

## Changing Demographics, Values, and Attitudes

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### ABSTRACT

The South's forests are both important to and at the same time in the path of the region's growth. Research on social change for the Southern Forest Resource Assessment shows that rapid population growth and changing demographics are fueling growth of recreation demands and adding stresses on public and private forests. Concurrent with population and demand growth have been significant value and attitudinal changes among both land-owning and non-owning residents of the region. Southerners are clearly becoming greener. An opportunity to mitigate stresses on southern forests may lie in tapping Southerners' growing environmentalism to form effective cooperatives involving public and private interests and forestry professionals.

**Keywords:** environmentalism; recreation; sustainable forestry

Population growth and diversification, land development, growing demand for recreation, and changing values are prominent among the many social changes that will most certainly shape the future of the South's forests and their management. The Southern Forest Resource Assessment (SFRA) addressed population and demographic changes in the region; land-use changes, attitudes, and values of Southerners toward forests and their management; and the effect of forests and their uses on quality of life in the South. This article summarizes the demographic, recreation demand, value, and attitude trends uncovered by SFRA (Cordell and Tarrant, in press; Tarrant et al., in press).

### Demographics

*Population growth.* Between 1960 and 2000, the population of the South grew at a faster rate than that of the nation (fig. 1, p. 30). In the 1990s, the

South's population grew by almost 14 percent. Currently, 91 million people—almost one-third of the US population—live in the South (Cordell and Macie, in press).

Some of that increase comes from immigration. In 1998, for example, 271,000 more people moved into the South from other regions of the United States than moved out. Immigrants from abroad that year numbered 544,000, for a net gain, excluding illegal immigration, of 815,000—more than the totals across all other US regions combined. As a result, both metropolitan areas and formerly rural areas and forests of the South are being developed at unprecedented rates.

Most growth has been in large urban areas, such as Houston and Atlanta, but growth is also occurring along interstate corridors and is especially pronounced in the Piedmont Crescent, which stretches from northern Virginia to Alabama. Population is

most concentrated along the Gulf and Atlantic coasts; in the Piedmont of Georgia, North Carolina, and South Carolina; and in major metropolitan areas in Texas and Florida. There were decreases in some parts of the South, such as the Mississippi River Basin, the western Texas and Oklahoma panhandles, and in parts of the southern Appalachians.

*Racial and ethnic diversity.* With population growth has come change in the demographic makeup of the region, including accelerated increases in racial and ethnic diversity. Throughout the South, non-Hispanic whites are steadily becoming a smaller percentage of the total population and by 2020 are expected to constitute just 61 percent (compared with 72.4 percent in the 1990s). Hispanics are expected to account for about 16.2 percent of the population (up from 8.9 percent), blacks 19.5 percent (up from 16.7 percent), and Asians and others around 3 percent by 2020 (Cordell and Macie, in press). The spatial pattern of increase in nonwhite and Hispanic population per square mile across counties of the South is depicted in figure 2 (p. 30). It shows that shifts in racial and ethnic diversity are occurring especially fast in metropolitan growth areas in Texas and Florida and in the Piedmont from Georgia to Virginia. These are the same areas where the greatest population increases as well as losses of forest cover are projected.

Such changes are important because research has shown that whites, blacks, Hispanics, Asians, and others differ in how they use and value forests and other natural resources (Cordell et al. 2002). From the surveying done for SFRA, we saw that non-Hispanic whites are more biocentric in their forest values and attitudes than are nonwhites and Hispanics. Non-Hispanic whites will likely be a smaller percentage of the future populations in the areas where greatest population growth and losses of forest cover are projected. The South's population is also growing older. The national median age is about 35 years, but in many southern states it is higher. Areas with the highest percentage of residents age 55 years or older include central Texas, Arkansas, Oklahoma, and southern and central Florida. The median age is expected to continue to rise in the South, especially in retirement destinations (Cordell and Overdevest 2001). Increases in proportion of the population that is retired may alter the kinds of demands and constraints placed on forests in the future. For one, like Hispanics and nonwhites, older people tend to be less biocentric and more in favor of utilitarian uses of forests.

### Outdoor Recreation

*Outdoor recreation demand.* Participation in outdoor recreation in the South has been growing steadily (fig. 3, p. 31). Among the fastest-growing activities are viewing and photographing natural subjects. For example, the number of people viewing and photographing fish in natural waters almost doubled between 1995 and 2000. Also fast-growing is kayaking, which is becoming increasingly popular. Although well down the list, even camping and off-road driving are growing at a faster rate than population in the South.

