

## Post-Panamax

## East Coast Ports Prepare for Bigger Ships from the Panama Canal

The Panama Canal is getting wider and deeper to accommodate the increasing size of container ships in the world's fleet. Likewise, the ports need to add depth and breadth.

And all eyes are on the Southeast, which has the nation's fastest-growing population, "but has the least capability in terms of channel depth," according to economist Keith Hofseth of the U.S. Army Corps of Engineers, the agency charged by Congress with deciding which port expansions are a good taxpayer investment.

Of the major container cargo ports in the Southeast, currently only Virginia's Norfolk International Terminals can accommodate "post-Panamax" vessels — which carry more than twice the container volume as those that can currently squeeze through the Panama Canal — in all tidal conditions. The majority of goods that come through Norfolk's port, however, are shipped to the Midwest and Upper Midwest, leaving no

port primarily serving Southern markets that can receive the larger ships 24 hours a day. A feasibility study for the Port of Charleston, which today can receive fully loaded post-Panamax ships only at high tide, is currently under way. The study alone will cost about \$20 million, and the deepening has an estimated price tag of \$300 million, according to spokeswoman Allison Skipper. In July 2010, the Port of Savannah — second on the East Coast in container volume — received word that the Corps of Engineers approved its deepening project based on engineering feasibility, economic viability, and environmental acceptability. Other possible recipients of federal dollars include ports in Miami, Tampa, Mobile, and Houston.

Though port projects may be justified, "now the scramble will be to find the money to fund these investments," says Hofseth. The Corps, a federal agency, shares the cost of dredging projects with the ports, which can raise money through bond issues, and local governments. But the Corps' historical budget implies that it is unlikely that all ports will get money to expand, he says. Expansion entails studies such as those conducted in Savannah, which take years — ports not already deep enough won't be by the time the expanded Canal is open in 2014 — and then ports that win approval from required federal agencies will be in competition for an undetermined pool of federal dredge money. In preparation for this battle, ports have been touting the regional economic benefits of greater port traffic, as well as their respective port infrastructures and proximities to regional rail lines.

For them, the stakes are potentially high. More than 95 percent of cargo imports to the United States arrive by ship, much from China and other Asian countries. Most imports from Asia that end up on the East Coast initially arrive on the West Coast and travel east by rail, highway, and waterway. Only a fifth arrive in East Coast ports via the Panama Canal. A small fraction of imports travel the globe in the opposite direction through Egypt's Suez Canal.

East Coast ports plan for their arrivals to grow. But others in the shipping business say the Canal's expansion won't bring a sudden flood of new traffic. Not every

PHOTOGRAPHY: VIRGINIA PORT AUTHORITY



*A vessel loaded with containers arrives at Norfolk's port.*

port can win, says Theodore Prince, a former rail and ocean carrier executive. He heads a shipping consulting firm based in Richmond. As ship sizes grow, they call on fewer ports per trip. “The big ships only make money when they’re moving.” Also, ground and waterway transport from the West — train, truck, and barge — is faster, he says. A slight cost savings from a new shipping route often is not worth adding several days to transit since that increases the time between production and delivery. Some shippers are

so anxious to minimize this window that final destinations are determined once the cargo has arrived in the United States, based on to-the-minute forecasts of local demand.

The Corps of Engineers will wrap up a report in June 2012 on the options for port and waterway expansions to accommodate post-Panamax vessels, but it will not recommend ports that should receive priority. The decision of where to direct limited funds will be Congress’ to make.

— RENEE HALTOM

## District Disparity Income Gap Grows in Nation’s Capital, Narrows in Suburbs

The income gap between whites and blacks living in Washington, D.C., is among the highest in the nation, according to U.S. Census Bureau figures released in December. On average, white residents earn \$3.04 for every \$1 earned by black residents. That’s the fourth-highest earnings difference in the nation when compared to the 700 U.S. counties with the largest black populations, according to William Frey, a demographer and senior fellow at the Brookings Institution, who has analyzed the data. The greatest white-black disparity was \$4.15 to \$1 in New York County (Manhattan). D.C.’s gap has increased modestly during the past two decades; in the 1990 census, the ratio was \$2.95 for every \$1.

Washington, D.C., scores high on other measures of income inequality as well. Residents in the 90th income percentile earn nearly 22 times as much as those in the 10th percentile, compared to the national average of 11 times. Among cities of more than 100,000 people, only Atlanta and New Orleans showed greater overall income disparities.

