

EconSouth

A man in a white protective suit and yellow boots stands on a beach covered in debris, holding a shovel. A yellow caution tape is in the foreground.

**King Cotton Still Part of
Southeast's Fabric**

**Full Steam Ahead: Southeast
Ports Prepare for Panama
Canal Expansion**

The Gulf Coast Cleans Up

CAUTION

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EconSouth

FEDERAL RESERVE BANK OF ATLANTA THIRD QUARTER 2010



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Oil Spill Seeps Into Many Coastal Concerns

The oil spill in the Gulf of Mexico dealt the tourism industry on the Gulf a severe blow during the summer. Still assessing the spill's economic and psychological impact, local residents, businesses, and governments are sifting through the wreckage of a lost summer vacation season and looking for better days ahead.

Alabama's Gulf Coast Cleans Up

The Alabama communities along the Gulf Coast have developed numerous thriving industries: energy production, tourism, seafood harvesting, and sport fishing, to name a few. How these industries and the people employed in them rebound from the oil spill is now a regional challenge.

King Cotton Still Part of Southeast's Fabric

For hundreds of years, cotton has been a mainstay of the southeastern economy. Increasing worldwide demand and technological advances have combined to weave a global tapestry of continuing profits for regional producers.

Full Steam Ahead: Southeast Ports Prepare for Panama Canal Expansion

Ports have helped power the southeastern economy and thrust the region into a prominent role in world trade. But the imminent expansion of the Panama Canal has the region's ports poised to capture an even larger piece of the global pie.



Oil and Water

Nearly five years after Hurricane Katrina dealt the Gulf Coast a body blow, the Deepwater Horizon explosion sent millions of gallons of crude oil gushing into the Gulf of Mexico, setting back important sectors of the region's economy such as tourism and fishing. Staff writer Charles Davidson—a south Alabama native—was able to get a first-hand look at the area in late July. He came back with a deeper understanding of what the communities were experiencing. “Several things struck me in reporting on the economic effects of the BP oil spill,” he said. “A couple stand out. First, you have to be there to truly appreciate the impact. It’s disheartening to read, hear, and watch news about the spill, but it hit me in the gut when I visited lower Alabama. Down there, there’s no escaping it. Everybody is either directly affected by the spill or knows people who are. Several people even described their communities and themselves as ‘grieving.’”

“Second, there is not *one* oil spill economic impact story from the Gulf Coast because there is not a single Gulf Coast,” Davidson added. “On Alabama’s coast, tourism is king. Fewer visitors means fewer jobs and lower revenues for already recession-strapped local governments. By contrast, southern Louisiana relies on the energy industry. So the deepwater drilling moratorium is largely unwelcome there because so many people either work on the offshore rigs or in on-shore jobs tied to drilling. The moratorium is much less of a daily concern in Alabama and north-west Florida.”

Far from the coast, we explore the role of cotton in the southeastern economy. Cotton and the South have a long and complex relationship, and it’s one that has never stopped evolving with the times, said staff writer Lela Pratte. “While researching the cotton story, I was amazed by the technological advances the industry has

made over the past several decades,” she said. “From the farm to the textile mill, the industry is investing heavily in research and technology to lower production costs and grow cotton more efficiently, as well as increase the fiber’s global market share and its resistance to insect damage.”

“Additionally, I gained new insight into the cotton industry’s marketing to promote cotton’s integral role in consumers’ daily lives,” she said. “I hadn’t really thought about the competitive challenges that were driving those ad campaigns, but now I have a much better understanding of the industry’s efforts to build a strong preference for cotton—as opposed to synthetic fibers—among consumers.”

In examining how ports in the Southeast weathered the recession, associate editor Nancy Condon learned just how small the world is. Her investigation led her hundreds of miles southward, to the Panama Canal, currently undergoing a \$5.25 billion expansion.

Because this expansion, scheduled for completion in 2014, will allow more and larger ships to pass through the canal, it could shift a large part of maritime business from the West Coast to the East Coast—and ports in the Southeast are scrambling to find the funds to accommodate the potential growth. “I was honestly surprised to learn just how connected our ports are to the Panama Canal,” Condon said. “The ripple that started with the expansion of the canal is becoming a wave on our own coasts.”

Please visit the Atlanta Fed’s website at frbatlanta.org for our frequently updated information about the oil spill, its economic effects, and more. ■

Lynne Anservitz
Editorial Director

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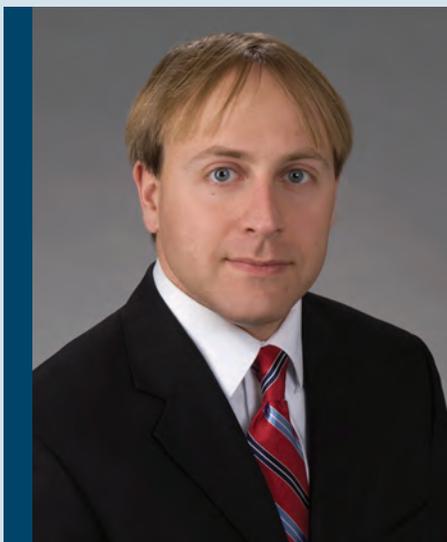
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Editor’s note: Throughout this issue, Southeast refers to the six states that, in whole or in part, make up the Sixth Federal Reserve District: Alabama, Florida, Georgia, Louisiana, Mississippi, and Tennessee.

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ECONSOUTH NOW PODCAST

Kris Gerardi of the Atlanta Fed's research department discusses financial literacy and the subprime mortgage crisis in an interview. On frbatlanta.org, select "Podcasts."



The Importance of Financial Literacy

The causes of the subprime mortgage crisis, which led to the worst financial and macroeconomic crisis in the United States since the Great Depression, have been a topic of much research in the academic housing literature. I have contributed to this literature during the past few years, mainly focusing on the effects of the collapse of the housing price bubble. Others have concentrated on the expansion of mortgage credit and especially on the relaxation of underwriting standards by mortgage lenders. One of the areas not receiving as much attention from economic researchers, however, is how the capacity of borrowers to understand basic finance and mathematical concepts may have contributed to the mortgage crisis.

Why should we expect financial literacy or mathematical ability to have an impact on mortgage market outcomes? Because over the past few decades, mortgage credit has been made available to a segment of our population that had traditionally been denied the opportunity to own a home.

The emergence of subprime

Through the subprime mortgage, individuals with little wealth and checkered credit histories were given access to homeownership. In general, these same

people—whom we might expect to have relatively low levels of education and thus low levels of financial literacy—were more likely to take out subprime loans. In addition, the number and complexity of mortgage products available to these borrowers have rapidly expanded during the past decade. To be sure, many of the most complicated mortgage products, like optional-payment adjustable-rate mortgages, interest-only mortgages, and hybrid adjustable-rate mortgages, have existed for a long time. However, for most of their history, they were almost exclusively targeted toward borrowers with good credit histories and stable income prospects who were purchasing homes in the most expensive housing markets.

An emerging body of research literature in economics explores the effects of financial literacy on individual decision making, and empirical studies in this literature have found some alarming effects. For example, the inability to perform simple mathematical calculations correlates with lower levels of saving, less planning for retirement, and poorer comprehension of consumer credit terms. While this finding suggests that researchers might expect to find similar effects in mortgage markets, no direct empirical evidence has been found to date. In an effort to fill this gap

in the literature, I collaborated with two behavioral economists from Switzerland, Lorenz Goette and Stephan Meier, to try to measure the impact of financial literacy and cognitive ability on mortgage repayment behavior.

Surveying the survey

To gather some insight into this issue, we designed and conducted a 20-minute telephone survey of about 350 subprime mortgage borrowers in Connecticut, Massachusetts, and Rhode Island who had obtained their mortgages in 2006 and 2007. We focused on these three states because we had access to detailed administrative data on subprime mortgage characteristics and performance for them. We chose our sample of subprime mortgage borrowers from the data in a random fashion and designed our survey to focus on three broad categories: financial literacy and cognitive ability, demographics and income, and mortgage choice.

Our financial literacy questions included four simple mathematical calculations (an example: In a sale, a shop is selling all items at half price. Before the sale, a sofa costs \$300. How much will it cost in the sale?) and a slightly more complicated question about how interest compounds. In addition, we asked two questions about inflation in an attempt to measure that person's level of economic literacy. We also included a test measuring an individual's cognitive ability: "In the next 90 seconds, name as many animals as you can think of. The time starts now." This exercise is highly correlative with various measures of IQ.

The questions about demographics included information about race, sex, age, marital status, household size, citizenship, language proficiency, and education. We also asked detailed questions about mortgage characteristics for comparison with our administrative data to determine how much borrowers actually know about their mortgages.

Armed with the answers to the math questions and the compounding interest question, we formed what we refer to as a

numerical ability index, which we view as one component of financial literacy. Our administrative mortgage data allowed us to form three different measures of the extent of mortgage delinquency: fraction of payments missed, fraction of months behind on mortgage payments, and whether the lender had initiated foreclosure proceedings. We then measured the correlation between our financial literacy measures and our measures of mortgage delinquency, while controlling for numerous borrower- and mortgage-related variables using information from our survey.

Reading the results

Our estimation shows that borrowers scoring low on the math questions and compounding interest questions were more likely to have a delinquent mortgage or to default. In addition, the estimates are quantitatively important: a full 20 percent of the borrowers in the bottom quartile of the numerical literacy index had experienced foreclosure, compared with only 5 percent of those in the top quartile. Furthermore, borrowers in the bottom quartile of the index were behind on their mortgage payments 25 percent of the time, on average, while those in the top quartile were behind about 10 percent of the time.

The negative correlation appears to be highly specific to the numerical ability questions, as the extent of mortgage delinquency is not correlated with the answers to our economic literacy questions or cognitive ability question. Most surprising to us was the fact that we did not find an important role for the choice of the mortgage product or the choice of other characteristics of the mortgage contract that one might think could explain the correlation between those who are financially literate and those who default on their mortgage. For example, many mortgage market commentators have suggested that financially unsophisticated borrowers were more likely to take on more debt—higher payment-to-income ratios and higher loan-to-value ratios—and to choose (or to be steered toward)

more complicated mortgage products like adjustable-rate mortgages. However, our data did not demonstrate any role for these variables in explaining the strong, negative relationship between financial literacy and mortgage delinquency.

While poor financial literacy in the form of numerical ability may not have much influence on the choice of mortgage characteristics, it may affect mortgage delinquency in a more direct manner by preventing borrowers from performing and understanding the basic calculations necessary to maintain a household budget or to calculate whether or not monthly mortgage payments are affordable over a medium-to-long horizon. This interpretation is consistent with the picture that emerges from survey evidence linking poor financial literacy to higher consumption, less saving, and out-of-control credit usage.

While we believe the results of our study should raise some concerns about the role of financial literacy and mathematical ability in the success of mortgage outcomes and the sustainability of homeownership, we are reluctant to make any broad policy proposals. Since we conducted a survey and are not able to randomize through a controlled experiment, there is always the possibility that some other unobserved factor may be causally responsible for the variation in mortgage delinquency in our data and also correlated with our measure of financial literacy. Further research on this topic is necessary, especially for other segments of the mortgage market and other areas of the country, and we hope our study may provide the motivation for such research to occur. ■

Brentwood, Tennessee

Hits a Prosperous Note

Just south of Music City, USA, is a land of large lawns, gated communities, and one of the wealthiest populations in the Southeast.

Paychecks from the Nashville area's thriving healthcare sector, the country music industry, and corporate giants like Nissan North American and Verizon Wireless have made Brentwood, Tenn., and surrounding Williamson County among the most well-heeled suburban locales in the region. (Nashville is the county seat of neighboring Davidson County.)

"A lot of CEOs and business owners live there and drive into Nashville to their businesses," said David Penn, an economist and director of the Business and Economic Research Center at Middle Tennessee State University in nearby Murfreesboro. "There're a lot of white-collar jobs, and before the recession one of the big problems there was trying to find affordable housing for folks who work in the government sector."

More than simply music

Half of Williamson County's 10 largest employers and nine of the top 20 are hospitals or healthcare firms, such as hospital operator Community Health Systems Inc., according to the Brentwood Cool Springs Chamber of Commerce. Other major employers include the 185-bed Williamson Medical Center, Nissan North America, Verizon Wireless, and HCA,

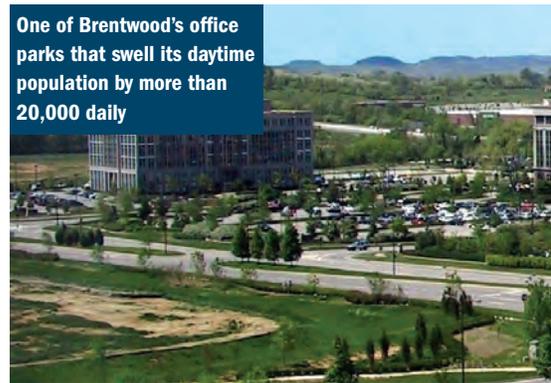
another hospital operator and healthcare service company.

In many ways, Brentwood is a typical suburb, affluent and mostly residential. The town's median household income—\$129,771—is more than double the national median figure and roughly triple the statewide median, according to 2008 figures from the U.S. Census Bureau. Further, the median value of owner-occupied homes in Brentwood is \$474,600, about four times as much as homes in the rest of Tennessee and more than double the national median, the Census Bureau reports. "It's a prestigious address to have," said Lee Jones, the Atlanta Fed's regional executive in Nashville.

Hitmakers give their town deep pockets

There is a musical note to the area's wealth. Brentwood is home to a number of country music stars, including Tim McGraw, Faith Hill, Garth Brooks, Kix Brooks, Ronnie Dunn, Winona Judd, and Joe Don Rooney of the band Rascal Flatts, according to media reports.

One of Brentwood's office parks that swell its daytime population by more than 20,000 daily



Several players from the NFL's Tennessee Titans also live in the area.

