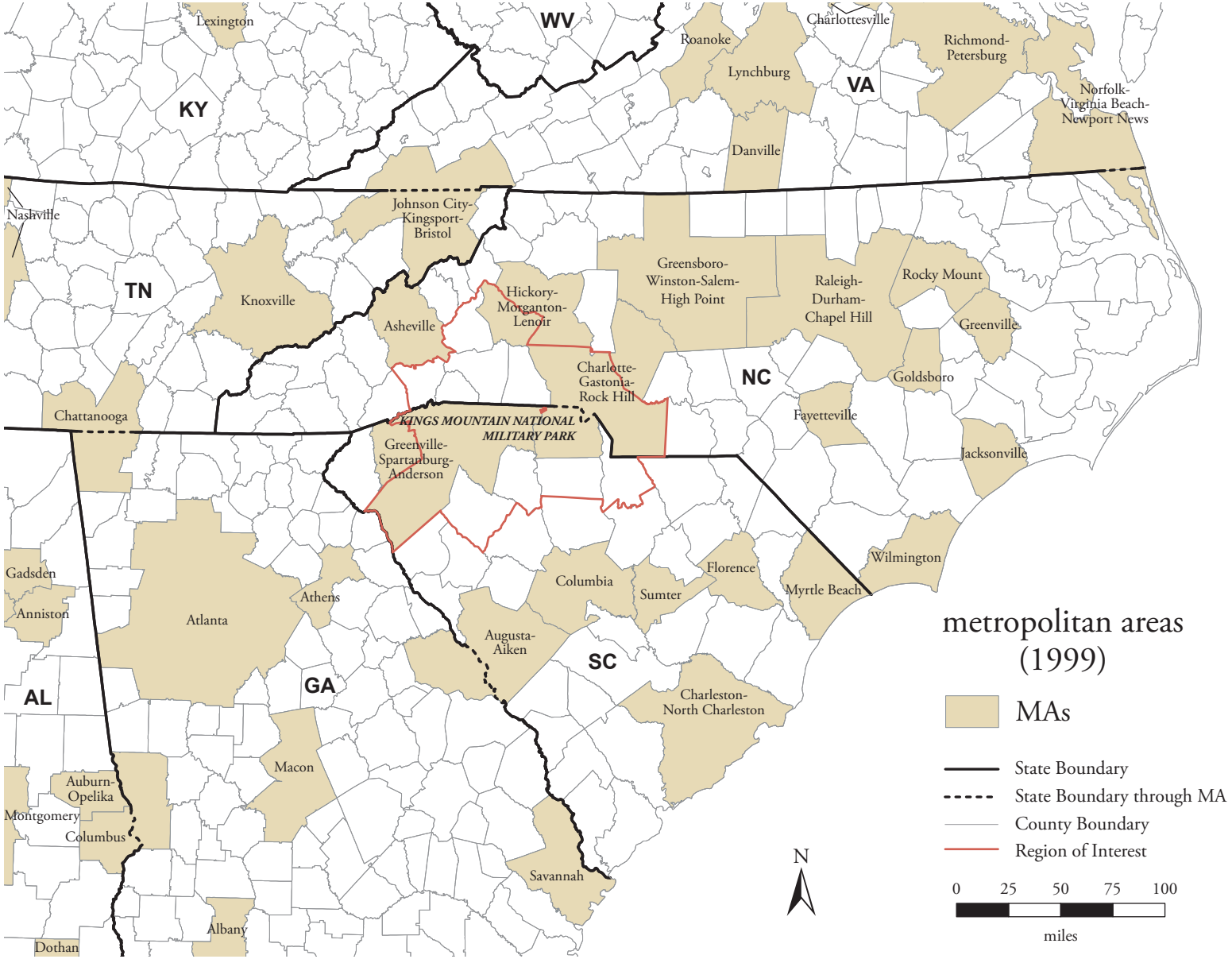
Change in Farmland



Metropolitan Areas

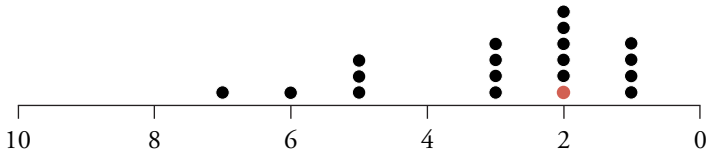
Maps of metropolitan areas show park managers densely populated urban areas that are near national park units. The Census Bureau defines a metropolitan area (MA) as having a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus. MAs are single counties or aggregations of counties. Most counties in MAs include both urban and rural land uses. For this map, a larger region around Kings Mountain National Military Park is provided to show the extent of nearby MAs.[22]

