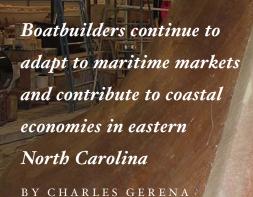
Seasoned by the Seas



orth Carolina's Croatan Highway is usually jammed with tourists heading to Kitty Hawk and Nags Head during the summer. But during the off-season, only a handful of locals drive past scores of shuttered restaurants and souvenir shops.

For John Bayliss and his 31-person crew of painters, carpenters, electricians, and office personnel, though, there is no off-season. Inside a complex of large, tan metal buildings at Bayliss Boatworks, the air is filled with the scent of freshly stained cabinets and the din of workers assembling the company's plywood-fiberglass boats.

Three vessels are in various stages of construction on this January morning. One is a 65-footer destined for a beer distributor in Clemson, S.C. In two weeks it will be ready for test runs in the waters off Wanchese, a small town on Roanoke Island, south of Nags Head.

Bayliss has learned the difference between a good hull and a bad hull through experience. He has the tanned, Workers at Bayliss Boatworks in Wanchese spread a coat of fiberglass onto the hull of a boat, one of the many labor-intensive tasks involved in building a custom boat.

weathered look of a man who has captained boats throughout the East Coast and the Caribbean for 22 years. "After you run so many different types of boats, you see the good and bad in every single one," he says. "All we have done is taken what we think are the best ideas and put them in a boat."

While tourism and other service sectors have become major drivers of coastal economies in eastern North Carolina, boatbuilders remain a source of well-paying manufacturing jobs the industry's statewide work force is about 20,000 people. Their products, born from the unique waters surrounding the Outer Banks, are prized by recreational boaters - the value of all boats made in the state is about \$450 million to \$500 million annually. Both estimates come from Mike Bradley, who heads the marine trades program at the University of North Carolina's Small Business Technology Development Center. Exact employment and revenue figures are hard to come by since most builders are privately owned.

Like other coastal residents, boatbuilders learned how to adapt to changing tides. Their products have evolved from helping commercial fishermen earn a living to helping sport fishermen earn trophies in national tournaments. They have maintained their niche in the marketplace while other traditional industries in North Carolina have contracted.

"The furniture industry is going offshore, the textile industry has gone offshore, and tobacco farming is gone," Bradley notes. "Boat-building is the only one that's still kicking." In large measure, the industry's success is due to its relatively limited aspirations. In general, the boats made in eastern North Carolina are not meant for mass consumption. They are typically custom-made, require skilled tradesmen to produce, and aimed at discerning buyers who value the boats' unique characteristics. Catering to this niche market has served the area's builders well.

Changing Tides

Eastern North Carolina's first boatbuilders were American Indians who carved simple log canoes. Later, colonists who settled in the region during the 1600s combined Indian designs with their own to address local environmental factors and economic needs.

The region's coastline is distinctive, characterized by a chain of barrier islands with maze-like, unstable inlets, and shallow creeks and sounds. This topography requires that vessels be smaller in size and depth in order to travel between communities and into the Atlantic Ocean. In addition, the ocean waters are unusually rough, requiring sturdy, durable boats.

"With the [warm waters of the] Gulf Stream and the [cold] Labrador Current meeting off Nags Head and Cape Hatteras, we have one of the highest energy levels anywhere along the East Coast," says Buddy Davis, a 33-year boat building veteran. His company in Wanchese produces about eight sportfishing boats yearly.

Coastal residents initially needed boats to get around and catch fish to feed their families. Then, as new export markets for shad, oysters, and other native seafood emerged, boats turned into business tools.

Locals continue to make a living from the ocean, from the watermen who catch seafood for export to charter boat operators who take others out for a day of angling. But the primary use for boats has shifted from "for profit" to "for fun."

While previous generations of boatbuilders were watermen, the last few generations have been former charter boat captains or avid sportfishermen. They have drawn upon their years of experience, as well as the legacy of Carolina boatbuilders, to meet current market demands.