Given the demographics, it's not surprising that Brentwood residents do their share of shopping. They spend about twice as much as the average Tennessean. According to the most recent available census data, annual retail sales per capita in the city totaled \$20,973, double the figure for the state and nearly double the U.S. level.

Cool Springs Galleria,
Brentwood's upscale mall



Brentwood, Tenn.

Population	33,921
Williamson County population	165,336
Median household income	\$129,771
Median owner-occupied home value	\$474,600

Source: U.S. Census Bureau, 2008 American Community Survey

In fact, Williamson County's largest employer is the Cool Springs Galleria regional mall, where 3,500 people work. In terms of sales per square foot, the mall is among the 10 busiest of the 84 owned by CBL & Associates Properties Inc., according to the 2009 annual report the company filed with the Securities and Exchange Commission.

Even amid recession and declining revenues, the city of Brentwood has

more than doubled since 1990, to roughly 36,000. However, a bigger population also increases demand for city services such as public safety and water, and the daytime influx of office workers adds to the population. The city's budget report notes that "Brentwood actually functions as a city with a population in excess of 56,000 when the 20,000-plus office park employees are considered." Maryland Farms is the local office park.

about 15 percent from their June 2007 peak, according to the real estate Web site zillow.com. And, as in most areas, fewer homes have been built in Brentwood lately. The city issued just 68 single-family home building permits in the 2009 calendar year, compared with 635 in 2004, according to the city government website. In yet another sign of the weak economy, local sales tax revenues are budgeted to be down 3 percent in the 2010–11 fiscal year from the year before.

Williamson County is similarly sound fiscally, though it had to dip into its reserve fund to balance the 2010–11 fiscal year budget, according to County Mayor Rogers Anderson's July 20 State of the County speech. Both the county and the city of Brentwood, however, maintain the top triple-A bond rating from Moody's and Standard and Poor's. Accommodating its growing population, the county is opening three public schools in the fall of 2010 and plans two more the following academic year, at a time when many school systems are struggling to maintain their current infrastructure. Despite Brentwood's nearness to Nashville, the tales of woe immortalized in country music often seem a world away from Brentwood. ■

This article was written by Charles Davidson, a staff writer for EconSouth.



maintained a balanced budget without layoffs or tax increases, according to the city's budget report. A small sign of the city's fiscal muscle: the police department has 73 vehicles and 72 employees. By comparison, Johns Creek, Ga., a similarly affluent suburban city north of Atlanta, with nearly double Brentwood's population, has 44 patrol cars and 70 employees.

Growth has helped Brentwood fortify its finances. The city's population has

Relatively strict zoning regulations have restricted office and commercial development to limited areas, and as a young city—incorporated in 1969—Brentwood has no traditional downtown.

Recession made its mark

Despite its affluence, the recession did not leave Brentwood unscathed. Jones pointed out that home values there tumbled more than in some other places:



Oil Spill Seeps Into Many Coastal Concerns

The oil that flowed into the Gulf of Mexico for three months deeply unsettled communities along the coast. But is it a long-lasting catastrophe or the sort of temporary hardship from which resilient Gulf Coast residents have rebounded before?

The Gulf oil spill's immediate economic damage was largely contained to the area spanning from Louisiana to the Florida Panhandle. Like boom corralling floating oil, a couple of factors limited the broader economic effects of the April 20 Deepwater Horizon explosion and subsequent spill, in the view of Atlanta Fed researchers. First, the two major risks to the national economy—disruptions in energy supplies and transportation—had not materialized as of mid-September. Natural gas and refined petroleum products were flowing and major Gulf ports were operating normally.

Secondly, from purely a numbers standpoint, the affected Gulf Coast area makes up a small piece of the U.S. economy. Taken together, the metropolitan areas affected by the BP spill—from Louisiana to Panama City, Fla., including Lafayette and Lake Charles but not New Orleans—account for less than 1 percent of the nation's gross domestic product (GDP). Reserve Bank economists found that New Orleans' economy did not appear to be substantially affected by the spill through July. Adding New Orleans, the total rises to 1.9 percent of GDP.

In the process of gauging the potential economic impact of the spill from the now-sealed well, uncertainties abound: the quantity of oil still underwater, in marshes, and buried on the sea floor; the long-term harm to sea life; the amount and timing of financial assistance from BP and the federal government; the extent to which displaced workers are employed in cleanup efforts; how long those efforts last; and when and if the workers can return to their regular jobs.

Many of those factors, of course, affect one another. The more oil there is under the surface, for instance, the greater the harm to sea life, and thus the longer fishermen and shrimpers will be idle. And the longer it will be before seafood markets and restaurants can sell fresh local product. The longer the water is thought to be unsafe, the greater the harm to tourism, and so on.

For the near term, here is a recap of information regarding the oil spill's effects on major sectors of the Gulf Coast economy.

Energy production simmers with uncertainty

The Southeast's energy industry is concentrated in Louisiana. The state accounts for 27 percent of the nation's crude oil production, or roughly 1.5 million barrels a day on average in 2010. Moreover, 48 percent of the nation's crude oil and petroleum imports enter the country through Gulf Coast seaports. That volume of Gulf imports averaged 6.1 million barrels a day through July.

Energy production and imports have held up. Unlike major hurricanes of recent years, the oil spill has not significantly reduced crude production, other than week-to-week volatility resulting from uncertainty about the deepwater drilling moratorium ordered by the federal government. (The moratorium is scheduled to expire on Nov. 30, but federal officials are reviewing safety policies and could lift it sooner.) A Sept. 2 fire on an offshore oil and gas rig off the Louisiana coast did not appear to

be remotely as serious as the BP Deepwater Horizon incident. It was unclear at press time whether the more recent accident would affect the deepwater drilling moratorium or energy production generally.

Importantly, the Louisiana Offshore Oil Port, or LOOP, has functioned normally. The LOOP unloads crude from tanker ships that cannot venture into Louisiana's shallow coastal waters, then pumps the oil through pipelines to refineries along the coast. As with onshore port operators, the LOOP had boats on hand in the spill's aftermath to clean tanker hulls should they become coated with oil.

The federal moratorium on deepwater drilling prompted much protest in Louisiana. Energy industry representatives and public officials worried that it would damage Louisiana's considerable energy services industry. A key risk, according to Atlanta Fed economists, is that a moratorium of more than six months or enhanced regulation of the offshore industry could lead to lower production, higher operating costs, or perhaps both. Higher insurance costs or set-asides could also pressure Gulf oil producers. The net effect could be to discourage Gulf of Mexico drilling operations, resulting in lower U.S. oil production and job losses. However, authorities have said that ensuring workers' safety in oil exploration and production is a priority.

Exactly how many jobs are at risk is difficult to say. Precisely measuring the Gulf's deepwater drilling employment is elusive because official statistics do not distinguish between onshore and offshore drilling, and many jobs are indirectly attached to drilling, such as oil field services, transportation, and rig fabrication. Using estimates from David Dismukes of Louisiana State University's Center for Energy Studies, Atlanta Fed researchers estimate about 10,000 people work on deepwater rigs in the Gulf, and another 25,000 are in support services.

Transportation moves ahead

Officials at the Port of New Orleans and other Gulf Coast harbors have reported that the spill has not seriously affected operations. In fact, as of July, the Port of New Orleans had not lost "an ounce of cargo," said president and chief executive officer Gary LaGrange. Some ships have had to steer around the oil slicks, and the ports put in place ship cleaning and other measures to limit the effects of the spill. But at the Port of New Orleans, they didn't need to clean many vessels.

"As we found out in the early days of the spill, as long as a ship was under way and was moving, the oil would not adhere to the hull of the ship, so the secret was to keep the ships moving, which was what we wanted anyway," LaGrange said.

Keeping ships moving also has a positive economic effect: Fed researchers anticipated that a disruption of port traffic, especially on the Mississippi River, could have severe economic consequences. History suggests as much. When a large oil tanker hit a barge in the Mississippi River in 2008, the result-



The Gulf Coast's marshlands, a unique and fragile ecological system, did not escape the oil's reach. Cleaning the marshlands is a time- and labor-intensive job.

ing five-day closure of the Port of New Orleans and the lower river cost \$290 million a day, LaGrange said, as cargo could not be delivered.

Tourism takes a downward turn

Unlike shipping and energy, the coast's critical tourism industry has taken a significant hit from the spill (see the table). Cancellations of hotel rooms and rental condominiums and houses increased sharply as the summer progressed (see the accompanying story on coastal Alabama). Several hoteliers, however, reported high occupancy from cleanup workers, oil company staff, and National Guardsmen.

About 124,000 people work directly in the leisure and hospitality industry in the counties along the Gulf Coast from Louisiana to Panama City, according to data from the U.S. Census Bureau. Numerous Atlanta Fed contacts reported reduced seasonal hiring and lower sales and rentals of vacation properties. The Alabama beaches saw about half the normal number of tourists during the July 4 holiday, according to public officials and businesspeople. Condo occupancy on Alabama beaches during June dipped to 44 percent, from 72 percent in June 2009, according to the Alabama Gulf Coast Convention and Visitors Bureau. About the only number that increased was the budget devoted to advertising the Gulf Coast as a tourist destination.

Condominium Occupancy in Orange Beach and Gulf Shores, Ala.

	2007	2008	2009	2010
April	41	28	32	34
May	42	41	38	37
June	75	74	72	44

Note: Figures represent percentages.
Source: Alabama Gulf Coast Convention and Visitors Bureau

According to the Alabama Gulf Coast Convention and Visitors Bureau, its advertising budget rose from a typical annual level of \$1.8 million to \$11.3 million this year, most of it funded by BP.

A late May survey by AAA Auto Club South revealed that 41 percent of respondents said the oil spill would have a slight to significant influence on their travel plans to the Florida Gulf Coast. Even the anticipation that oil could reach southwest Florida and the state’s Atlantic coast deterred some summer visitors. July reports from Naples, Fort Myers, and the greater Miami area indicated that reservations slowed significantly for vacationers and business groups, even though there was no oil on Florida beaches outside of the Panhandle.

On the other hand, Atlanta Fed contacts at other Southeast beaches unaffected by the spill reported bigger summer crowds. Although it is impossible to determine how many of these vacationers changed their destination from the Gulf Coast, anecdotal evidence suggests that some of the increase in bookings at some Atlantic beaches was from people avoiding areas perceived as tainted by the spill. Contacts in lake and mountain areas also noted an increase in activity this summer. That increase could cushion the blow to tourism spending on the overall regional level.

In New Orleans, even though part of the metro area borders the coast, most of the city’s tourism destinations were not directly affected by the spill. Still, the New Orleans Convention and Tourism Bureau noted lower attendance at major conventions. The concern was that people may fear that the seafood in the city is unsafe despite more frequent inspections on larger samples.

In the long run, the greatest danger for Gulf Coast tourism is potential damage to the area’s brand as a fishing and recreation destination. Should the public’s view of the Gulf Coast remain sullied into 2011, it will probably cause permanent job losses, Atlanta Fed researchers said.

Fishing fights for survival

For unemployed Gulf Coast fishermen, the BP oil spill introduced a new word to the lexicon: “VoO.” VoO is short

for Vessels of Opportunity, the BP program designed to employ commercial fishermen, charter boat captains, and other professional mariners put out of work by the spill.

The VoO paychecks were a godsend for many, at least temporarily, even as the program became a source of frustration and controversy. (Many local mariners complained in public meetings and in media reports about not being hired and about out-of-towners claiming slots that should go to Gulf Coast residents.)

According to U.S. Census Bureau data, more than 8,000 people are employed in the fishing industry in the affected communities of the Gulf Coast. In addition, the National Marine Fisheries Service (NMFS) reports that more than 8,000 people work at seafood processing plants in the states bordering the Gulf. Using a broader category that includes fishing gear, seafood wholesalers, retailers, and related businesses, commercial fishing jobs in the Gulf states total 170,000 while recreational fishing jobs come to 88,000, according to the Marine Fisheries Service, which is part of the National Oceanic and Atmospheric Administration.

Commercial fishing sales in the Gulf states totaled \$8.5 billion in 2008, while recreational fishing generated another \$8.8 billion, according to the NMFS.

Roughly two-thirds of the Gulf remained open to fishing in the months after the spill, so not all of these jobs were immediately affected. In June and July, though, most fishermen in Louisiana, Mississippi, and Alabama were idled. Louisiana officials announced in mid-July that they were reopening some recreational fishing areas. However, opening the same waters for commercial fishing requires federal approvals.

The outlook for aquaculture is murky. The biggest danger is that oil and dispersants could destroy or contaminate fish, shrimp, and oyster stocks and possibly curtail fishing for several years. There was significant concern in the summer,



Workers laid miles of boom in an effort to contain the oil that reached the surface, but many experts fear that the oil that never surfaced is the greatest long-term threat to the Gulf's future.



for example, about the fate of floating grasses, in which fish, including tuna, lay eggs.

“The longer-term effects may be larger than any short-term effects,” according to the NMFS, “depending on how much is spilled, how broadly distributed the spill gets, and what species will be affected.”

A reduced supply of Gulf seafood will affect restaurants, but not grocery stores as broadly. Only 1 percent of the seafood sold at U.S. supermarkets comes from the Gulf. It would be a larger problem for the numerous small, independent seafood markets along the coast.

Cleanup's progress is unclear

BP has hired many unemployed fishermen to help in the cleanup—mainly to cruise the water looking for oil and to skim oil on the surface—thus helping to offset job losses in the fishing industry. Indeed, the hiring of displaced local workers in cleanup efforts, along with the cleanup-related spending, has been one of the few positives associated with the oil spill, just as cleanup and construction jobs were a positive outcome of the Hurricane Katrina disaster.

However, there could be another glimmer of good news. Over time, there is potential for significant spending on community assistance and coastal restoration and development by BP. Furthermore, the ruptured BP well was capped in August. Soon thereafter, it was reported that oil on the Gulf's surface was evaporating faster than expected.