Metropolitan Areas



Urbanization

Urbanization is a measure of the degree to which counties are associated with metropolitan areas based on population and commuting patterns. The political and economic priorities of more urbanized counties tend to differ from those of less urbanized counties. The concentration of people in towns, cities, and large metropolitan areas creates opportunities for cooperative efforts (such as municipal water systems, public transportation, and a host of non-governmental organizations) but also can increase the incidence of problems such as congestion, air pollution, and habitat fragmentation. The Economic Research Service classifies counties' degree of urbanization along a continuum ranging from completely rural (not near metro area and small population size) to large metropolitan. Within the Kings Mountain National Military Park region (2003), 10 counties are classified as metropolitan.[23]

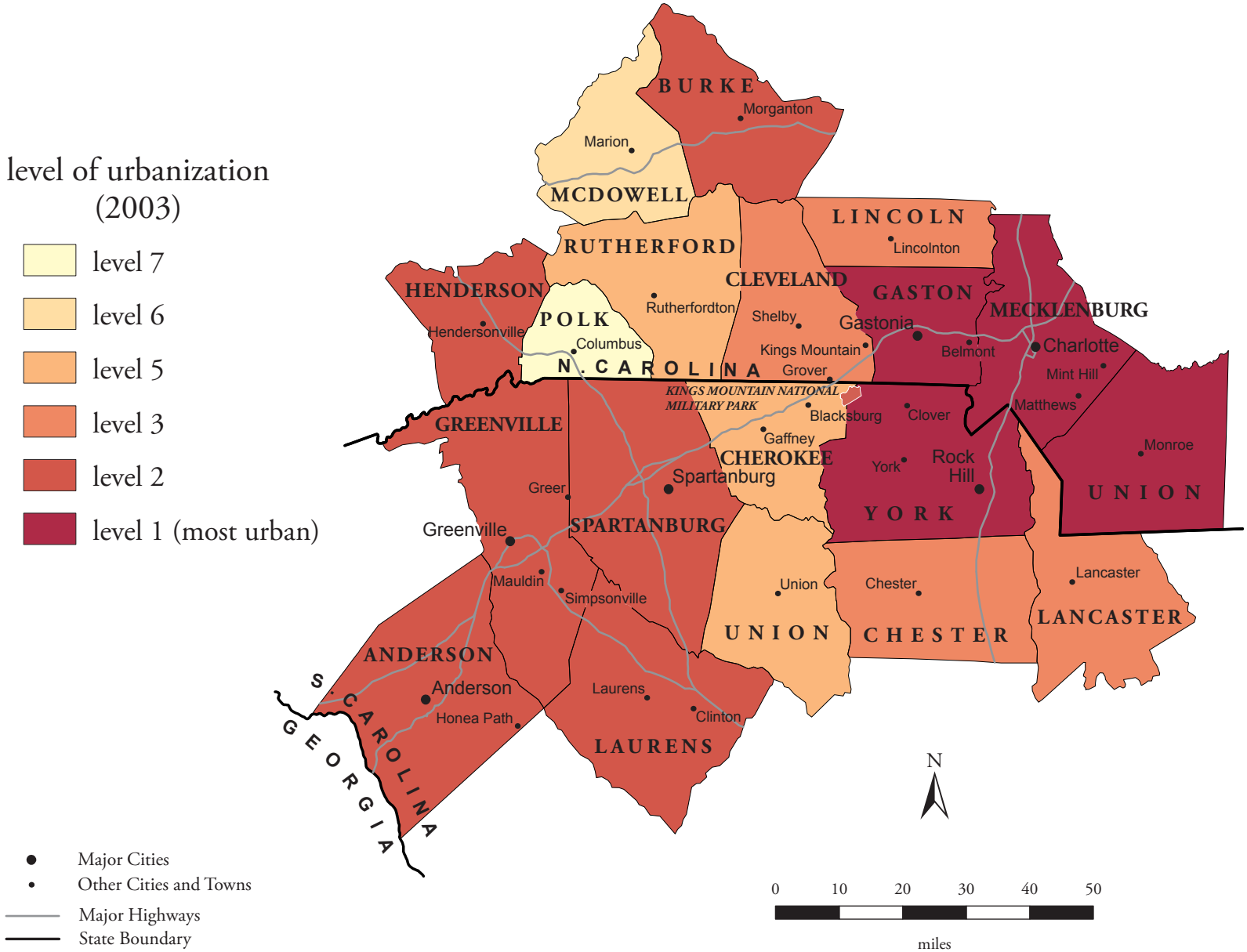


Number Line
showing distribution of data

level of urbanization (2003)

