

SPRING 2006

REGION FOCUS

THE FEDERAL RESERVE BANK OF RICHMOND

THE ROAD AHEAD

Can Congestion Pricing
Ease Gridlock?

Gender Gap • Pension Problems • Economics of Sports

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Pensions in the 21st Century



This issue of *Region Focus* features a look at the financial difficulties facing many public-sector pension systems in the United States. Broader-based government-run benefit programs, such as Social Security, have well-publicized funding challenges as well. But such problems are not limited to the public sector. More and more private companies are freezing their pension plans or asking

workers for concessions as retirement liabilities mount.

Most of these private plans are backed by the Pension Benefit Guaranty Corp. (PBGC), the 1974-created government agency that covers about 44 million workers and retirees participating in more than 30,000 private-sector defined benefit pension plans. The agency is financed largely by insurance premiums paid by companies, but those premiums might prove insufficient to cover future liabilities. In fact, a taxpayer bailout is a growing possibility with the rising number of firms having to turn their pensions over to the PBGC.

In the last five years, according to the PBGC, claims from employer pension plans totaled \$14.3 billion, representing 70 percent of all the claims incurred since the agency's creation more than 30 years ago. The PBGC's deficit now nears \$23 billion. Given these problems, it's worth asking why firms adopted defined benefit pensions in the first place. This question is especially interesting given alternatives like defined contribution 401(k) plans, which carry none of the risk but can provide many of the same financial benefits to workers.

First, some businesses undoubtedly adopted defined benefit pension plans for sound business reasons — or, at least, what appeared to be sound business reasons. For certain kinds of industries, workers might accumulate valuable information on the job over time. For others, the cost of recruitment might be especially high. So it's beneficial to have long-term employees. In those cases, defined benefit pensions — which are often based on years of service to a company — might be seen as useful enticements.

In fact, it was with this purpose in mind that among the very first private pensions were those adopted by railroads around the turn of the 20th century. In the case of railroads, the objective was, in part, to ease out older workers, many of whom had aged beyond the point where they were able to do their jobs well. As economist Steven Sass, formerly with the Federal Reserve Bank of Boston, wrote in a book about private pensions, the civilized way to institute a

mandatory retirement age was to couple it with a pension. The railroad pension system helped attract and retain the right kind of people, and let them go at the right time.

But it's not clear that this kind of argument makes as much sense in today's world. Job mobility is increasingly important to workers, who tend to spend their careers jumping from organization to organization in search of better opportunities. As a recent Federal Reserve Board study put it: "In the current environment, certain workers and firms prefer pension plans that do not penalize job change."

Also, many companies instituted defined benefit pensions during periods when those firms had very large shares of their respective markets. With revenues rolling in, it seemed reasonable that they could promise generous benefits — and deliver the goods when the time came. But increased competition has cut into their bottom lines and made once-reasonable assumptions about benefits now untenable.

Public policy probably has played a role, as well, in the development of defined pension plans. When firms have been hamstrung in their ability to negotiate with employees on wages, due to government controls, they have often turned to benefit increases as an alternative. But it hasn't just been during such periods that companies have used more generous benefits as an attractive bargaining chip. Witness the case of Trans World Airlines increasing pension benefits in the 1990s so that employees would take wage concessions — even as the air carrier was in bankruptcy protection.

Such decisions, one has to believe, are affected by the existence of the PBGC backstop. In weighing whether to increase benefits or fully fund their plans, firms carry the assumption that, should they someday go bankrupt, it won't matter because the PBGC will be there to protect workers by providing partial coverage of their pensions. At its core the PBGC is a form of insurance, the intent of which is to spread and share risk. Reforms ought to concentrate on reducing incentives for firms to deliberately shift risks onto the PBGC, perhaps through careful implementation of funding requirements and charging premiums based on credit risk. Beyond that, as with all forms of insurance where the moral hazard problem is significant, we should think hard about whether pension insurance ought to be more limited, or even withdrawn altogether.

A handwritten signature in black ink, appearing to read "Jeffrey M. Lacker". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

JEFFREY M. LACKER
PRESIDENT
FEDERAL RESERVE BANK OF RICHMOND

Marginal

BY ANDREA WADDLE

Every day, people make trade-offs between what they want and what they can afford. They must decide how to divide their total budget to gain the most satisfaction from total consumption. In particular, people weigh the benefit of consuming an extra unit of one good instead of an additional unit of another.

Take pizza. A diner might get, say, 10 units of satisfaction from the first slice. Two slices may give 15 total units of satisfaction, with the second slice providing only five. That's because the person's initial craving is gone, and he is not as hungry after already having eaten one slice. So even as the total value of eating pizza is rising, the specific value of each additional slice is decreasing. Instead of reaching for a third slice, this person might well decide to spend his time and money on something else.

Everyone talks about the law of averages. But to economists, some of the biggest insights are found at the margins. In economics, the term "marginal" refers to the difference of one more unit. The way people look at pizza consumption, for example, is a textbook case of marginal utility. If we think of utility as the sum of satisfaction gained from consuming a given amount of goods, then marginal utility is the additional satisfaction gained from each additional unit of consumption. Each unit of consumption of a certain good has a cost in terms of lost utility from the consumption of another good. "Marginal analysis" helps economists make sense of decisions that people make to receive the most benefit from their limited resources.

Why is this important? If there were only one good in the world, people would continue to consume it until their marginal utility was zero. (Imagine this happening when you eat so much pizza that you start to feel sick.) This doesn't happen with all goods, though. For example, a person may not reach a point of negative utility from acquiring jewelry. Their utility might go up, but at a continually decreasing rate, because they don't covet that 100th pair of earrings as much as they did the first.

Marginal analysis is especially useful in cases when consumers create a "basket" of goods with their budget. This means that there are many goods from which consumers can choose. They can choose to either consume all of one good or to consume some combination of goods. The trade-off

is that, because of limited budgets, they will consume less of any one good if they choose to have many goods in their basket.

Think of a shopping cart. Either you can stuff yours with only potatoes or you can combine a few potatoes with a small amount of many other goods, all the while spending a set amount of budgeted money. The question then is: What combination gives you the most satisfaction? Once each

additional unit of a given good or activity starts to give you less satisfaction, you will spend the next dollar on the good that gives you the most utility.

Sometimes this can lead to spending patterns that may seem at odds with the grocery cart example. Let's say you are landscaping your back yard and have allotted \$20,000 for the project. But after you have reached that threshold, you determine that there is an additional item — say, a privacy

fence — that would make all the other renovations more enjoyable. The extra dollars you spend on the fence will not result in decreased utility. Instead, they will give you more satisfaction. This is a case where more spending on a single project can actually give you greater "bang for your buck." You might be a bit upset that you went over budget, but you determine that the extra money spent on the fence will increase your utility more than spending that money on anything else.

Understanding marginal principles is also important in understanding how much people are willing to work, or how much leisure they consume. The United States and most other developed countries have a progressive income tax: The more money you make, the higher tax rate you pay. If you are near the threshold of being bumped into a higher tax bracket, you might decide that you are unwilling to work additional hours per week because the wages you receive are proportionately less. You might consume leisure instead.

There are few concepts in economics that are more important than marginalism. It can help explain how consumers, producers, and workers make decisions on a daily basis. And, as the taxation example demonstrates, it can have powerful implications for public policy. **RF**

Andrea Waddle is a research associate at the Federal Reserve Bank of Richmond.



ILLUSTRATION: TIMOTHY COOK

Fine-Tuning

BY VANESSA SUMO

In the summer of 2005, the U.S. Supreme Court handed down a surprise ruling that rocked the digital media landscape: Grokster and Streamcast Networks, makers of file-sharing, or peer-to-peer (P2P), software could be held liable if they were found to encourage piracy on the Internet. America's biggest music and movie companies, whose businesses depend on copyrights to creative works, had won their day in court.

But whereas the court objected to the act of infringing copyrights, the P2P technology itself was not ruled illegal, as some media firms had hoped. This, like the shutdown of Napster almost six years ago, is yet another chapter in the ongoing battle between artists looking to protect their work and consumers wanting easy access to content — a scrap that has been made fiercer by the advent of digital technology.

A copyright grants a temporary monopoly to authors of literary, musical, or artistic works. With it, they reap the fruits of their labor for a specified period of time. This exclusivity ensures that the appropriate incentives are in place for people to create. But the age of digitization and the Internet has turned the usual legal protection afforded by copyright on its head. Nowadays, most newly created material starts life in digital form, making the cost of copying virtually zero and the quality of the reproduction near perfect. Moreover, new networking technologies advanced on the Internet have provided an easy, inexpensive, and almost seamless way of distributing content.

Might there be a way for authors and the firms that sell their work to survive in a world without effective copyright? In a recent paper, Hal Varian, an economics professor at the University of California at Berkeley, reckons so. An individual will only be willing to forego copying if the benefit of owning an original exceeds that of sharing. Transaction costs that may make copying inconvenient and undesirable, such as inferior reproductions and congestion due to the number of people waiting in line, force a wedge between the value of an original and a copy. However, as the introduction of a new technology begins to drive these costs down, the incentive to copying increases since there are now fewer barriers to obtaining a good reproduction.

A clever seller, according to Varian, will view the possibility of sharing much as it would a competitor, and

therefore set the price of an original just low enough to make the consumer indifferent between buying and copying. At this price, copying is discouraged since purchasing an original is now at least as attractive as making a copy. However, some transaction costs are still important to the seller. Without them, the price and, by extension, the seller's profits will be pushed close to zero. Music and movie companies will naturally want to make these costs as high as possible to raise prices. Lobbying for stricter enforcement of anti-piracy laws and against technologies that make sharing easier are some of the ways of making copying more costly to consumers.

But there may be a smarter way of achieving the same

goal. One way of increasing the wedge between the benefit derived from owning an original and a copy is to turn the original into a more valuable product instead of making the copy more expensive. In fact, the same technologies that some firms fear today can be used to their advantage by creating a better

version of the original — an improved vintage that is a more desirable product to consumers.

Apple's iPod is one example of a successful innovation that has made buying an iTunes (at 99 cents a piece) often more convenient than trying to download that song from the Internet. Apple has proven that a viable business model is achievable: It crossed the 1 billion song mark in February 2006, just three short years since it sold its first iTunes.

One need not look too far back in history to realize that the digital revolution may actually present more of an opportunity than a threat to copyright holders. The radio was to end all live attendance at baseball games. The movie industry felt sick to its stomach when home video recorders were introduced. Hence, it may not be the best strategy to block technological innovation, as movie and music makers are doing with P2P today. This is especially true in cases when advances in digital technology can reduce the costs of creating and distributing content, which would allow consumers to pay much less for legitimate access in the future. Protection of content is essential to inspiring creative works, but guarding it too zealously may actually stifle new technologies that could bring enormous benefits to consumers, authors, and media companies alike.

RF

“Copying and Copyright” by Hal Varian.

Journal of Economic Perspectives,

Spring 2005, vol. 19, no. 2,

pp. 121-138.

Working or Shirking?

BY DOUG CAMPBELL

“Are We Working Too Hard or Should We Be Working Harder? A Simple Model of Career Concerns.” Andrew Foerster and Leonardo Martinez, Federal Reserve Bank of Richmond *Economic Quarterly*, Winter 2006, vol. 92, no. 1, pp. 79-91.

For the most part, workers decide for themselves how hard to work. In many cases, it's a safe bet that they are motivated by their career aspirations. Employees interested in promotions, raises, or new opportunities would, it is presumed, want to enhance their reputations. In general, employees can best accomplish this by exerting effort on the job — working harder.

Take the example of a salesperson who is trying to decide whether to work an extra hour. He knows that his future compensation depends on his perceived ability. He can deduce that by working one extra hour, and by extension selling one extra widget, his employer will judge him a more able employee and pay him handsomely.

This might be comforting to business owners who would like their employees to exert effort as if they owned the firm. But are career incentives really enough to accomplish this?

In a new article, Richmond Fed economists Andrew Foerster and Leonardo Martinez investigate the power of career incentives. The authors developed a simple mathematical model that seeks to replicate interactions between workers and the job market. In particular, their model examines whether career-concern incentives can, all by themselves, properly motivate employees to make “socially efficient” decisions about how hard to work, or to work as hard as they would work if they owned the firm.

The answer is no.

Here's the problem: Workers don't consider the productivity of their effort (or how much their work will benefit society, or even their firm) when deciding whether to ratchet up or down effort. Employees exert extra effort based on the expected change in their future compensation.

If employees think their compensation is particularly sensitive to their reputation, they may work too hard, overshooting the “socially efficient” effort level. On the flip side, if employees don't think their reputations matter, then they won't work hard enough to meet the socially efficient level.

“Career concerns do not necessarily lead to socially efficient decisions by the employee,” the authors write. “Getting employees to make socially efficient decisions would require additional incentives beyond those created by career concerns.”

“Retail Deposit Fees and Multimarket Banking.” Timothy H. Hannan, Federal Reserve Board of Governors Finance and Economics Discussion Series Paper 2005-65, December 2005.

As anyone who's tried to withdraw cash from an unfamiliar ATM can attest, banks in recent years have made fees a key part of their revenue stream. Now comes one of the first studies to compare some of the most common fees and then figure out which kinds of banks in which kinds of locations tend to charge the most.

In the article, Fed economist Timothy H. Hannan looks at six common fees, including those for checks drawn on insufficient funds, for stop payments on checks, and for using another institution's ATM. What he finds won't thrill many banking customers: the bigger the bank — specifically, those with a presence in more than one market — the greater the likelihood of “substantially higher” fees.

Moreover, banks in highly concentrated markets tend to charge the highest fees. This means that in regions with many banks, even smaller banks hike up their fees — even as they tend to keep lower fees on average when left alone. The author notes an “interesting exception” to this finding, however: Small banks tend to charge lower fees to account holders who withdraw cash from other banks' ATMs, in an effort to keep depositors from switching to a competitor.

“Why are Immigrants' Incarceration Rates So Low? Evidence on Selective Immigration, Deterrence, and Deportation.” Kristin F. Butcher and Anne Morrison Piehl, Federal Reserve Bank of Chicago Working Paper 2005-19, November 2005.

Immigrants to the United States share many characteristics with this nation's population of prisoners: They tend to have low average levels of education, low wages, and generally are young and male. But despite economic theories which seem to support a link between immigration and crime, the authors find evidence that immigrants have “very low rates of institutionalization compared to the native born.” In fact, immigrant incarceration rates have dramatically fallen over the past few decades, standing in 2000 at one-fifth the rate of comparable native-born Americans.

The authors rule out increased deportation as driving the trend. Instead, they argue that immigrants are “self-selected from among those with lower criminal propensities.” The upshot, the authors suggest, is that policymakers ought to view with skepticism sweeping generalizations of immigrants as criminally inclined. **RF**

New Reforms for Deposit Insurance

BY PATRICIA WESCOTT

On Feb. 8, President Bush signed into law substantial changes to the nation's system of deposit insurance. Collectively known as the Federal Deposit Insurance Reform Act of 2005, the reforms are intended to instill greater market discipline among insured institutions — banks and thrifts that have deposits guaranteed up to \$100,000 per account. Specifically, the new provisions include:

- Grant the Federal Deposit Insurance Corp. (FDIC) more flexibility with the premiums it charges institutions for deposit insurance;
- Merge the two insurance funds, the Bank Insurance Fund and the Savings Association Insurance Fund;
- Increase coverage for certain retirement accounts;
- Perhaps adjust for inflation coverage on all types of insured accounts every five years, starting in 2010.

The provisions take effect no later than Nov. 5. Much of this reform is based on ideas that were first floated by the FDIC in 2001. Passage was stymied for several years amid bargaining between advocates of an immediate increase in deposit insurance coverage and those opposed to any increase. The resulting compromise provides an immediate increase in deposit insurance coverage for a limited group of accounts, with the potential for future increases that match inflation.

The FDIC currently targets reserve fund balances to equal 1.25 percent of insured deposits. If the fund exceeds 1.25 percent, well-capitalized and highly rated institutions pay no insurance premiums. All institutions are required to provide premiums of at least 0.23 percent — or 23 “basis points” — of insured deposits in times when the fund falls below target. This means the FDIC either charges no premiums to most institutions when the fund is strong, or high premiums to all institutions, leaving it little room to adjust for actual risk.

Upon completion of the merger of the insurance funds, which must occur no later than July 1, the newly formed Deposit Insurance Fund's reserve ratio will be set each year and allowed to range between 1.15 percent and 1.5 percent of insured deposits. Additionally, a cap will be placed on the new Deposit Insurance Fund at 1.5 percent via a system of mandatory dividends, and the 23 basis point cliff is eliminated. This paves the way for a new risk-based premium system in which how much an institution pays is controlled by the risk it poses to the insurance fund, much as envisioned (but never fully implemented) by the Federal Deposit Insurance Corporation Improvement Act of 1991. Now, the FDIC gains flexibility in determining premiums,

acting in certain respects like a private insurer.

The bill provides for one-time deposit insurance credits (the pool totaling \$4.7 billion) for reducing, but not eliminating, future deposit insurance premiums for those institutions that had contributed to the insurance funds prior to 1996. The new rule aims to promote fairness and address the “free rider” problem of institutions that never paid premiums after 1996, thanks to the earlier contributions of institutions whose payments built up the insurance fund to strong levels.

Additionally, the new law retains deposit insurance coverage at \$100,000 per account, but now with an inflation adjustment process. Starting in 2010 and every five years thereafter the new law gives the FDIC and the National Credit Union Administration discretionary authority to increase coverage with respect to inflation for individual, retirement, and municipal accounts by tracking the Personal Consumption Expenditure Index. The bill also provides for the increase of coverage of retirement accounts to \$250,000.

Though increasing deposit insurance coverage might seem like an obvious and reasonable move, doing so concerns some economists. Such an increase could lead to an overall reduction in market discipline. That is, people now holding greater than \$100,000 in deposits (even though they are a small minority of depositors) will have less incentive to keep a close watch on their deposits. Thus, the “moral hazard” problem — the idea that insurance may lead to heightened risk-taking — will be increased. What is worse, the raised insurance ceiling will attract new depositors, giving banks greater means to act on the increased incentives to take risk.

Then why increase deposit insurance coverage? The purpose of deposit insurance, established by the Federal Banking Act of 1933, was to prevent mass bank runs and to safeguard depositors with few financial assets from the loss of their deposits. Some argue that during the past 25 years inflation has eroded the value of deposit insurance coverage. Deposit insurance was last increased in 1980 from \$40,000 to \$100,000. In raising coverage, policymakers have sought to preserve the reputation of deposits as safe havens for financial assets. Whether this is worth the cost of the accompanying increase in moral hazard, and reduction in market discipline, is something economists and analysts will be watching closely in the coming years. **RF**

Patricia Wescott is a research analyst at the Federal Reserve Bank of Richmond.

CAROLINA BBQ ... AND H₂?

South Carolina Jumps on the Hydrogen Economy Bandwagon

Hydrogen is the most abundant element in the universe and has a myriad of uses, from making margarine to fueling the space shuttle. Now, with President Bush's \$1.2 billion Hydrogen Fuel Initiative, hydrogen is at the center of some significant economic development efforts across the country.

South Carolina wants a piece of the action, hoping to generate high-paying research jobs in the near term and help create a new economic base in the long term. Others are trying to do the same thing, but the Palmetto State has several assets it hopes to exploit with some additional public and private support. Gov. Mark Sanford has proposed \$1.4 million in his 2006–2007 budget to help things along.

