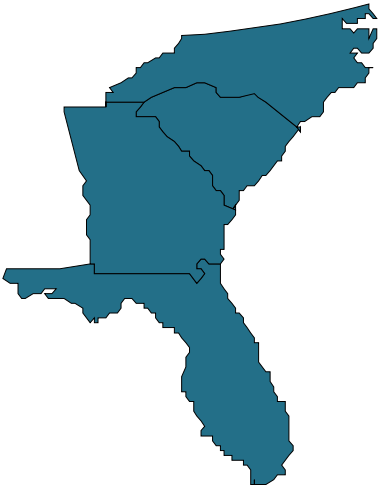


South Atlantic

- East Florida
- Georgia
- North Carolina
- South Carolina



Management Context

The South Atlantic Region is comprised of Georgia, North Carolina, South Carolina, and East Florida. Federal fisheries in this region are managed by the South Atlantic Fishery Management Council (SAFMC) and NOAA Fisheries (NMFS) under eight fishery management plans (FMPs).¹ The spiny lobster and coastal migratory pelagic resources fisheries are managed with the Gulf of Mexico Fishery Management Council (GMFMC). The Dolphin Wahoo FMP is managed with the Mid-Atlantic Fishery Management Council (MAFMC) and the New England Fishery Management Council (NEFMC).

South Atlantic Fishery Management Plans

1. Coastal Migratory Pelagic Resources (with GMFMC)
2. Coral, Coral Reef, and Live/Hardbottom Habitat Plan
3. Dolphin Wahoo (with MAFMC and NEFMC)
4. Golden Crab
5. Pelagic Sargassum Habitat
6. Shrimp
7. Snapper Grouper
8. Spiny Lobster (with GMFMC)

Of the species or species groups covered in these fishery management plans, pink shrimp, snowy grouper, black sea bass, red porgy, and red snapper are currently considered overfished. For short-lived species such as pink shrimp, environmental conditions are generally believed to have a more significant effect than from fishing. Species or species groups currently subject to overfishing are: vermillion snapper, red snapper, snowy grouper, tilefish, red grouper, black sea bass, gag, black grouper, speckled hind, and warsaw grouper.

The South Atlantic wreckfish fishery is managed as an individual fishing quota (IFQ) fishery. This limited access privilege program (LAPP) is a type of catch share program and was put into place in 1992. The fishery had an ex-vessel value of \$300,000 in 2007.

Commercial Fisheries

Commercial fishermen in the South Atlantic harvested 105 million pounds of finfish and shellfish in 2007, earning over \$151 million for their catch. Shrimp and blue crab were a major source of ex-vessel revenue in 2007, generating a combined \$76 million or 51% of total catch. These species also contributed the most to total landings in the region, with 34 million pounds of blue crab and 21 million pounds of shrimp landed in 2007. High value species such as clams and oysters accounted for less than 2% of total landings in 2007, but generated 5% of total revenue that year due to their high ex-vessel price per pound (\$6.09 and \$4.92, respectively).

¹The authority to manage red drum was transferred to the Atlantic States Marine Fisheries Commission (ASMFC) in 2008.

North Carolina contributed most to the ex-vessel revenue and landings in the region, with \$82 million earned for 63 million pounds landed in 2007. East Florida (\$43 million, 25 million pounds), South Carolina (\$16 million, 9.3 million pounds), and Georgia (\$10 million, 7.2 million pounds) followed.

Key South Atlantic Commercial Species

- Clams
- Blue crab
- Flounders
- Groupers
- King mackerel
- Oysters
- Shrimp
- Snappers
- Swordfish
- Tunas

Economic Impacts²

Florida led the region in terms of sales, income, and job impacts related to the seafood industry in 2007. In-state sales in Florida generated over \$5.1 billion in 2007 with income impacts totaling \$2.8 billion. Over 101,000 full- and part-time jobs were generated from the seafood industry in this state. North Carolina ranked second in the South Atlantic in terms of economic impacts with \$655 million in in-state sales, \$352 million in income impacts, and 16,000 full- and part-time jobs. In terms of employment, Georgia (11,000 jobs) and South Carolina (1,900 jobs) followed.