Polk	7
McDowell	6
Rutherford	5
Cherokee	5
Union, SC	5
Cleveland	3
Lancaster	3
Lincoln	3
Chester	3
Greenville	**2**
Spartanburg	**2**
Laurens	**2**
Anderson	**2**
Henderson	**2**
Burke	**2**
Gaston	1
Mecklenburg	1
Union, NC	1
York	1

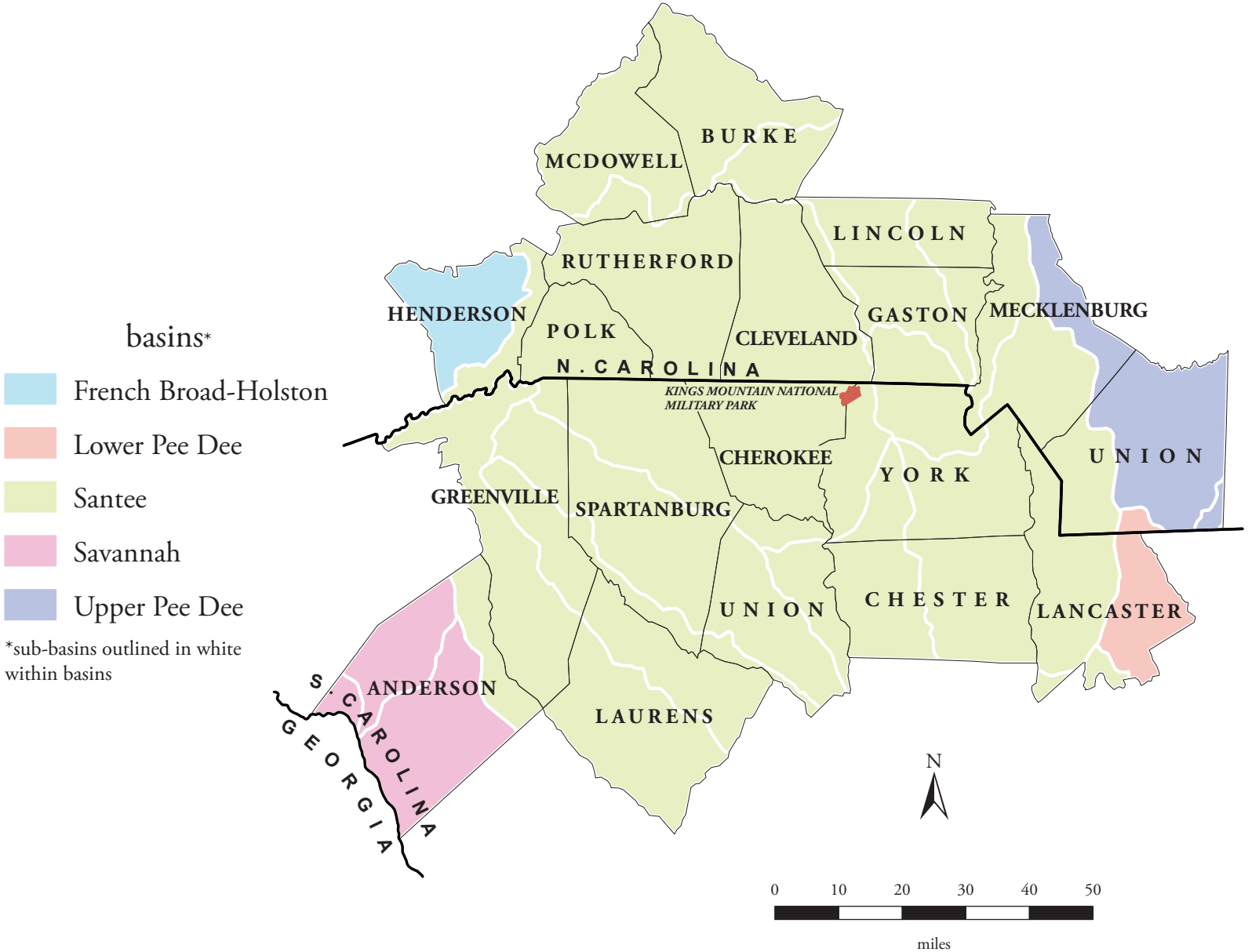
Urbanization



Watersheds

Watersheds are delineated by the U.S. Geological Survey using a nationwide system based on surface hydrological features. Watersheds are increasingly serving as the geographical units within which governments, institutions, and citizens organize to carry out initiatives for environmental protection and restoration. Familiarity with watersheds is fundamental in developing educational programs and in mobilizing constituencies to protect water quality throughout the park region. The Kings Mountain National Military Park region includes all or portions of five basins and 18 sub-basins.[24]

Watersheds


basins*
French Broad-Holston
Lower Pee Dee
Santee
Savannah
Upper Pee Dee
*sub-basins outlined in white within basins
MCDOWELL
BURKE
LINCOLN
RUTHERFORD
HENDERSON
POLK
CLEVELAND
GASTON
MECKLENBURG
N. CAROLINA
KINGS MOUNTAIN NATIONAL MILITARY PARK
CHEROKEE
YORK
UNION
GREENVILLE
SPARTANBURG
UNION
CHESTER
LANCASTER
ANDERSON
S. CAROLINA
GEORGIA
LAURENS
N
0 10 20 30 40 50
miles

Conclusion: Using This Atlas for Park Management

A national park functions as part of a regional human ecosystem. A natural ecosystem can be understood in terms of factors such as flora, fauna, rainfall, temperature, elevation, and soil. Similarly, a human ecosystem can be understood in terms of factors such as population, commerce, social and cultural practices, politics, and land-use patterns.

The regional human ecosystem, like the natural ecosystem, strongly influences the long-term health of the park's natural and cultural resources. Just as a park may be concerned with upstream activities outside its boundaries yet inside its watershed, parks are also concerned with human activities taking place outside their boundaries yet inside their region. Thus, knowledge of natural and human conditions external to a park is as essential to park management as knowledge of internal natural and cultural conditions.

This atlas focuses on human activities and features in the region surrounding Kings Mountain National Military Park. Five primary applications for this atlas as a tool for park management are:

- monitoring activities and analyzing trends that could have short- or long-term impacts on the park;
- making comparative studies, both within the region and between regions;
- assessing potential social impacts of management decisions;
- supporting collaborative decision-making and public participation; and
- educating park staff and other stakeholders about regional socioeconomic trends.