Topping the list of most popular recreation activities are walking for pleasure, attending family gatherings, visiting nature centers, sightseeing, dri-

ving for pleasure, picnicking, viewing or photographing natural scenery, and visiting historic sites—activities that require little specialized skill or equipment. Of the top 20 activities, only two, fishing and gathering, are consumptive, and only two, driving for pleasure and boating, are motorized.

There is rising interest in the South in gathering natural products, including firewood and nontimber forest products, such as mushrooms, berries, rocks and minerals, tree materials, herbs, and flowers. Based on survey results, we estimate that 31 percent of Southerners participate in gathering, 54 percent of them in a forest setting. Only 2 percent do it for income.

*Recreational opportunities.* The South is richly endowed with diverse recreation opportunities, from large tracts of undeveloped forestland to urban theme parks. We focused on the situation in rural settings, using data from the National Outdoor Recreation Supply Information System (Betz et al. 1999).

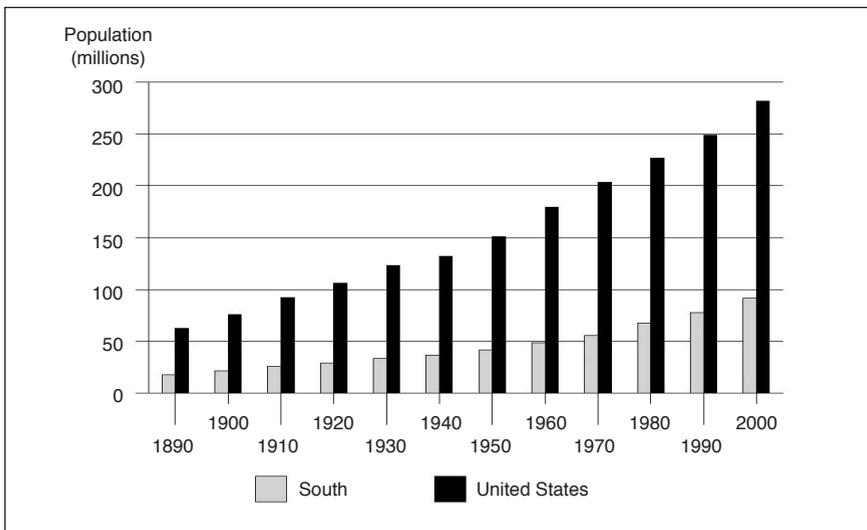
In the South, the federal government owns an estimated 29.8 million acres, including 12.9 million acres in national forests, 5.4 million acres in

national parks, and 3.8 million acres in wildlife refuges. These and other federal properties include significant water resources for recreation. For example, the US Army Corps of Engineers manages some 2.6 million acres of water area, and the National Park Service manages 234,000 acres of national rivers and 183 sites for swimming and boating. Policies regarding recreational access and use vary by the federal agency charged with management. Most agencies, however, permit use, and some encourage and develop for it. In recent years, appropriated funding by Congress has diminished relative to growth in visitation. We believe this will be the greatest barrier to future expansion of capacity for recreation on federal properties.

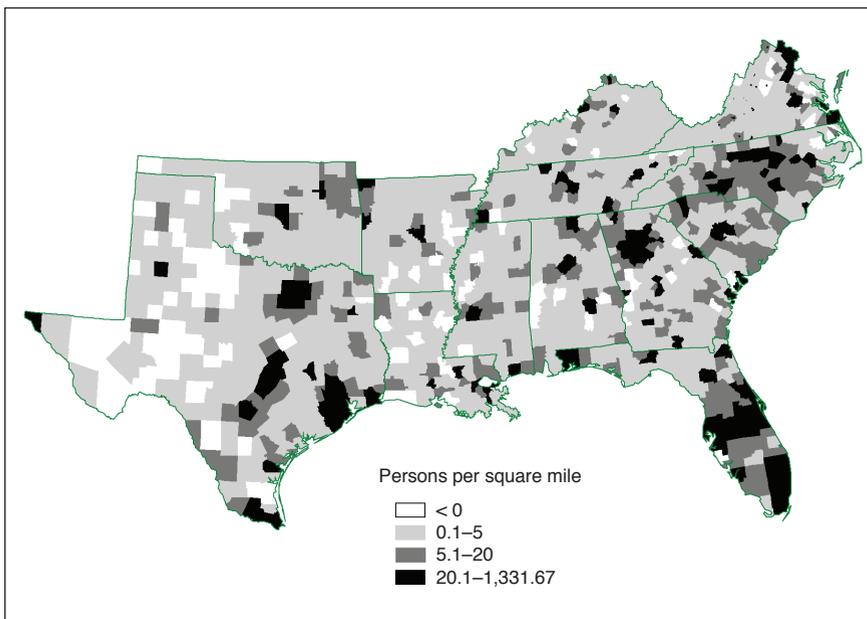
State land has been an important source of outdoor opportunities for a long time. Across the South there are 1.7 million acres in state park systems and 3.6 million acres in state forest systems. As a recreation opportunity, this state land, especially the parks, seems to have reached a point of maturity (Landrums 1999), and little further expansion of park acreage is anticipated. What is expected is continued develop-

