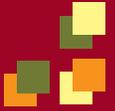




Forest Inventory & Analysis Factsheet

Georgia 2004



Forest Land Area

Georgia contains the largest area of forest cover in the South with 24.8 million acres or 67% of the State. This is an increase of about 371,000 acres since the previous forest inventory in 1997. Ninety-eight (98) percent of the forest land is considered available for timber production and known as timberland. The remaining forest land area is reserved forest land where timber removals are prohibited by law or unproductive forest land (produces < 20 cubic feet/acre/year).

Area by Land Class (million acres)

Land class	1936	1953	1961	1972	1982	1989	1997	2004
Timberland	21.4	24.0	25.8	24.8	23.7	23.6	23.8	24.2
Other/reserved	—	0.1	0.1	0.4	0.6	0.5	0.6	0.5
Total forest land	21.4	24.1	25.8	25.3	24.3	24.1	24.4	24.8
Nonforest land	16.2	13.6	11.8	12.1	12.9	13.0	12.7	12.3
Total land area	37.6	37.7	37.7	37.4	37.2	37.1	37.1	37.1
Percent forested	57%	64%	69%	68%	65%	65%	66%	67%

Totals may not sum due to rounding.
Total land area estimates changed slightly over time due to improvements in measurement techniques and refinements in classification of small bodies of water and streams.

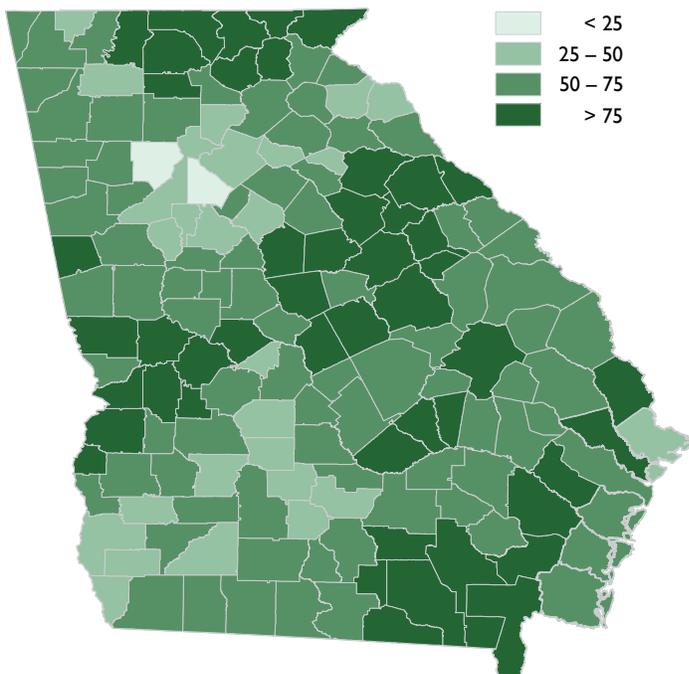
Forest Distribution

Of the 159 counties, 131 are > 50% forested and account for 91% of the forest land area and 90% of the growing-stock volume. As expected, the less forested areas are around the Atlanta metropolitan area and in the farmland area in the Southwest region of the State.

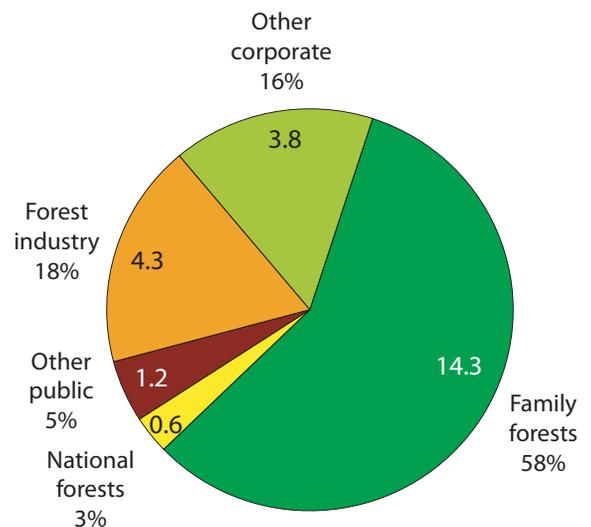
Ownership of Timberland

Private landowners control 22.4 million forested acres (92%). The remaining 8% is publicly owned including other federal lands, State, and local lands. Family forest ownership is still the dominant landowner with 14.3 million acres.