Monitoring activities and analyzing trends. The standardized data sources and presentation format of this atlas allow it to serve as a baseline for long-term monitoring of human conditions and trends that impact the park, such as immigration or economic shifts. These human conditions and trends can have significant implications for park planning and management. For example, the atlas can be consulted to determine trends in educational attainment among regional residents. This information could be helpful in designing interpretive and public participation programs and materials that can increase access to and understanding of the role of the park in the region. The atlas can be used to gain knowledge about the overall structure of and local variations in the regional economy. This information could be important to developing a strong collaborative working relationship with regional business leaders. The atlas can be examined to recognize trends in land use. This information could support proactive planning to mitigate potential impacts of development such as habitat fragmentation, degradation of air or water quality, or intrusions upon historic settings and/or scenic values.

Comparative studies. This atlas can support comparative studies of two kinds. First, the atlas can be used to compare counties within the region. By displaying the range of values for a particular indicator or a set of indicators, the atlas can help identify specific counties where it may be desirable to take (or avoid taking) certain management actions because of the potential impact on the human ecosystem. Second, the atlas can be used to make comparisons with other park regions. Potential management actions can be evaluated in terms of how effective they have been for another park unit where similar regional socioeconomic factors are involved.

Social impact assessment. Federal law and NPS planning directives require that park managers evaluate the social impacts of potential management actions. The socioeconomic indicators displayed in this atlas can make an important contribution to such social impact assessments. For example, the maps displayed here could be used to help understand the impacts of various park management plans and provide context for assessments at smaller scales, such as local communities.

Collaborative decision making. In developing general management plans, park staff are directed to "consider the park holistically … as part of the surrounding region" and to conduct planning "as part of cooperative regional planning whenever possible" (Director's Order 1998-2, par. 3.3.1.2). Tools such as this atlas can support the goal of applying a regional perspective to park planning and management. Distribution of this atlas to citizens, elected officials, educators, business and service groups, resource managers, and others can strengthen their ability to effectively participate in park management activities and decision-making. Maps that present facts in a standardized format can be particularly helpful for establishing common ground on which to decide upon management priorities, especially for decisions that affect both the park and the adjacent region.