## field messages

- There will be more congestion and competition for recreation areas as demand for such space increases. Forest managers, especially in the public sector, will need to address increased recreation demands and mitigate resource damage and competition among recreation users.
- Local regulations and ordinances, which are driven by changing public values relative to land management, will increasingly constrain forest managers in urbanizing areas.
- The number of forest owners is increasing and their backgrounds and land management objectives are changing. As a result, forestry consultants and state service foresters will need to implement a broad suite of management options and silvicultural techniques.
- Forest managers will be hard pressed to provide effective fire management in the expanding wildland-urban interface. In these areas, where forests are heavily populated, these problems will require creative and non-traditional solutions to managing fuels and maintaining fire in fire-dependent ecosystems. Effective public education on this issue is needed.



**Figure 1. Population for the United States and for the 13 states in the assessment area.**  
**Source: Southern Forest Resource Assessment, Summary Report.**



**Figure 2. Change in number of nonwhite and Hispanic residents per square mile, 1990-2000.**  
**Source: Census Bureau, Population Data Sets, 1990 and 2000.**

ment of new facilities, especially upscale facilities such as resorts, that use more private than state capital and draw visitors from greater distances and generate greater park revenues and economic impacts. As for federal agencies, the greatest uncertainty facing state systems is funding.

Fewer data are available on the outdoor recreation opportunities provided by county and municipal governments, but without doubt local governments have more recreational sites and facilities in the region than federal and state agencies combined. There are 896 mu-

nicipal, 416 county, 9 special district, and 40 miscellaneous other known recreation departments that range in size from one part-time professional to more than 50 full-time professionals. Opportunities include picnicking, boating, fishing, hunting, swimming, biking, hiking, and nature study, which are located where most people live—in urban areas.

Privately owned land dominates in the South. Corporate private owners typically provide recreation access by leasing land to clubs, counties, or other entities. Individual owners usually allow little or

no access (Teasley et al. 1999). Persistently, the number of individual owners who allow the public to recreate on their land has been decreasing (Cordell et al. 1999). Only about 14 percent of owners in the South permit the outside public to use their lands, even though the greatest growth in demand is for low-impact activities like nature appreciation and photography. It appears that even less private land may be open to public recreation in the future (table 1).

*Potential conflicts.* The rising demand for recreational opportunities often creates conflicts, which further limit supply by limiting simultaneous uses and also increase management costs. Conflicts arise between similar uses because of crowding; between nonsimilar uses because of incompatible norms, values, and goals; and between users and providers because of problems owners sometimes encounter. In such settings as trails, backcountry, developed sites, rivers, lakes, streams, and roads, conflicts can be expected to become more frequent because of growing use and differences in the way resources are used or in the expectations of different users. Regardless of setting, motorized and nonmotorized uses have the greatest potential for conflict.

Perhaps the most worrisome type of recreation conflict is between users and owners of private tracts. Because most of the forestland in the South is privately owned, user conflicts with private owners is especially significant. Problems often attributed to recreation uses that can lead to land closure include garbage dumping, littering, illegal hunting and fishing, damage to fences and gates, damage to roads, disturbance of wildlife, and careless shooting. Not all, maybe not even most of these problems, are the result of recreation use; nevertheless, posting and other ways of denying access are on the rise and act to limit supply.