The "Carolina flare," for example, has a deep-entry, sharply pointed bow that flares up to the deck. This enables a boat to slice through the choppy surf of the Outer Banks while deflecting the spray away from the captain. The flared bow first showed up in Core Sounders, powerboats built for local watermen during the 1930s. Now, it is prized by competitors in fishing contests held under similarly rough conditions. "[Our] boats were built for these waters," Bradley says.

Small and midsized craft require less investment in equipment and maintenance, are easier to learn how to operate, and don't need to be in a marina. But over the years, boat buyers have gained the financial means to acquire bigger vessels with the latest amenities, from GPS navigation to ornate master suites with wide-screen televisions.

"Boats are becoming a lot more sophisticated and a lot bigger," says John Bayliss, whose first boat was about 47 feet when he built it in the 1980s. At that time, the longest boats were in the 50-foot range. When Bayliss toured a few custom boat shops in Florida last fall, not a single one was making anything shorter than 70 feet.

Bigger, high-end boats are more expensive to build, but they provide profit margins wide enough to cover the growing costs of running a boatbuilding business in coastal North Carolina. Growth in vacation home and condo development combined with limited land availability has pushed up property values and taxes, while fuel and material costs have also increased.

Aiming for the high road also means catering to a wealthier, more stable customer base. According to the National Marine Manufacturers Association, the annual median income of new

boat owners was between \$75,000 and \$99,000 in 2004. "[These] are going to be the people that, in lean times, tend to have more expendable income," Bayliss says.

The demand for recreational boats is subject to the same factors that affect any leisure spending. These include changes in disposable income and consumer confidence, as well as fuel costs and weather conditions. For example, the stock market downturn in 2000 and the eight-month recession in 2001 helped boat sales decline from 2001 to 2003 before they rebounded in 2004.

In addition to a greater focus on the high-end of the recreational market, the boat-building industry has seen some larger, mass-production builders open for business over the decades. These firms produce more boats than many of their counterparts, but they also incorporate regional designs into their vessels.

One of the biggest in eastern North Carolina is Hatteras Yachts with 1,200 employees. The New Bern-based company offers 14 models of sportfishing and luxury yachts that earn an estimated \$78 million annually.

The More Things Change ...

At the same time, many boatbuilders buck the trends that have transformed manufacturing. While a few companies use multiple workstations and molds to churn out hundreds of units annually, most build every vessel to order, each employing less than 100 people to produce only a few units a year.

Custom builders don't have the production volume to spread out their fixed costs and realize economies of scale. So their marginal cost of production increases rather than decreases whenever they try to scale up their output.

That's one reason why, according to Bradley, a builder might charge

U.S. Recreational Boat Registrations

While owners of larger boats are still in the minority, their ranks have grown recently.

	1999	2004	% change
Under 16 feet	5,636,128	5,279,622	-6.3
16 to less than 26 feet	5,678,516	6,054,768	6.6
26 to less than 40 feet	418,018	469,159	12.2
40 to 65 feet	50,508	64,961	28.6
Over 65 feet	7,899	10,273	30.1
SOURCE: U.S. Coast Guard			

\$50,000 for a 24-foot boat, then the price shoots up to \$90,000 for a vessel that's just 4 feet longer and more than doubles to \$120,000 for a 32-foot boat. Another reason is that a lot more amenities go into making larger boats appealing for customers, adds Bradley.

That's just fine with custom builders like John Bayliss. When you aim for discerning customers in the high-end of the market, he believes, you can't make boats on a production line. It takes workers with significant skill and experience to custom-build boats, and that type of labor is relatively expensive to acquire. "We can't do what Hatteras Yachts can do; we can't spit out 100 boats a year," he notes. "But they can't do what we can do."