Education and orientation. The atlas can be used to orient new park staff, as well as central office staff, to some of the basic facts about human activities in the park's region of interest. It can also serve as a tool for sharing information about socioeconomic trends with the public, gateway communities, media, and Congress.

In conclusion, effective park management requires a clear understanding of human activities in the surrounding region that can impact park resources and operations. By providing the "basic facts" about such activities, this atlas can help managers, citizens, and others better provide for the preservation and enjoyment of Kings Mountain National Military Park.

Appendices

Appendix 1: Data Sources for Indicators

The data sources used to obtain the measures for the socioeconomic indicators are listed below. The indicators listed on the left correspond to the titles of the maps in the atlas. The measure corresponds to captions for the legends used in the maps and the ranked data tables.

INDICATOR	MEASURE	DATA SOURCE
General Population		
*Total Population	total number of people (2003)	U.S. Department of Commerce, Census Bureau, http://eire.census.gov/popest/estimates_dataset.php
Historical Population Change	% change in total number of people (1970 - 1990)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Recent Population Change	% change in total number of people (1990 - 2000)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/population/cen2000/atlas/all_00.xls
*Projected Population Change	projected % change in total number of people (2000 - 2020)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
Population Density	average number of people per square mile (2000)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/population/cen2000/atlas/all_00.xls
Population Density Change	% change in average number of people per square mile (1980 - 2000)	1) U.S. Department of Commerce, Census Bureau. USA Counties 1998, http://censtats.census.gov/cgi-bin/usac/usasel.pl *(1980 population density)* 2) U.S. Department of Commerce, Census Bureau, http://www.census.gov/population/cen2000/atlas/all_00.xls *(2000 population density)*
Median Age	median age of total population (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Table P13

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
Domestic Migration	net number of non-foreign migrants (1995 - 2000)	U.S. Department of Commerce, Census Bureau, Census 2000, Table 2, http://www.census.gov/population/www/cen2000/phc-t22.html
Economy and Commerce		
*Earnings by Industry	% total earnings by industrial category (1999)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Employment by Industry	% employment by industrial category (1999)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
Change in Employment by Industry	% change in employment by industrial category (1990 - 1999)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
Projected Change in Employment by Industry	projected % change in employment by industrial category (2000 - 2020)	Woods & Poole Economics, Inc. 2002 Complete Economic and Demographic Data Source (CEDDS) on CD-ROM. Washington, DC. Woods & Poole Economics, Inc. provides long-term socioeconomic data projections at the state and local levels, in both hardcopy and electronic format. http://www.woodsandpoole.com
*Poverty	% total population in poverty (1999)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/hhes/poverty/2000census/poppvstat00.html
Personal Income	average personal income per capita ($) (1999)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P82

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
Social and Cultural Characteristics		
Racial and Ethnic Composition	% total population in each racial/ethnic category (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Tables P7, P8
*Racial Diversity	% total population belonging to minority race groups (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 1 (SF1) 100% Data, Table P7
*Educational Attainment	% total population 25 years old and over with some college or college degree (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P37
English Language Ability	% total population 5 years old and over that does not speak English or does not speak it well (2000)	U.S. Department of Commerce, Census Bureau, http://factfinder.census.gov – Census 2000 Summary File 3 (SF3) Sample Data, Table P19
Political Affiliation	% of total votes for each major political party (2004)	1) CNN, http://www.cnn.com/ELECTION/2004/pages/results/states/NC/ *(North Carolina data) (accessed 1/7/05)* 2) CNN, http://www.cnn.com/ELECTION/2004/pages/results/states/SC/ *(South Carolina data) (accessed 1/7/05)*
Crime	number of serious crimes per 100,000 people (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/crimesm.html
Recreation and Tourism		
*Recreation/Tourism Revenue	% of total sales from arts, entertainment, recreation, and accommodation services (1997)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/epcd/www/econ97.html
*Recreation/Tourism Employment	% of total paid employees in arts, entertainment, recreation, and accommodation services (2001)	U.S. Department of Commerce, Census Bureau, http://censtats.census.gov/cbpnaic/cbpnaic.shtml