Nevertheless, it was still extremely difficult to estimate the long-term economic impact of the spill. As of early August, the spill appeared to have significantly damaged the tourism and fishery industries, with various associated industries affected indirectly.

But the longer-term uncertainties are substantial. For instance, the assessment of the ecological damage is difficult. Furthermore, the impact of dispersants and the amount of oil spilled may not be known for years, and it is unclear whether or how the spill and deepwater drilling moratorium might influence energy policy. *EconSouth* and the Atlanta Fed will continue monitoring the effects of the spill. ■

This article was written by Charles Davidson, a staff writer for EconSouth.

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The coexistence of oil-removal equipment and wildlife was a common sight along the Gulf Coast this summer.



Alabama's Gulf Coast Cleans Up

Nearly five years after Hurricane Katrina laid waste to large swaths of the Gulf Coast, the region faces another disaster: the oil spill that has affected Alabama lives and livelihoods. How—and how soon—the area rebounds remains open to question.

A south wind stirred the pines and rippled Wolf Creek in south Baldwin County, Ala. Gentle waves lapped at the boat. Mullet jumped, and an osprey winged overhead clutching a fish.

This serene tableau betrayed little evidence of the summer's oil spill, the worst in U.S. history, in the nearby Gulf of Mexico. Just a few hundred yards to the south, though, boom was strung like a floating necklace along the banks of Wolf Bay. Other barriers stretched across the width of the bay, arranged so that an opening for boats could be quickly closed should oil drift near. Boats were scarce that July day, partly because of threatening skies, partly because of the vast oil slicks.

In Alabama's bays, it was possible to escape the physical evidence of the spill. Yet during the summer of 2010 the ecological and economic threats posed by the oil disaster were inescapable in the communities along Alabama's coast.

Residents powerless to deter slick

"It's like I'm sitting at a bedside watching someone die," Wayne Gruenloh, a Baldwin County commissioner, said in July. "And that's what's happening to the Gulf and to our way of life and our livelihood. You're watching it slowly fade away, and you feel helpless."

Later that day, Gruenloh joined about 300 others in the Orange Beach city gymnasium, four miles south of Wolf Creek, for a weekly town hall meeting. Unease and frustration were palpable. A speaker reminded attendees of a silent auction of Jimmy Buffett tickets to benefit the family of a local fishing captain who had two weeks earlier committed suicide aboard his boat. A dozen audience members railed about the difficulties of landing cleanup jobs and about the process of filing claims with BP for lost wages. A 67-year-old woman tearfully asked public officials and a representative of BP when her grandchildren could again swim in the Gulf of Mexico without fear of oil-contaminated water.

"Nobody has an answer," responded Orange Beach Mayor Tony Kennon. "We hope next year." BP Vice President Kris Sliger quickly assured the woman that the company was committed to leaving the Gulf and inland waters as they were before the Deepwater Horizon rig exploded in April, sending millions of gallons of oil gushing into the Gulf 40 miles off the coast of Louisiana.

As Kennon said, definitive answers concerning the spill were scarce in the hot summer of 2010. Most notably, the long-term economic and ecological damage to the region remained uncertain at this writing. It was clear from a visit, however, that Alabama's coastal communities were profoundly unsettled by economic, ecological, and psychological tremors emanating from the Gulf. The area's tourism industry, which drew 4.6 million visitors in 2009, was down 50 percent from normal during the critical months of June and July, according to local businesspeople and public officials. Kennon feared late July and August would be worse. Local officials are expecting the spill will reduce visitors' spending

Table 1

Baldwin County, Ala., Taxable Lodging Revenues

	2007	2008	2009	2010
April	\$23.38	\$19.34	\$20.96	\$22.10
May	27.53	29.77	26.64	26.72
June	56.50	55.41	53.50	37.18
July	58.52	63.20	63.99	15.61

Note: Figures represent millions.

Source: Baldwin County Legislative Delegation Constituent Services Office

Table 2

Lodging Taxes Collected in Baldwin County, Ala., Beach District

	2007	2008	2009	2010
April	\$ 375,180	\$ 292,065	\$ 336,185	\$350,625
May	450,950	481,874	440,450	415,656
June	998,927	967,191	934,871	573,971
July	1,026,951	1,111,224	1,121,285	51,837

Source: Baldwin County Legislative Delegation Constituent Services Office

during the 2010 summer by \$1 billion from the \$2.3 billion they spent in 2009, according to the Alabama Gulf Coast Convention and Visitors Bureau (AGCCVB).

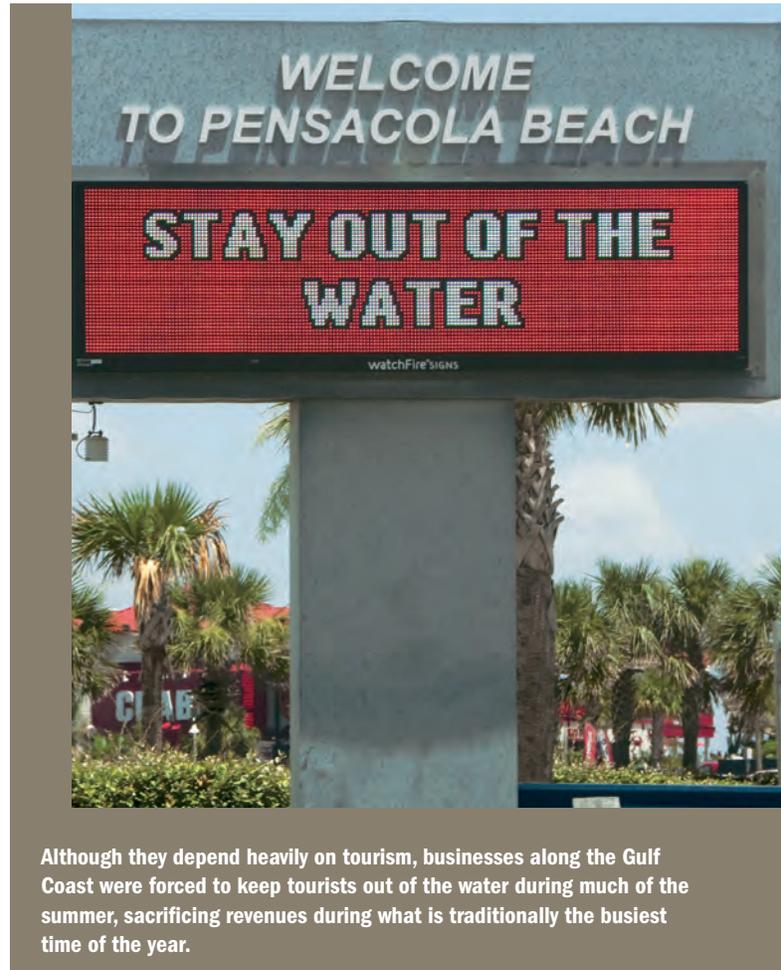
Gulf, region's economy inextricably linked

The implications could be widespread. South Baldwin County boasts some 41,000 tourism-related jobs, the AGCCVB says. With tourism revenue down substantially, already strained state and local tax revenues could take a hit of hundreds of millions of dollars, according to local officials. (Taxable lodging revenue in Baldwin County was 76 percent lower in July 2010 compared with July 2009, according to the county's legislative delegation office.) Jobs, home values, and countless small businesses, including the area's commercial and sport fishing fleets, were also threatened.

Long term, the greatest potential damage is to the Gulf Coast's brand as a vacation destination, said Michael Chriszt, assistant vice president in the Atlanta Fed's research department. That's no revelation to leaders in Baldwin County. Kennon and Bob Higgins, vice president of the Baldwin County Economic Development Alliance, noted that once a family enjoys a trip to the beach elsewhere, it is not easy to win them back.

"And this was our year to get over the hump," Kennon said. "We've had five or six terrible years."

The AGCCVB is spending heavily to fight the perception battle. The group normally invests \$1.8 million a year on advertising, but



Although they depend heavily on tourism, businesses along the Gulf Coast were forced to keep tourists out of the water during much of the summer, sacrificing revenues during what is traditionally the busiest time of the year.

that expenditure rose to \$11.3 million this year. Most of the additional money came from BP grants, according to the bureau.

Local tourism boosters have their work cut out for them. Occupancy rates at the 14,209 condo units in the Gulf Shores-Orange Beach-Fort Morgan area slid to 44 percent in June, from 72 percent a year earlier, according to the AGCCVB. Average revenue per available condo unit for the month fell 39 percent, to \$87.36 per day. Occupancy rates for August figured to be just 19 percent, compared to 48 percent last year, according to a forecast the bureau compiled in July.

Empty condos were already affecting tax proceeds (see table 1). In a special tax district encompassing coastal Baldwin, state lodging tax revenues in June were down 40 percent from June 2009, off 42 percent from the June average for 2007 through 2009, and off 95 percent in July 2010 compared with a year earlier, according to figures from Stephen Pryor, director of constituent services for the Baldwin County state legislative delegation (see table 2).



closed off Alabama as of mid-August, but federal officials have gradually begun opening up the waters to fishing.

With local fishermen and shrimpers idled, the area's numerous small seafood markets had to turn elsewhere for inventory. At Billy's Seafood on the shrimp boat docks in Bon Secour, situated off Mobile Bay north of Gulf Shores, a sign over the entrance reads: "Friends don't let friends eat imported seafood." In early July, Billy's was stocked with shrimp from Texas, not off the boats moored just outside the shanty's door.

The real estate business has nowhere else to turn, however. Once a handful of sleepy fishing villages dotted with beach cottages, coastal Baldwin County underwent a development-led transformation beginning in the late 1970s. From Gulf Shores on the west to Perdido Pass on the east, condo towers as high as 30 floors line several miles of the "sugar-white sands" that local boosters promote. Since 1993, the number of lodging units in the area has more than doubled to 16,271, according to the AGCCVB, whose figures do not go back further.

The spill is just the latest problem for the real estate business on "Pleasure Island," as the area south of the Intracoastal Waterway is known. Amid overbuilding and recession, coastal Baldwin County's real estate values were down 7 to 8 percent in the past year before the spill, Gruenloh said. The few buyers trolling the summer market waited to see if prices would fall even farther, said Patricia Davis, an Orange Beach real estate agent. With little business, she devoted most of her time in the months after the spill to volunteering to help residents cope.

"People are trying to figure out ways of making an income because they're terrified," she said. "They're fishermen and marine construction people, and their jobs are gone."

Cleanup work offered help for some, as did payments from BP for lost income. The cleanup also attracted aspiring entrepreneurs. A Louisiana man devised a skimmer that could be attached to small boats to gather oil off the surface, and BP purchased his invention in bulk, according to local media reports.

Most were less successful. In a hallway outside the Orange Beach forum, a man flipped through a book of photos and diagrams, describing to BP's Sliger ideas for skimming oil off the water's surface. After the two-hour-plus town hall, a weary-looking Sliger asked the man to make his explanation as simple as "baking chocolate chip cookies." The man grew increasingly frustrated. Sliger suggested the man speak with an engineering contractor helping with cleanup, and then the man turned to a friend and yelled, "See what I'm talking about? I'm done."

Nearby, Reid Robbins said the spill had seriously harmed his marine construction business. He then lamented the oil spill possibly destroying Gulf tuna eggs that take 10 to 12 years to mature. "The impact, it's just," he said, pausing, "it's as far as you can see."

Robbins then explained why he was trying to help bring unity to the sometimes fractious fishing and marine community

Mainly because of the coast's 16,000 lodging units—condos, hotel rooms, and rental houses—Baldwin annually accounts for at least a fourth of Alabama's lodging tax proceeds, which in recent years have totaled \$44 million to \$48 million, said Keivan Deravi, an Auburn University at Montgomery economist who is analyzing the spill's economic impact for Gov. Bob Riley's office. Baldwin and neighboring Mobile County together contribute about 35 percent of the state's lodging taxes.

Spill ended, but so did the summer

BP stopped the oil from gushing in early August. Relief was short-lived, though, as the economic damage had been done, Kennon said. About 75 percent of coastal Baldwin County's tourism comes during June, July, and the first part of August, Deravi estimated.

The reality that the summer is over and tourism revenue is about to stop is setting in, Kennon said in early August.

A prolonged and deep drop in tourism could cripple not only major attractions such as the 557,235-square-foot Tanger Outlet mall in Foley, but also numerous independent businesses that cater to visitors. As the summer ended, concern grew that the fate of many small businesses depended on how quickly they received lost-income claims payments from BP, Higgins said.

One sector was effectively closed by the spill, for a time at least. Alabama's saltwater sport fishing trade, which directly employs several hundred people, according to local officials, was grounded for its peak season as nearby Gulf waters were closed to fishing. Federal waters, which begin three miles offshore, remained



in regards to the temporary cleanup jobs. BP's Vessels of Opportunity program (commonly referred to as the "VoO"), designed to employ idled fishermen and other mariners to search the waters for oil, has been a particular source of controversy, according to interviews and widespread media reports. Many at the Orange Beach town meeting and elsewhere complained about out-of-towners and recreational boaters taking lucrative spots in the program away from local captains and deck hands.

"That's why we're trying to get some of these locals to get the BP jobs," Robbins said. "That's all that's left."

It can't stay that way, Kennon said. During the town hall, he warned the audience about relying too heavily on BP. "My community," he said, "is beginning to see VoO as everybody's way to make a living. It's not that way."

In the weeks after the spill, Kennon declared repeatedly in media interviews and at public gatherings that citizens must realize that while payments from BP and the government might help, local people and businesses will ultimately have to rescue themselves.