Landings Revenue

Ex-vessel revenue for finfish and shellfish totaled \$151 million in 2007, a 24% decrease (-68% in real terms) from landings revenue in 1998 (\$198 million) but a 7.4% increase from 2006 (\$141 million). Shellfish revenue accounted for 59% of total revenue in the South Atlantic, bringing in \$90 million in 2007. This was a 34% decrease (-45% in real terms) relative to 1998 (\$136 million) but a 12% increase (6% in real terms) from 2006 (\$80 million). Finfish revenue totaled \$61 million, a 0.8% decrease (-17% in real terms) from 1998, and a 1% increase (-4.5% in real terms) from 2006.

Fishermen in North Carolina accounted for 54% of the region's landings revenue in 2007. This was a 19% decrease relative to total revenue in 1998 (\$101 million) but a 17% increase relative to 2006 (\$70 million). Blue crab (\$21 million), shrimp (\$18 million), and flounders (\$11 million) contributed the most to total revenue in North Carolina. Georgia (-58%), South Carolina (-45%), and East Florida (-3.2%) also had declining revenue trends from 1998-2007. Only East Florida had an increase in total revenue from 2006-2007, a 2% increase, but in real terms, East Florida experienced a 3.8% decrease. Most of the revenue generated in these three states came from shrimp and blue crab landings.

²Economic impacts reported here are for the state of Florida, not East Florida.

Revenue from shrimp and blue crab was the highest of the key species and species groups in 2007, contributing 51% to total revenue in the South Atlantic. This was true despite declining revenue trends over the 10 year time period. Shrimp landings revenue declined 30% (-42% in real terms) and blue crab declined 43% (-52% in real terms) relative to 1998 landings revenue for these species. However, both species experienced an increase in revenue from 2006-2007: 9.1% for shrimp (3.1% in real terms) and 23% for blue crab (16% in real terms).

Across the South Atlantic, the only other key species or group to have declining revenue trends from 1998-2007 are clams (-62%, -68% in real terms) and flounders (-9.4%, -24% in real terms). In contrast to these declines, tuna revenue increased 150% (109% in real terms), oyster revenue increased 114% (79% in real terms), and snapper revenue increased 55% (30% in real terms). However, oyster revenue decreased slightly between 2006 and 2007 (-1.7%, -7.1 in real terms).

At the state level, large changes in landings revenue over the 10 year period occurred for: Spanish mackerel (85%) and clams (-88%) in East Florida; groupers (6,050%), clams (122%), snails or conchs (-100%), and shrimp (-70%) in Georgia; tunas (199%), snappers (88%), and blue crab (-52%) in North Carolina; and oysters (88%), sharks (77%), tilefish (-97%), and clams (-74%) in South Carolina.

Commercial Fish Facts

Landings revenue

- On average, the South Atlantic's key species and species groups accounted for 78% of total landings revenue.
- Shrimp and blue crab contributed the most to total revenue from 1998-2007, averaging \$43 million and \$33 million, respectively. Fishermen in North Carolina generated most of this revenue.
- The largest annual increase in revenue was 109% for tunas, which increased from \$2.0 million to \$4.2 million from 1999-2000. The largest annual decrease was a 37% decrease in shrimp revenue (2000-2001).

Landings

- The South Atlantic's key species and groups contributed an average of 52% to total landings annually.
- Blue crab and shrimp contributed the most to total landings in the region, averaging 34 million pounds and 21 million pounds from 1998-2007. North Carolina fishermen harvested the majority of these species.
- Landings of tunas increased 50% from 2005-2006, the largest annual increase. Most of these landings were harvested in North Carolina. The largest annual decrease in landings was for shrimp which decreased 39% from 2004-2005.

Prices

- Clams (\$6.69) and oysters (\$4.17) had the highest average ex-vessel price per pound from 1998-2007.
- Blue crab (\$0.85) and king mackerel (\$1.66) had the lowest average ex-vessel price of the region's key species or groups.
- Swordfish had the largest annual increase in ex-vessel price, increasing 52% from 1999-2000. This was followed by a 20% decrease from 2000-2001, the largest annual decrease.

Landings

Across the South Atlantic, commercial fishermen harvested 105 million pounds of finfish and shellfish in 2007. This was a 57% decrease from 1998 (241 million pounds) and a -8.8% decrease from 2006 (115 million pounds). Shellfish accounted for 55% of total landings (58 million pounds) in 2007. However, this was a 47% decrease from 1998 harvest levels (109 million pounds) and a 7.5% decrease from 2006 (63 million pounds). Finfish harvest decreased 65% from 132 million pounds in 1998 to 47 million pounds in 2007. From 2006-2007, finfish landings declined 10%.