In pursuing hydrogen projects, the state's greatest asset may be the research and development experience of the Savannah River National Laboratory. The federally funded facility near Aiken, S.C., has worked with tritium, a radioactive isotope of hydrogen used in weapons, and has researched new ways to generate, store, and use hydrogen since 1951. In addition, the University of South Carolina (USC) and Clemson University have investigated hydrogen-related technologies, including fuel cells that use hydrogen and oxygen to produce electricity, since the 1980s.

Also, the automotive industry has a foothold in South Carolina. This puts the state in a good position to attract the industry's hydrogen R&D activities, says Patrick Serfass, director of program and technology development at the National Hydrogen Association. BMW Group, which has operated its massive Spartanburg County plant since 1994, and DaimlerChrysler AG, which plans to open a van factory in North Charleston this year, have been working on vehicles that use fuel cells and hydrogen-powered internal combustion engines.

Serfass and others say South Carolina needs to foster partnerships between manufacturers interested in hydrogen applications and universities doing the basic research for

such applications. "Corporate industrial involvement in South Carolina's efforts is vital because the economic benefits from hydrogen-related research are most likely to accrue to regions where research is applied, not necessarily where the research is just performed," noted a July 2005 report published by the South Carolina Hydrogen Coalition and the South Carolina Energy Office.

These partnerships are already occurring. USC formed the Industry/University Cooperative Research Center for Fuel Cells in 2003. Thirteen organizations provide about \$500,000 annually to the center, while \$250,000 comes from USC and the National Science Foundation.

More recently, Aiken County opened its \$10 million, 60,000-square foot Center for Hydrogen Research adjacent to the Savannah River National Laboratory in February. The national lab will lease about half the space at the center and the first private tenant will be Toyota, which is partnering with the lab to test hydrogen storage tanks for fuel cell automobiles.

Even with these assets, South Carolina has a lot of work to do before taking a leadership role in hydrogen-based enterprises. California, Connecticut, Ohio, and other states have been promoting the development of hydrogen

applications longer than South Carolina, plus they receive a lot more private and government R&D funding.

Also, the state will need more brain power to meet the challenge of turning hydrogen into a viable alternative to gasoline, which is more energy dense and easier to store and transport. While South Carolina has made progress in improving its public schools, student performance lags the

rest of the nation. "We're going to need engineers by the bushel," says Mike Esayan, deputy director of USC's fuel cell research center.

Finally, it will take patience for investments in hydrogen R&D to yield commercially viable and widely used applications. Timothy Considine, a resource economist at Pennsylvania State University, thinks it could be 20 years or more before the hydrogen economy becomes a reality. In the meantime, fuel economy improvements and other technological advances in fossil fuels will continue. "It's a moving target," Considine says.

— CHARLES GERENA



South Carolina researchers want to work with industry to make hydrogen-fueled automobiles a reality.

Raleigh Region Rakes in Federal Money

A public policy group says the Raleigh region is top dog in the nation when it comes to attracting federal capital. The Triangle area, which also encompasses Durham and Cary, pulled in some \$789 per capita in “competitive economic development funding” in 2003.

Using U.S. Census data, the Public Policy Forum of Milwaukee, Wis., measured the 50 biggest metro areas by an unusual yardstick — the ability to pull in federal taxpayer funds in five categories: business assistance, such as Small Business Administration loans; research and development; work force development; infrastructure improvements; and community development.

The group found a significant link between per-capita income in metro regions and funding for assistance. (The group did not examine whether the funding led to higher incomes or simply went to communities with already high levels of wealth — in short, whether it was a case of causation or correlation.) The report is based on 2003 federal economic development grant data. In 2003, 65 percent of all federal economic development awards were competitive grants, loans, or loan guarantees.

Ryan Horton of the Public Policy Forum investigated the issue to find out how the forum’s home turf, southeastern Wisconsin, fared when it comes to tapping the federal cookie jar. He says he looked through the data and eliminated from the calculations money that’s automatically granted based on formulas, such as Community Development Block Grants.

“In today’s regional economy, with scarce resources, [it’s important to] maximize how you use each pool of capital,” Horton says. “How well are you competing for federal dollars?”

Research Triangle Park, its anchoring cities and universities (the University of North Carolina at Chapel Hill, North Carolina State University, and Duke University) are like a money magnet. In February, for example, the U.S. Department of Energy gave the Research Triangle Institute nearly \$1.6 million to spur hydrogen fuel development, and Duke and UNC received more than \$3 million from the U.S. Department of Health and Human Services, to name just two.

Other Fifth District metro areas showed up on the federal top 50. The Baltimore-Washington-Northern Virginia area ranked sixth, with about \$397 per capita; Greensboro-Winston-Salem-High Point ranked 34th, with about \$155 per capita; Charlotte-Gastonia-Salisbury ranked 47th, with \$79 per capita; and Virginia Beach-Norfolk-Newport News ranked 50th, with \$68 per capita.

— BETTY JOYCE NASH

Tobacco Crop’s First Market Year

Tobacco production in the United States fell to about 640 million pounds in 2005, or about 242 million pounds below 2004, a decline that was expected with the end of the federal tobacco price support program.

In 2004, federal legislation did away with 1930s-era price supports for tobacco. Tobacco quota owners and producers are receiving compensation for their assets through a federal buyout. Many growers, especially those who farmed small plots exited tobacco altogether; others expanded. There was a 27 percent decline in tobacco acreage in 2005 over 2004.

Over the years that the tobacco quotas and prices were set by the government, U.S. tobacco lost market share to foreign tobacco. Currently, foreign tobacco makes up about 50 percent of the cigarette market.

Kent Hudson of Buffalo Junction, Va., does not grow tobacco anymore, but he is accustomed to the vagaries of the business. Hudson now moves curing barns. The tobacco business has always been like a yo-yo — up and down and up and down, he says.

Those in the industry hope that prices will stay competitive so that U.S. tobacco can regain market share. Blake Brown, an agricultural economist at North Carolina State University, says prices for flue-cured tobacco rose, driven partly by another poor crop year in Brazil. “In general, prices were higher than farmers expected,” he says.

Tobacco farmers are still in transition, says Stan Duffer, regional market development manager of the Virginia Department of Agriculture and Consumer Services. “The margin out here producing tobacco is pretty small,” he says. “The ones still producing are getting larger for efficiencies of scale. Some are trying it out to see if we can survive in this new arena.”

Todd Haymore, a spokesman for Universal Leaf Tobacco, based in Richmond, says higher fuel costs are boosting prices too. “Prices had to reflect fuel cost increases,” he says. “But everybody has to be aware that the United States went for a number of years pricing itself out of the world market and we have to work diligently not to repeat that process.”

China could be a huge potential consumer of U.S. tobacco. U.S. Flue-Cured Tobacco Growers, Inc., located in Raleigh, N.C., served as a secondary market for tobacco, using government loans to buy and store farmers’ unsold tobacco. The group sold 13.8 million pounds to China for about \$35.3 million late in 2005, according to the group’s newsletter. In June 2005 the cooperative’s manufacturing arm was admitted to the Master Settlement Agreement (in which cigarette companies agreed to pay the government \$246 billion and change the way tobacco products are marketed), and it has begun to make cigarettes under brand names such as Traffic and Kick, Passport and Fact, among others.

Demand is especially strong for U.S. burley tobacco;



A mechanical harvester gathers last season's tobacco. Production, as predicted, dropped during the first year without the government price support system.

exports so far in 2005 are up by 4 percent over 2004. Burley is grown primarily in Tennessee and Kentucky, but also traditionally grown on small plots in southwestern Virginia and western North Carolina. Some former flue-cured tobacco growers in the Piedmont and eastern part of the Carolinas and Virginia are taking a gamble and switching to burley.

Tobacco companies are offering incentives to farmers who can meet contract amounts, with bonuses for more. Haymore would not discuss Universal's contracts, but he says: "I do know those pilot projects in nontraditional areas have gone well, and our folks plan to increase the amount of burley grown in 2006. Everybody's looking to grow demand."

— BETTY JOYCE NASH

FILLING EMPTY POCKETS

Payday Lending Regulation Tightens, Other Short-Term Products Emerge

North Carolina is now a payday lending-free zone. Since the law that permitted the practice expired in 2001, the state attorney general and the banking commissioner went after lenders who stayed in business by partnering with out-of-state, nationally chartered banks. At last in March, the state's three remaining major lenders agreed to shut down.

Some consumer advocacy groups rejoiced. They have long considered payday lending, also known as cash advance or deferred presentment services, a practice that gouges the most vulnerable borrowers. In payday lending, the borrower writes a postdated check for the loan amount plus a finance charge. The lender doles out the money and holds the check to deposit at a future date, typically the borrower's next payday.

Critics are alarmed by the payday loan's relatively short duration (usually two to four weeks) and high cost (a minimum of \$15 per \$100 borrowed), translating into an

annualized percentage rate of 391 percent for a two-week loan. This makes it hard for borrowers to accumulate enough money to repay the debt, especially for those on tight budgets — the same people most likely to be turning to payday loans in the first place.

But the growth in payday lending — the number of locations nationwide doubled between 2000 and 2004 to 22,000 — indicates that there are plenty of people who are willing to pay a premium to get out of a short-term cash crunch. "Clearly, payday lenders exist because people want the service," says Harry Davis, a finance professor at Appalachian State University and economist for the North Carolina Bankers Association.

Payday lenders say customers like being able to get their money quickly and easily.

Lenders are conveniently located and don't require much paperwork. They also don't probe a borrower's credit history, which may be embarrassing to reveal or disqualify some people for a loan or a credit card advance.

In addition, people want to avoid the consequences of falling behind on their bills. "To people who are desperate or chronically short of cash, paying \$60 to borrow \$300 for two weeks may not sound too steep, particularly if the alternative is being evicted or sending their children to school in tattered clothes," noted a Winter 2005 article in *AdvoCasey*, a policy magazine published by the Annie E. Casey Foundation. The Baltimore-based nonprofit organization focuses on issues facing low-income families.

Finally, payday lenders say their product is a relatively cheap alternative. A January 2002 survey conducted by the Consumer Financial Services Association of America, a trade group representing lenders, found that banks charge an average fee of \$25 per bounced check, while merchants levy an average fee of \$24. For a \$100 check, these charges translate into an APR of 1,278 percent.

Now that payday lending is gone in North Carolina, who will meet the demand for small amounts of short-term credit? In a word, banks.

Increasingly, banks are marketing automatic overdraft protection, a different practice than payday lending, that serves the same kind of customers. For a fee, banks will cover a check written against an account with insufficient funds, up to a predetermined amount.

This service can be pricey, depending on how it is used. "A fee of \$30 on a \$20 overdraft repaid in one week would result in an APR of 7,812 percent," noted a June 2005 report from the Casey Foundation. "Customers using fee-based overdraft protection multiple times a month in increments of less than \$100 are paying astronomical APRs." Payday lending may be gone from North Carolina, but there are alternatives for borrowers needing quick, easy credit.

— CHARLES GERENA

The End of the “Free” Ride

Tolls bring home the true cost of roads

BY BETTY JOYCE NASH

Pocahontas Parkway in Richmond, Va.

When Dave LeBlanc first moved to the Washington, D.C., metro area, he dreaded the 20-mile carpool trip to his job at the Pentagon from home in suburban Woodbridge, Va. Carpools bind schedules. “You are tied to carpool and a set time,” he says. “If I want to get off early I feel bad because I have inconvenienced others.”

LeBlanc’s aversion to carpools is common: 76 percent of workers drive alone. Carpooling has declined from nearly 20 percent of work trips to about 12 percent since it was promoted in the 1980s. This is a disappointing trend as far as transportation policymakers are concerned. Their original thinking was that people would voluntarily choose to carpool, thanks to the incentive of speedy travel in high occupancy vehicle (HOV) lanes. But today many HOV lanes are underused, while single drivers crowd non-HOV lanes.

Now comes a new traffic congestion solution: HOV lanes may be converted into HOT lanes, as in “high occupancy toll” lanes. Skeptics derisively call them “Lexus” or “limousine” lanes because they charge single drivers for the privilege of scooting into faster lines of traffic. At the same time, the spirit of HOV is preserved as cars with three-plus passengers ride free.

The prospect of toll money has attracted private investment. Fluor Enterprises, a subsidiary of California-based Fluor Corp., and Transurban, an Australian firm, are teaming up to build four HOT lanes in the center of a 12-lane project on the Capital Beltway in the D.C. metro area, a project on Virginia’s drawing board for some eight years. Another HOT plan adds a third lane to the existing HOV system along I-95/395, and extends those lanes 25 miles farther south on Interstate 95 in Northern Virginia, says Gary

Groat, Fluor’s director of project development. Tolls, collected through a transponder, will vary according to the number of cars on the road to ensure free flow. Pavement wires and sensors count cars, and when traffic ramps up, prices rise. It’s basic supply and demand. “Nobody likes to pay the toll, but everybody likes the reliability,” Groat says.

The beauty of HOT lanes is that they charge drivers for congestion they create. It’s an idea popular among economists, a pricing tool to make sure drivers think about how much roads really cost. Granted, questions linger about whether they’ll effectively match capacity to demand and whether they will truly bring change to the nation’s highway system. But with traffic congestion rising unabated, innovations like HOT lanes are likely to grow in use. For urban motorists especially, the “free” ride may be almost over.

PHOTOGRAPH: TOM SAUNDERS/VOOT

Prices Manage Demand

Congestion pricing for roads has been around in economic theory for decades, but it's inched forward only recently. Drivers have paid gas taxes since 1932, and in 1956 the highway bill that created an interstate system directed the taxes to the Highway Trust Fund. That's what has paid for construction and maintenance. Infrastructure investments, however, stagnated in the 1970s. Federal and state taxes were flat between 1960 and 1980. Once gas prices fell in the early 1980s, officials hiked gas taxes. (It was next to politically impossible to raise the tax during the time of high fuel prices in the 1970s.)

The gas tax has distributional problems: People using an expensive, crowded road pay the same as people driving a deserted rural one. But the nation's reliance on gas taxes to ease congestion may be coming to an end. In January, the National Academies' Transportation Research Board released a study recommending tolls, including congestion tolls, to raise road money rather than through gas taxes. The Federal Highway

Administration began funding pilot congestion pricing projects in 1991. Today, there are five HOT lane projects operating in three states, and tolls that vary according to congestion in six states. For example, express lanes with prices that vary with congestion link downtown Minneapolis with its western suburbs. The highway, on Interstate 394, opened last May. The oldest and most successful variable pricing projects are the SR 91 and I-15 projects in California.

"Those two HOT lanes represent only one-third of capacity but carry 50 percent of the traffic; it moves at the posted speed limit," Groat says of SR 91. And, he adds, by guaranteeing freer flow of traffic, those lanes actually handle more traffic than their congested counterparts.

HOT lanes can unclog roads by tweaking existing infrastructure, transforming former HOV lanes. That is no small feat when money's tight and rights-of-way are contentious and expensive to obtain. And innovations like electronic transponders and pavement sensors

make the tolls practical and nearly invisible.

"Traffic on roads peaks in the morning and peaks in the evening; you could have the toll change throughout the day," says Tom Garrett, an economist at the St. Louis Fed. Although drivers probably would like to tune out this thought, he adds that some congestion is good, in an economic sense. "You don't want a road that is never congested; it might not have been worth the cost."

Few politicians promote prices for roads, at least not out loud, but economists like them because they allocate demand, especially at peak traffic times. Moreover, they accomplish what the gas tax does not: They signal to motorists that the roads they drive are not free. As every economist knows, seemingly "free" services will constantly attract excess demand; in the case of roads, that means excess traffic congestion. Think of such pricing as buying your car a space on the road, as you would buy a premium parking spot in a crowded city. Or renting a beach

Paving Southwest Virginia

The labor of road building begins long before dirt is disturbed. It includes deals, politics, debates, designs, and money. Lots of that. With demands on the public purse ever growing along with the commuter clamor for road capacity, construction can't keep up.

To spur the process, the Federal Highway Administration has offered encouragement to private participation, citing the usual benefit: Profit potential is likely to give firms incentive to seek efficiencies in time and money. Not counting extra staff oversight time, the Virginia Department of Transportation, for example, says it saved \$10 million and \$47 million on the Pocahontas Parkway and State Route 288, respectively, using public-private partnerships.

But the combination doesn't always work out. A FHWA grant designated for such road projects was recently suspended for a proposed \$2.3 billion four-lane highway in a remote edge of southwest Virginia. The road has raised regional economic hopes with the possibility that new industries will be lured by the artery, as manufacturing and mining jobs in the area wane.

The Coalfields Expressway, a 51-mile extension of its counterpart in West Virginia, was proposed in 1995 to run

across three rural Virginia counties. The path to the road's construction has been as circuitous and obscure as some of the mountain terrain it may traverse.

The proposed expressway would run through the counties of Wise, Dickenson, and Buchanan. The idea is to extend the road along its counterpart highway in West Virginia for 65 miles to Interstates 77 and 64 near Beckley, W.Va.

Funding was suspended because FHWA did not see the private-sector partner, originally Kellogg Brown & Root, assuming risk, says VDOT spokeswoman Tamara Neale. Delays and escalating costs also played a role in the funding decision. KBR signed its contract with the state over to the coal companies Pioneer Group, Inc., and Alpha Natural Resources after doing about \$30 million worth of design work. U.S. Rep. Rick Boucher, D-Va., says the new partnership may allow the grant funds to be restored. "That will enable the road to be built in an expedited way." The partnership between the coal firms and the state will benefit both parties, says Ted Pile, spokesman for Alpha Natural Resources. "This road would probably not be built without the private partnership; this coal wouldn't be

house during the summer, says Gary Groat of Fluor Enterprises. "You guarantee for a purchase price, you'll have reliable travel time; price goes up, people make decisions," he says.

Prices can change behavior, agrees Elena Safirova, an economics fellow at the Washington, D.C., think tank, Resources for the Future. "If you know you have to pay a lot on that road, you think about changing your behavior." People might walk or bike, ride the bus, carpool, or take a different route. Or, they might choose the toll road to whisk an elderly relative to the eye doctor or so they can get home in time to watch a Little League game. And there's another upside to road prices: They raise money.

Fluor Transurban will become a major investor in both of its Virginia projects, Groat observes, a first for the state. Fluor built the tolled Pocahontas Parkway in Richmond, Va., which opened in 2002. Before it opened, motorists coming from Chesterfield County, a major Richmond suburb, had no direct connection to the local airport.

Transurban now wants to buy the right to run the road — a steady stream of income for the firm.

A variety of congestion pricing or toll plans are under way throughout the world. In Sweden, the city of Stockholm is testing a system where drivers pay the equivalent of about \$1.30 to enter or leave in the daytime. Since 2003, drivers entering central London pay a "congestion charge" of 8 pounds, or about \$13.80. Singapore began charging to drive in that city in 1975; in 1998, it switched to electronic toll collection. Austria, Germany, and Switzerland charge trucks based on the distances traveled on intercity roads.