Oil choking off governments' revenues

That brand of self-reliance could include local governments. Physically, the coast is a small part of Baldwin County. Fiscally, it's huge. Property along the Gulf Coast and the eastern shore of Mobile Bay, which was also threatened by oil in the summer, accounts for a fraction of the land mass of Alabama's largest county. However, the beach and bay real estate comprises more than half of the county's \$3.7 billion total land value, County Commissioner Gruenloh said. Thus, property tax revenue could sink in coming years, he pointed out, after austerity measures already enacted that included a \$75 million, or 22 percent, cut in the county schools' 2010 budget.

As trade declined at hotels, restaurants, clothing stores, marinas, and other businesses, public officials like Kennon and Gruenloh fretted about the budgetary blow from falling sales, lodging, and, eventually, property tax revenues. Lodging and sales taxes make up 65 percent of the city of Orange Beach's \$20 million annual budget, the mayor said. Kennon said the city had filed a \$2.5 million claim with BP for lost tax revenues. In early August, he said Orange Beach had received less than \$200,000.

John Koniar, the mayor of Foley, just north of Gulf Shores, said that during the summer of 2010, a million fewer shoppers than usual would travel the 15 miles from the beaches to Tanger Outlets, which as usual generated a significant chunk of the city of Foley's \$10 million in 2009 sales taxes. In fact, according to the *Mobile Register* newspaper, Foley alone—thanks mainly to Tanger—accounted for more than 40 percent of Baldwin County's sales tax revenue as recently as 2004. The city contains about 5 percent of the county's population of 175,000, and the city and county each impose separate sales taxes.

Of course, payments from BP's \$20 billion compensation fund—to be disbursed over four years—could soften some of these blows, for the state as well as local governments. At press time, news reports said most local governments in south Baldwin County, along with the county and the county Board of Education, had filed claims with BP or were preparing to do so. The state superintendent of education was making similar plans, and Alabama Attorney General Troy King sued BP on August 12.

Like so much about the spill's effects, the degree to which claims payments will plug budget gaps remained unknown at press time. That question is critical for the public sector because claims payments to business owners and individuals were not immediately subject to sales, lodging, or property taxes, Gruenloh said.

In his office lined with posters commemorating festivals in small towns around the county, the commissioner said future economic development should focus on industries not connected to tourism. A Chinese car maker, he noted, was evaluating a plant site in the north part of the county. Gruenloh said he draws hope mainly, though, from the resilience the citizens have learned from decades of hurricanes.

"I'm not going to sit here and cry about it 24 hours a day when there's a lot more things to go fix right now," said Davis, the Orange Beach real estate agent. "And the only way to keep that [return to normalcy] from being two generations away, or a generation away, is to start cleaning the heck out of it and working on it." ■

This article was written by Charles Davidson, a staff writer for EconSouth.

Regional Update

Economic Activity Positive yet Disappointing

The rate of economic activity in the Southeast appeared to slow during the summer, but overall trends remained positive. For example, overall job growth was disappointing in the region in June, declining nearly 27,000. However, the private sector added almost 17,000 jobs across the region during the month, the difference in part reflecting the decline in temporary census employees. Taking a broader view, the Southeast added 32,600 private-sector jobs in the first quarter of 2010, which was followed by an additional 70,400 in the second quarter. The region's unemployment rate was 11 percent at the end of the first quarter but had fallen to just 10.4 percent by the end of the second, also reflecting slow progress in the labor market. While job growth has been slow and unemployment remains high, the overall trends in the labor market have been relatively positive, albeit disappointing.

Consumers hesitate

Recent consumer indicators were disappointing. The Atlanta Fed's latest informal poll of retailers around the region showed that merchants were less optimistic than they were in the spring. Most respondents reported that activity in July was below expectations, and compared with June, traffic was down slightly. Regional measures of consumer confidence also fell recently. Most notably, the University of Florida's measure of consumer confidence declined in May, June, and July, perhaps in part because of the impact of the oil spill on Floridians' outlook. More broadly, retail activity and confidence have not held their gains of earlier in the year when economic activity began to accelerate. Consumer spending is clearly off its 2009 lows, but the slowdown in the rebound has been disappointing.

Overall, tourism continued to show signs of improvement compared with last year. Reports from Miami and New Orleans indicated that business-related travel and convention bookings remained positive. Leisure travel was positive in most Southeast destinations except for the Gulf Coast, where significant concerns were reported over the oil spill and its impact on tourism. Hospitality contacts in the area noted that some canceled bookings have been filled by the presence of cleanup crews, oil company workers, and the National Guard. Contacts not located along the Gulf Coast have stated that bookings have increased as a result of deflected business from oil-affected areas.

Housing falters

According to reports from regional homebuilders, the level of new home sales in July continued to weaken, falling further below the year-earlier level. More than half reported that home sales declined from June to July. Overall, Southeast construction activity softened as well. Builders' comments indicated that

downward pressure on home prices was increasing, and more contacts reported that home prices declined on a year-over-year basis than in recent months. However, reports indicated that home inventories declined compared with a year earlier. The outlook among the region's builders for new home sales and construction remained weak, and comments suggested a growing level of frustration and concern.

Overall, reports from real estate agents indicated another sharp decline in home sales in July compared with a year earlier. Reports indicated that sales fell slightly below the year-earlier level. A look at responses on a month-to-month basis also indicate that sales growth continued to weaken as well, falling below the June level. Housing inventories in the region continued to rise on a year-over-year basis. Contacts noted mounting downward pressure on home prices across the region, and home prices weakened somewhat in July. The outlook for sales growth over the next several months improved slightly overall but remained somewhat negative on a year-over-year basis.

Manufacturing cools

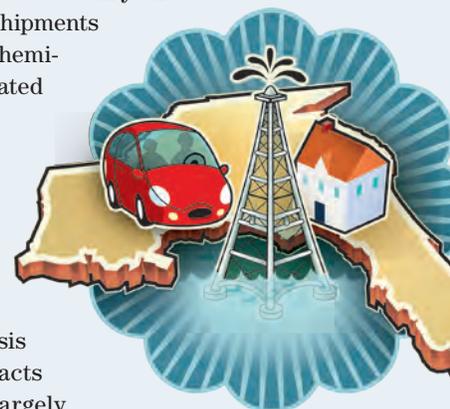
July's Southeast purchasing managers index (PMI) appears to be adjusting to a slowdown in the inventory cycle but still remains above 50, indicating expansion. However, the PMI reading of 56.3 for July is the third consecutive month of decline. July's decrease is the result of weakness in the new orders component of the survey, which has dropped because 18.6 percent fewer respondents reported higher new orders from April's high mark of 78.3. Supplier delivery time, a leading indicator, slipped from 32.4 percent of respondents reporting slower delivery in May to 13.9 percent doing so for July.

The Southeast's vehicle production and sales have gained steam this year, however. Vehicle production through mid-July was up 85 percent from last year, better than the nation's 68 percent increase. Regionally assembled vehicle sales—up 30 percent from 2009 levels—are also ahead of the national pace.

Freight activity remained above weak year-earlier levels, led by increased shipments of motor vehicles, metals, and chemicals. Meanwhile, contacts indicated that Gulf ports were operating normally, and commerce along the Mississippi River remained uninterrupted.

Gulf oil spill's effects appear limited

To date, the Atlanta Fed's analysis suggests that the economic impacts of the oil spill have remained largely



localized. Numerous communities along the Gulf Coast are suffering the effects of the spill, but the direct impact on the national economy appears to have been relatively minor. As in the case of Hurricane Katrina, the two main risk factors our research identified for the national economy were energy supplies and transportation. To date, the supply of natural gas and refined petroleum products has not been significantly disrupted, and key transportation facilities remain operational.

In addition, the economic footprint of the affected area is relatively small compared to the size of the overall U.S. economy. The combined gross domestic product (GDP) of metro areas along the region's Gulf Coast affected by the spill (from Loui-

siana to Panama City, including Lafayette and Lake Charles but excluding New Orleans) is less than 1 percent of total U.S. GDP. If we include New Orleans (which is excluded because its economy does not appear to be significantly affected), the total rises to 1.9 percent.

Since we have not seen disruptions in the energy or transportation sectors—and because of the limited size of the affected Gulf economic footprint—we do not see the Gulf oil spill as having a significant impact on the national economy. ■

University Studies

The explosion of the Deepwater Horizon drilling platform on April 20, 2010, and the resulting oil spill have had a significant economic impact on the communities along the Gulf Coast (see this issue's cover story). Several university contacts in the region have shared their thoughts and ideas concerning the impact of the Gulf of Mexico oil spill with the Atlanta Fed. As members of the Local Economic Analysis and Research Network (LEARN), these experts provide valuable insight into local economic conditions. The following information provides key points from a few members on how the oil spill has hurt their areas' business and consumer confidence.

Mississippi's business confidence was rising until the oil spill

After improving in four out of the five previous quarters, the index gauging business confidence among Mississippi Gulf Coast chief executive officers and business owners posted a decline in the second quarter of 2010. The report, released by the Gulf Coast Business Council Research Foundation, indicated that "the Mississippi Gulf Coast's sudden drop in confidence likely had more to do with the Deepwater Horizon oil spill than prevailing economic conditions." This statement was supported by the 28 percent of survey respondents who submitted written comments stating that their primary concerns for the upcoming

six months related to the impact of the oil spill. Their comments included concerns about indirect fallout from a negatively impacted tourism industry, downward pressure on commercial real estate, and a general uncertainty about the impact on the economy of the Mississippi Gulf Coast. The foundation collaborates with other LEARN members, such as the University of Southern Mississippi, Mississippi's Institutions for Higher Learning, and the Mississippi Development Authority, to provide ongoing research on oil spill-related economic impacts.

Florida showed glimmers of a turnaround before oil spill

The University of Florida's consumer confidence index fell two points in July, to 65, from a revised June index of 67. "It was no surprise that consumer confidence remained subdued among Floridians in July as the oil from Deepwater Horizon continued to flow into the Gulf most of the month," said Chris McCarty, the survey director. The breakdown of the individual components shows that the components related to expectations experienced a more significant decline from the previous

month. In particular, the expectations of personal finances component fell four points to 72, the lowest reading in the history of the survey. According to the report, expectations of personal finances a year from now are at the lowest level ever recorded, as Floridians don't foresee a good outcome to the spill's effect on the state's economy.

McCarty concludes the report by predicting "that future reports of taxable sales will show a decline, attributable both to declines in tourism and caution on the part of Florida consumers who are uncertain about the effect of the spill's aftermath on their future finances. Whether the effects are real or not—and at this point the real effects seem to be limited to the northwest coast—perceptions reaching outside Florida to tourists and potential in-migrants around the globe are hampering economic recovery in the Sunshine State. Unfortunately, the absence of oil on Florida's beaches is a far less interesting story than one that reports on the potential for disaster." ■



Data Corner: Consumer Confidence Indexes

The confidence of consumers gets a fair amount of attention because consumer spending makes up a large part of the U.S. economy. To gauge consumers' mood, surveyers have constructed indexes based on their information about consumers' level of confidence in the economy.

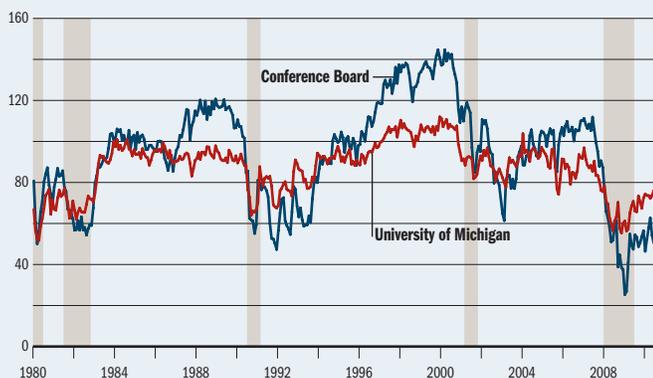
Two of the more prominent consumer confidence indexes are from the Conference Board and the University of Michigan (see chart 1). Both are available on a monthly basis, but the University of Michigan also releases a preliminary midmonth estimate and a final estimate at the end of the month.

The Conference Board and the University of Michigan survey consumers across the country every month to ask questions regarding business conditions and personal finances. Both surveys ask questions about consumers' perspectives on the current economic condition and their future expectations (see charts 2 and 3), and their responses are used to build the indexes.

The two indexes differ in some respects. The University of Michigan surveys about 500 consumers, while the Conference Board surveys about 3,500 households a month. Also, some of the survey questions differ. For example, the University of Michigan asks a question about future buying plans. The Conference Board asks questions about consumers' perspective on the labor market. Because of the methodological differences, there can be some differences in the levels of the indexes. However, they tend to move in the same direction.

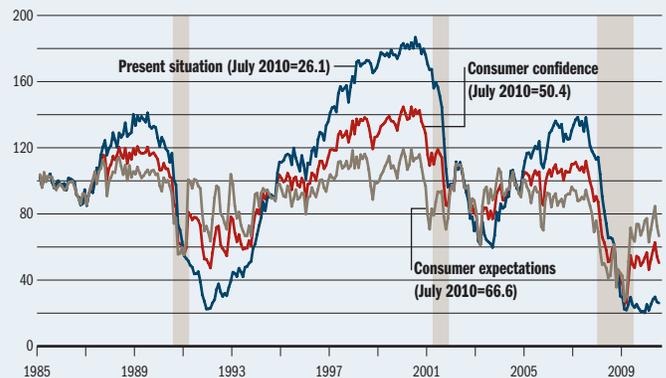
The overall consumer confidence index gets most of the press coverage. Also worth paying attention to are the current conditions and future expectations indexes. In addition, the Conference Board and the University of Michigan construct

Chart 1
University of Michigan and The Conference Board
Consumer Confidence Indexes



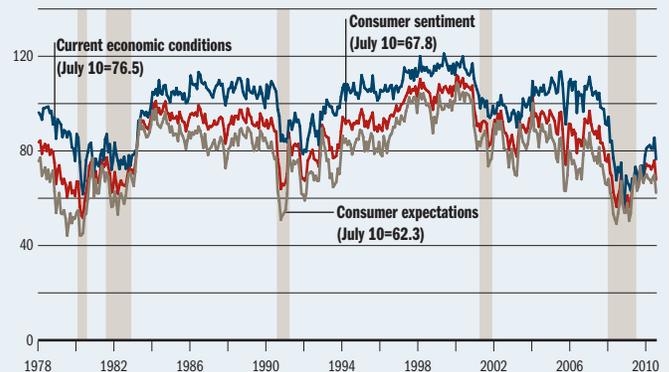
Note: Data assume recession ended June 2009.
Source: The Conference Board and the University of Michigan

Chart 2
The Conference Board Consumer Confidence Index



Notes: Data are seasonally adjusted. 1985=100. Data assume recession ended June 2009.
Source: The Conference Board

Chart 3
University of Michigan Consumer Sentiment Index



Note: 1966 Q1 = 100. Data assume recession ended June 2009.
Source: University of Michigan

indexes dissecting consumer confidence between geographical areas, income levels, and age groups.