Finfish and shellfish landings experienced double digit declines in all four South Atlantic states between 1998 and 2007. The largest changes were in North Carolina where finfish landings decreased 73% and shellfish landings decreased 53%. Finfish and shellfish landings decreased as follows: -32% and -50%, respectively, in South Carolina; -43% and -46% in Georgia; and -19% and -12% in East Florida.

Blue crab and shrimp were a major component to landings totals across the South Atlantic. In 2007, 34 million pounds of blue crab and 21 million pounds of shrimp were harvested. These species accounted for 52% of the total harvest in 2007. Fishermen in North Carolina landed 64% of blue crabs harvested across the region. However, blue crab harvests declined 66% from 1998-2007. North Carolina and East Florida fishermen harvested 75% of total shrimp landings in 2007, harvesting 9.6 million and 6.2 million pounds, respectively. Relative to 1998 landings totals, this was a 106% increase in North Carolina and an 11% decrease in East Florida.

Other South Atlantic key species and groups with large changes in landings totals over the 10 year period include: a 62% increase in oysters, a 56% increase in tunas, and a 52% decrease in clams.

At the state level, dramatic changes in landings totals occurred for the following key species or groups: an 87% decrease in clams in East Florida; a 3,600% increase in groupers, a 177% increase in clams, and a 100% decrease in snails or conchs in Georgia; a 106% increase in shrimp, a 76% increase in tunas, and a 66% decrease in blue crab in North Carolina; and a 97% decrease in tilefish in South Carolina.

Prices

With the exception of clams and shrimp, 2007 ex-vessel prices for the South Atlantic's key species and species groups were higher than their 10 year average price per pound. Ex-vessel prices for clam decreased 22% (-35% in real terms) and shrimp prices decreased 18% (-31% in real terms) between 1998 and 2007. Tuna prices had the

largest increase of any key species or group during this period, increasing 61% (34% in real terms) from \$1.32 per pound (1998) to \$2.12 per pound (2007).

Across the region and at the state level, only clam and shrimp prices declined between 1998 and 2007. The largest decreases in clam prices were in South Carolina (-36%, -47% in real terms) and Georgia (-18%, -31% in real terms). The largest decreases in shrimp prices were 20% (-33% in real terms) in both North Carolina and Georgia.

All other key species or species groups increased in ex-vessel price. Relative to ex-vessel prices in 2006, grouper in the South Atlantic experienced the largest increase, increasing 16% from \$3.41 (2006) to \$3.96 per pound (2007). The price of snappers remained stable between 2006 and 2007, and tilefish (-30%) and shark (-23%) prices decreased.

The largest increases during this period were for: lobsters (81%, 51% in real terms) in East Florida; snail or conches (74%, 46% in real terms) in Georgia; black sea bass (71%, 43% in real terms) and tunas (69%, 41% in real terms) in North Carolina; and groupers (60%, 34% in real terms) in South Carolina.

Recreational Fishing

In 2007, there were 3.7 million resident recreational anglers in the South Atlantic. Residents and non-residents took 26 million fishing trips in the region in 2007. Over 86% of these anglers were residents of a regional coastal county. Of the total fishing trips taken, 51% of them were taken from a private or rental boat and another 46% were shore-based. Atlantic croaker and spot were the most caught key species or species group with 11 million fish caught in 2007. This key species group accounted for 26% of the total fish caught in the region. Just over half of these fish (59%) were harvested rather than released.

Key South Atlantic Recreational Species

- Bluefish
- King mackerel
- Dolphinfinh
- Spanish mackerel
- Drum (Atlantic croaker and spot)
- Porgies (sheepshead)
- Red drum
- Black sea bass
- Drum (spotted seatrout)
- Sharks

Economic Impacts and Expenditures

In 2007, recreational fishing activities in East Florida supported more jobs than in any other state in the South Atlantic with approximately 65,000 full- and part-time jobs supported. North Carolina (22,000 jobs), South Carolina (6,100 jobs), and Georgia (2,200 jobs) followed in terms of employment impacts from recreational fishing activities. The majority of these jobs were related to durable equipment expenditures (versus trip-related expenditures): 94% of jobs in Georgia; 91% of jobs in East Florida; 62% of jobs in South Carolina; and 52% of jobs in North Carolina.

When looking at trip-related employment impacts, industries that provided services for shore-based fishing trips supported most of the trip-related full- and part-time jobs in North Carolina (7,500 jobs) and South Carolina (1,100 jobs). Private or rental boat trips supported most of the trip-related jobs in East Florida (3,000 jobs) and Georgia (70 jobs).