There is another thing that hasn't

Luxury Tax Threw Yacht Builders for a Loop

Ask North Carolina boatbuilders to look back at the challenges of the last few decades and many will point to one thing: Congress' passage of a 10 percent excise tax on luxury goods in 1990. This is a good example of the extent to which tax policy influences consumer demand and the difficulties of teasing out that effect from larger economic forces.

The luxury tax applied to aircraft with a retail price higher than \$250,000, boats priced above \$100,000, automobiles priced higher than \$30,000, and jewelry and furs selling for more than \$10,000. The levy was in place from January 1991 until lawmakers bowed to public pressure and repealed it for boats, planes, jewelry, and furs in 1993. Cars continued to be taxed until 2002.

One would think that someone who could afford a \$2 million pleasure craft wouldn't care much about paying 10 percent more for it. In fact, the demand for these boats can be quite responsive to changes in price or, as economists would say, elastic.

One reason is that the wealthy could shift their recreational dollars into other leisure activities that weren't taxed, like a day on the golf course. Another reason is that buyers could fly to the Bahamas and buy a boat there to avoid paying the excise tax. Finally, the demand for luxury goods in general is relatively price elastic because they are not necessary for everyday living, as is the case with water or electricity.

There was evidence that the wealthy reduced their purchases of some luxury goods during the tax's two-year lifespan. Actual IRS receipts from the tax on airplanes and furs fell short of the projections made by the Joint Committee on Taxation, a 10-member working group of congressional representatives. However, the tax on boats, airplanes, and jewelry exceeded the committee's projections.

There was also plenty of anecdotal evidence of a decline in demand for luxury boats. But it's hard to say precisely how much of this change was due to the luxury tax and how much was attributable to the general economic slowdown in the early 1990s.

Buddy Davis, who was producing all-fiberglass boats in Wanchese when the excise tax hit the boat-building industry, says his sales fell from about \$20 million in 1989 to less than \$3 million in 1991. He scaled back his business and refocused sales efforts on foreign markets. "That's the only thing that kept us alive."

Davis' story wasn't unique. Mike Bradley, manager of North Carolina Marine Trade Services in Beaufort, says the companies that were able to live through the early 1990s became really lean. Hatteras Yachts laid off nearly all its work force and Bayliner abandoned its three North Carolina plants, according to an April 2000 feature in *Metro Magazine* on Carolina boatbuilders.

Although builders of large, high-priced boats suffered, the luxury tax created opportunities for producers of smaller boats, Bradley notes. Beneficiaries included Kencraft Manufacturing, about 37 miles west of Greenville, N.C., and Parker Marine Enterprises, based near the coast in Beaufort.

Today, big boats are big business once again for North Carolina builders. In fact, the industry touts the tax advantages of buying on credit - you can write off the interest if the boat qualifies as a second home. - CHARLES GERENA

changed about the industry — its proximity to North Carolina's coastline. Seventy-two of the state's 107 builders are near the Intracoastal Waterway and the Atlantic Ocean, clustered around Roanoke Island in Dare County and Harkers Island in Carteret County. The rest are scattered throughout the state, located near major roadways where they can transport their products (in the case of Triumph Boats in Durham) or near lakes where boats can be tested and sold directly to customers (in the case of High Rock Boat Yard in Southmont).

Being close to the water makes it easier to launch boats for testing or delivery to clients. And, being near the Intracoastal Waterway puts builders in the sights of recreational boaters traveling up and down the Eastern Seaboard. Buddy Davis says that boat sales aren't as concentrated within the local market as they used to be. "The market base is broader [because] Carolina builders have earned some recognition that they deserve," he notes. Buyers in Florida and other major recreational boat markets value Carolina brands like Davis, Parker, and Hatteras for their sturdiness, speed, and distinctive appearance.

For producers of larger boats, water access is essential. "You're not going to transport a boat that's 70 feet long and 40 feet wide very far [by roads], especially when it weighs several tons," says Dave Inscoe, executive director of the Carteret County Economic Development Council. Instead, large boats are sent by ship to foreign buyers, or they are simply launched into the water and customers sail off into the sunset.