Reflecting the trend, some Fifth District states (besides Virginia) are following suit, with varying degrees of success. In North Carolina, a newly created toll road commission is studying up to nine such roads. North Carolina, with more state-maintained road miles than any other state except Texas, has no toll roads. Maryland will expand a 10-mile section of I-95, adding

express toll lanes to ease congestion. A toll road to Hilton Head Island in South Carolina is operated by a private firm. The 16-mile Southern Connector in the upstate, with traffic far below projections, was built in 2001 with some \$200 million in toll revenue bonds. And legislators in that state have proposed a toll on a section of I-73, an unbuilt highway that's supposed to go to the coast.

Who, Me?

Although people dislike tolling, it helps compensate for the hidden consequences (externalities) of driving. Those include congestion, car crashes, noise, and pollution. Kenneth Small, an economist who studies transportation issues and is an emeritus professor at the University of California at Irvine, says that by themselves, more roads won't unspool traffic.

"The most popular solution, road expansion, can work only temporarily in areas where there is already a built-up 'latent demand' for road travel — that is, many people who would like to travel at the most

mined without this road," he says, adding that it wouldn't be economical. "With the state providing some compensation for moving the earth, it makes sense for coal companies to go in and mine some of the reserves."

The companies, which already own the necessary machinery, will leave behind a rough grade road bed after extracting the coal. Details of compensation will be ironed out during the coming year. No groundbreaking date has been set. The route of Virginia's portion of the highway may change as engineering work is completed over the coming year.

While the road holds out hope for economic progress, it will immediately benefit commuters. An urban commuter frets and plans around congestion. A rural commuter worries and plans around distance. Jobs are scarce in rural America and could be an hour's drive. "There is a lot of commuting in and out of those counties," says Jonathan Belcher of the Virginia Coalfields Economic Development Authority.

Mitch Renkow, an economist at North Carolina State University who studies commuting patterns, says: "What we see is people traveling farther and for longer times to connect themselves from where they live to where they work."

The road will be expensive. If the current estimate were divided by the three-county population, it comes to more than \$27,500 per person. But then, rural roads are always

losers if only the immediate costs and benefits of roads are calculated. When the interstate highway system was started in 1956, N.C. State economist Renkow points out, it had a phenomenal effect on transport. "A lot of economic activity is affected by facilitating transport," he notes.

Economic developers flounder without interstate access nearby. East-west travel in the northern part of the region will be easier, Belcher says. An hour's drive from an interstate becomes a big-time cost when firms investigate sites.

"For any project heavily dependent on transportation, manufacturing or distribution, they want to be close to the interstate," he says. "If you don't have interstate quality road in your region, you're not in serious consideration for projects."

"There's probably not a month that goes by that we don't lose projects because we can't compete on a transportation basis," he says, adding that recently a firm chose Danville, Va., over the coalfields region largely because of highway access.

Dickenson County is currently without a four lane road, the only county in Virginia so lacking. The new highway would connect travelers with the Breaks Interstate Park on the Kentucky border. Dickenson and Buchanan counties' hopes for the road are so high that they have pooled resources to purchase 1,800 acres close to the proposed expressway for an industrial park.

— BETTY JOYCE NASH



High occupancy toll (HOT) lanes are proposed for Interstate 495, extending 12 miles from west of the Springfield Interchange pictured here.

popular times and places but are now deterred from doing so by congestion itself,” he says. New capacity eases congestion, but former road warriors return, clogging an artery once more. Convincing the public of the value of pricing would be the single most important breakthrough for dealing with the problems cars create, Small says.

“[Tolls are] perhaps the only feasible way that will not be undone by latent demand. They are also useful for giving drivers incentives to reduce the external or ‘invisible’ costs they impose,” he says. “They can be much more useful if they are designed explicitly with this goal in mind, instead of just trying to recover the cost of building roads.” There are lots of good reasons to toll. For example, if tolls are graduated according to car emissions, then people have incentive to buy cleaner cars.

When drivers hit the road, they consider fuel costs, car prices, depreciation, and time. “The problem is there are other costs I impose on other people that I do not incur,” says Tom Garrett of the St. Louis Fed. For example, more cars on busy roads worsen congestion and cars idling in traffic pollute more. “Because I don’t bear the cost I’m imposing on others, I tend to over-use the roadway,” he says. Toll roads force drivers to pay something

closer to the full cost of driving.

Drivers in metro areas, and increasingly on rural roads, do bear one cost — they get stuck in the very traffic they help create.

Toll roads charge drivers directly, so perhaps the toll, by easing gridlock, would offset some of what drivers already pay indirectly with their time when stuck in traffic. In its “2005 Urban Mobility Report,” the Texas Transportation Institute calculated drivers’ average wasted time during peak traffic in the most congested urban areas at about 47 hours annually. The final tally nationwide is about \$63 billion in wasted time and fuel. Co-authors David Schrank and Tim Lomax valued wasted time at \$13.75 per hour per person, an updated figure from a former study that examined actions people might take (cut through neighborhoods, risk a traffic ticket, pay a toll) to avoid sitting in traffic. Schrank and Lomax stress that the travel index accounts for only wasted time and fuel, not any externalities associated with driving. The costs of emissions, for example, show up elsewhere — in public health statistics and environmental problems.

The index calculates that in the D.C. metro area, it takes 45 minutes during rush hour to drive a distance that would take 30 minutes at posted speeds. The delay is estimated at \$1,278 annually per capita in time and fuel. At the other end of the spectrum

and the Fifth District, in Columbia, S.C., even the 1.8 extra minutes tacked on to an off-peak, 30-minute trip translates into \$143 a year per person.

Another study, “Traffic Congestion and Reliability” by Cambridge Systematics, calculates the annual delay just at the I-495 and I-95 bottleneck in the D.C. area at a total of 15,035 hours.

Worker Costs

One of the biggest grudges people hold against HOT lanes — and toll roads in general — is the notion that rich people can buy their way out of traffic. It just doesn’t seem fair. What about poor people who can’t afford the tolls?

Or what, for example, might be the impact on “slugging,” the informal carpools of total strangers used by thousands of D.C. commuters? Slugging gets people to and from work and supplies occupants for HOV drivers at the same time. (See sidebar on p. 18.) Dave LeBlanc, who turned to the informal slug ride to avoid the formal carpool, fears the toll-paying drivers will clog the HOV lanes even more. “Now it is rare that you can go 60 miles an hour,” he says. “My commute has increased 10 minutes from six or seven years ago.” The slugging advantage will vanish, he says, as people pay to drive alone rather than stop for two slugs.

Groat of Fluor, however, believes the slugging phenomenon will flourish because drivers will want to avoid paying tolls, which will average about 15 cents per mile. Under the HOT lane scenario, when drivers see slugs, Groat says, they’ll see dollar signs.

Elena Safirova and her co-authors in 2003 studied a hypothetical HOT lane along I-95 and tried to account for the problem of fairness by using different income classes in their economic model. They concluded that “all income classes broadly benefited from the conversion. The reason is that when you convert HOV lanes into HOT lanes, you free capacity you weren’t aware of before because of this flexibility.”

Safirova and colleagues also looked at an existing system of HOT lanes on I-15 in San Diego. They found that tolls tended to encourage ride sharing. Equity issues in that case have also been studied: Richer people tend to use HOT lanes more often than poor, but poor people do use them when time is important in cases like picking up children from day care to avoid late fees. Safirova suggests that some revenues from HOT lanes could be redirected to public transit, used more by poor people without cars.

Private Enterprise, Public Roads

Some economists advocate a highway system that provides roads as long as drivers are willing to pay for them. But Cliff Winston of the Brookings Institution worries that policymakers may fail to properly implement market-like policies.

He cites an example that emerged after the sale of the Chicago Skyway, the elevated connector road between the Loop and Northwest Indiana. Talk of reforms in pricing surfaced. “One of the early things I heard them do was talk about charging vehicles according to the number of axles. That’s the perverse way of pricing.” Trucks with few axles, like cement trucks, tear up roads, and need incentive to add more axles. “We have this opportunity with a new authority . . . and they did exactly what you don’t want to do.”

Some transportation economists advocate privatizing urban transportation (including roads, buses, rail) to insulate the issue from politics, which can promote roads where costs far outweigh benefits. Sometimes even toll roads lose money because it’s unpopular to raise toll prices. Winston isn’t sure that the current climate favoring congestion pricing points to transportation’s exit from the political arena.

“Highway transportation is a major way elected officials reward their constituents and they don’t want to give this thing up,” he notes, adding that state officials are nevertheless glad to see the private money

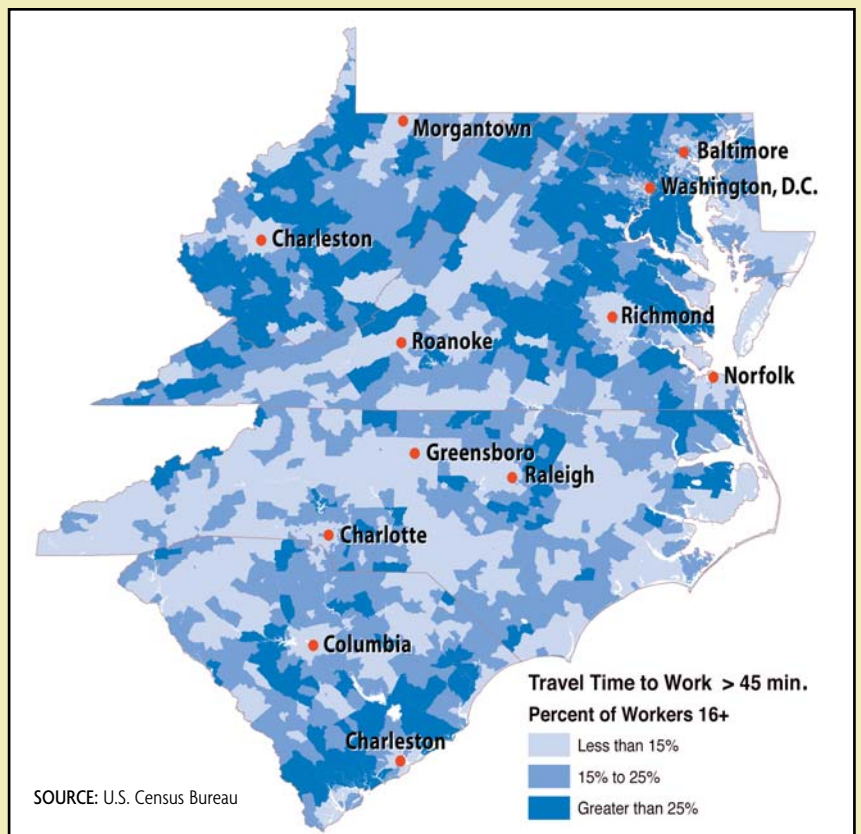
The Commute

It takes most of us about 26 minutes to get to work, which is not much longer, really, than the almost 22 minutes we averaged in 1980 and only slightly more than the 22.4 minutes it took in 1990. Of course, variances abound. For every worker who walks a few blocks to the office from a downtown condo, there’s another who drives solo upward of an hour from a big home in an exurb.

This map of the Fifth District shows that suburban and rural dwellers face some of the lengthiest commute times. Few communities have it worse than Charles County, Md., where about 42 percent of all workers cope with a commute of more than 45 minutes, with most of them headed into metro Washington, D.C. The story is similar in Stafford County, Va., another D.C. suburb, where more than 38 percent of workers face a 45-minute or longer commute. Ditto for Prince William, Va., and its 37 percent of workers traveling more than 45 minutes to their jobs.

But the longest commute of all in the Fifth District is found in Amelia County, Va. In this central Virginia locale about 40 miles from Richmond, almost half of all workers — 49 percent — travel 45 minutes or more to the office. This is not all that surprising: Across the Fifth District, many of the counties with the longest commuting times are in rural areas. People in Clay, Hampshire, or Lincoln counties in West Virginia spend from 39 to 45 minutes commuting. And folks in Mathews, Amelia, Warren, Surry, Buckingham, and Rappahannock counties in Virginia have an average commute ranging from 39 to 46 minutes.

On the other end of the scale is Lexington, Va., where a paltry 4 percent of workers travel more than 45 minutes to work. The living is also easy in North Carolina’s Triad region, where only 7 percent of workers commute longer than 45 minutes, and metro Columbia, S.C., ringing in at just 7 percent. — BETTY JOYCE NASH



Creative Commuting

Drivers and slugs are bound by mutual need. Drivers need extra riders to get into HOV lanes; slugs need rides. Slugs are commuters of all ages and professions — people just out of college and people past retirement age. The first slug lines are anecdotally reported to have formed sometime after HOV lanes were established on I-95, in 1969.

In 1996, Dave LeBlanc stared at the slug lines for about one week before he decided to join. He had recently moved to the D.C. area and waited for the bus that would take him to the Pentagon, where he was stationed. He'd heard tales about this informal carpool of complete strangers that supplies single drivers with occupants for entry onto the high-occupancy vehicle lanes.

"It seemed so far-fetched and crazy. I wasn't going to do that," he remembers. That first day of commuting, he drove to the Tackett's Mill stop in Woodbridge, Va. He parked in the commuter lot.

"Across the street I saw all these people getting into cars and leaving," he says, and wondered whether it was a slug line. A week of paying for a slow bus ride convinced LeBlanc to take up "slugging." His commute is about 35 to 40 minutes, but the bus ride would be 15 or 20 minutes longer. Driving solo would take even more time. As it is, he saves 15 to 20 minutes each way plus the cost of the fare. "Slugging drops me off almost at the front of my building."

LeBlanc wrote the book on slugging. Really. When he started slugging 10 years ago, there was nothing but word of mouth to alert potential passengers of stops and changes in schedules. "I would slug from Tackett's Mill to the Pentagon and then hop on the Metro and go to Rosslyn," he recalls.

One afternoon on the walk to the Metro at Rosslyn, a co-worker told him a new slug line had formed nearby. LeBlanc wondered why there were no signs or brochures to inform people about slug sites. His colleague suggested he write a book.

"It's just people standing in a line," LeBlanc says, so you don't know if they're waiting for rides or a bus or something else. LeBlanc published the book and launched the Web site in 1999. The book is out of print; the Web

site, www.slug-lines.com, is loaded with lists of slug lines and even has destination signs for sluggers to print and hold when waiting for rides. The site also includes a message board where sluggers post questions and tell stories, especially about current issues, including HOT lanes. (Most of the sluggers on [slug-lines.com](http://www.slug-lines.com) appear worried about extinction.)

"The message board has done a lot for the slugging community," LeBlanc says. "New slugs and vintage slugs can host a question on there. Before the message board, people would e-mail me."

The sluggers follow an informal code of ethics:

Rule No. 1: No one offers money.

Rule No. 2: It's understood that you don't talk once you get into the car, except to say hello or thank you very much. It's understood that the instant carpool is simply a way to get to and from work, not to socialize.

Rule No. 3: You don't talk on your cell phone. But it is

acceptable to call and say you're going to be late if it is a long commute, LeBlanc says.

Rule No. 4: You don't change the radio station, but most of the drivers will ask if you're too hot or too cold.

Rule No. 5: You don't ask for curbside service. "If you're going to some place in Crystal City that's away from the normal drop off, you don't say, 'Well, can you take me over to this corner?'"

Rule No. 6: You don't

cut the slug line. LeBlanc says it's surprising how careful most people are to observe the self-regulating system.

However, check the Web site for the occasional rule breaker. The slugging stories are priceless.

Slugs seem so civilized and orderly, but for all that, they have a most unattractive name. Here's the story: When slugging first began, commuters waited for drivers at established bus stops. But bus drivers couldn't distinguish the instant carpoolers from bona fide bus riders. The bus drivers would stop only to be waved off by the waiting "fake" bus riders. The bus drivers started calling the carpoolers "slugs," after the counterfeit coins that bus passengers occasionally tried to pass off as real. They weren't real bus riders or even real carpoolers, they were counterfeit riders. — BETTY JOYCE NASH



Early-morning commuters to Northern Virginia often prefer "slug" lines to traditional carpools or mass-transit commuting. "Slugs" wonder about the effects of congestion tolls on their informal carpools.

rolling in to fund projects. “But the public sector still has strong oversight. Don’t expect to see too much in the way of major changes in efficiency of roads.”

Private investment seems to be moving projects along faster, though. Infrastructure projects are over budget in time and money, evidence suggests. Although it’s hard to predict traffic accurately, economist Kenneth Small comments that there is a tendency to overestimate traffic and underestimate costs. This bias probably stems from a desire to get projects going. “This bias affects both public and private projects, but seems to be worse for public projects, presumably because those cases are less likely to be disciplined by financial institutions with real money on the line.”

Virginia was one of the first states to approve public-private partnerships in highway construction. Enacted in 1995, its law allows the Virginia Department of Transportation to contract with firms to “construct, improve, maintain, and/or operate qualifying transportation facilities.” Proposals under negotiation in Virginia include truck toll lanes on I-81, the new HOT lanes in Northern Virginia, and a project in the Hampton Roads area.

Pocahontas Parkway, the above-mentioned 8.8 mile connector road just outside of Richmond, was built with \$354 million in tax-exempt toll revenue bonds and opened in 2002.

In a case of bad timing, it was just as air travel tanked following the terrorist attacks of Sept. 11, 2001. Traffic fell well below projections, and operators hiked the toll. While the price increase cut into the traffic by about 5 percent, revenue rose by 30 percent. “In our favor is the higher cost of gasoline,” says James Atwell, president of the Pocahontas Parkway Association. “When you take the old way to go to the airport, you’re going to burn a gallon of gas.”

Atwell, who is former chief financial officer of VDOT, says other foreign firms like Transurban are shopping for public infrastructure in the United States. In 2005 the firm paid \$1.83 billion for a 99-year lease on the Chicago Skyway, an amount that comprises 70 percent of its annual city budget, according to estimates by the Reason Foundation, a free-market think tank based in Los Angeles. A Spanish-Australian partnership paid \$3.85 billion for the right to operate the Indiana Toll Road for 75 years earlier this year.

Details, Details

With deferred infrastructure investment, there is growing interest in using private money to build or operate toll projects. “Everybody’s grappling to find money to meet those needs,” Atwell says. “In the 1980s there was public will and political will to raise taxes; it has not occurred in the last 20 years, and that

has turned people in the direction of public-private partnerships, tolls, and more esoteric solutions to meet transportation infrastructure needs.”

Selling or leasing toll roads and bridges sounds like a good idea. But like all good ideas, details matter. Robert Poole of the Reason Foundation comments that details in concession agreements can spell out what the private firm can and can’t do, including limiting toll rates or the return on investment to prevent exploitation and monopolies.

Stickiest, though, is the non-compete clause. If the state can build a highway nearby, it can erode traffic on the toll road. “So in order to get toll roads built, state DOTs generally agree to not compete too directly,” he says. This happened with the SR 91 highway in Orange County, California, and the county ended up buying out the franchise.

The pay-as-you-drive point of view is starting to hit home with urban commuters. Most spend about 26 minutes twice a day every day in a car getting to and from work. Urban life typically revolves around a commute.

“When I moved up here, everybody wanted to know, ‘Where are you going to work and where are you going to live? How are you going to get to work?’” LeBlanc says. Soon more commuters like LeBlanc will consider a new option: congestion tolls. **RF**

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Amtrak's Acela Express is the only high-speed rail service in the United States, linking Boston, New York, and Washington, D.C.

Optimism meets reality in the pursuit of high-speed passenger rail in the Southeast

BY CHARLES GERENA

Nov. 8, 2000: The ALLTEL Pavilion at the Siegel Center, a Richmond, Va., venue that usually hosts rock concerts and college basketball games, has a different crowd of fans today. Their attire is more formal — the suits and ties of business leaders and government officials — but their enthusiasm is just as high. They want to bring high-speed passenger rail to the Southeast.