The black-white gap has narrowed in the Maryland and Virginia suburbs of D.C., however. In many of the counties in the metro area, the gaps are among the lowest in the nation. In Stafford County, Va., whites earn \$1.17 per \$1 earned by blacks, compared to \$1.40 per \$1 in 1990. In Prince George’s County, Md., the nation’s wealthiest majority-black county, the ratio has declined from \$1.33 per \$1 to \$1.22 per \$1 over that same period. Of the 21 U.S. counties with the highest per capita incomes for blacks, 10 are in the D.C. metro area, including No. 1, Loudoun County, Va.

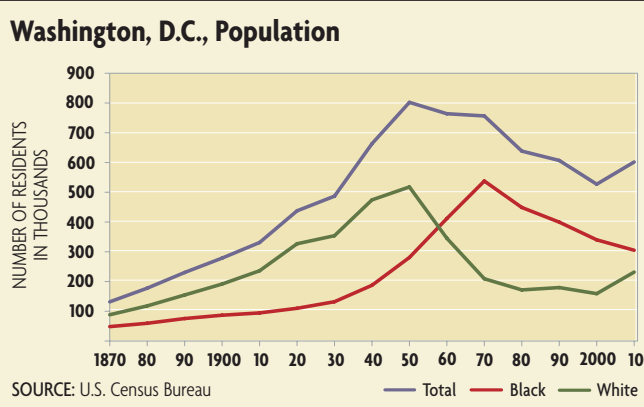
The growing income gap in the city reflects a reverse of migration patterns that date back to the Civil War. Washington, D.C., became the first majority-black city in the United States in 1957 as blacks were drawn by federal

jobs which provided a path to upward mobility.

“D.C. was one of the first cities where blacks were able to develop institutions and neighborhoods,” says Roderick Harrison, a sociologist at Howard University and the former chief of racial statistics at the Census Bureau. “It is the earliest black middle class that one sees emerge.”

After World War II, white residents began moving to the suburbs, while the city’s black population continued to grow. By 1970, 70 percent of D.C. residents were black.

More recently, the trend has reversed as black residents have moved to the suburbs. Nationwide, the share of blacks in large metro areas who live in the suburbs increased from 37 percent in 1990 to 51 percent in 2010; the D.C. metro area had the third-highest increase. Within the city, the black population fell more than 11 percent between 2000 and 2010, according to 2010 census data, and in 2011, it fell below 50 percent for the first time since 1957. “D.C. was really at the forefront of suburbanization,” says Frey. “The government jobs that were available provided a good opportunity for socioeconomic mobility for African-Americans for many decades



before affirmative action and the real impact of the civil rights movement,” which enabled many black residents to follow whites out to the suburbs.

Not everyone who leaves the city is upper or middle class; many of the suburbs’ new residents are from Wards 7 and 8, where poverty rates are as high as 40 percent. Still, some residents have the means to cross the line into neighboring Maryland, which increases the poverty concentrations in the neighborhoods they left behind, Harrison says.

At the same time, gentrification and a reversal of the previous decades’ white flight has brought new people and businesses to the city. Median income growth was the third highest in the nation during the 2000s. D.C.’s white population increased 31 percent between 2000 and 2010, and most are college educated. Nine in 10 whites in the city have a college degree; two in 10 blacks do. New government and high-tech jobs often require a college degree, which bodes ill for D.C.’s income gap.

— JESSIE ROMERO

## Copper Robbers Rising Prices Fuel Thefts

Thieves in Charles Town, W.Va., recently struck an elementary school, but their target wasn’t computers or craft supplies — it was copper coils housed within heating and air-conditioning units. Across the country, homes, businesses, and churches have reported stolen copper gutters or plumbing. Phone and power service has been disrupted as telecom and power companies struggle to replace copper wiring faster than it goes missing.

“It’s almost a weekly occurrence,” says Dan Page, communications manager for Frontier Communications, which provides landline phone and broadband Internet services to roughly 95 percent of West Virginia. “Since August 2011, we’ve had more than 120 aerial cable thefts.”

Like gold and silver, copper is an excellent conductor of electricity. But unlike its more precious relatives, copper has historically been much cheaper and more readily available, leading to its ubiquitous use in infrastructure. Since 2003, demand from industrializing countries like China has outpaced supply, as low prices in the previous decade had led copper miners to scale back production. As a result, the price of copper has climbed to record highs — from less than a dollar per pound in 2002 to roughly \$3 per pound today in 2002 dollars.