In addition to jobs, the contribution of recreational fishing activities to the South Atlantic's economy can be measured in terms of sales impacts and the contribution of these activities to gross domestic product (value-added impacts). In 2007, sales and value-added impacts were highest in East Florida (\$7.4 billion in sales impacts; \$3.9 billion in value-added impacts). North Carolina (\$2.3 billion in sales impacts; \$1.1 billion in value-added impacts), South Carolina (\$551 million; \$298 million); and Georgia (\$263 million; \$136 million) followed. The majority of these sales and value-added impacts were supported by expenditures on durable equipment. When looking at which fishing mode contributed the most to sales and value-added impacts, shore-based fishing trips generated most of these economic impacts in North Carolina and South Carolina. In East Florida and Georgia, private or rental boat fishing trips contributed more to trip-related economic impacts than shore-based or for-hire fishing modes.

Across the South Atlantic Region, total fishing trip and durable equipment expenditures generated approximately \$12 billion in 2007. Approximately 89% of this was related to durable equipment purchases. Boat-related expenses (\$5.1 billion), vehicle (\$2.7 billion) and fishing tackle expenses (\$1.6 billion) accounted for the majority of these durable equipment expenditures. Fishing trip-related expenditures by South Atlantic resident and non-resident anglers totaled \$645 million and \$676 million, respectively. Most of the expenditures by resident anglers were related to private or rental boat fishing trips (\$377 million). Non-resident anglers spent most of their trip-related expenditures towards shore-based fishing trips (\$455 million).

Participation

There were 3.7 million resident recreational fishermen who fished in the South Atlantic in 2007. This was a 97% increase from 1998 (1.9 million anglers) and a 19% increase from 2006 (3.1 million anglers). These anglers were residents of either a coastal (3.2 million anglers) or non-coastal county (493,000 anglers) in the South Atlantic Region.³ The number of coastal

³At the state level, out-of-state anglers are estimated. However at the region level, out-of-region anglers are not estimated thus only South Atlantic Region resident anglers are discussed here. In *Fisheries Economics of the U.S., 2006* (FEUS 2006), angler participation totals from 1997-2006 incorrectly included out-of-state anglers at the region level. In this report, the 1998-2007 angler

county anglers in 2007 increased 98% from 1998 (1.6 million anglers) and increased 21% from 2006 (2.6 million anglers). Non-coastal county angler participation increased 93% from 1998 (256,000 anglers) and increased 3.4% from 2006 (477,000 anglers). When looking at where most anglers fished in 2007, 87% of the South Atlantic's total anglers fished in East Florida.

In 2007, the majority of recreational fishermen in East Florida and Georgia were residents of a coastal county⁴ within their respective state. These anglers comprised 68% of total anglers in East Florida and 48% of total anglers in Georgia. In contrast, most of North Carolina and South Carolina's anglers were out-of-state residents: 1.1 million anglers or 57% of total anglers in North Carolina and 550,000 anglers or 59% of total anglers in South Carolina. Non-coastal county residents accounted for a minority of total anglers in South Carolina (12%) and North Carolina (14%). Out-of-state residents comprised the smallest group of anglers in Georgia (15% of total anglers).

Fishing Trips

Resident and non-resident recreational fishermen took 26 million fishing trips in the South Atlantic in 2007. This was a 52% increase from 1998 (17 million trips) and a 7.7% increase from 2006 (24 million trips). In 2007, over 51% of total trips taken in the region were taken from a private or rental boat (13 million trips). Shore-based fishing trips were also popular with 12 million trips taken in 2007 or 46% of total trips in the region. This fishing mode was the only one to see a decrease between 2006 and 2007, decreasing 4.9%. Fishing trips taken from a for-hire boat was the only fishing mode to see a decrease between 1998 and 2007, decreasing 20%.

At the state level, there were 15 million fishing trips taken in East Florida in 2007. Trips taken in East Florida accounted for most of the fishing trips in the South Atlantic: 59% of total trips in the region. Private or rental boat trips were the most popular fishing mode in East Florida (8.3 million trips). North Carolina ranked second in terms of the total number of fishing trips taken in the South Atlantic with 7.0 million trips taken by anglers in 2007. South Carolina (2.6 million trips) and Georgia (926,000 trips) followed. Private or rental boat trips accounted for most of the trips taken in South Carolina and Georgia, while shore-based trips were the most popular mode in North Carolina.

participation totals excludes these anglers therefore the annual region totals reported here are smaller than those reported in FEUS 2006.