“We no longer recruit on the strength of our work force and manufacturing base. The way to sustain our prosperity is related to the quality of life, of which intercity rail is a pivotal part of the equation,” declared David King, deputy secretary for transit with the North Carolina Department of Transportation (NCDOT). Joséé Covington, a travel industry executive and chair of the committee that organized the conference, was equally enthused: “The cornerstones of success for rail transportation are economic development and quality of life.”

At the time, the country was flush with budget surpluses. There were no soldiers fighting in Iraq or workers rebuilding a hurricane-ravaged Gulf Coast. It was an opportune time to push for federal funding of 10 regional high-speed rail systems designated by the U.S. Department of Transportation since 1992.

One of the systems was the Southeast High-Speed Rail Corridor, which would link dozens of cities between Washington, D.C., and Jacksonville, Fla. Stops would include Richmond and Petersburg in Virginia; Raleigh and Charlotte in North Carolina; and Spartanburg and Columbia in South Carolina. With Washington as the connection point to Amtrak's popular Northeast service, the Southeast corridor was touted as the one that could generate the most revenue from passenger fares.

Six years later, however, there is no federal source of capital funding for any of the 10 proposed corridors. Rather

than wait for Congress to act, individual states slogged ahead. They spent billions of dollars to study the feasibility and environmental impact of high-speed rail and to improve existing rail infrastructure. The Federal Railroad Administration has provided oversight and some planning and preconstruction grants, including \$2 million to Virginia and North Carolina.

The two states, working under an interstate compact since 2004, are developing segments of the Southeast corridor between Washington and Charlotte. So far, their transportation departments have completed several preliminary studies and are in the midst of examining proposed routes for the Richmond-to-Raleigh segment. In addition, they have spent or committed more than \$300 million of their own money to modernize existing tracks in the Washington- to-Richmond and Raleigh-to-Charlotte segments. These improvements will benefit current passenger and freight service, but they will

PHOTOGRAPHY: COURTESY OF AMTRAK

also support faster train service in the future. South Carolina and Georgia have completed feasibility studies on their segments, but they aren't as far along in the process.

It will take time to create a better rail alternative to air and road travel in the Southeast. The earliest that high-speed passenger service could possibly be operational between Washington and Charlotte is 2012, then it would be extended southward. It will also take a lot of money — around \$5 billion by some estimates. Complicating matters is the lack of enthusiasm among freight railroads about sharing their tracks with high-speed trains or footing the bill for infrastructure upgrades.

Rail advocates believe the deciding factor will be getting Uncle Sam to pitch in. "The states are already committing significant sums to develop their rail systems," says David Foster, rail environmental programs director for NCDOT's rail division. "We are just asking for the same federal partnership we have with highways and airports." Federal cost-sharing on major transportation projects historically has been as high as 80 percent.

Yet it appears that the states are no closer to their goal. Several high-speed rail bills languish in legislative limbo despite the lobbying of groups like the States for Passenger Rail Coalition. The enthusiasm on display in Richmond six years ago has been tempered by political, logistical, and economic questions about high-speed rail.

To secure any federal assistance, rail planners will have to show that the Southeast corridor will yield public benefits and help pay for itself like toll roads and airports are expected to do. But it's unclear how much demand exists for passenger rail service. For the type of medium-length trips that would be the staple of the Southeast corridor, most people prefer to either drive or fly. And, for lower-income passengers, bus service remains relatively popular.

Will a significant share of those people make the switch to rail? Many economists and transportation experts are doubtful. Amtrak has been unable to gain much market share in this

region and operates habitually in the red. In addition, private companies have been reluctant to fund similar projects. High-speed rail in the Southeast may sound good to some policymakers, but it's not clear that it can pass the market test.

One Rail at a Time

Planners of the Southeast High-Speed Rail Corridor want to make infrastructure improvements that will gradually, yet meaningfully, reduce travel times for intercity passengers. They hope that if rail becomes competitive, some of the travelers who drive or catch a flight will board a train instead. This would contain the growth in congestion on interstates and at hub airports.

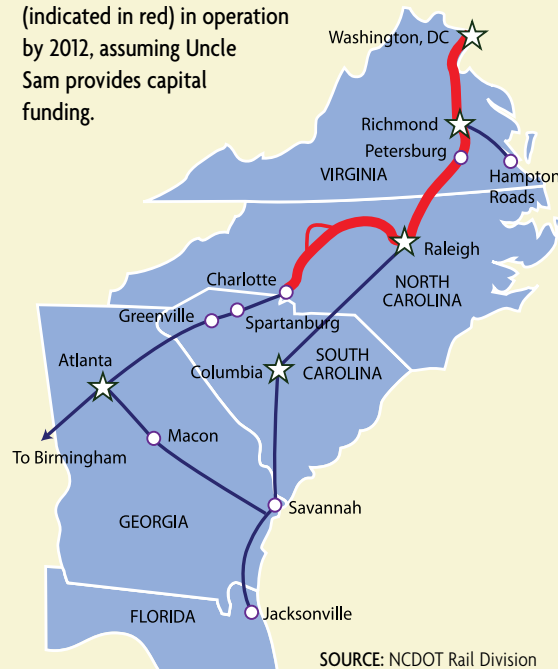
The goal is for passenger trains in the Southeast corridor to achieve an average speed of 85 mph to 87 mph and a maximum of 110 mph. The proposed trains wouldn't be comparable with "bullet trains" like those found in Japan, which go 186 mph. But they would be quicker than today's service in the corridor, which tops out at 79 mph.

According to state officials, faster trains could shave about 40 minutes off the current two-hour rail trip between Washington and Richmond. The same journey by car takes about two hours and the fastest direct flight between these cities is 49 minutes, which doesn't include getting to and from airports. The Southeastern Economic Alliance, a coalition of chambers of commerce that supports rail development, did its own research and also found that high-speed rail can be time competitive.

The key, they believe, is to create more frequent, more reliable service between densely populated areas that are no more than 300 miles apart. Other transportation experts have concluded that travelers going longer distances are more likely to fly, while

Linking the Southeast

The proposed high-speed rail corridor for the Southeast would stretch more than 850 miles. Planners hope to have the segments between Washington and Charlotte (indicated in red) in operation by 2012, assuming Uncle Sam provides capital funding.



those traveling less than 150 miles are more likely to stick with driving.

Rail advocates contend that automobile trips along congested intercity corridors like I-95 have become stressful and time-consuming. Short plane trips aren't any better: Travelers have to arrive an hour or more before their flights to leave time for security checks and boarding. In contrast, rail stations are located inside of cities, often near downtown business districts, and trains are easier to board.

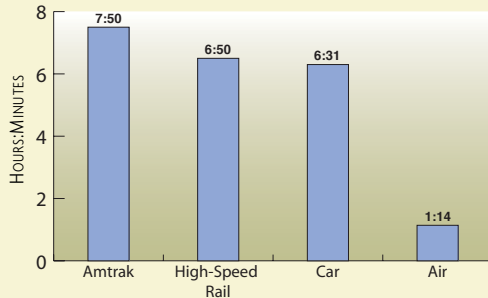
On the other hand, economic activity is more dispersed than it used to be. "People don't go downtown in great numbers," argues David Levinson, a civil engineering professor at the University of Minnesota who has studied transportation systems. Consequently, many business travelers arriving in a city by rail would have to reach their final destination using other public transportation.

Also, while some interstates are traffic-choked, Levinson contends that most road congestion occurs on local streets within major cities. By 2020, though, the Federal Highway

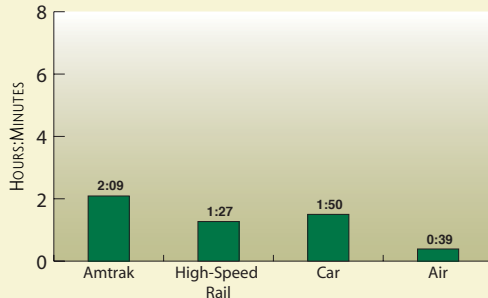
Which is Faster?

High-speed trains in the Southeast would make a big difference for Amtrak passengers heading to Charlotte. But their ability to compete with other transportation modes depends on the length of the trip.

Washington to Charlotte (399 miles)



Charlotte to Greenville, SC (103 miles)



NOTES: Mileages are driving distances between cities. Amtrak and air travel times based on the shortest direct service available as of 2/3/06. High-speed rail travel times are the longest estimated times as determined by planners.

SOURCES: Planning documentation for the Southeast High-Speed Rail Corridor from 2002 to 2004, Amtrak, Rand McNally, OAG Worldwide

Administration projects that traffic problems will spread to intercity corridors throughout the Eastern Seaboard. That's only 14 years away.

State and federal officials have made educated guesses of how well faster passenger rail could lure motorists and frequent flyers. A 1999 feasibility study prepared by NCDOT concluded that existing rail ridership and revenue would increase if faster service ran between Washington and Charlotte. For example, increasing train speeds to 100 mph and increasing the number of round-trip trains would induce an estimated 300 percent increase in trips and a 600 percent increase in revenue compared to what Amtrak achieves with its Carolinian and Piedmont services.

Of course, these are just estimates. The only real-life example of high-

speed train service in the United States is Amtrak's Acela Express. Reaching a maximum speed of 150 mph, this service between Boston and Washington attracted more than 2 million passengers annually for several years. (Ridership fell to 1.7 million in 2005 after technical problems suspended service for three months.) Acela has helped Amtrak capture about half of the passenger traffic going by air or rail carrier between New York and Washington and 14 percent of all intercity traffic.

Those numbers may not sound great, but rail advocates contend that they're pretty good considering the current quality of Amtrak service. According to the Federal Railroad Administration, approximately one-third of Carolinian and Piedmont trains are late. "The freight railroads control the dispatch system, so the passenger trains are often delayed because of freight needs," explains NCDOT's David Foster. "From a business standpoint, we have nowhere to go but up."

Making It Work

This brings up another issue that must be addressed in order to make the Southeast High-Speed Rail Corridor work — balancing faster passenger trains with existing freight service.

Arguably, business travelers place a higher premium on time than freight railroad customers do. After all, a lot of time-sensitive cargo already travels by truck or air instead of by rail. But faster passenger service may put scheduling demands on CSX and Norfolk Southern — the Southeast's biggest freight railroads — which they won't tolerate.

"Our customers are very demanding [and are] asking us to make our service more reliable," noted John Snow, former CSX chairman and CEO and current Treasury secretary, at the 2000 high-speed rail conference in Richmond. "We can't readily turn our rail lines over to passenger service while

growing the freight network." Four years later, Norfolk Southern's former chief executive, David Goode, echoed Snow's concerns about freight capacity in a speech he gave in Washington. But he expressed his willingness to work with rail planners to develop high-speed passenger service, as long as certain conditions were met.

For example, liability issues would have to be resolved. As part of its agreement with the railroads to use their tracks, Amtrak currently pays for any claims arising from derailments and other accidents, even if the tracks are to blame.

Foster is more optimistic. While the corridor will pose scheduling challenges, he says that its design will accommodate freight traffic. For example, passing sidings would be installed approximately every 10 miles along the single-track system. These five-mile-long stretches of parallel track would enable one train to divert its course while another train passes in the opposite direction. Neither train would have to substantially slow its speed.

Planned improvements for high-speed passenger service might benefit freight service. But the railroads haven't done the work themselves, which suggests that they don't value the "benefits" as highly as rail advocates would like to think. "While improving the track would benefit us in terms of freight handling and capacity, it would not be of significant benefit to warrant us paying for it entirely ourselves," says Norfolk Southern spokesman Robin Chapman.

Some rail experts suggest building a separate network for high-speed passenger service, which is what countries in Europe and Asia have done over the last 40 years. That wouldn't be easy to do in the United States. The environmental permits and land acquisitions necessary to build a new rail system from scratch would be difficult and expensive to obtain. While planners could use existing rights of way or defunct lines where rails have been replaced with weeds, not all of them connect destinations where people want to go.

Foster says that a separate rail network would be necessary only to attain speeds of up to 150 mph. But ridership revenue models show that faster trains wouldn't generate enough additional fares to offset the additional expense, which would be substantial. "We really get the most 'bang for the buck' by increasing the slow points in the system," he notes.

Assuming that states could gradually establish a competitive, high-speed passenger service in the Southeast using existing rail networks, that infrastructure will require a lot of retooling. Faster, lighter trains can't run on the same tracks used by slower Amtrak trains and even slower, heavier freight trains. Therefore, track upgrades will be required, such as installing more durable concrete ties and banking curves so that high-speed trains don't have to slow down. Other improvements will ensure public safety, such as new signals and separations at crossings where roads and tracks intersect at grade level.

In some instances, engineering changes aren't possible and high-speed trains would have to slow down, limiting the time savings. In other cases, modifications are possible, but they would be extensive. For example, about one-third of the 365 miles of track along the Southeast corridor's Charlotte-to-Macon segment would have to be relocated and straightened in order to accommodate a 110-mph maximum speed. And half of the crossings in South Carolina don't have any signaling system, contributing to accidents like the derailment in January 2005 that released chlorine gas near Aiken, S.C., and killed nine people.

The Economics

Even given the significant capital investments necessary to make it feasible, some officials and the Southern Economic Alliance still believe that high-speed passenger rail could be profitable on an operating basis. Capturing less than 2 percent of trips along the busy Southeast travel corridor would be enough to do the trick, according to Foster.

If that's the case, why haven't private companies done it? Projections of operating profits rely on rosy estimates of the number of travelers willing to embrace high-speed rail and capital costs. Research on major public projects, including rail systems, indicates that demand usually ends up lower than projections and capital investments end up higher.

Also, passengers may not want to bear the full cost of building and running high-speed rail service. This has been the case with light-rail transit. According to research by Molly Castelazo and economist Thomas Garrett at the Federal Reserve Bank of St. Louis, fares cover only 19.4 percent of the operating expenses for Baltimore's light rail system, 21 percent of costs for Buffalo's system, and 28 percent of costs for St. Louis' system.

Initial studies by the planners of the Southeast High-Speed Rail Corridor indicate that the service would cost 20-22 cents a mile. However, the Southeastern Economic Alliance thinks that high-speed rail would have to be priced at more than twice that rate in order to be feasible. (In contrast, air travel costs 22-75 cents per mile and auto travel costs 30-35 cents per mile.)

Even James RePass of the National Corridors Initiative, a strong supporter of passenger rail, admits that ticket

sales alone can't recoup capital costs, nor can they cover all operating expenses. "Rail systems can generate a lot of cash and, perhaps, cover the cost of the train crew, but they will never make the cost of depreciation of the equipment," he says. Indeed, only the Metroliner and Acela Express services in the Northeast make an operating profit from passenger revenues alone, according to Amtrak figures.

So advocates have pushed for federal subsidies of high-speed passenger rail, which would spread the cost over a broader population. In order to justify such subsidies, it helps if there are broad public benefits.

Yet the potential benefits of high-speed passenger rail are hard to substantiate, and those that are most widely cited tend to be local. For example, it has been touted as a way to revitalize downtowns and spur development near train stations in less urbanized areas.

Economists have varying opinions on the role of transportation in economic development. Building a new transportation system may influence the location of economic activity, or it may merely support activity that was already taking place in a community. Worse, excessive investments in transportation may divert resources from more productive pursuits.

In the end, though, the biggest obstacle facing high-speed rail projects may simply be that only a small segment of the population finds traveling by train desirable. "Rail had a chance to develop a following" but consumers had better transportation choices available, notes David Levinson of the University of Minnesota. "It would be very expensive to create a competitive system, and it's very risky." **RF**

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TRADE WARS

The United States and other nations have turned to antidumping policies as their preferred instrument for trade protection. But critics say the policies are both ineffective and misapplied

BY DOUG CAMPBELL

Sometime in the upcoming months, Robert Maricich will find himself in what he acknowledges is a peculiar position. His company, Century Furniture of Hickory, N.C., will receive a check from the U.S. government for its share of antidumping duties on imported wooden bedroom furniture from China. It won't be a terribly large check, as the margin — or price adjustment between “dumped” and domestic merchandise — is a low 6.6 percent and Century accounts for just a small piece of the eligible U.S. wooden bedroom furniture market. But the money is Century's due for joining in an antidumping petition three years ago that claimed Chinese imports were priced at predatory levels, creating what the U.S. Department of Commerce deemed an uneven trading field.

The peculiar part: Century Furniture is a frequent importer of Chinese wooden bedroom furniture itself. “Probably 20 to 25 percent of our wood business is pure imported product,” says Maricich, whose office is on the back end of a 1 million square foot factory. “We pay the duties just like everybody else does.”

That means some of the antidumping proceeds it stands to collect used to be Century's own money. Like a lot of other U.S. furniture firms, Century supplements its domestic production with cheaper foreign imports. And

these are many of the same firms claiming that they are being harmed by unfairly priced imports. As one critic put it: “Are petitioners really calling on the federal government to stop them before they import again?”

In the relatively brief history of U.S. antidumping trade practices, the case of wooden bedroom furniture from China is one of the most infamous. And the seeming incongruity of domestic producers paying import duties from one pocket and collecting duty revenues in the other plays only a bit part.

The U.S. furniture industry, whose hub remains in North Carolina and Southside Virginia, was (and is) divided over support for the protection. Furniture retailers and several leading domestic producers oppose the petitioning producers. The rift is less about trade, analysts say, than how different players in the furniture market were gaming U.S. trade policy for their hoped-for advantage.

The theory behind antidumping laws is that they prevent foreign competitors from using rock-bottom prices to drive domestic firms out of business. Once they have gained monopoly power, the thinking goes, foreign firms can then hike prices to the roof. In this scenario, both domestic businesses and consumers could be hurt. It is for this possibility that the mantra of “fair trade” often trumps its “free” counterpart.

The problem with antidumping policy, a broad range of economists agree, is that it ensnares business practices that go well beyond actual predatory pricing. In particular, economists argue that antidumping remedies hurt the domestic economy as a whole, even as they may benefit a handful of protected industries.

Economists also question whether dumping and predatory pricing are the threats they're cracked up to be. U.S. workers often are more productive than their foreign counterparts. This means that the cost differential between running a business domestically and one overseas is not as high as a quick look at wage rates would suggest, especially when the products require relatively high-skilled labor. Even if domestic producers are temporarily driven out of business, what's to stop homeland firms from sprouting up anew to try to undercut the monopoly prices of the foreign firms?

“Antidumping helps some companies stave off imminent decline,” says Dan Ikenson, a trade policy analyst with the Cato Institute. “But most economists worth their weight recognize the costs of antidumping protection far outweigh the gains.”

Still, what do you do if you are Century Furniture's Robert Maricich? He says he has to pay higher wages and deal with regulations his overseas competitors never face. And don't even get him started on what he sees as

currency manipulations going on in China. Meanwhile, flattening sales are threatening company jobs. His employees own about one-third of the company. To Maricich, supporting the antidumping investigation was a clear strategy.

“Frankly, the idea of free trade is fantastic but the reality is almost laughable,” says Maricich, who is also serving as 2006 chairman of the American Home Furnishings Alliance.

Fair Trade?