As of 1995, about 41 percent of owners in the South posted their land. Among owners who already post some or all of their land, 16 percent anticipate posting more in the future; very few anticipate posting less. Increasing demands for off-road vehicle use, hunting, fishing, and other consump-

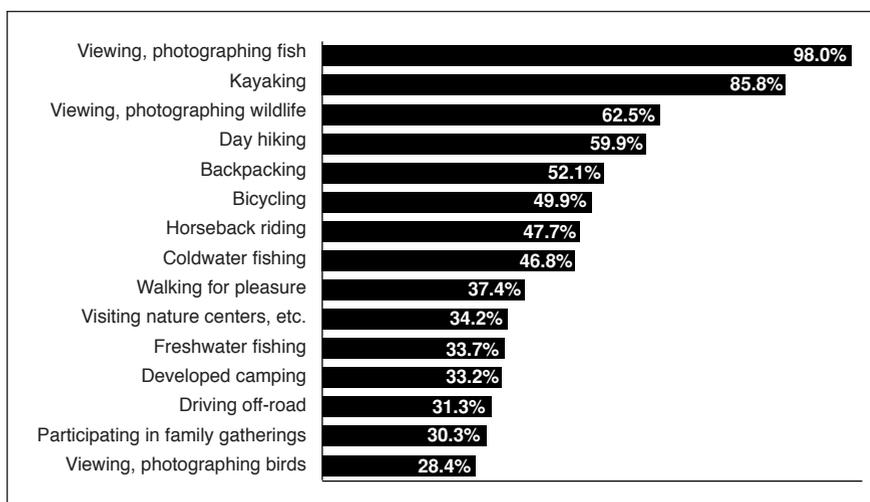
tive recreational activities are likely to spark more user-owner conflicts. Partly as a response, many higher-income residents of the South are purchasing their own land for personal recreational pursuits—and posting it.

### Values and Attitudes

The magnitude of the South's trends in population, demographic makeup, and demand for recreation suggests there may also be other important changes under way. In fact, a review of relevant literature and telephone surveying done for SFRA revealed a fundamental shift in public values and attitudes about forests and their management (Tarrant et al., in press). Support has been shifting steadily from a commodity, anthropocentric approach to forest management toward a more inclusive (commodity and noncommodity) and more biocentric orientation.

*Values.* Published literature has indicated that private forest owners and the public rank “conservation” higher now than in past decades. In a survey designed specifically for SFRA (Tarrant et al., in press), Southerners confirmed that environmental benefits from forests are valued higher than commodity benefits. Wood as a production commodity was rated least important of four values (wood products, clean air, scenic beauty, and heritage) associated with forests; clean air was considered most important. When survey respondents were asked about values of public forests versus private forests, some differences emerged: producing wood products was valued higher if done in private forests, and clean air was valued higher if coming from public forests. These results indicate that Southerners hold measurably stronger environmental values and more restrictive commodity values about public forests than they hold for private forests (table 2, p. 32).

Respondents to the SFRA survey were asked about ownership of rural land of 10 acres or more. Those who reported owning such land held much the same forest values as those who did not. There were no significant differences between the two groups in attitudes toward the environment. The single exception was that landowners



**Figure 3. Percentage growth in 15 fastest-growing recreation activities in the South between 1995 and 2000.**

**Table 1. Percentage of owners indicating how much land will be open to recreation for nonfamily members by time period and region, 1995–96.**

	South	Nation
Now compared with five years ago		
More	5.0%	5.0%
Same	86.1	88.2
Less	8.6	6.8
Five years in the future compared with now		
More	4.2	3.0
Same	81.7	83.7
Less	14.1	13.3

SOURCE: National Private Landowners Survey, Environmental Resource Assessment Group, Athens, GA.

rated wood products as a more important use for private forests than did non-landowners.

*Attitudes.* Whereas values indicate the relative good or worth of forests, attitudes represent degrees of agreement with particular forest conditions or environmental issues, such as regulations, laws, and policies. Based on results from the SFRA survey, a majority (62.5 percent) of Southerners said “too little” was being spent on protecting the environment. Only 9.2 percent reported they felt “too much” was being spent. Similarly, 45.5 percent indicated environmental laws had “not gone far enough”; only 13.1 percent thought environmental laws had “gone too far.” To examine environmental attitudes, the SFRA survey used the New Ecological Paradigm (NEP), which asks people how they feel about the rela-

tionship between humans and the natural environment. An overall mean score of 23.8 across responses to NEP as used in the SFRA survey (10 = highly favorable, 30 = midpoint, 50 = highly unfavorable) suggests a moderately strong pro-environmental attitude among Southerners.