To make predictions about consumer spending based on the indexes can be difficult as they can be volatile from month to month, but looking at the general direction of the indexes gives an idea of consumers' economic outlook, which may be reflected in their spending decisions.

Recent readings show tempered consumer confidence in the economy. The readings have improved since the recession, but they are still far below the levels of consumer confidence that typically accompany economic expansions. ■

The D6 Factor

The D6 Factor landed at -1.4 in June, ending the second quarter of 2010 slightly higher than the first quarter. (A negative value indicates that economic conditions are weak.) However, the trend seems to be slowing as the index inched up only five-tenths of a point from the previous quarter. The improvement, albeit small, was positive, which indicates improving conditions for some of the underlying series that are used to compute the index. The D6 Factor has steadily been trending upward from its record low set during the third quarter of 2009, marking the third consecutive quarter of increases for the index. ■

About the D6 Factor

The D6 Factor is an estimate of the trend common to 25 distinct monthly series of economic data for the six states of the Sixth Federal Reserve District. It provides a broad measure of Southeastern economic conditions that is available more frequently than estimates of gross domestic product (GDP) for the six states. Also, unlike an average of state-level GDPs or other factors, the D6 Factor can filter out idiosyncratic shocks that disproportionately affect individual states. For detailed information on the D6 Factor's construction, see "When More Is Better: Assessing the Southeastern Economy with Lots of Data," by Pedro Silos and Diego Vilán (*Economic Review*, Third Quarter 2007).

The D6 Factor



Note: The growth rate is normalized to zero. Data are through June 2010.
Source: Federal Reserve Bank of Atlanta

On the Ground: An Interview with the Atlanta Fed's Regional Executives

How has your region been affected by the Gulf oil spill?

Julius Weyman, regional executive at the Birmingham Branch of the Atlanta Fed:

The simple summary for Alabama is the oil spill has hammered the portion of the Gulf Coast region that belongs to Alabama. The big-ticket item for the people and businesses in this area is tourism, and it is clear that this sector has been punished. The real estate sector down on our coast, already reeling because of the recession, is also having a hard go of it. The Gulf Shores, Fort Morgan, and Orange Beach areas are really struggling and could lose a lot before things are settled down. The area is different from many places in that a large proportion of businesses are smaller, owner-operator affairs as opposed to national chains. That limits their ability to endure, particularly as the spill comes on the heels of a major recession. Many endured and leveraged, hoping this would be their bounce-back year. That won't be happening now.

On a different issue, Mobile and some parts of Baldwin County attached to Mobile's port economy provide an opposing view. While the tourism sectors have also suffered in these areas, business spending from BP and others involved with the cleanup have propped the area up, offsetting some of the losses from traditional tourism spending.

Chris Oakley, regional executive at the Jacksonville Branch:

On the east coast of Florida, there has been no significant negative impact from the oil spill. In northeast Florida, the

oil spill has created a tight summer rental market for the beaches, and many in the hospitality industry have seen record occupancy in the month of July as a result of deflected business from the Panhandle, Alabama, and Mississippi. Most contacts in central Florida have not felt any significant impact from the oil spill, but along the Gulf Coast, small business are suffering because the peak season for profitability has come and gone. West coast and Panhandle retailers virtually unaffected physically by the spill are seeing weaknesses in sales, though not at a catastrophic level.

We have heard grim stories of the economic impact of the oil spill: hotel projects in the Panhandle that may be postponed or cancelled altogether and retail boat sales on the Gulf Coast that have come to a standstill in some areas. There is a gloomy economic climate, and the uncertainty of the long-term impact on the fishing and tourism industries has most companies in a holding pattern, delaying capital expenditures and other business decisions.

Our contacts feel that the damage to the Gulf Coast brand could be significant, and no one knows how long it will take to rebuild confidence in the safety of the waters for recreation and seafood consumption. When cleanup workers, media crews, and politicians stop coming to the area, there will be a significant and possibly long-term dip in the Gulf Coast economy. Many folks are frustrated with the continued negative publicity in the national media coverage, when in reality things are not nearly as bad as

the news portrays, and while the physical effect of the spill seems to be limited to the northwest corner of the state, the perceived impact to would-be tourists will continue to impede Florida's economic recovery. Though it's too late to rescue the summer tourism season for Florida's west coast and Panhandle destinations, some news outlets are finally now beginning to report on the media's exaggerated accounts of oil-covered beaches.

Juan del Busto, regional executive at the Miami Branch:

There have been winners and losers in the tourism industry as a result of the oil spill. Contacts on the east coast of Florida have reported additional bookings by folks who diverted from the west coast of Florida, the Panhandle, and other Gulf Coast areas as a result of fear of oil intrusion ruining their travel plans. This includes both business and leisure travelers. To counter this, some hotels are offering special cancellation policies for their Gulf area hotels. We cannot assign numbers to just how much business shifted from the west coast to the east coast. One contact on the South Florida west coast area—Naples, Marco Island, and Everglades Convention and Visitors Bureau—said that reservation activity ground to a standstill. While some local tourists are savvy enough to know the east coast of Florida versus the west coast and where the oil has actually washed up on the shore, this is not true of some international tourists. To this latter group, geographically, oil washing up on the west coast beaches of Florida is the same as the east coast and all of Florida being impacted, thus causing them to cancel plans to visit Florida.

Further exacerbating the problem and the impact on tourism has been the NOAA [National Oceanic and Atmospheric Association] reporting and the media frenzy. Tourism contacts said a July 2 report by NOAA set back the tourism business leading into the Fourth of July weekend. NOAA reported a 61 percent to 80 percent

chance of oil hitting the Miami and southeast Florida beaches, which to date has not occurred. The convention and visitors bureaus tried to implement some damage control with advertising, but reports like this do not help.

The future impact for the second half of 2010 and beyond is unknown. The good news is that currently the leakage has stopped. However, the remaining oil in the water and where and when it may wash onshore and its impact is also unknown. The tourism bureaus are actively advertising, and many of the hotels—particularly in the Gulf and west coast of Florida—have incorporated flexible cancellation policies and concessions along with low room rates.

Lee Jones, regional executive at the Nashville Branch: We are the one Atlanta Fed office with no coastal areas. However, the East Tennessee region has experienced a surge in tourism as the Gulf oil spill has diverted family vacation plans to other regions. Cabin/chalet rentals in the Pigeon Forge and Gatlinburg areas are booming. Hotels are maintaining at least a 95 percent occupancy rate, with some days at 100 percent. According to the Gatlinburg Chamber of Commerce, local vendors reported a healthy increase in May sales over the same month last year.

Robert Musso, regional executive at the New Orleans Branch: The spill has had a detrimental effect on the seafood industry, specifically the oyster industry. More devastating on the human psyche, however, has been the moratorium on drilling new oil and gas wells, which may have long-lasting effects on employment and the oil industry. ■

Econ 101: Sticky Prices

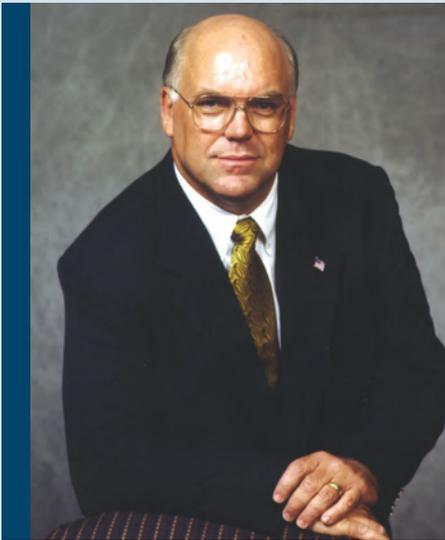
The most popular measure of price inflation in retail goods and services in the United States is the consumer price index (CPI). The U.S. Bureau of Labor Statistics computes the monthly index by measuring the average change in retail prices for a weighted basket of more than 200 assorted goods and services. While changes in the overall index can provide valuable information about recent price changes, the underlying data may also be useful in gauging future inflation.

All components of the CPI index do not necessarily behave the same way. For many of the products in the consumer basket, prices can be adjusted relatively frequently and with ease—think of gasoline or tomatoes. However, in some markets, price adjustments only take place every couple of months, or even annually or longer—like medical fees or rent. These “sticky” prices are not as sensitive to changing market

conditions as flexible prices, but they may contain more information about inflation expectations. A recent study by Federal Reserve researchers Michael Bryan and Brent Meyer found that inflation forecasts based on sticky price data tend to be more accurate than those based on the overall headline or core CPI index—an indication that this series may be one to watch for signs of future price trends.

The Atlanta Fed publishes a sticky price index each month at frbatlanta.org, and the index sorts the components of the CPI into either flexible or sticky categories. ■





HERB MALONE

Title	President and chief executive officer
Organization	Alabama Gulf Coast Convention and Visitors Bureau
Website	www.gulfshores.com
Other	Malone has been at the Alabama Gulf Coast Convention and Visitors Bureau since its founding in 1993. Prior to his current position, he was president and CEO of the Alabama Gulf Coast Chamber of Commerce from August 1988 until September 1993. He holds degrees in business administration and economics from Livingston University.

“We’re Encouraged That the Future Is Brighter”

An Interview With Herb Malone of the Alabama Gulf Coast Convention and Visitors Bureau

Herb Malone spends more time than you do thinking about red snapper. That’s because a lot of people visit Alabama’s Gulf Coast to try and catch the tasty fish. Malone is president and chief executive officer of the Alabama Gulf Coast Convention and Visitors Bureau. *EconSouth* talked with him during the week after Labor Day about the impact of the Gulf oil spill.

EconSouth: *The effects of the oil spill, we’ve already seen, are severe, but how would you assess the summer season now that it’s over?*

Herb Malone: We lost about 50 percent of our tourist market [this summer]. A primary benchmark we measure is our lodging rentals. We saw our first impact in May, which was one of those months when we had a very strong, legitimate expectation of a 20 percent increase over last year. That [expectation] was due to a couple of factors. One was a huge new music festival. And then this Memorial Day was as late as it can be—May 31. When it’s late, and all schools are out, people launch their first summer vacation; they come for the weekend and stay for the week. May was off 5.6 percent compared to last year. So we lost the forecast 20 percent, plus 5.6 percent. June and July we had expectations of being up in double digits. June was down from last year by 38.4 percent and July was down 53.2 percent.

The other benchmark we follow is gross retail sales. May was off 4.3 percent from last year. June was off 22.4 percent and July was off 32.6 percent. In July, lodging was off 53 [percent] and retail was off 32 [percent] because the lodging folks took severe discounting to get people here.

ES: *Labor Day weekend was widely considered an important harbinger. How did it go?*

Malone: We were very encouraged. We had a tremendous crowd in town. Not a record-setting crowd, but we had some lodging properties report they were doing 90 percent [occupancy]. Now, they’re still discounting about 50 percent, but people came. There’s been concern all summer about, “Will people ever come back? Will the perception be that the water is forever polluted?” I think the Labor Day crowd has dismissed that fear for us.

ES: *Atlanta Fed economists figured the biggest long-term concern was the damage to the brand of the Gulf Coast as a tourism destination. So it sounds like early indications are it might not be too bad.*

Malone: That’s why Labor Day was encouraging. We were anxious about Labor Day because we had not had any oil on the beach in over a month. The federal agencies have reopened waters for swimming and for fishing; we’re har-

vesting the seafood. Those agencies such as the Alabama Department of Public Health, the EPA [Environmental Protection Agency], and the Alabama Department of Environmental Management have determined everything is safe. So our concern, then, was will people believe it's safe? This weekend [Labor Day] was the busiest weekend we've had all year, which was a big shot in the arm for us.

ES: *What are the big issues looking ahead? Does it look like the off-season will be OK?*

Malone: That's what we're hearing. We're still aggressively marketing, and we've got some exciting events planned, particularly in October. The annual Shrimp Festival [and] Thunder on the Gulf, our super powerboat race, which wasn't here last year, is back this year. That same weekend, we'll have two big beach concerts [Jon Bon Jovi and Brad Paisley]. We expect 30,000 to 40,000 people at each

“All the legitimate authoritative reports are that everything comes back as being very good.”

of those. I'm hearing reservations for September and October are increasing every day. So we're encouraged that the future is brighter than what a lot of us have been thinking it would be.

ES: *What elements need to fall into place for tourism in the months ahead?*

Malone: BP has got to take care of the remaining physical challenges. They've determined there is oil buried in the sand, buried by the waves. They've discussed mostly some kind of deep cleaning, with machines that reach down in the sand about 18 inches and get the oil out. I'm not sure when that's going to be implemented. Some of that oil is underwater

in the surf zone. When we have rough days, it uncovers it and churns it up. How they get that out is beyond my pay scale. In some people's opinion, it will take another round of beach nourishment, which is where you bring in fresh sand. That's a very large project, particularly if you do all 32 miles [of Gulf beachfront in Alabama]. It's going to take time and a lot of heavy equipment. Getting that done quickly is critical to us because we don't need that kind of work going into next spring. We need it done, ideally, between now and the first of January. The science world is going to continue to monitor the fish and seafood. So far, all the legitimate authoritative reports are that everything comes back as being very good.