Antidumping has existed as legislation in the United States since 1921, but it only emerged as a leading instrument of trade protection in 1980. It was one year after the conclusion of the Tokyo Round of worldwide trade talks, at which antidumping rules were loosened to include sales below cost, not just alleged price discrimination. (By definition, price discrimination is when a firm charges different customers different prices for the same product.)

At the same time, increased global trade along with greater international trade organization discipline — under the auspices first of the General Agreements on Tariff and Trade (GATT) and then, post-1994, of the World Trade Organization (WTO) — made governments less willing or able to raise traditional tariffs or quotas in response to imports.

In the 1980s, more than 1,600 antidumping cases were filed worldwide, twice the filing rate of the 1970s. Filings in the 1990s spiked at more than 300 in 1992 and then peaked in 2001 at more than 350, with members of the European Union and the United States the top filers.

U.S. firms got extra incentive to file antidumping petitions in 2000 with the passage of the Continued Dumping and Subsidy Offset Act, informally known as the Byrd Amendment after its sponsor, Sen. Robert Byrd, D-W.Va. The Byrd amendment allowed U.S. companies to keep revenue from import duties imposed on their foreign competitors, instead of having it go to the federal

government as before. “A domestic producer gets a huge incentive to file an antidumping investigation,” says Meredith Crowley, an economist who studies trade policy at the Federal Reserve Bank of Chicago. “If you succeed, you not only get protection from imports but you actually get a subsidy from foreign producers, so it’s a huge financial gain.”

(Bowing to pressure from WTO members and even the White House, lawmakers repealed the Byrd amendment in December. But the payments will continue until 2007.)

In the only analysis of its kind, Bruce Blonigen, a University of Oregon economist and leading trade policy analyst, put the 1993 welfare loss of U.S. antidumping policy at between \$2 billion and \$4 billion, (which in today’s currency would top out at close to \$5 billion). While usually a boon for select domestic industries, antidumping duties impose costs on consumers by making them pay higher prices. Even bigger in terms of economic magnitude are the effects on downstream industry participants.

The steel industry, for example, has historically been the biggest petitioner for antidumping duties, with almost half such tariffs imposed on steel imports. But downstream from the approximately 160,000 steelworkers who benefit from such duties are millions more who work in metal products and auto parts firms. In a recent article for the American Enterprise Institute, economists Gregory Mankiw and Phillip Swagel noted that for every steel industry job saved by tariffs, three downstream steel industry jobs are lost.

The Process

An antidumping measure takes two parts: First, to show injury to the affected industry; second, to confirm that dumping is happening. About half the time, the U.S. International Trade Commission agrees with petitioners that they are being injured, according to Blonigen. That’s the first part. Then comes the dumping evaluation. And “almost always” the Department of Commerce finds dumping, he says.

The average dumping margin during the 1990s was 60 percent.

After the Commerce Department makes a final determination of dumping and sets the margin, responsibility for enforcement goes to the U.S. Customs and Border Patrol. Customs won’t let imported goods under antidumping orders into the country until the margin is paid or cash deposits are in place to cover the duties.

Does the Department of Commerce set a too-low bar for determining “predatory”? All a domestic firm has to do is show that a foreign company is selling a product in the United States at prices lower than in its home country. But there could be many strategic business reasons why a foreign firm would do that, most having nothing to do with trying to gain monopoly power. Sometimes marketing considerations come into play. Sometimes, when firms are selling below their total costs, they are still pricing below their variable costs — but it still gets judged as dumping through the lens of antidumping rules. In other cases, a foreign producer may be charging more in its home market because there it is selling to smaller vendors, whereas in the United States, it is selling to big retailers.

Meanwhile, incentives are distorted. Domestic producers might keep prices artificially inflated for the purpose of demonstrating that a foreign company is setting prices too low. Or, as Blonigen suggests, it may prematurely lay off workers to signal distress in advance of an antidumping petition.

“In some ways Commerce has been given a mandate that anytime anyone petitions and says, ‘These guys are selling at below fair value,’ then they are entitled to receive an antidumping remedy,” Blonigen says.

In an e-mail response to questions for this story, a Commerce representative noted that there is technically no “finding” of injury by the department’s Import Administration: “There is only a determination that the allegation meets the necessary statutory criteria for initiating and conducting an

investigation.” Only after a positive determination does the ITC conduct its own review, and affirmative determinations are required from both the Import Administration and ITC before an order takes effect.

The undeniable upshot of a lot of antidumping remedies is that foreign firms simply move their production to other low-cost countries. If a Chinese company gets slapped with an antidumping duty, it might simply move production to Vietnam, for example, where it can continue to keep costs down and offer lower prices on exports. And then there is the incidence of nations whose firms are hit with antidumping duties retaliating with their own duties. Since 1995, the most frequent filers of antidumping petitions have been developing countries. Over the past decade, the United States had faced 158 antidumping investigations from other countries, trailing only China’s 434 and Korea’s 212.

(The temporary steel tariffs imposed by the Bush administration in 2002 were not antidumping measures; they were traditional “safeguard” measures that don’t allege price discrimination as the reason for their implementation.)

The Department of Commerce takes issue with any description of its activities as hampering free trade or creating unintended consequences.

“Antidumping duties are a WTO-sanctioned trade remedy that is a necessary and fundamental part of the balance of rights and obligations that countries voluntarily accept when they become members of the multilateral trading system,” Commerce said in an e-mail response to questions. “In the United States, administration of the antidumping laws is the most transparent in the world and governed by strict due process requirements.”

An Application: Chinese Bedroom Furniture

Ikenson, the policy analyst at the Cato Institute, calls the bedroom furniture case the “poster child for reform” of U.S. antidumping policy. In a 2004 paper, Ikenson complained about “the ease of access to a commercially disruptive weapon that is presumed naively to be reserved for cases of unfair trade. In reality, the antidumping law as written and applied is incapable of identifying unfair trade and is used with increasing frequency to hamper legitimate competition.” As you might expect, some U.S. furniture producers take a different view, although even they are candid about the shortfalls of antidumping policy.

Under the banner “American Furniture Manufacturers Committee for Legal Trade,” eight U.S. furniture companies and six labor unions filed their petition on Oct. 31, 2003. The

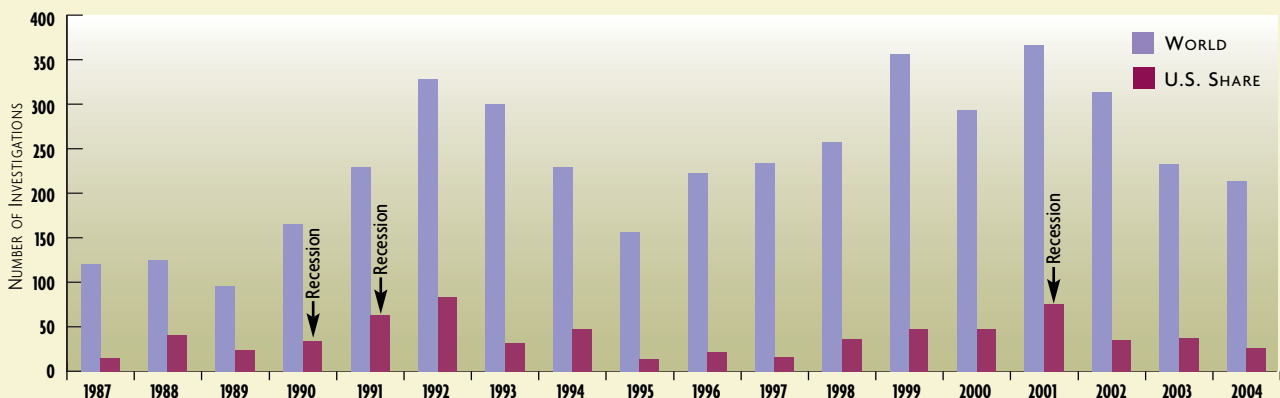
domestic manufacturers of beds, night stands, armoires, and dressers claimed that Chinese-made bedroom furniture imports were flooding the U.S. market at low prices. In 2003, China accounted for about half of all wooden bedroom furniture imports, more than double its share two years earlier. The domestic industry calculated it lost 15 percentage points of market share, thanks to the cheap imports.

Vaughan Furniture of Galax, Va., had 1,500 employees and five factories at the time of the petition filing. “We felt like it was our best opportunity to save those factories,” says Bill Vaughan, chief executive of Vaughan Furniture, which was founded by his grandfather and great uncle. “We felt like they [China] were dumping on some products. Their prices were so low, so much lower than what our material costs were.”

Among the opponents was Furniture Brands International (FBI), the largest U.S. furniture maker. FBI, which keeps significant operations in North Carolina under brands like Thomasville and Drexel Heritage, cast the case as nothing more than strategic maneuvering. Additionally, FBI questioned the gall of U.S. producers who frequently import Chinese bedroom furniture. This suggests producers whose “very own actions have caused them injury.” For its part, Furniture Brands wanted no part of

Countercyclical

Antidumping investigations tend to spike during economic downturns and fall during expansions.



NOTE: Data through 1997 are from the *Journal of World Trade*; after 1997, from the World Trade Organization.

SOURCES: *Journal of World Trade* and World Trade Organization

the effort, citing its own import activity. "It serves the company no purpose to have tariffs imposed on that product," says company spokesman Marty Richmond. "It's the consumer in the end that will pay these tariffs ... And if the demand for furniture is elastic, higher prices don't serve anyone."

The petitioners sought antidumping margins of between 40 percent and 400 percent, enough to significantly dampen imports as well as give handsome windfalls to their own coffers thanks to the Byrd Amendment. On Nov. 9, 2004, the Department of Commerce announced its final decision: Antidumping duties averaging 6.6 percent would be placed on Chinese wooden bedroom furniture imports. Though technically a win for the petitioners, there were no victory celebrations. The 6.6 percent margin was considered too low to have much impact, and that was an astute observation, judging from what's happened since.

Vaughan Furniture has gone from five factories to one since the filing and laid off more than 1,000 workers, bringing its head count to just 350 today. It was the largest downsizing in the privately held company's 83-year history.

Bill Vaughan says it's been a difficult time. He tells workers it wasn't their fault. "If we had been successful in getting a high enough tariff, my guess is we would have saved some jobs," he says. "However, the [antidumping margin] was so low, we have been unable to save any."

Low margin or not, the decline in domestic furniture manufacturing has been all encompassing. Petition opponent Furniture Brands International since 2001 has shut 31 factories and cut

about 8,000 employees. (Of its remaining 26 plants, 18 are in North Carolina and two are in Virginia.) Much of the cutbacks have been in wooden furniture production.

But Furniture Brands managers do not blame imports. "The strategy in dealing with imports in a broader sense has been a blended strategy of domestic manufacturing and sourced product," Richmond says. Specifically, low-end products which can be churned out through largely automated factories tend to be set up offshore; high-end products require more customization and closely controlled labor that is more widely accessible in the United States.

The End of Antidumping?

With the start of the Doha round of global trade talks in 2001, the push for antidumping reform picked up pace, even with initial U.S. opposition. But reform may not even be necessary. Measured both by number of cases filed and by fraction of goods imported, antidumping cases are being initiated with much less frequency in this century.

The downward slope of worldwide investigations has been plain, with 364 cases as recently as 2001 but with a projected 200 cases in 2005. The United States has also seen a significant reduction in cases filed, with just four antidumping and countervailing duty investigations during the first half of 2005.

A lot of this may have to do with the countercyclical nature of antidumping; usually, investigations increase as the economy sours, as industries look for an edge wherever they can find it. It also may be that fewer industries need protection.

There aren't a whole lot more products out there that haven't been slapped with antidumping orders. As of Dec. 31 there remained 333 antidumping and countervailing duty orders in place.

But this falloff in investigations may be different, some analysts say. Globalization may have reached the point that it's no longer prudent for domestic firms to wage tariff wars with their trading partners, because production is so intertwined over international borders. "Today's supply chains are internationalized. If you rely on a producer from Indonesia, it's unseemly to be seen by foreign affiliates as engaging in this kind of protection," says Cato's Ikenson.

Unseemly or not, it's still practiced. But to what effect? Century Furniture has cut about 300 workers over the past four years, bringing its current head count to about 1,200 employees across seven factories in the Hickory region.

Nowadays, the focus at Century is on high-end furniture targeted at designers, a move away from the more import-vulnerable low-end business. Employees are keenly aware of their precarious situation, Maricich says. Even as they continue to support the antidumping stance, Century's workers are concentrating on new ways to compete in a globally sourced environment. "When you're sitting in this district and watching what's happened with textiles and now furniture, it's psychologically very frightening," Maricich says. "But one of the interesting outgrowths of this is the success we've had in changing. Virtually everyone here is open to change. They realize they have to be open." **RF**

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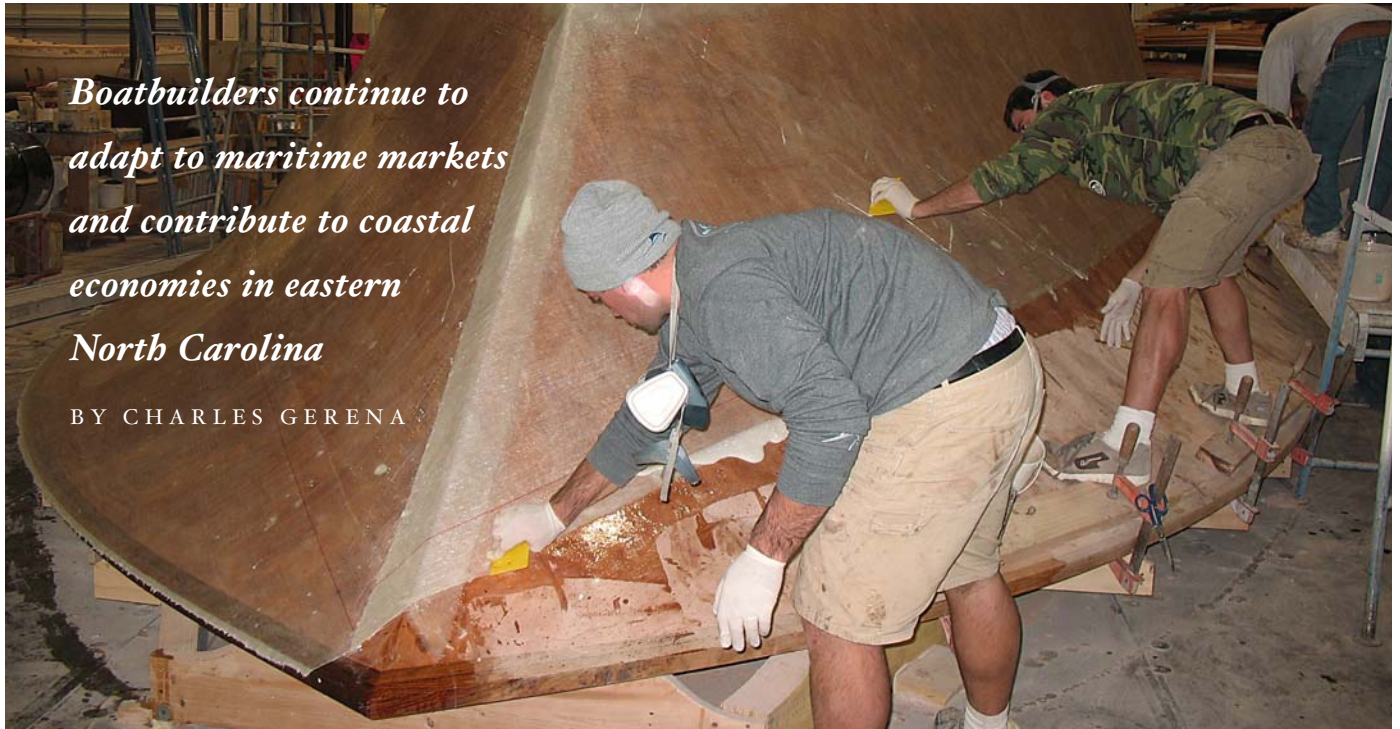
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Seasoned by the Seas

Boatbuilders continue to adapt to maritime markets and contribute to coastal economies in eastern North Carolina

BY CHARLES GERENA



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

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

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

Bayliss has learned the difference between a good hull and a bad hull through experience. He has the tanned,

Workers at Bayliss Boatworks in Wanchese spread a coat of fiberglass onto the hull of a boat, one of the many labor-intensive tasks involved in building a custom boat.

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

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

ment and revenue figures are hard to come by since most builders are privately owned.

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

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

discerning buyers who value the boats' unique characteristics. Catering to this niche market has served the area's builders well.

Changing Tides

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

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

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

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

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

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

The "Carolina flare," for example, has a deep-entry, sharply pointed bow that flares up to the deck. This enables

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

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

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

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

Aiming for the high road also means catering to a wealthier, more stable customer base. According to the National Marine Manufacturers Association, the annual median income of new boat owners was between \$75,000 and \$99,000 in 2004. "[These] are going to be the people that, in lean times, tend to have more expendable income," Bayliss says.

The demand for recreational boats is subject to

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

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

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

The More Things Change ...

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

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

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

U.S. Recreational Boat Registrations

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

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

SOURCE: U.S. Coast Guard

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

That's just fine with custom builders like John Bayliss. When you aim for discerning customers in the high-end of

the market, he believes, you can't make boats on a production line. It takes workers with significant skill and experience to custom-build boats, and that type of labor is relatively expensive to acquire. "We can't do what Hatteras Yachts can do; we can't spit out 100 boats a year," he notes. "But they can't do what we can do."

There is another thing that hasn't

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

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

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

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

In addition, boat-building jobs in North Carolina pay better — an average of \$649 a week in the second quarter of 2005 compared to \$244 a week in the accommodation and food

Luxury Tax Threw Yacht Builders for a Loop

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

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

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

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

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

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

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

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

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

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

— CHARLES GERENA

services sector and \$441 a week in the retail sector. They are also more stable compared to seasonal work at a hotel or restaurant. As a result, Buddy Davis says, low-skilled workers commute 50 miles and more for a boat-building position.

Economic Headwinds

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

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

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

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

To ease the demand for laborers, Bradley would prefer that new builders locate inland. Mass-production firms don't need to be near the water to test and transport their products, plus they can take advantage of the economic

vacuums left behind by the declining furniture and textile industries in other parts of the state. Recently, Florida-based Cobia Boats built a new plant in Marion, a small city in western North Carolina where hundreds of furniture workers have lost their jobs. It remains to be seen, though, whether Marion's example is the start of a trend or an isolated event.

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

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

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

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



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

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

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

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

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PENSIONS Under Pressure

Government workers have long looked forward to retiring with generous, taxpayer-guaranteed nest eggs. But many of those retirement systems are having trouble staying in the black

BY DOUG CAMPBELL

West Virginia is famous for its spectacular mountains, ample mineral deposits, and its spirit of independence. But the Mountain State is known for all the wrong reasons when it comes to its public pension system. West Virginia is home to the nation's worst-funded major retirement plan for state and local government employees. Specifically, its main fund for teachers faces an estimated shortfall of almost \$5 billion, holding only 25 percent of the financial assets deemed necessary to pay for the promised retirement packages of about 46,000 workers.

How did this happen? While many economic factors could contribute to the situation, at its heart pension management suffers from a fundamental mismatch between authority and accountability. Administrators of public pension plans make decisions for which their accountability could be limited, because the consequences of their decisions happen so far in the future. Economists argue that this problem is a form of "moral hazard."