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
Administration and Government		
*Congressional Districts	Congressional Districts (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/cgd108m.html
*Federal Expenditures	federal expenditures per capita ($) (2002)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/prod/www/abs/cffr.html
Local Government Revenue	local government revenue per capita ($) (1997)	U.S. Department of Commerce, Census Bureau. Vol. 4, No. 3, Finances of County Governments; http://www.census.gov/govs/www/cog.html
Land Use		
Ecoregions	ecoregion division boundaries	1) USDA Forest Service, Inventory and Monitoring Institute, http://www.fs.fed.us/institute/ecoregions/eco_download.html 2) Bailey, Robert G. (1995). *Description of the Ecoregions of the United States* (2nd ed.). Misc. Pub. No. 1391, USDA Forest Service, 108 pp
*Federal Land Management	% land under federal management (2003)	1) U.S. Department of the Interior, Bureau of Land Management. Payment in Lieu of Taxes, Fiscal Year 2003. Washington, DC. http://www.blm.gov/pilt/search.html *(federal land in acres)* 2) U.S. Department of Commerce, Census Bureau http://www.census.gov/population/cen2000/atlas/all_00.xls *(county square mile data to convert into acres)*
*Federal Lands and Indian Reservations	federal lands and Indian reservations (2000)	U.S. Department of the Interior, U.S. Geological Survey, http://nationalatlas.gov/atlasftp.html
*Change in Farmland	% change in acres of farmland (1987 - 1997)	U.S. Department of Agriculture, National Agricultural Statistics Service, http://www.nass.usda.gov/census/
*Metropolitan Areas	metropolitan areas (1999)	U.S. Department of Commerce, Census Bureau, http://www.census.gov/geo/www/cob/ma1999.html#shp
*Urbanization	level of urbanization (2003)	U.S. Department of Agriculture, Economic Research Service, http://www.ers.usda.gov/Data/UrbanInfluenceCodes/

Appendix 1: Data Sources for Indicators (continued)

INDICATOR	MEASURE	DATA SOURCE
Watersheds	basins	U.S. Department of the Interior, U.S. Geological Survey, http://www.nationalatlas.gov/hucsm.html

** Denotes a core indicator, common to all atlases in this series. Additional indicators were selected by park managers to include information specific to their particular management needs.*

Appendix 2: Technical Notes on Map Design

Selection of Base Map Data – The regional base map used to map socioeconomic indicators in this atlas includes state and county boundaries, some of the major roads, major cities, and a few other selected cities and towns. The roads, cities, and towns are included to provide readers with a few familiar points of reference. It should be emphasized that this is not a general purpose atlas of the region, for it focuses only on socioeconomic indicators.

Choropleth Mapping – For most of the maps, data are grouped by quartiles which vary in shading from light to dark (for low to high values). This shading technique, known as choropleth mapping, is usually applied to ratio data; population density, infant deaths per 1,000 live births, and median income are examples. Maps that display total amounts (such as total population) often use other approaches, such as proportional symbols. For clarity, ease of use, and consistent design, choropleth mapping is used for most of the social indicator data.

Quartile Classification – The choice of a *quartile* classification of the data means that for most maps, counties were divided into four classes. Rather than focusing on the actual numerical value of the indicator for each county, the quartile approach emphasizes the rankings of data values among counties. The legend accompanying the map allows the reader to see the range of values among counties within a class. Quartiles make it easy for the reader to make intuitive comparisons among counties; the darkest shaded counties are in the "top quarter," the lightest shaded counties are in the "bottom quarter," and so forth. Quartiles also facilitate comparisons between maps in the atlas ("this county ranks in the bottom quartile on all three of these indicators").

Two notes: (1) Whenever the number of counties cannot be evenly divided by four, the convention for this atlas series is to reduce the size of the highest quartile first, then the next quartile if needed, then the third quartile if needed. Hence nineteen counties would be divided into groups of 5, 5, 5, and 4, with the group of 4 having the highest data values/darkest shading. (2) Counties with identical data values are grouped in the same quartile, even if this results in quartiles of unequal size.

Note on Political Boundaries – The regional base map depicts the formally defined political boundaries of states and counties.

Map Sources – The regional map on the cover and at the beginning of the atlas was generated from the North American HYDRO1k dataset (http://edcdaac.usgs.gov/gtopo30/hydro/) developed at the U.S. Geological Survey's EROS Data Center. The standard region of interest map used throughout the atlas was generated from U.S. Geological Survey shapefiles. Contextual information (roads and cities) was also obtained from the U.S. Geological Survey (http://www.nationalatlas.gov).