ES: *Are some of the charter fishing workers getting back to work?*

Malone: They are. We've had two good things happen recently. This past week, NOAA [the National Oceanic and Atmospheric Administration] opened the waters south of Alabama to fishing. Our state waters reopened about 10 days ago, but our state waters only extend three miles out. Most of the charter boat-type fishing occurs beyond that three-mile line. The other good news is the National Marine Fisheries Service, the federal agency that manages the fish stocks in the Gulf, determined that the 2010 quotas of the red snapper, our marquee fish, had not all been caught during the open season primarily because so much of the waters were closed to fishing. So they've taken the remaining quota and set up a special fall red snapper season. It's going to open Oct. 1, and it's going to go for eight three-day weekends.

ES: *How is the claims process going? There were a lot of complaints about it through the summer.*

Malone: It's still about the same. Two weeks ago, the claims process transitioned [from BP] to Mr. [Kenneth] Feinberg's organization. He made a lot of bold promises I think he had full inten-

tion of keeping. But when it got into the actual delivery, it's yet to produce. What I'm hearing most people saying is they can't see where it's any better. Bottom line is, they need checks with some nice figures on them that they deserve and that they've documented.

ES: *Have you seen many businesses closing?*

Malone: We track particularly the tourist-related businesses. As of the end of last week, we had tracked six that had closed—a couple of parasail companies, one retail gift shop, one small restaurant, and a couple of other miscellaneous [businesses] that have closed. For those, summer is their entire business.

ES: *Do you have a reading on how many jobs were lost? I assume a lot of temporary summer jobs never got filled.*

Malone: The companies that usually ramp up with a lot of extra seasonal help basically canceled their seasonal help in May. Worse than that, at the end of the summer—and I don't have [data] on this, just what people are telling me—typically these businesses will carry their year-round employees through the winter, although they know they won't do big numbers in the off-season. But those are valuable employees they need. They can't just lay everybody off and start from scratch every spring. Many of them are telling me they're having to review that and make some reductions there. That's when it gets real emotional with people, when you lay somebody off that's been with you 10, 12, or 15 years. ■

This interview was conducted by Charles Davidson, a staff writer for EconSouth.



King Cotton Still Part of Southeast's Fabric





Cotton has long enjoyed royal status in the Southeast. Once a major cash crop and an important export for the United States, cotton has endured numerous challenges since it was first planted here more than 400 years ago. Cotton's future is brightening again as a result of strong demand from foreign mills, yet the industry must overcome stiff competition and fallout from the recession for cotton to maintain its status as the South's reigning crop.



Cotton's deep historical and cultural roots in the Southeast are well documented, and to date the cotton industry continues to make significant contributions to the regional economy. Cotton is grown in all southeastern states; in 2009, the region produced nearly 3.6 million bales of cotton (one bale weighs 480 pounds). Georgia leads the region in production, with nearly 1.9 million bales in 2009, followed by Tennessee and Mississippi, with roughly 492,000 and 415,000 bales, respectively (see chart 1).

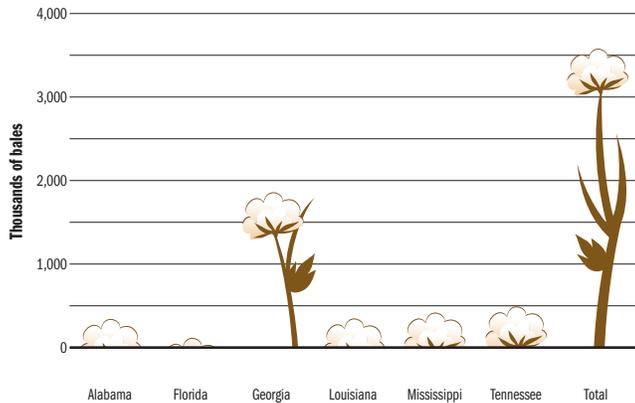
The industry generates jobs more than just the cotton itself; it creates jobs and revenues in the Southeast through other parts of the production chain that include the gins, cottonseed oil mills, textile mills, warehouses, and merchants. According to the National Cotton Council and based on U.S. Department of Agriculture (USDA) data from 2002 and 2007, the southeastern cotton industry supports roughly 6,800 businesses and more than 52,000 jobs. Further, the industry generated an estimated \$8.7 billion in business revenue for the region, according to the council.

Thriving despite obstacles

Like many agricultural products, cotton is vulnerable to unpredictable factors such as weather conditions, price swings, and politics. Several impediments—including reduced cotton acreage, poor growing conditions, and weak global demand—combined to make 2009 a difficult year for the industry. Partly as a result of the global economic downturn, cotton demand fell 11 percent in 2009, said Berry Worsham, president and chief executive officer of Cotton Incorporated, the industry's research and marketing arm. Although demand began to pick up toward the end of the year and into 2010, it remains below prerecession levels and may not fully recover for some time, he added.

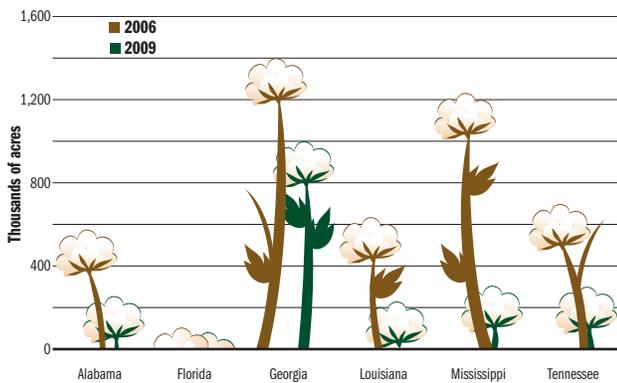
Because cotton is used mostly to manufacture other products, the crop's fortunes rely on the economic health of both the manufacturing industries and the final consumer. Clothing, a major end use of cotton, is largely a discretionary purchase, Worsham said, "so consumers, who are trying to shed debt and improve household balance sheets, are not likely to dramatically increase spending levels on apparel and home textiles."

Chart 1
2009 Southeast Cotton Production



Note: One bale = 480 lbs.
Source: U.S. Department of Agriculture

Chart 2
Southeast Cotton Acreage



Source: U.S. Department of Agriculture

Nevertheless, the rebound thus far has boosted cotton's fortunes in 2010. According to *Cotton Market Comments*, a newsletter by Carl G. Anderson, professor emeritus at Texas A&M University, the U.S. export market will benefit from stronger demand for cotton from textile mills and apparel factories around the world. Stronger demand, coupled with several years of reduced acreage, has resulted in record-low global cotton stocks, boosting prices well above last year's average. Spot prices for cotton in the first six months of 2010 averaged 72 cents per pound compared with 52 cents in 2009, noted Cotton Incorporated's Worsham.

Cotton competes for ground

Despite improving market conditions, cotton must confront several long-term challenges, including competition with more profitable crops for acreage, product from other cotton-producing countries, and synthetic fibers.

After hitting a recent peak of roughly 15 million acres in 2006, U.S. cotton acreage declined for three consecutive years—from 2007 to 2009—as it lost ground to other crops (see chart 2). For instance, in 2006, U.S. farmers planted roughly 15.2 million acres of cotton, which brought in an average price of 46 cents a pound, compared with estimated U.S. acreage this year of 10.9 million acres at an average price of 72 cents a pound. Farmers decide whether to plant cotton based on more than simply the price they receive for the crop, explained Don Shurley, a professor and cotton economist at the University of Georgia.

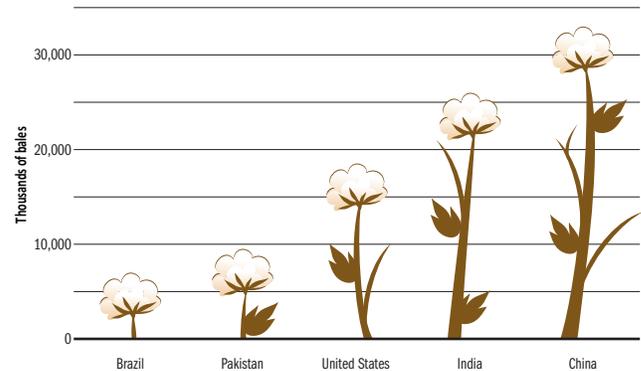
Farmers also consider other factors such as the input costs (fertilizer, for example) involved with growing each crop as well as the support received from U.S. government farm programs. But "what really drives cotton acreage more than anything else is the price of other crops," Shurley said. Skyrocketing prices for corn and soybeans during the past several years have made these crops relatively more profitable, and farmers responded by planting less cotton. At the same time, high energy prices contributed to rising costs for inputs like fertilizer and diesel. In addition to requiring a significant financial commitment, cotton is also management-intensive, Shurley said. "I think farmers would tell you that cotton is one of the most difficult crops to grow," he said. "It's very technical and very involved; you can't just plant it and walk away from it."

The decline in acreage has been hard on cotton-related businesses in the Southeast. An extensive infrastructure has evolved around cotton production, much of which is specific to the crop. Ginners and warehouses especially have been strained because their profitability depends on a certain number of acres being harvested. As a result, many ginning operations have shut down, consolidated, or reduced capacity. Others "have gone into survival mode and are just hoping cotton acreage will go up," explained Larkin Martin, managing partner of Martin Farms and former chair of the Atlanta Fed's board of directors. From 2006 to 2009, cotton bales ginned in the Southeast fell more than 50 percent, while the number of active cotton gins has declined roughly 20 percent to just 218, according to data from the U.S. Department of Agriculture (USDA). Even the descendants of cotton gin inventor Eli Whitney are not immune to the shrinking U.S. cotton industry. As American farmers switch to more profitable crops, such as soybeans and corn, cotton-related businesses like S.M. Whitney Co. are feeling the pinch. After 142 years in business, the cotton company owned by Barry Whitney, a distant relative of the legendary inventor, is shutting its doors.

The increase in cotton acreage in 2010 comes as U.S. farmers respond to higher relative prices for cotton and favorable growing



Chart 3
Cotton Production by Top Five Producers



Note: Data represent the 2010–11 marketing year.
Source: U.S. Department of Agriculture

On one hand, the global increase in cotton mill use presents opportunities for U.S. cotton growers to sell their crop. As mills and apparel factories began moving to lower-cost overseas markets, making foreign markets crucial to U.S. cotton farmers, the domestic textile industry has steadily declined. (Cotton consumption by domestic mills peaked in 1997 and has since dropped sharply, falling nearly 70 percent by 2009, according to the USDA.) As a result, America now exports about 70 percent of the cotton it produces, said Shurley.

On the other hand, the industry’s reliance on exports has introduced a host of new challenges, “primarily in terms of the actors that impact prices from week to week,” Shurley said. Among other things, the industry must consider external factors such as the value of the U.S. dollar in relation to other currencies as well as the cotton production, stocks, and trade policies of other countries. Further, U.S. farmers have had to adjust to growing cotton to the specifications of foreign mills, which are demanding higher fiber quality. As a result, the industry has invested heavily in research to determine which cotton varieties produce in-demand characteristics such as fiber length, strength, and uniformity.

Synthetics test cotton’s strength

In addition to competing with other crops and foreign producers, cotton also faces competition from manmade fibers, which benefit from key advantages such as a uniform raw product, relatively little waste, and more stable pricing.

Cotton’s battle against synthetics began in earnest when the fiber’s share of the U.S. market for retail apparel and home fabrics declined sharply from about 63 percent in 1960 to a historical low of 33 percent in 1975. In response, the industry

conditions across much of the Cotton Belt. Still, cotton acreage remains below historical levels and is not likely to fully recover until cotton becomes more profitable relative to other crops. “As long as corn and soybeans remain where they are now, it’s going to be difficult for us to get cotton acreage back in that 13 million to 15 million range where it used to be,” Shurley said.

The world grows along with us

Even as cotton battles for acreage in the Southeast, it also must contend with an increasingly competitive and globalized cotton market. Large cotton producers such as India, Pakistan, and Brazil are key competitors in the global cotton market (see chart 3). Further, many foreign producers have benefited from trade liberalization in the textile and apparel industries and are enjoying higher yields as they adopt new technologies and production practices. As a result, the United States is no longer the dominant force in the cotton market. That role now belongs to China, which—as the world’s largest producer, consumer, and importer of cotton, according to the USDA—has an increasing share of market power. (USDA data now place the United States as the third-largest producer and the largest exporter.)

banded together in an impressive show of organization to rebuild cotton's market share, including the creation of the Cotton Incorporated brand. The industry-funded research and promotion company works to increase demand for cotton among textile mills and final consumers. Largely as a result of its efforts, cotton was able to rebound to a 60 percent market share in the United States in the 1990s, according to *Cotton's Renaissance*, a book by Timothy Jacobson and George Smith recounting the industry's resurgence.

Despite that admirable feat, cotton continues to face stiff competition from synthetics on the global stage. World textile consumption has more than quadrupled since the 1960s, said Alejandro Plastina, an economist for the International Cotton Advisory Committee, but cotton's share of the market has not kept pace with synthetics. Cotton consumption more than doubled during that time period, while consumption of other fibers (synthetics and wool) increased sevenfold. As a result, cotton's global market share has shrunk from an average of 63 percent in the 1960s to just 40 percent recently, Plastina wrote in the *Cotton Promotion Bulletin*, a publication of the International Forum for Cotton Promotion. Consumer preferences in developing nations have been one of the driving forces behind cotton's sagging global market share—nongrain fibers have seen their market share increase twice as fast as that of cotton in these countries, he noted.