Dan Foster, who is the current chairman of the West Virginia Senate's Pensions Committee, has a succinct explanation for what happened with the teachers' plan: "We did not fund it as we should have. And at the same time, the benefits that were given to state retirees and teachers for this program were continuing to increase for political reasons. We are dealing

with election cycles which tend to be a lot shorter than these financial cycles, so legislatures tended not to worry about what would happen 10 or 20 years in the future."

To crawl out of this hole, West Virginia in 2000 tried to float a \$3.9 billion obligation bond, only to have it blocked because a court said it needed voter approval. A \$5.5 billion bond got on the ballot last summer but failed. Now, the state is relying on a 40-year plan, begun in 1994, to slowly close the gap with regular payments. Meanwhile, the teachers' fund was closed to new hires for several years, though it has since been reopened.

While pension administrators — both public and private — generally may face the temptation to inadequately fund future obligations, not all plans are in trouble. For example, North Carolina suffers no such pension woes. Its system, which encompasses almost 600,000 workers and retirees, has a \$3.4 billion surplus. When watchdog groups express concern about public pensions, they never bring up North Carolina.

Just the same, public pension critics have plenty of ammunition. From West Virginia to Illinois, many governments are struggling to shore up their public pension systems. Granted, some of these cases may not be primarily due to accountability problems. Since funding of public pensions is largely dependent on private sector employment — and

the taxes they generate — it's possible that actuarial assumptions could be thrown off in states where growth in public-sector employment has outflanked the private sector. But in the case of West Virginia, at least, that doesn't appear to be the main problem.

A lot of the debate over what to do — if anything — about public pensions centers on whether to shift responsibility for retirement saving from governments to employees. Like the debate over Social Security, this one turns on public opinion about the merits of an "ownership society" versus the seeming safety associated with state provision of benefits. Beyond the political debate, though, lies a straightforward economic observation: Despite some recent reforms, policymakers face a powerful temptation to borrow from, or put off contributions to, public pensions to cover spending on other projects.

From Perk to Problem

Not so long ago, retirement in the United States was nothing more than the last few, declining years of life, usually spent dependent on children. In 1880, almost eight in 10 men over the age of 65 still worked; by 2000, the rate had fallen to less than two in 10. Now, retirement is "an extended period of self-financed independence and leisure," as economic historian Joanna Short puts it. There are many factors contributing to this trend, including

increased personal incomes and affordability of leisure pursuits, plus advances in health care that help people enjoy more active old ages. But also playing a central role was the development of Social Security and pension programs. Increased wealth made possible all the other factors creating longer retirements.

The first public pension in the United States was set up in 1781 for military members. The first pension plan for state or local government workers was established by New York City for police officers in 1878. Eventually, these plans became the norm, encompassing teachers, firefighters, sanitation workers, subway drivers, court clerks, and sheriffs' deputies, among others.

Today, the United States is home to about 2,600 public-sector pension plans covering some 20 million active and retired state and local government employees. In all, these plans are obligated to pay an estimated \$2.4 trillion (in present value dollars) to their beneficiaries. About 90 percent of state and government employees are covered by "defined benefit" plans, compared with less than 25 percent in the private sector. In general, the private sector has been moving away from defined benefit plans.

Basically, a defined benefit plan provides an annuity at retirement that people can't outlive: Work a certain number of years, and then collect a percentage of your salary until you die. Its assets are professionally managed and the employer bears most or all of the investment risk.

There are subtle deviations from this central premise. Benefits in such plans usually are calculated according to a formula based on years of service and percentage of pay. Sometimes employees are required to contribute to their employers' pension plan, sometimes not. Sometimes employees also are opted into the Social Security system and their paychecks taxed accordingly, sometimes not. But overall, it's a great deal for employees. A possible exception, of course, are employees of private companies that

later encounter financial trouble and renege on their pension promises.

The backlash against public pensions really began to pick up steam just five years ago. When the stock market was roaring in the late 1990s, many governments pared back their pension contributions, using the unexpected gains on their investments to cover the difference. (Most pension systems invest assets in a variety of securities, ranging from stocks to government bonds.) But then came the market retreat of 2000 and 2001, and pension plans that had looked in good shape suddenly needed help, their rosy 8 percent investment return estimates way off. "We experienced a bit of a perfect storm in terms of the confluence of events," says Keith Brainard, research director with the National Association of State Retirement Administrators (NASRA).

These squeezes sometimes force governments to cut back on services. A school district in Michigan, for example, had eliminated teachers and halted new textbook purchases as it tried to meet its pension obligations, according to a *BusinessWeek* cover story last summer.

Funding Crisis?

At present, state and local government pensions have on average enough to pay between 84 percent to 88 percent of what they owe, depending on which survey you look at. According to actuarial standards, anything above 80 percent is considered sufficiently funded. Almost one in three plans falls below the 80 percent threshold. Nationwide, only two states (North Carolina and Florida) have total pension system assets greater than liabilities. (See chart for conditions of Fifth District public pensions.)

In one of the nation's most comprehensive annual surveys, the Wisconsin Legislative Council looked at 85 pension plans in all 50 states, or about three-quarters of all public-sector employees covered by pension plans. The survey found that the number of plans with funding ratios topping 100 percent fell from 33 to nine between

2000 and 2004. The same study found a general trend toward improving benefits, such as allowing earlier retirements and increasing multiplier formulas for determining benefits. These actions yield long-term effects; by law, once employees are awarded benefit levels, those levels cannot be reduced. Only new employees are affected when lawmakers move to reduce benefit levels.

To some analysts, these statistics provide ample evidence that pensions are particularly vulnerable to poor management. The reason that many pensions are dangerously underfunded, the reasoning goes, isn't because of unexpected drops in the stock market. It's that pension managers and politicians had no incentive to ever consider the possibility that investment returns would falter. Even defenders of public pensions acknowledge this inherent disconnect. "They made a lot of promises during those (bull market) periods thinking that the high equity values and the high discount rates would enable them to pay off those promises without too much pain," says Douglas Elliot, president of the Center on Federal Financial Institutions, a non-profit policy institute in Washington, D.C., that monitors federal government lending and insurance activities. "It looks a lot more painful now."

The Reason Foundation, a think tank based in Los Angeles, published a paper in 2005 titled "The Gathering Pension Storm: How Government Pension Plans Are Breaking the Bank," which cited myriad ways public pensions have been exploited. "Pension spiking" refers to the practice of employees who manipulate the system to make their compensation as high as possible just before retirement, the result being that their pension benefits — which are tied to their final compensation — also rise. Then there are the so-called "Drop" plans, in which senior employees amass a special fund filled with proceeds they would have gained if they had retired, and then get to cash it out upon their real retirement. Sometimes senior employees face incentives to take advantage of

these plans whether they are considering retiring or not.

“There are strong political incentives to increase benefits and push off obligations into the future,” says Adam Summers, a Reason Foundation policy analyst. The most oft-proposed remedy is a wholesale shift from defined benefit to defined contribution plans. This is already happening in the private sector, where the number of defined benefit plans has fallen 70 percent since 1985 while defined contribution plans have grown by almost 50 percent.

A defined contribution plan has become more broadly known as a 401(k). Such plans don’t guarantee benefits but rely on regular contributions from both employees and employers to build tax-deferred nest eggs that are usually dispersed in lump sums upon retirement. All the risk resides on the shoulders of employees, which in the case of public pensions means that governments — and by extension, taxpayers — are off the hook. On the flip side, all the control over investments goes to employees. This can be a positive in the sense that you would expect defined contribution members to take more care in planning for their financial futures because of their strong incentives to do so.

Summers disputes the notion that governments need defined benefit plans as a recruiting tool for the best

employees. Private-sector workers make an average \$16.71 an hour; their public-sector counterparts earn \$23.52. It’s true that there is a higher percentage of white-collar professionals in the public sector, in particular teachers, which raises the average among government workers. But even among comparable professional positions, government workers still make a hair more than private-sector workers.

Moreover, the recruiting virtues of defined benefit plans are uncertain. While it’s true that government workers with 20 years or more of service are grateful to have their retirements virtually all paid for, a defined benefit plan might not be so useful a recruiting tool for young workers. To a 20-something professional, who is likely to switch jobs several times in his career, a portable, defined contribution plan makes a lot more sense. Some public systems offer both defined benefit and defined contribution plans.

In a recent paper, the National Association of State Retirement Administrators responded, saying the Reason study was “based on a distorted picture of the public pension funding situation.” While acknowledging that administrators face incentives which could lead them to underfund future obligations, NASRA’s Brainard argued that legislation can cure most public pension ills. He pointed to Georgia as an example of a state that has passed

strict standards aimed at ensuring that public pensions remain solvent. In principle, Brainard accepts the argument that there is a disconnect between who authorizes funding for public pensions and who ultimately is accountable for making sure the money is there when needed. “The ‘moral hazard’ argument is definitely valid,” Brainard says. “But to me, it’s less to do with the inherent nature of a defined benefit plan and more to do with the way it’s established and implemented.”

Success in North Carolina

North Carolina is as good an example as any of a state where defined benefit plans haven’t wreaked fiscal havoc. “When people talk about defined benefit plans, if any one of the pieces of the puzzle is missing, it can be a recipe for disaster,” says Richard Moore, the state’s treasurer. “We are as a state reaping the benefits of having a properly endowed and mature pension fund.”

North Carolina, unlike a lot of other state pension plans, requires employees to contribute — the state takes 6 percent out of every paycheck before making its contribution. Granted, the state’s contributions can change year by year. For example, North Carolina was putting less than 4 percent of payroll and as little as zero during the bull run of the late 1990s,

Pension Plight

West Virginia’s pension plan for teachers has the worst funding ratio among major public-sector plans in the nation; North Carolina’s public employee plan is among the best-funded.

Plan	Funding Ratio (%)	Assets (\$000s)	Unfunded Liability (\$000s)
District of Columbia Teachers	100.0	917,800	–
District of Columbia Police & Fire	100.0	1,427,800	–
Maryland Teachers	92.8	20,155,415	1,568,763
North Carolina Teachers and State Employee	108.1	45,117,508	(3,383,806)
North Carolina Local Government	99.3	12,364,380	91,124
South Carolina Retirement System	82.8	20,197,936	4,200,995
Virginia Retirement System	96.4	39,243,000	1,455,000
West Virginia Public Employee Retirement System	80.0	3,095,660	774,541
West Virginia Teachers	22.2	1,427,475	5,013,263

NOTE: Figures as of 6/30/04 except D.C., 9/30/04.

SOURCE: National Association of State Retirement Administrators

and even into 2000. But it quickly reversed course as the market soured.

Meanwhile, its expectations about the future are decidedly conservative, most years assuming returns of 7.25 percent. (In the Wisconsin Legislative Council's survey, North Carolina's return estimate was tied for second lowest with South Carolina among 85 major public pension plans.) Additionally, North Carolina government employees pay into the Social Security system, and are promised only about half of their top salary after even 30 years of service — generous but not in league with plans that offer 75 percent to 95 percent of their top salaries. "We have worked very hard to keep all of our expectations and assumptions realistic in North Carolina," Moore says. "That's why we're in such great shape."

Also, Moore says it's cheaper to manage a defined benefit plan. His office spends 10 basis points per total assets on managing the fund, compared with about 70 basis points for a defined contribution plan. And investment returns tend to be higher, Moore says, thanks to the state's investment strategy that is strict in its adherence to asset allocation, unlike how many individuals pick stocks.

Some of these strategies have gained notice in other states with pension problems. Last year, West Virginia's legislature voted to require that public pension plans be at least 85 percent funded before allowing enhancements in benefits to active employees. Additionally, benefits improvements to retirees must now be amortized over six years, a relatively short time that was picked to make sure they are paid for quickly. A recent special appropriation added \$225 million to the public safety pension plan, allowing it to go from 25 percent

funded to almost 75 percent funded.

"I think the West Virginia Legislature, at least for the last 10 years that I've been here, has been very dedicated to funding all of our retirement system," says Terasa Miller, acting executive director of the state's Consolidated Public Retirement Board.

Money Management

Ed Husted, a former chief actuary at the Federal Office of Personnel Management who now works with Hay Group, a consulting firm in Washington, D.C., says that his general philosophy is to favor defined benefit plans. But sometimes that thinking changes, he says: "In talking to an employer and saying, 'Here is what a defined benefit plan is costing in terms of your contributions and risk and administration expense — and oh, by the way, the new employees don't appreciate it — maybe you should go with a defined contribution plan.'"

At the same time, Husted worries about shifting too many employees to defined contribution plans. The masses simply can't be trusted to responsibly plan for their retirement, he says. "The benefit produced by a good defined contribution plan invested wisely is still not going to be much higher than a defined benefit plan," Husted says. "And it could be a lot lower if people don't put as much in as they should or they make bad investment decisions." That sentiment is shared by North Carolina Treasurer Richard Moore, who says: "Individuals are not very good at managing their own money."

The case of West Virginia's teachers' pension plan, the one that is today only 25 percent funded, is illustrative on this point. When it was launched in 1941, the West Virginia teachers' plan

was a defined contribution fund. In the 1960s, many retirees started complaining that they had run out of retirement income, so legislators began the conversion to a defined benefit plan, thinking this would offer more protection to their retirees. But in making the switch, legislators continued to fund it as a pay-as-you-go defined contribution plan, instead of pre-funding it with an actuarial reserve. The result was a "systematic accumulation of staggering unfunded accrued liabilities," according to the 1991 annual report of the West Virginia Teachers Retirement System. In other words, in trying to protect their retirees from unwise planning, West Virginia lawmakers ended up making poor decisions themselves.

Converting public pensions to defined contribution plans would eventually take all the financial risk of public employee retirement off a government's books. But defined benefit plans remain the norm, in no small part — according to their managers — because they are a great benefit. They are guaranteed and people can't mess them up through dereliction or poor choices. "You're not leaving the employee out there to hang," says NASRA's Brainard.

But you are counting on pension managers and policymakers to take great care in the way they plan for the future, even though they probably will be long gone when the decisions they make begin to show results. In some cases, this has worked well. In other cases, like in West Virginia, it hasn't. No system is risk-free. And for many, the choice between defined benefit and defined contribution plans comes down to a simple question: Who do you believe will do a better job planning for retirement — the employer or the employee? **RF**

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The Pay Divide

Men make more money than women. Some new economic research helps explain why

BY DOUG CAMPBELL

It's a fact of the modern labor market that women make less money than men. Considerably less, actually. Women who work full-time now earn about 80 percent of what their male counterparts make, according to the Bureau of Labor Statistics. And, according to at least one study, the gender wage gap increases by about 20 percentage points between ages 20 and 40. Though the gap has narrowed over time, this divide looks unlikely to close completely anytime soon.

An array of factors is at play here. While professional men tend to hold jobs as engineers or mathematicians, professional women tend to be employed as teachers and librarians — occupations which pay less. (Although, women increasingly are working in fields that used to be the exclusive province of men). Additionally, women as a group work fewer hours than men, even those classified as employed full-time. Women may also be subject to labor market discrimination (though a lot of economists would tell you that

systematic discrimination is difficult to imagine as sustainable in a competitive environment), getting paid less than a man for identical work.

Then there is the simple but important observation that women can become mothers, often staying at home for months or years raising their children before returning to the work force, if ever. As a result, their stock of on-the-job experience slips behind that of men's and so, too, does their pay. Mothers earn about 89 percent of what women without children earn — a difference that by itself accounts for almost half the wage differential between men and women.

All of these factors are important to consider. But what if every one of them — from occupational choices to experience levels — were actually rooted in a single, underlying cause? It may be that no such explanation exists. But if it did, it could prove useful to policymakers grappling with how, or even whether, to address the wage gap.

Recently, a team of economists has made some headway on this question.

They investigated the extent to which men and women face different incentives to invest in their future earning power. Their work has its roots in the economic concept of human capital, or, loosely, the skills that people acquire which help them in the workplace.

Economists have long debated how much the gender wage gap can be explained in terms of human capital. Skeptics have noted that human capital theory's predictions are at times inconsistent with real-world data. But now, Richmond Fed economist Diego Restuccia and his co-authors, Andrés Erosa and Luisa Fuster of the University of Toronto, are trying to quantify the role that incentives to accumulate human capital play in the gender wage gap.

"There's a set of people who really believe that wage differences between men and women can in large part be explained by discrimination in the labor market," Restuccia says in an interview. "For people who believe in human capital, the burden has been to show that this channel is

indeed quantitatively important and consistent with what we observe in the real world.” That, in a nutshell, is what Restuccia and his colleagues have tried to accomplish.

A Theory is Born

The theory of human capital was largely developed by economists Gary Becker and Jacob Mincer at Columbia University in the 1950s and 1960s. Becker’s 1964 book *Human Capital* popularized the notion that investments in education, training, and health care were as important to the economy as other means of production. Those who accumulate human capital, be they businesses or individuals, can expect payoffs much as they would from investments in tangible assets. The theory says that there is a proportional relationship between the amount of effort people put into obtaining experience and training and the time they expect to work over their lifetime.

Mincer and Solomon Polachek applied human capital theory to the gender gap in their seminal 1974 paper, “Family Investments in Human Capital: Earnings of Women.” They were among the first economists to get hold of a data set with detailed work histories among men and women. Mincer and Polachek concluded that because women expect child-related career interruptions, their incentives for investing in human capital are weaker compared with men.

It works this way: At age 22, a woman might see her career arc as beginning with an entry job, moving up the corporate ladder to a managerial position, only to leave the workplace for several years after giving birth to her first child. A man, by contrast, might see the same arc, only he won’t leave his job after becoming a father. On balance, which of these — the man or woman — is going to invest more on-the-job effort and time? You can call this discrimination, insofar as women are presumed to be the ones who stay home with the children. But for women who

expect to be the ones staying home, it is also an economically rational decision.

More than 30 years later, Polachek, now at the State University of New York at Binghamton, recalls some hostile initial reaction, with many critics arguing that the study overlooked a role for labor market discrimination. But Polachek says it’s not so much market discrimination in action as “societal,” or home-life discrimination. “Our major contribution was probably to understand that the division of labor in the home is a fairly important concept,” Polachek says. “It’s a phenomenon which explains the differential patterns of married male and married female investments in future earnings power in the labor market, which in turn plays a very important role in explaining the male-female wage difference.”

The theory of human capital has been widely cited in promoting many policies aimed at easing the gender wage gap. Parental leave proposals, in particular, have been grounded in the notion that they may be powerful solutions for this problem. Columbia University economist Jane Waldfogel, in an influential 1998 paper, noted that the chief reason why women’s pay trails that of men’s is that women with children drag down all women’s earnings — the so-called “family gap.” She put it this way: “Maternity leave coverage, by raising women’s retention over the period of childbirth, raises women’s wages by increasing their levels of work experience and job tenure and allowing them to maintain good job matches.” Waldfogel cited data from Britain and Japan as evidence that maternity leave can raise women’s pay. “Thus,” she says, “maternity leave, along with other family policies, may be an effective remedy for the family gap in pay.”

Over the years, interest in human capital as an explanation for the gender wage gap has ebbed and surged. Skeptics pointed to the 1980s as evidence that human capital theory wasn’t relevant. During that

time, female labor force participation rose but wages for women didn’t see proportional gains. (Since then, the gap has resumed its narrowing.) Meanwhile, women have overtaken men in numbers at our nation’s colleges, and still they trail in pay. To a casual observer of human capital theory, this doesn’t always seem to add up.