Percentage of Land in Forest by County



Ownership of Timberland

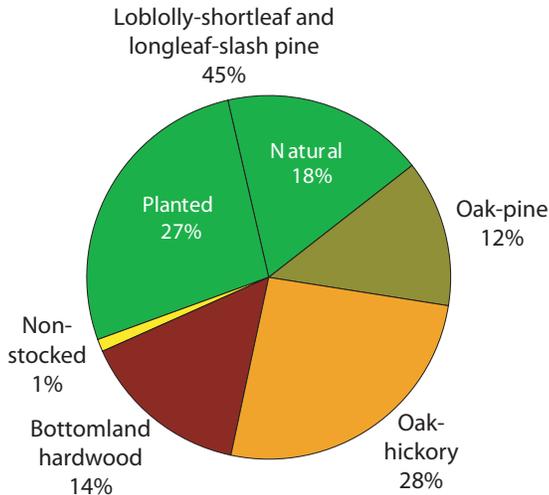


Note: Numbers on the pie chart represent million acres.

Forest-Type Group Composition

Loblolly-shortleaf and longleaf-slash pine groups comprise almost all of the 11 million acres of softwood forest types. Hardwood types and oak-pine forest type account for 54% of the timberland area totaling 13 million acres. The oak-gum-cypress and elm-ash-cottonwood groups make up the bottomland hardwood area. Almost 6.5 million acres are planted pine and represents 60% of softwood forest types or 27% of all timberland.

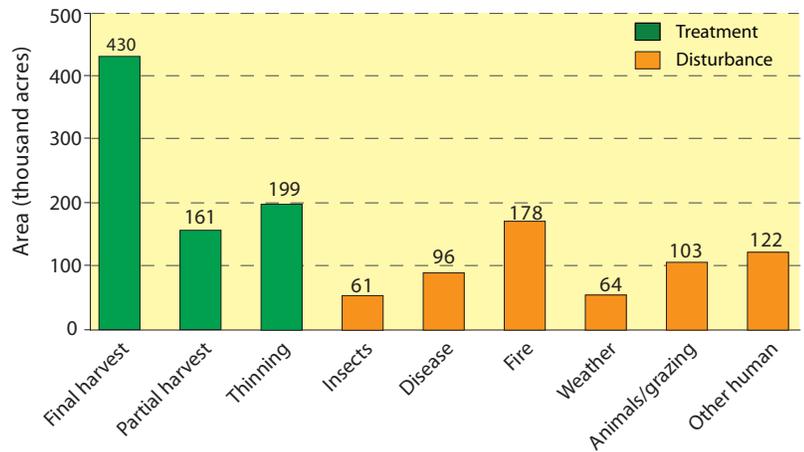
Area of Timberland by Forest-Type Group



Forest Disturbance

On the average each year, about 6% of the timberland area experiences some form of disturbance or silvicultural treatment. Harvesting occurs on about 3% of the timberland area and accounts for 56% of the disturbance area. About 44% is caused by all the other disturbances. Fire, weather, insects, and disease account for about 28% of total disturbance each year.