Production – Indicator data for the atlas were compiled in Microsoft Excel 2000. These were linked to U.S. Geological Survey shapefiles using ESRI ArcMap GIS 8.3. The GIS files were imported into Adobe Illustrator 10.0 for final map

design. Text was prepared in Microsoft Word 2000. The final atlas layout (text, maps, graphics) was completed using Adobe InDesign 2.0.

Text Sources – Additional web resources used to prepare park and regional descriptions are:

- Carolina Geography; http://www.carolinanow.com/geography.htm#Piedmont
- Charlotte-Gastonia-Rock Hill NC-SC Economy; http://www.bls.gov/eag/eag.nc_charlotte.htm
- Greenville-Spartanburg-Anderson, SC Economy; http://www.bls.gov/eag/eag.sc_greenville.htm
- Kings Mountain National Military Park; http://www.nps.gov/kimo//index.htm
- Physiographic Regions of North Carolina; http://gw.ehnr.state.nc.us/blue.htm
- Schunk, D., and D. Woodward. 2000. A Profile of the Diversified South Carolina Economy. The University of South Carolina. http://www.strom.clemson.edu/teams/ced/lgp-reports/Economy.pdf – accessed 5/10/04
- South Carolina; http://en.wikipedia.org/wiki/South_Carolina

Appendix 3: Technical Notes on Measurement of Selected Indicators

[1] Persons enumerated in the census were counted as inhabitants of their usual place of residence, which generally means the place where a person lives and sleeps most of the time. This place is not necessarily the same as the legal residence, voting residence, or domicile. In the vast majority of cases, however, the use of these different bases of classification would produce substantially the same statistics, although appreciable differences may exist for a few areas.

[2] For an explanation of Woods & Poole's projection methods see page 11 in the Woods and Poole Technical Documentation manual.

[3] **Population density** is measured as the average number of people per square mile. This number is calculated by dividing the total number of people by the total area per county. In counties with federal lands, excluding these areas from the calculation of population density would result in a higher population density.

[4] See note above on **population density**.

[5] **Domestic migration** is measured as the movement of people within the United States between 1995 and 2000. Net migration is the difference between in-migration and out-migration to the area. A positive net migration indicates that more migrants entered the area than left it, while negative net migration indicates that more migrants left the area than entered it. Immigrants who moved to the U.S. from abroad

between 1995 and 2000 are not included in these domestic migration figures.

[6] Economic activity is categorized as belonging to one of four **industry categories**: agriculture/natural resources, construction/manufacturing, sales/services, and government. Individual workers, regardless of their specific job responsibilities, are classified according to the category their overall company or organization belongs to. Thus, while accounting is considered a "service" activity, an accountant for a mining company would be counted as working in "agriculture/natural resources." "Government" includes all federal government workers and all state/local employees, such as teachers, police, firefighters, etc. Even though government jobs may involve construction, natural resource management, or provision of services, they are still counted as belonging to the "government" category.

[7] See note above on **industry categories**.

[8] See note above on **industry categories**.

[9] See note above on **industry categories**.

[10] **Poverty** is measured as the percentage of the total population living below the poverty level. The poverty level is defined as earnings of $17,029 or less for a family of four persons (1999). Poverty thresholds are applied on a national basis and are not adjusted for regional, state, or local variations in the cost of living.

[11] **Personal income** is measured as the average per capita income. This is obtained by dividing the total personal income of county residents by the total population of the county.

[12] **Racial composition** is based upon self-identification by people responding to the U.S. Census. Census respondents are asked to classify themselves according to the race with which they most closely identify. Specific responses such as "Polish," "Haitian," "Thai," or "Lakota" were coded more generally as belonging to one of six general categories (White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, and Some Other Race). Respondents to Census 2000 could indicate more than one race, and these respondents are grouped together in the category Two or More Races. Persons of Hispanic or Latino origin may be of any race. People of Hispanic origin who are not White were counted in the Hispanic group and were also counted in the Black, American Indian and Alaska Native, Asian, or Native Hawaiian or Other Pacific Islander group they indicated.

[13] **Racial diversity** is defined for this measure as the percentage of the population classified as being non-White. Diversity by this definition does not necessarily measure the degree of "variety" in the population. For example, a hypothetical county with a 90% Asian population would be considered more "diverse" than a county in which each of the six major race groups constituted 10% of the population (in the latter case, diversity would be measured as 60%). The Hispanic or Latino origin category was not included in this measure because persons of Hispanic or Latino origin may be of any

race (including White). Data on the Hispanic population is included on pages 40 and 41.