⁴All resident anglers in Florida are considered coastal county anglers.

Recreational Fishing Facts

Participation

- An average of 2.6 million resident anglers fished in the South Atlantic annually from 1998-2007. Most of these anglers were fishing in East Florida.
- In 2007, coastal county residents made up 87% of total anglers in this region. These anglers averaged 84% of total anglers annually over the 10 year time period.
- Non-coastal county resident anglers had the largest annual increase in participation, increasing 49% from 1999-2000. These anglers also had the largest annual decrease in participation, decreasing 20% from 2001-2002.

Fishing trips

- In the South Atlantic, an average of 20 million trips were taken annually between 1998 and 2007. Most of these fishing trips were taken in East Florida.
- Private or rental boat and shore-based fishing trips accounted for 13 million and 12 million fishing trips, respectively, in 2007. Together, these made up 98% of fishing trips taken that year.
- From 1999-2000, shore-based fishing trips increased 53%, the largest annual increase in fishing trip mode. From 1999-2000, for-hire fishing trips declined 22%, the largest annual decrease.

Harvest and release

- Atlantic croaker and spot was the most caught key species or species group in the region, averaging 8.7 million fish caught from 1998-2007. Of these, 59% were harvested rather than released in 2007.
- Half of the key species or groups caught from 1998-2007 were most often harvested rather than released. Dolphinfish (88% harvested), king mackerel (76%), and Spanish mackerel (66%) are examples.
- Key species or groups that are most often released rather than harvested from 1998-2007 include sharks (98% released), spotted seatrout (81%), and black sea bass (79%).
- Black sea bass had the largest annual increase in catch, increasing 95% from 2003-2004. The largest annual decrease in catch was for sharks. Their catch total decreased 49% from 1998-1999.

Harvest and Release

Atlantic croaker and spot had the highest catch totals of any key species or species groups in the South Atlantic. In 2007, approximately 11 million fish were caught by anglers in the region and 59% of these fish were harvested rather than released. Over 72% of these fish were caught in North Carolina. Spotted seatrout (7.6 million fish) and bluefish (7.0 million fish) were other key species that were caught in large numbers in 2007. Both of these species were most often released by anglers rather than harvested: 81% of spotted seatrout and 65% of bluefish. Sharks were also released in large numbers (99% of fish caught). In contrast, dolphinfish (83% harvested) and king mackerel (73%) were most often harvested rather than released.

All of the South Atlantic's key species and species groups showed increases in catch totals between

1998 and 2007. Key species or groups with dramatic changes included a 254% increase in total catch of spotted seatrout, 209% increase in black sea bass, and 173% increase in bluefish.

Between 2006 and 2007, only Atlantic croaker and spot decreased in total catch, decreasing 18% from 13 million fish to 11 million fish. All other key species or species groups increased during this period with the largest increases observed for Spanish mackerel (62% increase) and king mackerel (57%).

At the state level, Atlantic croaker and spot was the most caught key species or species group in 2007 for North Carolina (7.6 million fish). The majority of these fish were harvested rather than released. Spotted seatrout was the most caught key species or species groups in East Florida (3.9 million fish) and Georgia (1.5 million fish). The majority of these fish were released rather than harvested. In South Carolina, southern kingfish was the most caught key species or species group (2.1 million fish). Over 60% of these fish were harvested by anglers rather than released.

Marine Economy⁵

In 2006, the South Atlantic's gross domestic product by state totaled \$1.6 trillion. Employee compensation totaled \$894 billion and annual payroll totaled \$575 billion. These totals were all an increase from 1998 levels (59%, 31%, and 55%, respectively) and 2005 levels (6.9%, 6.4%, and 7.8%, respectively). Across the region, there were approximately 1.1 million establishments that employed over 16 million full- and part-time employees in 2006. Both of these economic measures increased from 1998-2006 (18% and 19%, respectively) and from 2005-2006 (2.4% and 4.7%, respectively).

At the state level, Florida⁶ had the highest establishment and employee numbers, annual payroll, employee compensation, and gross state product levels in the region. Florida's 517,000 establishments employed over 7.5 million employees in 2006. The gross state product in Florida was \$717 billion followed by North Carolina (\$381 billion), Georgia (\$376 billion), and South Carolina (\$146 billion).