A key area where cotton has lost ground to synthetics is in athletic wear, where popular performance fabrics have dented cotton's market share. Cotton used to be the dominant fabric for T-shirts, but "today it's hard to find a cotton T-shirt," Martin said. In fact, the fiber's share of the T-shirt market declined by roughly 20 percent during the past decade, according to Cotton Incorporated's 2008 annual report. "Synthetic products that dry faster or wick away moisture from the body have eroded cotton's share in golf apparel, running, and other performance-based markets," Worsham noted. In response, researchers at Cotton Incorporated have come up with several fabric technologies to help cotton compete with its synthetic counterparts. For instance, athletic gear with similar qualities to the synthetic performance fabrics can now be made with cotton, thanks to Wicking Windows and TransDry, two technologies that enhance cotton's inherent moisture-wicking capabilities.

Harvesting goes high tech

On the production side, the industry has also harnessed technology. As a result, the practice of growing cotton has become more efficient, less harmful to the environment, and in some cases less costly.

The old, iconic image of workers hand-picking cotton in the field no longer applies to today's modern industry. Cotton growers now use computers and GPS satellites to generate detailed maps of the high- and low-yielding areas of their fields,



High-tech harvesting methods have played a major role in boosting cotton production in the Southeast, helping to satisfy growing export demand.

allowing them to apply seeds, fertilizers, and other chemicals more effectively. Tractors with GPS receptors can navigate their way through the fields with greater accuracy, even at night, and sprayers and planters equipped with the technology can avoid spreading chemicals and seeds outside of the crop area, helping farmers reduce waste.

Another important breakthrough has been the use of genetically modified (GM) cotton seeds. Since being introduced more than a decade ago, GM cotton has gained widespread adoption on farms in this country and elsewhere. Herbicide-tolerant (HT) crops—commonly referred to as "Roundup Ready" because they are resistant to the weed killer Roundup—were first made available to farmers in the late 1990s. Cotton growers "used to have to plow their fields or use a myriad of chemistries that were potentially harmful to the crop," explained Martin, who grows cotton on her family's Courtland, Ala., farm. By planting HT cotton, farmers are able to apply glyphosate (the generic name for Roundup) without damaging the crop. By 2010, HT cotton made up 78 percent of cotton acreage compared with just 10 percent when it was introduced in 1997, according to the USDA. Another



variety, this one insect-resistant, contains a gene from *Bacillus thuringiensis* (Bt), a naturally occurring soil bacterium that is toxic to certain insects. Bt crops accounted for 73 percent of cotton acreage in 2010, up from just 15 percent in 1997.

The widespread use of GM cotton has benefited growers and the environment through increased net returns and reduced pesticide use, according to a 2006 study by the USDA's Economic Research Service. A 2002 study by the USDA found that increases in southeastern cotton yields were associated with the adoption of GM cotton. A 10 percent increase in HT and Bt cotton acreage resulted in 1.7 percent and 2.1 percent increases in yield, respectively. Although growers pay a premium to plant GM cotton, they benefit from the convenience of using fewer chemicals and spending less time applying them. In addition, planting HT crops has allowed many cotton growers to adopt conservation tillage practices, which involve minimal plowing, helping to reduce erosion, fuel use, and pollution from chemical runoff.

However, the widespread use of glyphosate has created a new class of "superweeds" that are resistant to the herbicide. Glyphosate-resistant weeds like horseweed and pigweed are

wreaking havoc across the Cotton Belt, forcing farmers to revert to older ways of farming that involve heavier use of chemicals, more plowing, or even hand-pulling weeds. Ten resistant species have been identified in at least 22 states, with cotton, corn, and soybean crops being most affected. According to a recent *New York Times* article, approximately 7 million to 10 million acres of U.S. farmland are affected by the Roundup-resistant weeds. Monsanto, the company that manufactures Roundup, is subsidizing the purchase of other chemicals to supplement the herbicide. Meanwhile, scientists are encouraging farmers to alternate between using glyphosate and other herbicides to help reduce resistance.

As the cotton industry struggles to address complications from the resistant weeds, the next generation of GM cotton is already in the works. Researchers are working to identify the specific genes responsible for heat and drought tolerance, as well as to develop GM varieties that target other important traits like fiber quality and yield.

Another promising development in genetic engineering could eventually be a game changer in the industry. Researchers at Texas A&M University have found a way to remove gossypol, the substance that makes cottonseed toxic to nonruminant animals, from cottonseeds while keeping it in the rest of the plant, where it acts as a natural form of pest control. The development "is very exciting because it could potentially turn the cotton plant into a major source of protein in the animal food chain," said Martin.

Cottonseed is produced in large quantities—about 1.6 pounds for every pound of cotton lint—but it is mostly used as feed for dairy cows or pressed into cottonseed oil. Cottonseed prices are currently held down by the sheer volume and limited demand, but the cottonseed could eventually be more valuable than the fiber once the new strain is commercially available. Edible cottonseed won't be showing up on grocery store shelves anytime soon, though. The gossypol-free seeds, which have been grown only in small trials, must still gain government approval and will likely make their way into more animal feed before being consumed by humans.

With strong global demand for cotton in the forecast and a number of technological advances on the horizon, the Southeast's cotton industry is well positioned to have a strong presence on the U.S. and world stage. The industry's commitment to research and promotion is helping to expand the market for cotton among textile mills and consumers, while investments in technology continue to improve the way cotton is grown and manufactured into finished products, helping to ensure the crop's continued reign. King Cotton may no longer be the economic monarch he once was in the Southeast, but he's a long way from losing royal status. ■

This article was written by Lela Pratte, a staff writer for EconSouth.



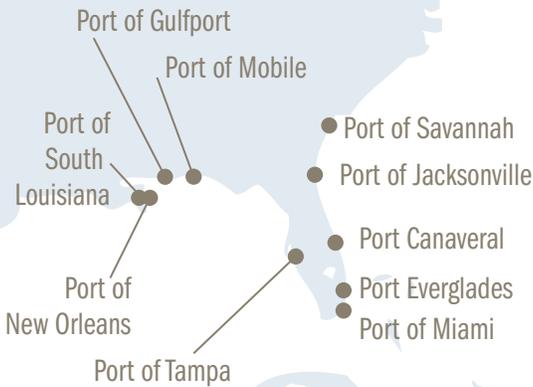
Full Steam Ahead:
Southeast Ports
Prepare for Panama
Canal Expansion



In four years, the Panama Canal plans to mark its 100th anniversary with the completion of a \$5.25 billion expansion project that will allow more and wider ships to move between the Pacific and Atlantic oceans. In anticipation of capturing a chunk of the transpacific Asian trade previously destined for West Coast ports, Southeast ports officials from New Orleans to Tampa on the Gulf Coast, and from Miami to Savannah on the East Coast are moving full steam ahead to dredge harbors and upgrade their infrastructure.

There's something about a century mark that calls for a celebration. Cities observe their centennials with parades, proclamations, and pyrotechnics. Centennarians are honored with parties and newspaper feature stories. The year 2014 will bear witness to a Latin American centennial that could arguably have significant economic repercussions for the Southeast economy—indeed, for global commerce in general. The Panama Canal will mark its first 100 years with the completion of a \$5.25 billion expansion project that will add a third set of locks to allow more and wider ships to pass. The largest container ships—so-called post-Panamax ships—will be able to pass through the canal to ports on the eastern side of North America, possibly diminishing the West Coast dominance of the transpacific Asian trade.

As the year of completion approaches, competition among East Coast and Gulf Coast ports to capture a larger share of the Asian market is intensifying. Many of the Southeast's ports do not have adequate infrastructure to accommodate the volume of containers that the larger ships promise, nor do they have the water depth or channel width to allow the ships to navigate. Currently, a deepwater port has to have a minimum depth of 40 feet to accommodate Panamax ships, which is the largest ship that can now navigate the Panama Canal (hence the name Panamax). By this definition, the Southeast has seven deepwater ports. Four of them are on the Atlantic Coast: the Port of Savannah, Port Canaveral, Port Everglades, and the Port of Miami. The other three are on the Gulf Coast: the ports of Tampa, Mobile, and



The Port of Savannah's post-Panamax cranes enable the port to handle bigger ships and more containers.

New Orleans. Once 2014 rolls around, however, and the Panama Canal opens to the post-Panamax ships, the definition of deep-water port will have to be altered. Fully loaded post-Panamax ships carrying over 10,000 TEUs require a channel depth of at least 50 feet. (TEU is short for “twenty-foot equivalent” and describes a ship’s cargo-carrying capacity. A standard 40-foot (40x8x8 feet) container equals two TEUs (20x8x8 feet).)

To accommodate the larger ships and the greater volume of containers, many U.S. ports on the Gulf and eastern seaboard are undertaking expansion projects of their own. Although the recent recession has created funding shortages and budget

Container Traffic 2009

Southeast Ports	TEUs	Boxes	Containerized Cargo
Gulfport, MS (30/31)	198,900	–	1,473,448
Miami, FL (17/16)	807,069	451,706	6,197,533
Mobile, AL –	112,270	–	1,497,929
New Orleans, LA –	229,067	153,537	2,802,587
Palm Beach, FL –	199,393	–	828,308
Port Everglades, FL (16/17)	796,160	–	4,721,162
Savannah, GA (4/4)	2,356,512	1,307,728	16,751,623

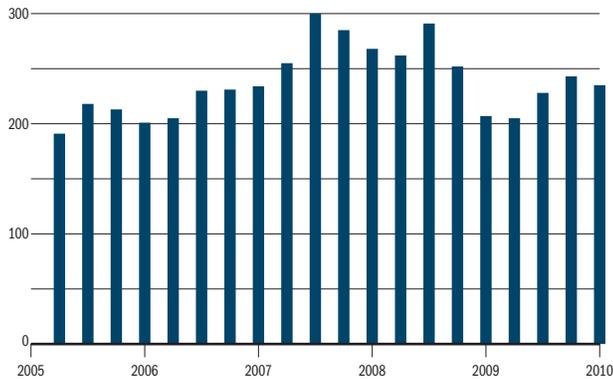
The Largest U.S. Ports

Long Beach, CA (2/2)	5,067,597	2,811,116	30,128,362
Los Angeles, CA (1/1)	6,748,995	3,744,710	–
New York/New Jersey (3/3)	4,561,527	2,652,209	–

Notes: Table includes top seven Southeast container ports. Long Beach, Los Angeles, and New York are included for comparison. TEUs=twenty-foot equivalent units (loaded and empty). Containerized cargo is the total containers regardless of length (loaded and empty). Numbers in parentheses next to port names indicate port's ranking by TEUs for 2008 and 2009, respectively.

Source: American Association of Ports Authorities

Chart 1
Import Volumes, Port of Savannah



Note: Data are in thousands of TEUs and are from second quarter 2005 through first quarter 2010.
 Source: *Global Port Tracker: North America Trade Outlook*, National Retail Federation, May 2010

challenges, many ports are forging ahead with their projects to dredge their access channels, install new post-Panamax cranes to offload the containers, and add and upgrade container facilities. They are also competing for private and federal dollars to fund the projects. As Alec L. Poitevint II, chairman of the board of directors of the Georgia Ports Authority (GPA), said, “The Port of Savannah continues to be committed to its long-term plans.” Despite the recession, he continued, the GPA has not changed its strategy, and the infrastructure improvement budget remains strong. Poitevint said that the Port of Savannah recently added four more super-post-Panamax cranes to its inventory, bringing the number of such ship-to-shore cranes to 23. At 425 feet long, standing 180 feet above the water, and weighing 1,369 tons, these cranes are the largest in the world, capable of handling super-post-Panamax ships the size of 22 containers wide. Since 2000, the Port of Savannah has been the fastest-growing U.S. port and is the fourth-largest container port in the United States in terms of volume (see chart 1 and the table).

Don Allee, chief executive of the Mississippi State Port Authority at Gulfport, said in a Feb. 2, 2010, *USA Today* article, “Those who are best prepared when the recession ends will have the best opportunity for rewards later.” Gulfport is currently undergoing a \$570 million expansion not only to repair damage done by Hurricane Katrina and raise it 25 feet to better withstand future hurricanes but also to handle the increased container traffic that the ports authority is anticipating after the completion of the Panama Canal expansion.

The all-water route may not be all wet

According to the Panama Canal Authority (ACP), the large majority of traffic moving through the canal is between the East Coast of the United States and Asia. The second major trade

route is between Europe and the west coast of the United States and Canada.

The Panama Canal has historically competed with the U.S. intermodal system in the Northeast Asia-to-U.S. East Coast route, according to the ACP’s 2006 expansion proposal. The ACP estimates that the Panama Canal has a 38 percent market share of this route, while the intermodal system has a 61 percent share of it, and the Suez Canal has a 1 percent share. Traditionally, shippers have largely found it more efficient to ship goods ultimately bound for East Coast destinations to the West Coast ports, where they are offloaded from the vessels and then moved by truck and rail to their final destinations in a complex system of transportation. (The ports of Los Angeles and Long Beach dominate the Asian trade; about 40 percent of all container cargo traffic entering the United States still arrives at these two ports.) This intermodal system route offers shippers shorter times for shipments to reach their destinations than the all-water route through the Panama Canal allows, but it also involves higher costs and some measure of unreliability in service. On the other hand, the all-water route to the East Coast through the Panama Canal is less expensive and arguably more reliable, but the cargo takes longer to reach its destination than it would by way of the intermodal system.

Even before the ACP announced its plan to expand the canal, West Coast ports had lost some of their transpacific business to Gulf and East Coast ports. Congestion and ongoing labor disputes over the past decade have seen to that. With more and larger ships able to pass through the Panama Canal, the all-water route from Asia through the canal and into the U.S. Gulf and East Coast ports promises to become an even more attractive option for shippers transporting containerized cargo. According to *The Cunningham Report*, a newsletter for the trade and transportation industry on the West Coast, almost 60 percent of Americans live east of the Mississippi River, which makes the Southeast ports closer to more consumers and businesses than are the West Coast ports. In addition, these ports are also seen as more business-friendly, more efficient, and cheaper than their competition in the West. This momentum is expected to continue in the near future. The May 2010 *Global Port Tracker*, a biannual publication of the National Retail Federation that provides a four-quarter rolling forecast of 12 major U.S. ports, predicts growth of 13.5 percent for West Coast ports and growth of 17.1 percent for ports on the East Coast.