Average Annual Timberland Disturbance Types



Growing-Stock Tree Volume (≥ 5.0 inches d.b.h.) — 1972 to 2004

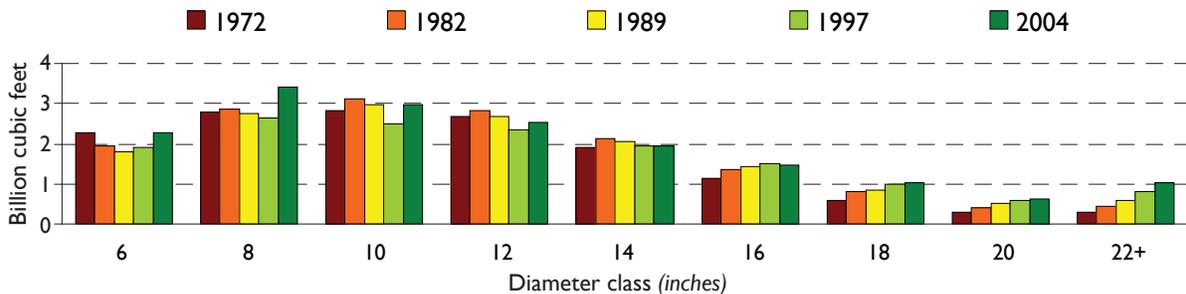
Growing-stock trees—since 1972, volume has increased by 7.9 billion cubic feet or 31%.

Softwood—has increased 2.6 billion cubic feet or 18%.

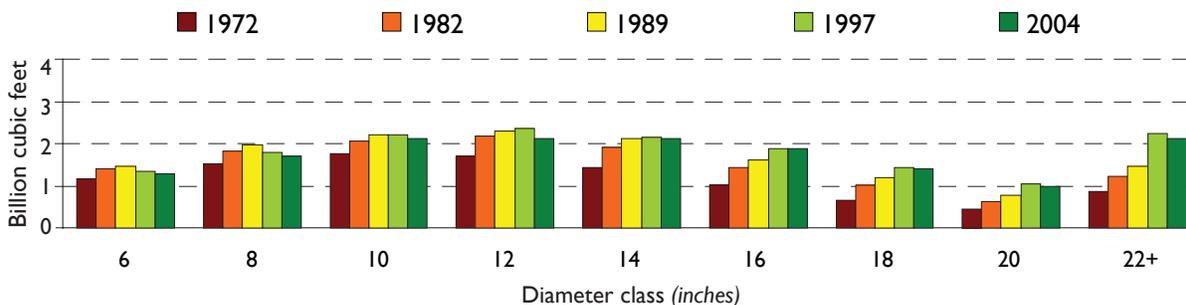
Hardwood—has increased 5.2 billion cubic feet or 50%.

Growing-Stock Tree Volume on Timberland by Diameter Class

Softwood

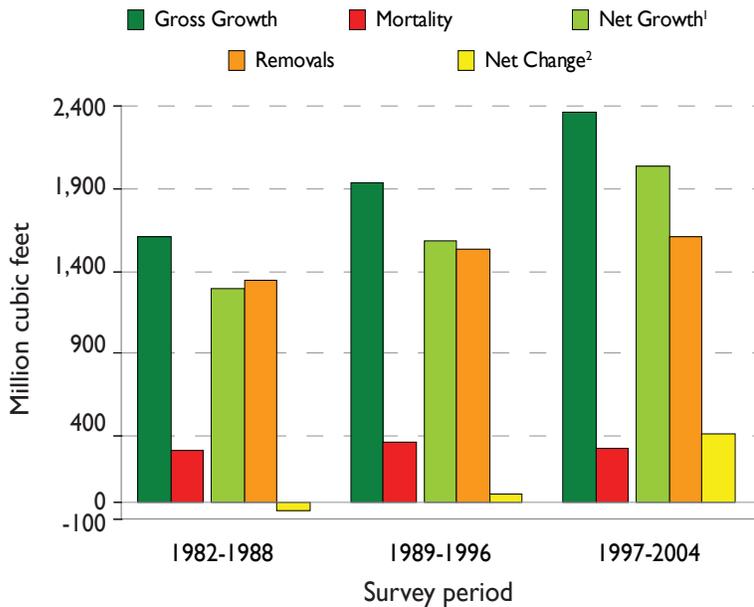


Hardwood



Average Annual Mortality, Net Growth, and Removals

Average Annual Change for Live Trees by Survey



¹ Net Growth = Gross Growth - Mortality.