Florida had the highest commercial fishing location quotient (CFLQ) in the South Atlantic region: 1.01 in 2006. This was a 26% decrease from 2001 (1.36) but a 1.0% increase from 2005 (1.0). Florida's CFLQ suggests that the level of employment in commercial fishing-related industries in Florida is slightly higher than the level of employment in these industries nationwide.⁷ The CFLQ in 2006 was 0.17 in South Carolina (61% decrease relative to 2001), 0.12 in Georgia (no change relative to 2001), and 0.09 in North Carolina (a 61% decrease relative to 2001).

⁵Data for 2007 was unavailable for this report therefore 2006 information is reported in this section.

⁶Information reported here is for the state of Florida, not East Florida.

⁷The CFLQ for the U.S. is 1.0. This provides a national baseline from which state CFLQs can be compared.

Seafood Sales and Processing

There were 234 nonemployer firms engaged in seafood product preparation and packaging across the South Atlantic in 2006. These firms had an annual receipt total of \$15 million in 2006. Most of these firms were located in Florida (74%). The number of firms increased 111% regionwide from 1998-2006, and increased 200% in Florida and 163% in Georgia. Regionwide annual receipt totals increased 78% (57% in real terms) relative to 1998 levels, with large state level increases in South Carolina (604%) and Florida (104%).

In 2006, 51 employer establishments involved in seafood product preparation and packaging employed approximately 3,300 employees regionwide. These establishments had a total annual payroll of \$118 million. From 1998-2006, the number of establishments decreased 46% regionwide and this trend was mirrored at the state level. The number of employees engaged in this industry decreased 20% regionwide but annual payroll increased 27% (12% in real terms). Most of these establishments were located in Florida (43%) and North Carolina (35%) but Florida and Georgia employed the most people (51% and 35%, respectively).

There were 378 establishments engaged in the seafood wholesale industry that employed over 3,500 full- and part-time workers across the South Atlantic in 2006. Over two-thirds of these firms were located in Florida (68%). From 1998-2006, the region's seafood wholesale establishment and employee numbers decreased 28% and 22%, respectively. With the exception of Georgia where employee numbers increased 18%, double digit declines were observed in all state level establishment and employee numbers. Regionwide annual payroll totaled \$128 million in 2006, a 20% increase (6% in real terms) from 1998 levels. Georgia had the largest increase in annual payroll totals in the region, increasing 113% from 1998-2006.

Nonemployer seafood retail firms experienced a small increase in numbers, increasing 5% to 520 firms in 2006. The largest increase in firm numbers was in South Carolina (27%). Most firms were located in Florida (48%) and North Carolina (22%). Annual receipts totaled \$43 million regionwide, a 15% increase from 1998-2006. The largest increase in annual receipts was in Georgia (48%).

Employer establishments engaged in seafood retail increased 28% regionwide from 1998-2006. Double digit increases were also observed at the state level. These 379 establishments employed approximately 1,600 full- and part-time employees and had an annual payroll totaling \$29 million. Most of these establishments, employees, and annual payroll were located in Florida (46%, 60%, and 67%, respectively). Regionwide, employee numbers increased 31% from 1998-

2006 with the largest increase in Florida (57%). Annual payroll totals increased 78% (57% in real terms) across the South Atlantic with modest (for example, 30% in South Carolina) and large (e.g., 98% in Florida) double digit increases at the state level.

Transport, Support, and Marine Operations

Within this industry sector, marina industries had the highest number of establishments in 2006 with 753 establishments across the South Atlantic. This was a 2% increase over 1998 levels. Most of these marina operations were located in Florida (68%) and North Carolina (14%). The number of people employed by this industry and annual payroll totals also increased, 87% and 132% (105% in real terms), respectively. Most of this growth was in Florida.

Ship and boat building industries employed the most people in 2006 (21,000 full- and part-time workers) and had the highest annual payroll (\$738 million). Modest increases were observed for this industry, with employee numbers increasing 14% and annual payroll totals increasing 40% from 1998-2006 (23% in real terms). Most of the ship and boat building activity in the region occurred in Florida (69%). At the state level, large changes were in Georgia (45% decrease in establishments), North Carolina (71% increase in employees, 125% increase in annual payroll), and South Carolina (78% increase in annual payroll).

Other industries with large changes from 1998-2006 were: coastal and Great Lakes freight transportation (100% increase in establishments in Georgia, 300% in South Carolina); deep sea freight transportation (43% decrease in establishments in North Carolina); and deep sea passenger transportation (50% decrease in establishments regionwide, -50% in North and South Carolina).