However, a 2008 study of ports in relation to the impending canal expansion by the U.S. Army Corps of Engineers suggested that Southeast ports’ expectations of hugely increased container trade could be overly optimistic, for a couple of reasons. First, in 2008 shipping companies began cancelling orders for post-Panamax ships because of concerns about sluggish trade and credit tightening—which means that these ships will not be converging on the Panama Canal. Second, climate models

show that the Northwest Passage—a sea route across the Arctic Ocean—could actually be ice-free by 2030, opening up another route from Northeast Asia to the United States. In this case, the Corps of Engineers report said, container ships are likelier to call on Northeast ports as they head southward from the Arctic Circle, not on those in the Southeast.

Where there's a will, there's a waterway

Dreams of a maritime passageway through the narrowest part of Central America have been around since the Spaniards first arrived on this narrow strip of land in the early 16th century. However, it wasn't until the end of the 19th century that technology had reached the point that such an enormous project was feasible. In the 1880s, the country of France began excavations but abandoned the project after yellow fever claimed the lives of more than 22,000 workers over five years. The United States then took over the project and completed the canal in 1914.

In designing the locks to allow passage of its largest warships, the United States accomplished its goal of shortening the transit of its warships from the West to the East Coast. Indeed, the trip was shortened by a full 8,000 nautical miles, or about 9,206 miles, and allowed the ships to avoid the treacherous and expensive route around South America's Cape Horn.

The Panama Canal remained under full U.S. administration until 1977, when a treaty was signed to hand over control to Panama by 1999. That year, all responsibility for the canal was transferred to the government of Panama under the ACP, a semiautonomous agency of the Panamanian government. The United States reserved the perpetual right to military intervention to protect its economic interests in the key shipping route.

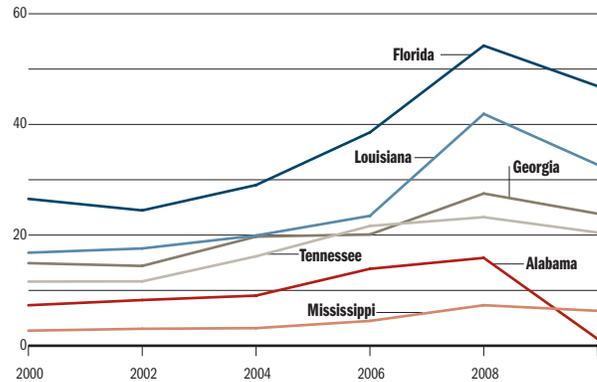
The Panama Canal gets bigger. The world gets smaller.

Dreams for the Panama Canal did not end when the first ship navigated the canal in 1914. According to the ACP, plans to expand it have been tossed around since the 1930s. In 1939, for example, the United States began building a third set of locks to allow the transit of commercial and warships whose size now exceeded the capacity of the existing locks. But with the outbreak of World War II, work on it was suspended.

With increased globalization and West Coast port congestion and labor instability over the past decade, many shippers have already opted for the all-water route that the Panama Canal offers, and the canal has gained a sizable share of container traffic headed to the U.S. East Coast. According to the U.S. Army Corps of Engineers, the Panama Canal sees more than 14,000 ships pass through it every year. About 70 percent of the canal's \$100 billion containerized cargo—about 275 tons—is heading for or coming from the United States.

However, post-Panamax ships currently don't have the option to navigate the canal because of their size. The ships that are able to pass through often face expensive delays. It is not

Chart 2
Southeast Port Exports



Note: Data are in U.S. \$ billions.
Source: U.S. Department of Transportation, International Trade Administration

unusual for vessels to wait up to 10 days during peak season before they can transit the canal. This idle time can cost shippers as much as \$40,000 to \$50,000 a day and has bred a sometimes fierce bidding system. In 2006, a British oil tanker paid a whopping \$220,000 (not including transit fees) to steam ahead of 83 other ships, according to the U.S. Corps of Engineers.

In 2006, the Nicaraguan government announced its plan to build its own canal, a project with an estimated \$18 billion price tag, more than three times the country's GDP. The canal would connect the Atlantic and Pacific oceans, as does the Panama Canal, but it would allow passage of post-Panamax ships. Panamanians needed no further argument to realize that the Panama Canal was due for an overhaul. On Oct. 22, 2006, the citizens of Panama overwhelmingly approved a plan to expand the canal. Although movement on the Nicaraguan canal proposal seems to have submerged, news of Nicaraguan government officials meeting with foreign investors to finance the project occasionally surfaces.

In the Great Recession's wake, Southeast plunges into port expansions

Southeast ports officials from New Orleans to Tampa on the Gulf Coast, and from Miami to Savannah on the East Coast are moving full steam ahead to expand and modernize their ports to capture their share of the anticipated traffic that the Panama Canal expansion will bring.

Funding these projects has been a challenging and occasionally even controversial prospect. During the height of the recession, when cargo volumes and revenues steeply dropped (see chart 2), some ports had their budgets cut and had to delay planned expansion projects. Other ports did not slow down at all. Despite the massive budget shortfalls that Georgia has experienced, the Port of Savannah has kept its expansion



Left to right: The first ship passes through the Panama Canal, 1914; the Gatun Locks, on the Atlantic side of the Panama Canal; a Panamax container ship, currently the largest the canal can accommodate.

budget relatively intact. According to port director Poitevin, the port remains committed to its long-term strategy and to providing “service to the import and export business, and with the expectation that the Panama Canal will be finished in 2014.”

Much of the funding that ports are vying for comes from a variety of federal programs, including a multiyear surface transportation reauthorization soon up for congressional approval as well as the Harbor Maintenance Tax (HMT), enacted in 1986 by Congress to recoup money from shippers according to the value of the cargo they are moving through ports. Many ports are banking on future federal stimulus spending as well as broader efforts, such as the current administration’s National Export Initiative with its goal of doubling U.S. exports by 2015. The U.S. Department of Transportation’s fiscal year 2011 budget request, released in February, included \$4 billion for creation of a National Infrastructure Innovation and Finance Fund.

In February 2010, \$1.5 billion in federal funding became available under Title XII of the American Recovery and Reinvestment Act of 2009 (ARRA) for transportation improvements. However, only 8 percent of the Transportation Investment Generating Economic Recovery (TIGER) grants was made available for port enhancements, much to the chagrin of port leaders. Competition for these funds is fierce. Some U.S. ports have already received a TIGER grant. Gulfport, in partnership with the Kansas City Southern Railway (KCS), was awarded a \$20 million grant to upgrade a 76.5-mile track link between the port and Hattiesburg, Miss., a \$50 million project that promises to enhance the port’s intermodal system and better connect the port to Chicago, New Orleans, Canada, and the U.S. East Coast. Currently, the track accommodates only 10-mph single-stack freight traffic. Port officials said that with the upgrade, the track will permit 49-mph double-stack standards.

In December 2009, another federal grants program was approved. Similar to the TIGER grants, TIGER II Discretionary Grants are administered by the U.S. Department of Transporta-

tion and used for infrastructure improvement. Ports are already jostling for their share. Gary LaGrange, president and chief executive officer of the Port of New Orleans, said his port is seeking a \$35 million TIGER II grant to expand the port’s dock size.

The Port of Gulfport is largely financing the first phase of its expansion project with \$570 million in community development block grants that the U.S. Department of Housing and Urban Development (HUD) awarded Mississippi after Hurricane Katrina. Use of the HUD money for port expansion was not entirely without controversy, as some critics insisted that the money should finance housing while state officials said that port reconstruction was part of their federal funding request from the start. The port is moving ahead.

Regardless of the challenge of securing funds, the general consensus among port administrators is that the newly expanded Panama Canal in 2014 will significantly alter trade routes, and these ports simply cannot afford to miss the opportunity to bring major business to their regions. ■

This article was written by Nancy Condon, associate editor of EconSouth.

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50

Percent of the number of tourists visiting Alabama beaches during the last July 4 holiday compared with a typical year

Source: Alabama Gulf Coast Convention and Visitors Bureau, as cited in *EconSouth's* article, "The Gulf Coast Cleans Off"

5,600

Number of new private-sector jobs that the Port of Jacksonville's 90-acre container facility will create by its 2014 completion

Source: Jacksonville Ports Authority

1519

Year the first European, Alvarez de Pineda, sailed along the northern coast of the Gulf of Mexico

Source: U.S. Bureau of Ocean Energy Management, Regulation and Enforcement



1

Amount, in billions of dollars, the Alabama Gulf Coast lost in tourism dollars in summer 2010 as a result of the oil spill

Source: Alabama Gulf Coast Convention and Visitors Bureau, as cited in *EconSouth's* article, "The Gulf Coast Cleans Off"

2.4

Number, in millions, of TEUs (twenty-foot-equivalent unit containers) handled by the Georgia Ports Authority in 2009

Source: Georgia Ports Authority, as cited in *EconSouth's* article, "Full Steam Ahead: Southeast Ports Prepare for Panama Canal Expansion"



49

Gallons of water required to produce one cup of orange juice

Source: U.S. Department of the Interior's Bureau of Reclamation

52,000

Number of jobs in the Southeast supported by the cotton industry in 2007

Source: U.S. Department of Agriculture, as cited in *EconSouth's* article, "King Cotton Still Part of Southeast's Fabric"

72¢

Per-pound spot price of cotton in the first six months of 2010, compared with 52 cents in the same period of 2009

Source: Cotton Incorporated, as cited in *EconSouth's* article, "King Cotton Still Part of Southeast's Fabric"

53

Percent of all roads in the United States that are unpaved

Source: U.S. Department of Transportation

closing

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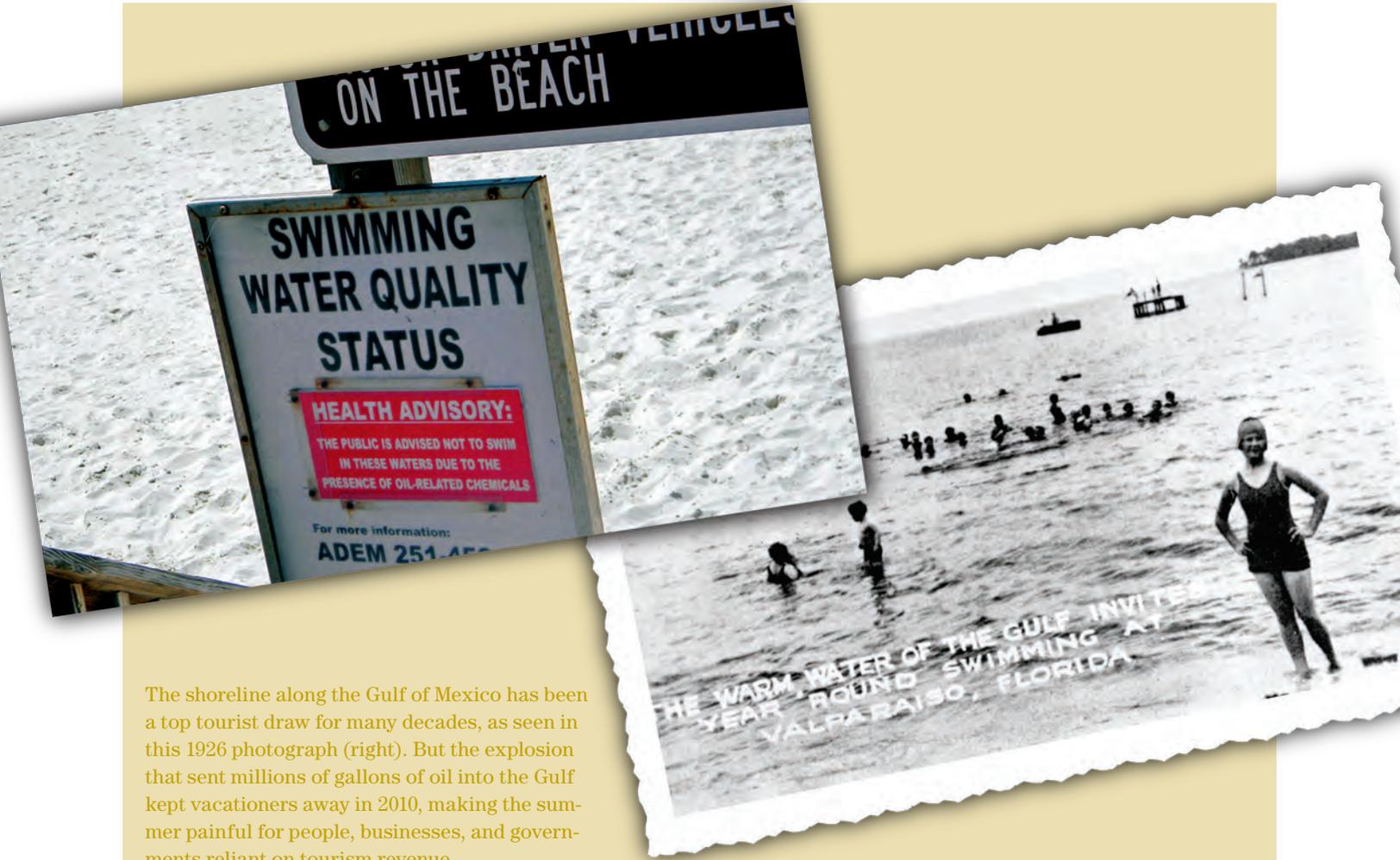
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The shoreline along the Gulf of Mexico has been a top tourist draw for many decades, as seen in this 1926 photograph (right). But the explosion that sent millions of gallons of oil into the Gulf kept vacationers away in 2010, making the summer painful for people, businesses, and governments reliant on tourism revenue.

now **and** then