A New Approach

Restuccia’s main area of research has been economic growth. He has used human capital theory to study differing rates of productivity between nations and differing earnings among generations. Looking at the gender wage gap through the lens of human capital, then, was somewhat of a natural step.

Restuccia and his co-authors decided that they wanted to test Waldfogel’s idea that parental leave policies would help close the gender wage gap. To do this, they set up a mathematical model in which human capital is the main determinant of how much people get paid. Human capital evolves with experience (“general” human capital) and tenure on the job (“specific” human capital).

People base their decisions on whether to work on how much they think they’ll earn in the future. And since this is a dynamic model, people understand that leaving their jobs even temporarily — as when women take leave for childbirth and rearing — can have an impact on the human capital they accrue. To this framework the economists added the feature of mandatory parental leave policies, meaning workers would be able to go back to their previous jobs after tending to matters at home.

Going in, the economists expected their results would bear out a relationship between human capital and the pay gap. But when they ran the calculations, they were surprised. Their results suggested that specific human capital wasn’t sufficient to account for the wage gap and, by extension, that generous mandatory leave policies in this framework would

have no impact on closing the wage gap.

Instead, it turned out that women in the model with good-paying jobs generally would decide not to leave the work force in the first place — they “self-selected” to remain on the job. The economists reasoned that this happened because highly trained women didn’t want to give up the specific experience they had built up and because they had more to lose in future earning

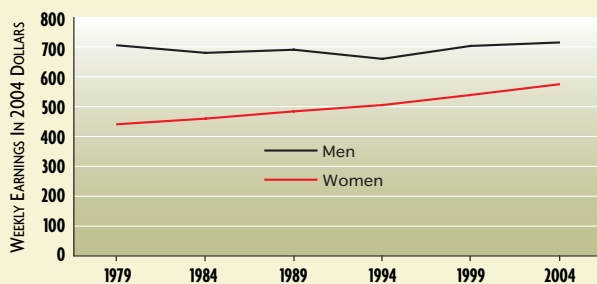
power. “Women who do have children and then separate from their jobs typically are selected from the group that doesn’t have a lot of human capital,” Restuccia says in an interview. “So this selection effect mitigated the portion of wage losses that was due to specific human capital.”

This finding seriously threw into question the assumption that specific human capital is important enough to account for the difference in wages between men and women. Not satisfied, Restuccia and his co-authors decided to go back to the drawing board. They needed a deeper understanding of the wage gap. Where the original Mincer and Polachek work tested only the overall force and direction of the human capital channel, Restuccia and his colleagues sought a quantitative answer to how much human capital incentives explain the gender wage gap.

This time, they built their model so that human capital was not necessarily job-specific but simply built up over time in the labor force — skills that could be used in any number of occupations. To Restuccia’s knowledge, this was one of the first attempts to apply “quantitative theory” modeling techniques favored by macroeconomists to the question of human capital’s role in the gender wage gap. (Most analyses of the gender wage gap have relied on regression models that use empirical data.)

A Narrowing Gap

Since 1979, women have narrowed the pay gap with men by about 20 percentage points.



SOURCE: U.S. Bureau of Labor Statistics

The emphasis on future (or lifetime) labor supply is the key difference between the human capital analysis done by Restuccia and his co-authors and the standard way scholars have studied the wage gap. In the standard approach, wage differences can’t be explained by observable factors. Men and women may have, for example, nearly identical resumes and years of experience — so why do men make more money than women?

Even when comparing among specific occupations and years of experience, women are paid less than men. The standard approach suggests that this “unexplained” difference must be attributable to labor market discrimination. Instead, the human capital approach takes into account people’s incentives with regards to the future.

The authors took pains to calibrate their model to real-world conditions: The percentages of women with children, when they have children, and how many were the same in the model as empirical data show them to be. Children are the “shocks” in the model, the only thing that differentiates male and female expectations about the future. The resulting prices and wages were reflective of all the conditions in this model’s environment. They also used panel data (as opposed to the standard BLS data which is a cross-section of people’s wages over time), in which people were followed over their careers and

in which the gap between male and female pay was shown to grow from 20 percentage points to 40 percentage points between the ages of 20 and 40.

In the economists’ resulting model, almost all of the gap’s increase over the life cycle can be explained as a function of differing incentives for accumulating human capital. These incentives are so robust that even women who never have children are affected — merely the

possibility of their withdrawing from the labor force plays a role in how much work they decide to do.

Though not specifically tested, in principle the results may even explain wage differences between men and women in the same jobs. A female attorney may have fewer incentives to, say, work 80 hours a week in private practice trying to make partner, instead choosing a more 9-to-5 job that requires legal skills. “It’s a decision about how much effort to put into human capital accumulation,” Restuccia says. “Children are going to affect the lifetime labor supply of women. Our model can go a long way in accounting for the differences in wages between men and women.”

Maternity Leave Revisited

Given these findings, it’s particularly interesting to note that one of the possible policy prescriptions that Restuccia thinks worth considering is some sort of leave program. Though his first paper skewered the notion, the second paper allows that experience doesn’t have to be job-specific. In this environment, leave policies may increase women’s attachment to the labor force, which in turn would give them greater incentives to accumulate human capital.

Think of it this way: What ultimately matters most for the wage gap is that over their careers women supply much less time to the labor market than men. As a result, women

make lesser investments in human capital than men and, by extension, get paid less. Parental leave policies might help address this issue, but they still don't get to the heart of the problem of how to increase female labor force participation. Any policy aimed at closing the gender wage gap ought to allow women to supply as much time to the labor market as men.

"It's clear that leave policies should be studied in this framework," Restuccia says. "If parental leave policies do affect employment and hours of work, they will have an effect on wages."

Given a choice, Restuccia (and Polachek agrees) favors greater availability of child care services over leave policies, in part because the latter has the potential of penalizing the employer who has to keep a job open. Moreover, child care services (or more flexible jobs) directly target the difference between men and women, that of women not being able to see themselves dedicated to work as men do.

The wage gap endures, but it has shrunk significantly. In 1979, the overall difference was 38 percentage points; today it is 20, according to government figures. The notion that labor market discrimination continues to play a significant role has been hard to shake, even as, theoretically at least, it's hard to imagine a truly competitive world where that would happen. For example: If there really was a pool of qualified workers who could be paid 20 percent less

than another pool of equally qualified workers, then firms that hired the less costly workers would make a killing in the marketplace. Eventually, in a competitive world, wages would have to be equalized.

At the same time, by no means does Restuccia think his research rules out a role for market discrimination. It could be that market discrimination is just one of many "shocks" that women encounter in their work lives and that is propagated by employment and human capital accumulation decisions. It may be something that women factor in when deciding how much to work and to invest in human capital accumulation (though the economists' model does not test this idea). But to Restuccia, the findings mostly suggest that corporate discrimination is not as important as once thought. As with Polachek, Restuccia sees a greater role for home-based discrimination than market-based. Societal norms pull more women into the home than market norms.

A more straightforward explanation for why the wage gap persists but has been shrinking is that women are working more — from labor force participation of 50.9 percent in 1979 to 59 percent in 2004 (though gains have flattened in recent years).

Meanwhile, male labor force participation is sliding, from 77.8 percent in 1979 to 73.3 percent today. These parallel trends are perfectly in keeping with human capital theory. The more one's lifetime labor force

participation, the greater the incentives and the benefits (in the form of higher wages) to investment in training and experience.

Labor-saving devices in the home — ranging from vacuum cleaners to microwave ovens — are thought to have contributed to the surge of women into the workplace. So, too, has the general shift into a more service-oriented economy. Also, women are having fewer children, meaning they have different expectations about future job separations than their mothers. At the same time, women are taking part-time jobs, the likes of which didn't exist in any significant numbers in 1950. A big chunk of the recent labor force gains of women are attributable to part-time jobs.

It is on that front that economists Restuccia, Erosa, and Fuster want to proceed. The extent to which availability of flexible and part-time jobs, as well as child care services, can close the gender wage gap is next up on their to-study list. "Maybe policies should be implemented to allow women to balance the time they have to put into home with their kids but still be in the labor market," Restuccia says. "As long as they're able to supply labor time to the market that is close to that of males, then the incentives are going to work out that women acquire as much human capital as men." Which means that, in the absence of overt discrimination, women will earn as much as men, and this particular battle of the sexes will be history. **RF**

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Raymond Sauer

When people ask career counselors for advice, a common response is: Do something you love and you'll never be bored. It's a bit trite, of course, but it's also generally true. Raymond Sauer is a good example. He has been able to combine two of his interests — economics and sports — to his professional advantage. In a series of papers, he has used the tools of economics to answer questions from the world of sport, and in the process produced insights for economists working in industrial organization, labor markets, and other fields.

Sauer is chairman of the Department of Economics at Clemson University. In addition to his work on the economics of sports, he has written about the economics of regulation, monetary economics, and the organization of academic labor markets.

Since February 2004, he has maintained a blog devoted to economic commentary on sports and society, thesportseconomist.com, which features occasional posts by other contributors.

Aaron Steelman interviewed Sauer on the Clemson campus in Clemson, S.C., on Feb. 21, 2006.



RF: How did you get interested in the economics of sports?

Sauer: I became interested when I read a paper assigned in my first graduate microeconomic theory course. It was titled "Pay and Performance in Major League Baseball" by Gerald Scully, and it appeared in the *American Economic Review* in 1974. I think that's one of the best papers written in economics in the past 50 years. It took economic theory, applied it to a relevant and current topic, and made a prediction. And, lo and behold, free agency came to Major League Baseball shortly afterward and proved Scully's theory and application to be dead on the mark.

Essentially, Scully studied data on players' productivity and wages from the late 1960s, a period when players were subject to the reserve clause. That meant they had virtually no bargaining power. They either re-signed with the team they were with or they went back to the farm, which some of them did. But when Marvin Miller, head of the players' union, argued that the contract actually permitted free agency and an arbitrator agreed with him, the whole game changed. Players began to be paid according to market rates, and salaries increased by multiples that were consistent with what Scully's model predicted.

So that paper was truly great and inspired me to look more closely at the economics of sports.

Then there was a paper that wasn't so great. The topic was the supposed inefficiency of betting markets in the National Football League (NFL). I had gotten interested in the work in rational expectations and financial market efficiency, and here was this paper that said it was easy to make money betting on football games, that there were opportunities just waiting to be exploited. I thought this was not consistent with theory, gathered data to assess its merits, and concluded it wasn't right. So that was the first time I applied economics to sports in a professional way, and it led to one of my earliest published papers.

RF: The field seems to be gaining popularity within the profession. Why do you think there is more research being done in this area now?

Sauer: I think it comes down to two things. One, economics is data-driven, and there are a lot of good data available in sports. Second, sports are popular and are a market like any other so they present useful opportunities to take economic theory and apply it to issues that interest a lot of people.

RF: Each of the four major North American sports leagues, with the exception of Major League Baseball, has faced a rival league over the past 40 years. In some cases, the rival league has introduced changes that the dominant league eventually adopted. And some of the rival leagues' franchises eventually became members of the dominant leagues following mergers. But none of those leagues was able to supplant the incumbent. Why? Can you imagine conditions under which one of the incumbents could be driven out of the market by a new entrant?

Sauer: I think it would take a colossal mistake for one of the major leagues to be supplanted by an upstart. There's a tremendous amount of social capital that is embedded in loyalty to teams, rivalries, and so on. That goes beyond appreciation of the game itself.

This is true in the North American leagues, but the best example is European soccer. If you watch the Italian Soccer League, for instance, you will see that the fans are packed behind the goal, which is one of the worst places to actually view the game. You get a much better view from being at mid-field. But they are behind the goal for purely social reasons. So it's something other than the game itself that is capturing the attention and imagination of the fans. That's an extreme example of what I am talking about, but we see it in almost all sports. It's not easy to re-create that loyalty even if you introduce a new league with great talent and innovative rules.

I think the existing leagues have figured this out, and they design their competition to take advantage of it. Once upon a time, sport was performance art, like figure skating or boxing. It's not an event any longer. It's a drama that unfolds over the course of a season, which is a pretty long time, and leagues have structured themselves accordingly.

In fact, I think this is the biggest thing that separates sports which have been economically successful over the past 50 years from those that haven't. People no longer have great interest in watching a single event. They want to watch a sequence of events tied together over time that lead to a big finale like the Super Bowl or World Series.

Also, some of the sports that were very successful in the past but are having problems now, like boxing, are organizationally inept. Owners and officials in baseball, football, and basketball realized that they needed to become organized and unified and behave like a firm. That never happened in boxing. You have several warring factions that have been unable or unwilling to act together in the way that the team sports have. For instance, you still have several sanctioning bodies: the World Boxing Association, the World Boxing Organization, and the International Boxing Organization among others. That presents some real difficulties for the sport, from both a fan standpoint and an economic standpoint. Then, of course, there is the issue of corruption, which still exists and troubles the sport.

RF: How about rival leagues with less ambitious goals — leagues that aren't designed to become dominant but rather serve a niche market? Is there sufficient demand to keep those leagues afloat, given what you have said about consumer loyalty to existing teams?

Sauer: The Arena Football League fits that description, I think. The league has been going for some time now, a lot of people like the game, and the league is making money. It has an interesting business model, and markets itself as professional football, without attempting to supplant the NFL. It's satisfying a demand that is out there, and the players are highly versatile and talented athletes who just can't make it in the NFL. In part, that's because the skills required to play in the NFL have become so specialized.

Could the Arena League become more interesting than the NFL? Maybe. But it's going to be very difficult to get, say, Pittsburgh Steelers fans to switch their loyalties.

In general, I think we are looking from the top of the mountain now in professional sports. The growth that we have seen in the past century has been absolutely phenomenal. If you were living in 1950 and were trying to forecast what the most popular sport would be in 2006, you might have said horse racing. The NFL, NBA, and NHL weren't nearly as popular as they are today. Baseball was it in terms of team sports. Some other form of competition could, in the future, attract people's interest, but what that would be is very hard to say.

RF: What do you think accounts for this tremendous growth in professional sports?

Sauer: Looking at purely economic factors, you have to say that the growth in income and leisure time are most important. But there's no inherent reason why that increased income and leisure time would go toward sports instead of, say, opera. Sports have the advantage of being accessible. It doesn't require

a great deal of time investment to understand and appreciate what is going on. There's another thing that I think is important. Most kids play sports from a very early age. And even if they don't progress with it and play on, say, their high school or college teams, they tend to maintain an interest in sports throughout their lives.

RF: What do you think of revenue sharing as a way to increase parity in professional sports leagues?

Sauer: Theoretically, it doesn't work. Revenue sharing decreases the monetary incentive to acquire talent in equal proportion for both big market teams and small market teams. And it works this way in practice also.

Let's consider an example of a league that has revenue sharing — the NFL. You have had franchises that for a decade apparently just didn't care about putting a competitive team on the field. Their teams could stink, they could lose fan base, but they could still collect a big check from the NFL and make money. The Cincinnati Bengals were a good example of that from the early 1990s until recently.

Generally, I think the NFL has a big problem. Red McCombs, the former owner of the Minnesota Vikings, was recently quoted as saying that the NFL had the best business model of any sport in the world. The owners do make a lot of money. But they didn't build the league by being socialist, and they are the most socialist sport in the world. That doesn't bode well for future growth.

I think it's more compelling to watch a clash of the titans than it is to see the best of a mediocre lot. NFL rules, which are designed to share the wealth and get parity, don't produce excellence. I think we saw that in the last Super Bowl. It was a mediocre event this year. People follow dynasties; they don't follow the winner of a coin-flip competition. And NFL rules, unless they are changed significantly, can produce something akin to a coin-flip competition.

Don't get me wrong. There are still great athletes in the NFL — some of the best athletes in the world — but, as I said before, we don't necessarily watch sports to see great individual performances. We watch them for the team competition. Also, in a sport like football, unless a great player is on the same team with other great athletes, his ability to showcase his talents is severely limited. For instance, if a guard misses a key block, it doesn't matter what the quarterback or wide receiver can do. One player's productivity is related to his teammates' productivity. So even the element of great individual performance is in jeopardy.

There are some people in the NFL who are aware of the problems that the league faces, and they may be able to push the league in a more competitive direction. But a lot of the owners who are raking in money now will resist. And as it stands, the NFL faces some very serious problems. Parity is not

a goal worth pursuing at the expense of drama, excellence, and great competition.

RF: So you would say that parity is overrated?

Sauer: Yes. Look at Major League Baseball. The New York Yankees have had some lean years in their history. But, overall, they have been the model of excellence for a very long time. And people still love to watch them play — whether to cheer for them or to boo them.

European Soccer is another example of a sport that has had dominant teams for a long time. That's true, in large part, because teams are generally free to buy talent as they see fit. Players will move to the teams that most value their skills, and there is great competition among owners to attract those players. It's an open system, and there is a trap door at the bottom. If you don't win enough games, you fall into a lesser league. You might argue that they go a little too far in the direction of single-team or two-team dominance, but the sport

is still extremely popular. I should also note that most European soccer teams actually do not make money over the long haul. They have huge revenues, but even bigger expenses. Most clubs need a capital call every few years, and generally there are wealthy fans and investors who are willing to meet those calls.

Parity is not a goal worth pursuing at the expense of drama, excellence, and great competition.

RF: Do you find it surprising that many European countries which have public policies based on the social-democratic model at the same time have quite market-oriented rules for their sports teams, while in the United States the situation is often reversed?

Sauer: Sure. It's a deep irony. And I don't really have a good explanation for it. Perhaps a sociologist would be better equipped to answer that question than an economist.

RF: Are there economic reasons why professional soccer has had such a hard time gaining widespread attention in the United States, despite its overwhelming popularity in other parts of the world?

Sauer: I think it goes back to the social capital idea. It takes a lot to overcome the incumbent advantage of sports like baseball, basketball, and football, which are popular today in the United States. I think that, slowly, soccer will gain fans and there may be a tipping point. But one of the interesting things about Major League Soccer (MLS) is that some of the leading figures are also involved with the NFL. Lamar Hunt, the founder and owner of the NFL's Kansas City Chiefs, also is one of the founders of MLS and owns a team in the league. MLS has something like the NFL's business model. And I'm not so sure that Hunt really wants MLS to grow and for teams to compete in the way that some other owners in the league

have in mind. For instance, their current business model — teams generally play in pretty small stadiums and don't bid for the services of the big European stars — doesn't make for a compelling, top-notch product.

So, getting back to one of your earlier questions, if there is a league that is ripe to be supplanted by an upstart, maybe it's MLS. There appears to be growing demand for professional soccer in the United States, and MLS is not meeting that demand very well, in my view. Sport these days is a media-driven business, and the skill on display in an MLS match is nowhere close to that in Europe. Americans will watch the more compelling spectacle, even if the match may be taking place in Barcelona or London.

RF: What do you think of proposals to pay college athletes?

Sauer: Well, actually there is some payment. Every time college players go on the road for an away game, they get a per diem payment to cover meals and other expenses. That's more than they used to get. Will this evolve into a system where there are significant monthly stipends, thousands of dollars per month per player? I doubt it.

For the big-revenue sports — like football and basketball — the money is there. For instance, coaching salaries have exploded recently, because if a guy can win without cheating, he's worth a tremendous amount of money to the school. The same is true of players. You can't necessarily identify who those guys are in advance. There are a lot of great high school players who wind up being only mediocre college players. But once it becomes clear who the stars are, those guys are worth huge amounts of money to their schools. But I think there is great aversion among sports fans to paying college players an amount that is something proportionate to the revenue that they bring to a school. Whether that is rational or not, I think it is a serious impediment to liberalizing compensation rules for college athletes.