² Net Change = Net Growth - Removals.

Net Change—This is an indicator of whether the forest tree-volume is increasing or decreasing, on average, each year during the survey period.

- For survey period 1989-1996 the average net change was +53 million cubic feet each year. Softwood inventory was -59 million cubic feet per year and hardwood was +112 million cubic feet.
- For survey period 1997-2004 the total average net change was +420 million cubic feet each year. Softwood was +248 million cubic feet per year and hardwood was +171 million cubic feet per year.

This +420 million cubic feet per year is almost a seven fold increase of growth exceeding removals since the last survey period – **one of the key indicators of a sustainable timber resource** – and represents 1.1% of the total timberland volume.

Mortality

- Annual mortality of all live trees.
- 0.33 billion cubic feet per year, decrease of 9% since the last survey.
- Softwood ≈ 0.16 billion cubic feet per year – a decrease of 5%.
- Hardwood ≈ 0.17 billion cubic feet per year – a decrease of 12%.

Net Growth

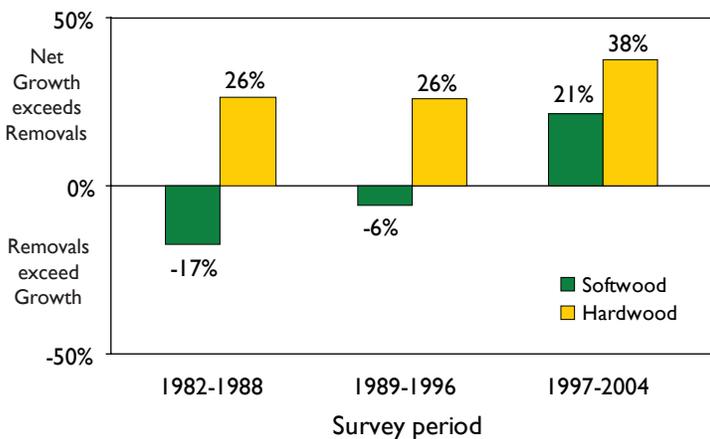
- Annual Gross Growth minus Mortality.
- 2.0 billion cubic feet per year and increased 29%.
- Softwood ≈ 1.4 billion cubic feet per year.
- Hardwood ≈ 0.62 billion cubic feet per year.

- Net growth of live trees increased 36% for softwood and 14% for hardwood.

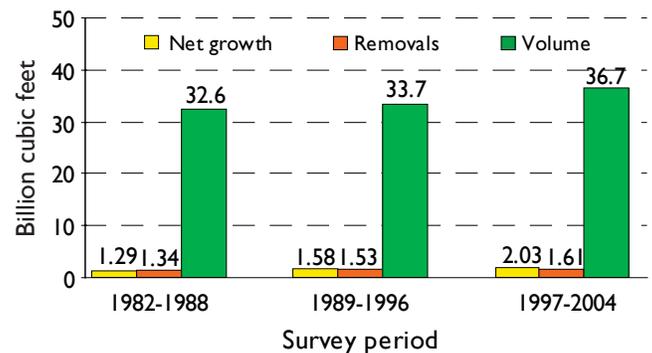
Removals

- Total annual removals of all live trees by harvesting or land clearing (conversion to nonforest).
- 1.6 billion cubic feet – increased < 6%.
- Softwood ≈ 1.2 billion cubic feet.
- Hardwood ≈ 0.45 billion cubic feet.
- Annual removals increased 6% for softwood and 4% for hardwood.