Michael Baylous, public information officer for the West Virginia State Police, says the sour economy makes copper theft more attractive. The payoff for stolen copper is often dwarfed by the damage thieves leave behind, however. At the Charles Town school, the stolen copper coils would fetch about \$800 from scrap dealers, but repairs will cost more than \$300,000. Likewise, Page reports that Frontier has spent \$680,000 to replace stolen cable in its coverage area.

Copper theft is also a problem elsewhere in the District. Verizon employees reported missing copper wire in Maryland, leading to the arrest of thieves who were using a bucket truck to remove wires from telephone poles. Dominion Virginia Power, which serves customers in Virginia and North Carolina, says that copper theft has



*A Frontier Communications’ employee surveys the damage left behind by copper thieves in West Virginia. The company has replaced 38,000 feet of stolen cable since August 2011.*

resulted in power outages along highways, airports, and even military bases. The Federal Bureau of Investigation issued a report in 2008 warning that copper theft posed a growing threat to infrastructure across the country.

“We are very concerned about the public safety risks that are associated with cable theft,” says Page. “People who live in areas with no other means of communication are losing their link to friends, family, and emergency care.”

States in the Fifth District and elsewhere have been exploring methods to deter copper thieves. Virginia and South Carolina require scrap metal sellers to obtain permits; scrap yard employees are also required to record identification information about each seller. Both states also require some scrap copper sales to be paid by check, which has helped to reduce theft. North Carolina is modeling its new laws on South Carolina’s.

West Virginia has increased the fines for metal theft. Police are now authorized to stop vehicles suspected of carrying stolen metal. Telecommunication companies, utilities, and recyclers support the law.

Those deterrents may not be enough, however, given the risks some thieves take to obtain copper. In February, police in Princess Anne, Md., found the remains of a man who was electrocuted to death after trying to steal copper from an electrical transformer. He was not the first would-be thief to suffer that fate.

“I don’t know that you can fully deter this behavior,” says Baylous.

— TIM SABLİK



## BYOB: Bring Your Own Bag Montgomery County, Md., Taxes Shopping Bags

**P**aper or plastic?" is a question most grocery shoppers expect at the checkout counter. But in Montgomery County, Md., that question has changed. Now it's, "Did you bring a bag?" Since the start of the year, shoppers have paid an extra nickel for any bags that retail stores provide.

The new tax is intended to reduce litter in the county's waterways. A 2008-09 study prepared by the Anacostia Watershed Society found 121 tons of litter in county streams and rivers, and shopping bags were a major component. In 2009, Montgomery County spent \$3 million on litter cleanup. The county plans to use revenue from the new tax to pay for future cleanup efforts. Although retailers previously did not charge extra for the bags, the legislators argued that the bags' true costs included the litter they generated.

Economists refer to such costs borne by third parties as "negative externalities." In this case, the public must pay for litter cleanup. The new tax ensures that at least some of the externality is priced into the bags customers use.

But covering cleanup costs isn't the only reason legislators passed the law. By creating a cost for using disposable bags, they hope the law will induce shoppers to bring their own reusable bags instead.

Montgomery County based its law on one enacted two years earlier in neighboring Washington, D.C. Evidence

shows that D.C.'s tax is having an impact on disposable bag use. Although the D.C. tax only applies to stores that sell food or alcohol, the District Department of the Environment reports that 75 percent of surveyed shoppers reduced their disposable bag use after the fee became effective. Surveyed businesses reported bag consumption dropped by half.

To date, the District tax has generated \$3.9 million since January 2010, less than forecast. For the measure's supporters, the lower revenue is a sign of the tax's success, not its failure; it means that more shoppers are changing their behavior to avoid it. Initial reports show the Montgomery County tax raised \$154,000 in January 2012, roughly the amount raised by the District's bag tax in its first month.

Of course, disincentives are not the only way to change behavior. Some supermarket chains, including Kroger and Safeway, have experimented with offering 5-cent rebates to customers who bring reusable bags. But Kroger reported no difference in reusable bag usage at its stores that offered a rebate. Early evidence from Montgomery County and the District suggests that the stick has been more effective in changing shopper behavior than the carrot. Officials in other Maryland counties will be observing the tax's impact, as some consider similar laws.