Although most boatbuilders remain small employers, they help add variety to labor markets in eastern North Carolina. There is less industrial employment in the region compared to the rest of the state, due to poor transportation access and other factors, and few major employment sectors beyond tourism, retail, and government.

In addition, boat-building jobs in North Carolina pay better — an average of 649 a week in the second quarter of 2005 compared to 244 a week in the accommodation and food services sector and \$441 a week in the retail sector. They are also more stable compared to seasonal work at a hotel or restaurant. As a result, Buddy Davis says, low-skilled workers commute 50 miles and more for a boat-building position.

Economic Headwinds

Luring carpenters and other artisans is more of a challenge, say Bayliss and others. The pool of skilled labor needed to construct a boat is small, forcing builders to recruit from as far south as Florida.

The labor pool in general is small in coastal counties like Dare and Carteret because they are sparsely populated. Boatbuilders have to compete with local military installations for skilled laborers as well, Inscoe adds.

There are plenty of people living inland who would appreciate the competitive wages paid by builders. The problem is not all of them have the necessary skills. "It's not like a restaurant that can advertise for dishwashers for a high hourly rate and get inundated with applicants," Bayliss notes. Workers involved in boat-building are more specialized, plus "each builder has a different style and a different quality threshold."

Local community colleges are trying to increase the supply of skilled boatbuilding laborers. The College of the Albemarle has offered pre-employment training programs since 2004, while Carteret County Community College opened a Marine Training and Education Center in Morehead City that will teach the basics of fiberglass boat construction.

To ease the demand for laborers, Bradley would prefer that new builders locate inland. Mass-production firms don't need to be near the water to test and transport their products, plus they can take advantage of the economic vacuums left behind by the declining furniture and textile industries in other parts of the state. Recently, Floridabased Cobia Boats built a new plant in Marion, a small city in western North Carolina where hundreds of furniture workers have lost their jobs. It remains to be seen, though, whether Marion's example is the start of a trend or an isolated event.

Of course, mass-production builders don't have to locate in North Carolina at all. The same forces that led textile and furniture makers to move from the Carolinas — principally, the search for lower labor costs — are at work in this segment of the boatbuilding industry. While niche builders require highly skilled, experienced workers, the labor needed for mass-production vessels can be found much more readily... including in foreign countries like Canada.

As boats get larger, North Carolina's boatbuilders will face another challenge: They will have to compete for resources with other growing industries, namely tourism. For example, builders along the sounds and upriver from the coastline bring their boats to Wanchese for finishing and delivery to customers. But an overpass to relieve summer-time congestion at the intersection of U.S. 64 and the main road into Wanchese was initially proposed with a clearance of 16 feet, well under the height of larger boats.

Builders had to lobby hard to get the clearance raised to 20 feet. In the future, companies in Beaufort and Morehead City will closely watch plans to replace a drawbridge between the two communities to ensure that their largest vessels aren't blocked from reaching the Intracoastal Waterway.

Builders will also need bigger shops so that work doesn't have to be taken outside, which would curtail produc-



It takes a lot of wiring to provide the electronics that customers expect.

tion during the winter. And more of them will need waterfront access since larger boats are expensive to transport by truck. In both cases, rising real estate values will make it difficult to acquire the land they need. Currently, there are two sources of waterfront land for newcomers or those who need to expand — state-owned Wanchese Seafood Industrial Park and privately owned Jarrett Bay Marine Industrial Park — but both are near capacity.

Manufacturers will have to face these challenges head on. But they have one major advantage: Demand remains strong for the custom-made boats coming from eastern North Carolina.

"For the foreseeable future, there is a niche," says Buddy Davis. "Some people want a customized home and they always will. And, some people want a very unique boat and they always will, if we stay on top of [change] and do a good job." **RF**

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