Percent Average Annual Net Change



Average Annual Net Growth/Removals for Live Trees Compared to Total Volume*



* Net growth and removals are shown on the same scale as total volume. Historically, net change represents about 1% of the total volume or less. Total inventory volume has increased almost 13% since 1988.

Precautions

Traditional users of FIA data are accustomed to the highly variable accuracy of small subsets of population totals. All FIA published reports devote a brief explanation of sampling errors and provide cautions about the reliability of subpopulations such as county-level statistics. Therefore, when summarizing statistics from the FIA database, it is strongly recommended that users beware of any subdivision below the survey unit level (e.g. county level data will experience higher and more variable standard errors).

Definition of Terms

Average annual gross growth. Average annual increase in volume of trees 5.0 inches d.b.h. and larger in the absence of cutting and mortality. Gross growth includes survivor growth, ingrowth, growth on ingrowth, growth on removals before removal, and growth on mortality before death.

Average annual mortality. Average annual volume of trees 5.0 inches d.b.h. and larger that died from natural causes during the intersurvey period.

Average annual net growth. Average annual net change in volume of trees 5.0 inches d.b.h. and larger in the absence of removals during the intersurvey period. Average annual net growth is equal to average annual gross growth minus average annual mortality.

Average annual removals. Average annual volume of trees 5.0 inches d.b.h. and larger removed from the inventory by harvesting, cultural operations, (such as timber-stand improvement), land clearing, or changes in land use during the intersurvey period.

D.b.h. Tree diameter in inches (outside bark) at breast height (4.5 feet above ground level).

Forest land. Land at least 10 percent stocked by forest trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. The minimum area considered for classification is 1 acre. Forested strips must be at least 120 feet wide.

Timberland. Forest land capable of producing 20 cubic feet of wood volume per acre annually and not withdrawn from timber utilization.

Reserved forest land. Public forest land capable of producing 20 cubic feet of wood volume per acre annually, but withdrawn from timber utilization through statute or administrative regulation.

Other forest land. Forest land that is incapable of producing 20 cubic feet of wood volume per acre annually under natural conditions due to adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Forest industry. Companies or individuals operating primary wood-using plants.

Forest type. A classification of forest land based on the species forming a plurality of live tree stocking.

Forest-type groups. A combination of forest types that share closely associated species or site requirements. For this report, groups are: longleaf-slash, loblolly-shortleaf, oak-pine, oak-hickory, oak-gum-cypress, elm-ash-cottonwood, maple-beech-birch, white-red-jack pine, and spruce-fir.

Growing-stock trees. Live trees that contain at least one 12-foot or two 8-foot logs in the saw-log portion, either currently or potentially if too small to qualify as a saw log. The log(s) must meet dimension and merchantability standards to qualify. Trees must have one-third of the gross board foot volume in sound wood, either currently or potentially.

Growing-stock volume. The cubic-foot volume of sound wood in growing-stock trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top d.o.b. of the central stem.

Hardwoods. Dicotyledonous trees, usually broadleaf and deciduous.

Nonforest land. Land that either has never supported forests, e.g., marsh, noncensus water, or land formerly forested that has been developed for agricultural, urban or other uses.

Other private. Land owned by individuals and corporations, including individual and corporate farms, where the owner does not own a primary wood-using plant. This land is often referred to as nonindustrial private forest land (NIPF).

Sawtimber. Softwood species 9.0 inches d.b.h. and larger and hardwoods 11.0 inches d.b.h. and larger.

Softwoods. Coniferous trees, usually evergreen, having leaves that are needles or scalelike.

Tree. Woody plants having one erect perennial stem or trunk at least 3 inches d.b.h., a more or less definitely formed crown of foliage, and a height of at least 13 feet at maturity.

Volume. The amount of sound wood in live trees at least 5.0 inches d.b.h. from a 1-foot stump to a minimum 4.0-inch top diameter outside bark of the central stem.

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