*Demographic differences.* SFRA compared the values and attitudes of different social groups in the South, distinguished by place and length of residency, age, gender, and race. These comparisons revealed that where people live (urban or rural) and how long they have lived in the South is not related to what they think about forests and the environment. Age, however, is a factor. Younger people place significantly less importance on wood products from private forests and significantly more on heritage than do older

**Table 2. Mean of assigned values Southerners hold toward public and private forests. Standard deviations in parentheses, N=500. 1 = extremely important; 5 = not at all important.**

Assigned value	Mean (Standard deviation)	
	Public forests	Private forests
Wood products	3.3 (0.93)	2.8 (1.20)
Clean air	1.5 (0.75)	1.6 (0.78)
Scenic beauty	2.4 (0.97)	2.7 (1.00)
Cultural and natural heritage	2.7 (0.98)	2.9 (0.96)

people. Younger people also value scenic beauty in public forests significantly higher than do older people. Younger people are significantly more likely than older people to say that we are spending too little to protect the environment and that environmental laws have not gone far enough. Generally, younger people tend to have more biocentric values.

Like younger people, women exhibit pro-environmental attitudes more so than men and are more likely to believe that we have spent too little on the environment and that environmental laws have not gone far enough. Overall, women demonstrate more biocentric values and pro-environmental attitudes than men. Compared with non-Hispanic whites, other races or ethnicities placed significantly higher importance on wood production and clean air values of forests. Non-Hispanic whites rated public forests as more important for scenic values than did nonwhites.

### Summary and Conclusions

The South is one of the fastest-growing regions in the country. With population and economic growth have come more demands on the region's forests. Accommodating the growing demand for outdoor recreation will be a major challenge for forest management. The supply of recreational opportunities on public lands will likely continue to be limited by inadequate budgets at all levels of government, and conflicts between recreational uses are likely to continue to grow. Increasing pressures from all types of activities can have a variety of impacts on soils, water, vegetation, and animal life, as well as on other forest uses. Recreation use on private lands, meanwhile, is increasingly being

limited to owners and their families, friends, and lessees.

Yet in spite of these trends, one might see positive connections between rising recreation demand, shrinking supply, and growing environmentalism in the South. Many landowners are eager to improve the natural conditions of their land. Their growing interest in conservation may intersect with our finding that four of the nine fastest-growing recreation activities in the South involve viewing and learning. Such nonconsumptive, low-impact activities might be compatible with landowners' conservation goals, and that compatibility opens up the possibility of partnerships between owners and recreation seekers who want to see, study, and photograph wildlife, wildflowers, birds, and other natural attributes of forests. Landowners might be persuaded to grant recreational access in exchange for users' help in, for example, planting food species for wildlife, restoring and protecting habitat, and monitoring use. The public sector can be the facilitator that connects interested owners with users and provides training in the principles and practices of land stewardship and resource management.

The increases in recreational uses of public forests also present an opportunity. The growing numbers of people who watch birds and study plants and animals might be persuaded to act on their biocentric values and pro-environmental attitudes by volunteering to help with public land improvement projects, such as stream structure improvements or removals of exotic plants. This is a new twist on an old idea: hiking and backpacking organizations and individuals have been active in trail improvement projects for

decades. But birding enthusiasts and other interest groups have not been as involved.

If both private and public forests are left to accommodate rising demands without some larger, ongoing management strategy, growing use pressures are likely to impair long-term health and productivity. Where growing pressures are predicted; collective, multi-scale planning and actions are needed. Such planning and coordinated actions require a well-oiled partnership among all interests, public and private. The changing demographic makeup of the South's population is likely to be a complicating factor in building these partnerships and gaining public support and involvement. Success can be gained only if these changes are taken into account and the value and attitude shifts they bring with them are understood.

The forestry community is uniquely qualified to act as a leader and a catalyst in collaborative conservation efforts. In their positions at all levels of government and in the private sector, foresters, including scientists, can play crucial roles. In the past, the profession has often focused on stand inventories, game habitat, water production, forest health, and commodity interests. Now nontraditional, aesthetic demands are overtaking traditional forest utilization. Greater research and monitoring attention are needed to better understand the nature of growing demands and their potential consequences.

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