[14] For the Census 2000, persons are classified according to the highest level of school completed or the highest degree received.

[15] These data represent the person's own perception about his or her ability to speak English or, because Census questionnaires are usually completed by one household member, the responses may represent the perception of another household member. Persons 5 years old and over who reported that they spoke a language other than English were also asked to indicate their ability to speak English based on one of the following four categories: "not at all," "not well," "well," and "very well."

[16] **Recreation and Tourism** is composed of the arts, entertainment, and recreation sector and the accommodation subsector, both a part of the North American Industry Classification System (NAICS). The arts, entertainment, and recreation sector includes museums, historical sites, gambling and recreation industries, golf courses and country clubs, fitness and recreational sports centers, and all other amusement industries. The accommodation subsector is comprised of establishments including hotels, motels, bed and breakfasts, RV parks, recreational camps, and vacation camps. For a complete definition of these NAICS categories please consult http://www.census.gov/epcd/www/naics.html.

[17] See note above on **recreation/tourism**.

[18] **Federal expenditures** include expenditures, or obligation for, direct payments for individuals, procurement, grants, salaries and wages, direct loans, and guaranteed loans and insurance. Grant awards are reported by county of the initial recipient; thus if the initial recipient is the state government, the county in which the state capital is located is reported as having "received" that "pass-through" grant, even though the monies are subsequently distributed to other local governments.

[19] **Federal lands** include all tax-exempt federal lands administered by the Bureau of Land Management (BLM), the National Park Service, the U.S. Fish and Wildlife Service, the U.S. Forest Service, federal water projects, and some military installations (tribal lands are not included). The BLM calculates the amount of federal land within counties in order to administer the federal government's payments-in-lieu-of-taxes (PILT) program.

[20] The U.S. Geological Survey produces the **federal lands and Indian reservations** map layer. This map layer does not include any federally and Indian held land that has an areal extent smaller than 640 acres. For more information and metadata, consult http://www.nationalatlas.gov/fedlandsm.html.

[21] **Farmland** consists primarily of agricultural land used for crops, pasture, or grazing. Also included is woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation. Farmland includes acres in the Conservation Reserve, Wetlands Reserve Programs, or other governmental

programs. Farmland includes land owned and operated as well as land rented from others. Land used rent-free is included as land rented from others. All grazing land, except land used under government permits on a per-head basis, is included as farmland provided it is part of a farm or ranch. Land under the exclusive use of a grazing association is reported by the grazing association and included as farmland. All land in American Indian reservations used for growing crops or grazing livestock is included as farmland. Land in reservations not reported by individual American Indians or non-Native Americans is reported in the name of the cooperative group that used the land.

[22] Certain **Metropolitan Areas** (MAs) are defined around two or more nuclei. Each MA must contain either a place with a minimum population of 50,000 or a U.S. Census Bureau-defined urbanized area and a total MA population of at least 100,000. For a complete definition, consult http://www.census.gov/geo/www/cob/ma_metadata.html.

[23] The Economic Research Service classifies counties according to their level of **urbanization**. The classification consists of twelve mutually-exclusive codes:

METROPOLITAN COUNTIES

1) In large metro area of greater than 1 million residents
2) In small metro area of less than 1 million residents

NONMETROPOLITAN COUNTIES

3) Micropolitan adjacent to large metro
4) Noncore adjacent to large metro
5) Micropolitan adjacent to small metro
6) Noncore adjacent to small metro with own town
7) Noncore adjacent to small metro, no own town
8) Micropolitan not adjacent to a metro area
9) Noncore adjacent to micro with own town
10) Noncore adjacent to micro with no own town
11) Noncore not adjacent to metro or micro with own town
12) Noncore not adjacent to metro or micro with no own town

[24] **Watersheds** are delineated by the U.S. Geological Survey using a nationwide system based on surface hydrologic features and published in 1998. This system divides the country into 21 regions, 222 subregions, 352 accounting units, and 2,262 cataloging units. A hierarchical hydrologic code (HUC) consisting of 2 digits for each level in the hydrologic unit system is used to identify any hydrologic area. The 6-digit accounting units and 8-digit cataloging units are generally referred to as basins and sub-basin watersheds. This atlas maps the 6-digit and 8-digit cataloging units. (see http://water.usgs.gov/GIS/huc.html).

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