—TIM SABLİK

## \$19.20 to Cross NC in 2019? More Fifth District States Propose Tolls on I-95

**N**orth Carolina and Virginia are pursuing plans to place tolls on Interstate 95 to fund major improvements to the Fifth District's most traveled highway. Currently there are no tolls on I-95 south of Maryland.

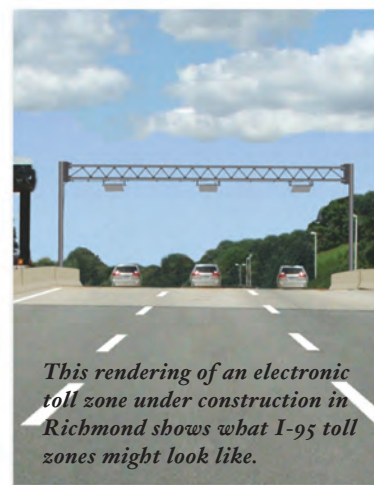
In February, the Federal Highway Administration granted conditional approval for tolls on I-95 in North Carolina as part of the agency's Interstate System Reconstruction and Rehabilitation Pilot Program. Virginia received conditional approval in September 2011 to switch a pending toll proposal from Interstate 81 to I-95. The federal initiative allows up to three states to place new tolls on existing interstates that cannot be adequately maintained and improved with other sources of funding. (Missouri is the third state in the program.)

North Carolina's ambitious proposal would expand and improve I-95 throughout the state. The N.C. Department of Transportation estimates the cost at

between \$10.3 billion and \$12 billion to reconstruct, expand, maintain, and operate the 181-mile stretch over 40 years. The first phase would widen and improve I-95 from its junction with Interstate 40 near Benson to its interchange with state Route 211 at Lumberton. This 61-mile segment has the highest levels of existing and projected traffic on I-95 within the state, according to North Carolina's January 2012 "I-95 Planning and Finance Study."

The study recommends nine toll zones at approximately 20-mile intervals plus ramp toll zones at adjacent interchanges. This would discourage out-of-state

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*This rendering of an electronic toll zone under construction in Richmond shows what I-95 toll zones might look like.*

motorists from using local roads to bypass tolls while allowing local drivers to make some short trips for free. But for longer trips, North Carolina's entire I-95 corridor would become a toll road upon completion of phase one in 2019.

Under this scenario, the study estimates that each of the three toll zones in the first phase would charge \$3.84, while each of the six toll zones in the second phase would charge \$1.28. So the owner of a passenger car crossing the entire state would pay \$19.20. North Carolina expects to collect all fees electronically as cars move at full speed through the toll zones using a transponder system that would be compatible with E-ZPass and other toll programs along the I-95 corridor. Owners of cars lacking toll transponders would receive bills in the mail. The study projects that the tolls would raise nearly \$30 billion over 40 years.

Virginia's plan to charge tolls on I-95 is less ambitious and detailed than North Carolina's proposal. But the Old Dominion expects to place tolls on I-95 that would raise \$250 million in the first five years and more than \$50 million per year after that. The tolls would help fund comprehensive improvements outlined in Virginia's "I-95 Corridor Vision Plan." The Virginia Department of Transportation estimates that it would cost \$12.1 billion to fully execute the plan along its 179-mile stretch of I-95, so additional funding would have to come from other sources.

Critics of toll roads claim they discriminate against poor people. But tolls connect the cost of highways to the people who use them, says Brian Taylor, director of the Institute of Transportation Studies at the University of California, Los Angeles. Federal and state fuel taxes made that connection in the early days of driving, but increases in fuel efficiency and reluctance to raise fuel taxes have created huge gaps in highway funding nationwide.

"A great deal of concern has been raised, some of it justified, about the equity of returning to tolls, but critics have been silent about the equity of using sales taxes to fund highways," Taylor says. Raising general sales taxes to pay for highways is "a doubly regressive approach," while tolls tend to raise a greater share of funding from wealthier motorists. Taylor argues that sales taxes are inherently regressive, and when their proceeds are used to fund highways, they become doubly regressive because wealthy people tend to use highways more than poor people.

Taylor attributes much of the recent interest in tolls to advances in technology. "We have eliminated the need for the traditional toll booth," he says. "Tolling is much more practical now." And the North Carolina and Virginia proposals should be more palatable to local drivers on I-95, he adds, because many out-of-state motorists travel this Maine-to-Florida throughway.

— KARL RHODES