RF: What do you think has been driving the realignment of major college athletic conferences?

Sauer: I think the fundamental reason is that competition has become national. In the old days, Clemson University used to play in the Southern Conference. But in the 1950s, Clemson and Maryland chafed at some of the Southern Conference rules and led the revolt to form the Athletic Coast Conference (ACC), which was built on the eight-team model that was very common then. The ACC was perceived as Tobacco Road, a regional conference that stretched across only four states:

Raymond Sauer

► **Present Position**

Professor and Chair, Department of Economics, Clemson University

► **Previous Faculty Appointments**

University of New Mexico (1985-1988)

► **Education**

B.A., University of New Mexico (1979)

M.A., University of New Mexico (1981)

Ph.D., University of Washington (1985)

► **Selected Publications**

Author or co-author of several papers in such journals as the *American Economic Review*, *Journal of Political Economy*, *Journal of Economic Literature*, *Journal of Finance*, and *Journal of Sports Economics*

Maryland, Virginia, North Carolina, and South Carolina. But eventually that regional image was viewed as a liability and something that the conference wanted to shake, so it expanded all the way up and down the coast.

A similar thing happened in the old Pac-8, but earlier. They wanted to expand and actually added two schools in a state that doesn't even border the Pacific Ocean — Arizona and Arizona State — to form the Pac-10. The SEC expanded as well, and so did the Big 8. I think this has come at some cost to the sporting competition — for instance, North Carolina State will no longer play Duke twice a year in a home/home series — but to the advantage of

getting national exposure and more media revenue. Schools in the ACC will now play conference games in Miami and Boston, two major media outlets, and that can be a big benefit.

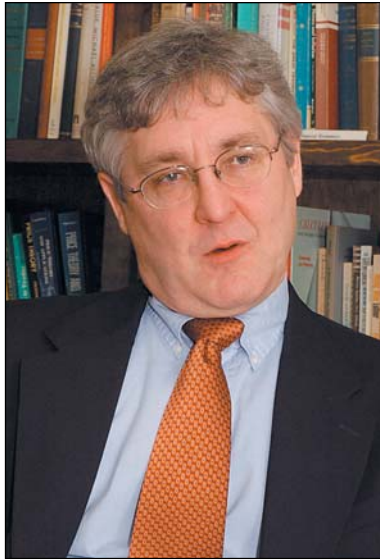
It's amazing when you look at the license plates from the students on campus here at Clemson. They come from everywhere. I think most universities that want to be perceived as quality places will try to get national recognition, and one big way to do so is by playing sports on national television. You don't get that type of exposure by playing only nearby schools. If you win big, you get noticed. So I think college athletics is a form of competition for attention, much like advertising.

RF: What do you think of the hypothesis that Michael Lewis put forward in *Moneyball*?

Sauer: *Moneyball* was a fascinating book. It had great writing, a great story, and was compelling reading. But at the core of it was an economic idea: that wages in the market for professional baseball players were not well-priced, and that one could exploit these discrepancies to win a lot of games at relatively low cost. In particular, the ability to take a pitch and to get on base in any way you could were undervalued. The Oakland Athletics — and, in particular, their general manager Billy Beane — figured that out, and were able to get to the playoffs for several consecutive years on a very tight budget.

At its core, I find the *Moneyball* hypothesis offensive. I tend to think that, as a general matter, labor markets work quite well, and returns to skill are valued appropriately. But the Oakland example was in opposition to my belief in labor market efficiency. So my colleague Jahn Hakes and I decided to investigate it more in a paper that will be coming out in the *Journal of Economic Perspectives*. We found that Lewis' offensive idea was correct. On-base percentage was undervalued, and buying on-base percentage went a long way toward explaining Oakland's success.

How do we explain this? I think what Lewis found was a very clear-cut example of institutional inertia. A lot of old



baseball scouts had a certain idea of which skills made for a good baseball player — and those weren't necessarily right. Yet once those ideas took hold, they tended to stick. Someone eventually questioned and tested them, and decided there was another way to evaluate talent. Beane was a real innovator, and he was able to exploit the opportunities that he saw. But it's very hard to

do this over an extended period of time. This information will be exploited by others — indeed, we have seen it recently with several other teams. Just about every front office in Major League Baseball has guys poring through data looking for statistical patterns that can give them an advantage. As a result, there will be new innovations in assessing talent that might prove even more effective.

RF: Has the exposure that *Moneyball* received affected the field of sports economics?

Sauer: Not much, I think. The paper that Hakes and I did has been well-received and has been downloaded a lot. But I think there are some examples that go beyond *Moneyball* that are interesting to note here. There are a number of papers where people have modeled different games, and it's interesting for us as economists and applied econometricians to do those exercises. We don't have an impact on things very often, but occasionally we do. One example of this is the work that David Romer did on fourth-down decisions made by football coaches. If you model a football game properly, you can look at the costs and benefits of doing various things. The thing that Romer focused on was the decision to give up the ball on fourth down by punting. It turns out that coaches were extremely conservative on this point. They hardly ever went for it on fourth down, even in short-yardage situations in their opponent's territory. But if you look at the data, there are no real benefits from punting in those situations and the net costs can be very large.

Over time, I think Romer's message has gotten through. You see a lot more people going for it on fourth down than in the past. Bill Belichick, the head coach of the New England Patriots, makes decisions that are very data-driven — he was an economics major at Wesleyan — and he goes for it on fourth down a lot of the time. Similarly, you see more coaches going for the touchdown now instead of settling for a field-goal attempt. So coaches are increasingly taking risks when they are appropriate, and I think the work economists did pointing out the costs associated with excessive caution helped move them in this direction.

RF: People often complain that tickets to sporting events have become too expensive. But for many games, at current prices, demand greatly outstrips supply. Why don't franchises and leagues respond to such demand by upping the price of tickets instead of having them sold on the secondary market at prices well above their face value?

Sauer: Well, the tickets are more expensive now — a lot more expensive — because demand is so high. Part of what is going on is that quality seats have become luxury goods. So great tickets are very expensive, but baseball clubs can't give away upper deck tickets. The Oakland A's just decided to cover them up with a fancy tarp. So there is a tricky pricing problem here — how variable should prices be across seats and games, particularly when there is well-established demand for season tickets? Now, the clubs could operate secondary markets themselves, but if we look at rock concerts, the bands that adopt this function still price well below market. They attempt as best they can to keep the tickets in the hands of "real fans." On this point, I don't think economic reasoning has gotten us very far, even though an economist as brilliant as the late Sherwin Rosen took a crack at it.

RF: What do you make of the claim that white sports stars command a salary premium compared to black and Hispanic players of similar or even superior skill?

Sauer: A few of my colleagues have worked on these questions, and there is some evidence that white players do command a salary premium in today's market. The evidence is not especially strong and what does exist suggests that the premium is rather small. But it's there. One might regard it as prima facie evidence of discrimination. Or it could be something that is unobserved, correlated with race, and not captured in the model.

But, over a longer period of time, there is a lot of evidence of discrimination. Blacks were permitted to play in professional football, then banned, and then permitted to play again. In baseball, blacks were excluded for the first half of the 20th century. So the ability to even get on the playing field was limited by discrimination. You had integration, but it was a long, hard process. As social mores changed, there was real opportunity for innovation. There was this very large untapped pool of black talent out there, and innovators like Branch Rickey recognized it. What's interesting, though, is that the best teams led the drive to integration. They were the ones that first signed black players and so these teams got even better. Two of my colleagues at Clemson, Bob Tollison and Bobby McCormick, along with Brian Goff of Western Kentucky University, had a very interesting paper on this topic that appeared a few years ago in the *American Economic Review*.

As for salaries, I haven't seen good data from this period — say, the late 1940s and early 1950s. I would like for the question of wage discrimination from this era to be examined. The conditions then were stark, much starker than the present day. So one would suspect that the evidence for discrimination would be stronger than it is now.

RF: Elected officials often claim that professional sports teams bring substantial economic benefits to a city, both direct (spending at the stadium and nearby businesses) as well as indirect (makes the city more attractive to talented workers). How large are those benefits, in your opinion, and do they justify public funding of new stadiums?

Sauer: Well, I think the second claim is true. Many talented people do like sports, and those people generally like to live in areas where they can watch live sporting events. And since there are a limited number of pro franchises available, having a professional sports team is a benefit to a city. I don't think it's implausible that some companies base their location decisions, in part, on whether amenities like this are available to their employees and potential employees.

But the claim that new stadiums can act as a more general development tool strikes me as a pretty questionable idea. There has been a lot of work done in this area, and no reputable study has found that, on average, there are substantial economic effects. It's generally not a winning proposition for a city.

There might be more activity around a stadium or arena on the night of a game. But what about when those teams are on the road or it's the off-season? There are usually very few people around. Also, households generally have a budget for leisure expenses. If you build a stadium, you might see more dollars go to businesses around that stadium during certain times of the year, but that increased spending tends to be offset by reduced spending somewhere else.

To take a recent example, I think the deal Washington, D.C., struck to build a publicly funded stadium represents the ugly side of sports. Major League Baseball owners, in my opinion, took the residents of the District of Columbia to the cleaners. The league — meaning, essentially, the current teams' owners — set a limit on how many franchises there will be. So there are 30 teams, and when one of them is looking to move, a bidding war erupts among cities. And Washington, D.C., simply overpaid. Policymakers can spend other people's money pretty readily, and owners of franchises are taking advantage of that.

RF: One of the fastest growing sports is stock-car racing. NASCAR has gone from a pretty small and mostly regional sport to one with widespread national appeal. What accounts for its growth?

Sauer: NASCAR's rise — and its growth relative to Indy Car racing, for example — I think is due to its economic organization. The guys at NASCAR have been able to unify the old stock-car racing circuits into a more coherent organization, and they understand that people want to watch a season-long event. There are select races — Daytona, Talladega — that get more attention than others. But, generally, fans follow it over the course of a season, just like they do with team sports. NASCAR has refined its points race in a way that produces real drama. And we are seeing other individual sports follow NASCAR's lead. For instance, in golf, the PGA will implement a season-long points race next year.

RF: Getting back to your work on sports betting markets, are there some areas of those markets that are less efficient than others?

Sauer: As I said before, I think sports betting markets are overwhelmingly efficient. Bookmakers aren't in business to just give money away. They know what they are doing, and the point spreads they establish are a very good forecast of what is going to happen. But if there is one area where the lines tend to be wrong in something approaching a systematic way, it's with home underdogs. Betting on home underdogs in basketball and football, over a long period of time, tends to be slightly profitable. But the margins, even here, are quite small. Still, it suggests that we as fans, and also the bookmakers, don't have a really good understanding of what home-field advantage means for a team.

I don't want to make too much of this point, though. Betting lines are, by far, the best predictor of what is going to happen in a game. And that shouldn't be particularly surprising. There's money on the line, after all, and that's a powerful incentive to get things right.

RF: Do you have a sense of who reads your blog, thesporteconomist.com? Is it primarily sports fans, other economists, or a combination of the two?

Sauer: We have a pretty eclectic audience: sports fans, economists, reporters, all sorts of people. I launched it two years ago this month. I did it for one year by myself, but once it got some traction I decided to get some collaborators to bolster and expand the content. I think that's the right model for more academic-oriented blogs. If you can get a group of people who can stay focused on a relatively well-defined set of topics, then you can generate some really good material.

The blog is a nice medium because it gives you exposure to people you otherwise might not have met and ideas you might not have encountered. This includes even other economists who are doing work on similar questions, but with whom you are unfamiliar.

RF: Which economists have influenced you the most?

Sauer: I have picked up insights from a lot of people along the way. But the guy who made the biggest difference in my coming to Clemson and perhaps in the way I look at economics was Donald F. Gordon. Don was a brilliant economist. He never wrote very much, but what he did was pure gold. Just sitting and talking with him over lunch was quite an experience because you were in the presence of real genius. There's a quote in Doug North's Nobel Prize autobiography which says that Don Gordon taught him all the economics he ever knew. That may be overstating the case, but I never failed to learn something from every conversation that I had with Don. **RF**

Time Travelers

BY CHARLES GERENA

The Fifth District's storied history is attracting a growing number of heritage tourists

Every year, about half a million people visit a mountain-side near Charlottesville, Va. There's no theme park or luxury resort to see. Instead, they have come to learn about a Virginian who wanted to be remembered for supporting political, intellectual, and religious freedom. They have come to see Monticello, the former residence of Thomas Jefferson.

The house and grounds offer a glimpse into how the nation's third president lived out his retirement years — tourists enter the same doorway that foreign dignitaries, government officials, and other guests used when they visited “the sage of Monticello.” Monticello also reflects Jefferson's progressive thinking and penchant for innovation — he designed an early copy machine so he could maintain records of his writings and stocked the library with as many as 6,000 books, which later became the nucleus of the present-day Library of Congress.

In a modern society where many goods and services have become commoditized and boring to some

consumers, one-of-a-kind experiences at places like Monticello can command a premium price. This has given communities a potential resource from which to extract economic value: their unique heritage.

“A lot of places have historic attractions, and we are very fortunate to have them,” notes Mark Shore, director and CEO of the Charlottesville/Albemarle County Convention & Visitors Bureau. Two other presidential residences are within 30 miles of Monticello: James Monroe's Ash Lawn-Highland in Albemarle and James Madison's Montpelier in Orange County.

Heritage tourism uses the local landscape, architecture, artifacts, and practices that make a particular place special. It includes physical sites as well as the deep-rooted traditions and native skills that define a community. In short, it encompasses any experience that portrays a collective history, from watching a Cherokee Indian perform the eagle dance in western North Carolina to touring a rice plantation in South Carolina's Lowcountry.

There is considerable overlap between these experiences and activities involving culture or the arts. According to a 2001 report published by the National Trust for Historic Preservation, the primary difference is that heritage tourism is place based. “... Viewing the work of a great master artist in his home and studio is a heritage tourism experience, while viewing those very same pieces of art in a traveling exhibition is a cultural tourism experience. The content is the same while the context is different.” Still, the lines between heritage and cultural tourism are easily blurred.

Sightseeing based on heritage or culture is as old as tourism itself, driven by people's motivations to rediscover their past. Interest in this

Monticello, the former home of Thomas Jefferson, embodies the intellectual legacy of the man who invested 40 years of his life in its design and construction.



once-niche market has heightened over the last two decades, both on the consumer side and the producer side. Not every community has successfully mined its heritage resources, though, nor does every place have something marketable. Ultimately, economics plays a big role in determining what parts of a community's heritage get preserved and what parts are lost to the ages.

The Way to Preservation

"The issue is whether or not you look at the decision over a long enough period of time," explains Elaine Carmichael, a Wisconsin-based tourism development consultant who helped West Virginia plan its National Coal Heritage Area. She says studies have shown how historic preservation delivers financial rewards in the long run. But developers looking for short-term rewards may not be interested in such projects.

It often takes a wealthy individual's intervention to preserve a historic property, says Amy Webb, director of heritage tourism at the National Trust. When a property comes on the market, an affluent person has the financial resources to take advantage of the opportunity, whereas a private or nonprofit entity would probably have to raise money to do it, and that can take time.

This is how the collection of presidential residences in central Virginia was preserved for future generations and heritage tourists. Monticello, Montpelier, and Ash Lawn-Highland were saved from extinction by people with money and an appreciation of history, then turned over to nonprofit groups that serve as caretakers.

Uriah Levy was one of America's earliest historic preservationists, believing that the houses of great men should be preserved as "monuments to their glory." The naval officer and real estate entrepreneur purchased Monticello in 1836 from a local druggist, who was mired in debt and unable to make minimal repairs to a house that was already deteriorating

when he bought it from Thomas Jefferson's family a few years earlier. Levy immediately began restoring Monticello's interior, repairing the exterior, and reclaiming the gardens that had been cut down by the previous owner. Eventually, he opened the home to others who admired Jefferson as much as he did.

His nephew, Jefferson Monroe Levy, saved Monticello for a second time after it was seized by the Confederacy during the Civil War and tied up in legal disputes following Uriah's death in 1862. He gained control of the home in 1879 and poured more money into its restoration from his earnings as a lawyer, investor, and U.S. congressman. He, too, allowed visitors to tour the house and grounds until he sold it in 1923.

The Thomas Jefferson Foundation purchased Monticello after the Levy family's offer to sell the home to the federal government became mired in congressional debate during World War I. The group immediately opened the home to the public and attracted 20,000 visitors, each paying a 50-cent admission. It used this income, as well as gift shop sales and fund-raising, to pay off the money it borrowed to buy Monticello and to stabilize the property over the next 20 years.

The foundation's mission has evolved from preserving Monticello as a shrine of Jeffersonian ideals to expanding into other activities. "The transition was evolutionary," notes Daniel Jordan, the foundation's president. "If you have a great resource, why not make it a center for scholarship and outreach?" The goal now is "to save and to share."

Today, the foundation operates a center for Jeffersonian research, whose scholars-in-residence have published 25 books and organized more than 20 conferences worldwide. It also runs a center for historic plants that propagates heirloom varieties and distributes them to individuals and institutions. The centers have roots in Jefferson's dedication to scholarship and horticulture.

Packaging History in the Fifth District

Heritage tourism isn't limited to the four walls of a historic home or county museum. It comes in various packages, generally falling under one of three categories: natural (landscapes, native plants, and animals); cultural (festivals, crafts); and built (monuments, industrial sites). Here are some examples in the Fifth District:

Natural

- **Catawba Indian Reservation:** A 1.5-mile trail with interpretive signs shows how the Catawba used to live on this 714-acre reservation near Rock Hill, S.C.
- **Natural Bridge:** Owned by Thomas Jefferson at one point, this formation has attracted visitors to southwest Virginia since the 1800s.

Cultural

- **Hanover Tomato Festival:** Held annually in Hanover County, Va., this event celebrates the popularity of its native fruit with music, cooking contests, and appearances by winners of the Little Miss Tomato and Tiny Miss Tomato pageants.
- **Tamarack:** Since 1996, millions of people have visited this facility in Beckley, W.Va. to sample fine art, crafts, and cuisine native to the Mountain State. Visitors can watch six resident artisans daily in observation studios.

Built

- **Biltmore Estate:** Billed as America's largest private home, the opulent residence and grounds of George Vanderbilt in Asheville, N.C., offers a glimpse into the lifestyles of the rich and famous during the Gilded Age.
- **U.S.S. Constellation:** This National Historic Landmark, launched in 1854, was the last all-sail vessel built for the U.S. Navy. It has hosted visitors to Baltimore's Inner Harbor since 1955.

— CHARLES GERENA

The Past as a Source of Pleasure and Profit

Tourism has been around for a long time. The Romans traveled to see the pyramids of Egypt, while young Englishmen went on “grand tours” of Europe during the 18th century, often accompanied by a tutor.

“Tourism was considered the domain of the elite and the wealthy,” says Dallen Timothy, an associate professor of community resources and development at Arizona State University. He co-wrote a book on heritage tourism and edits an academic journal on the subject.

As per-capita income rose during the 20th century, the average person had more resources and leisure time for tourism. Advances in transportation also made travel easier and less expensive for the masses.

At the same time, the move to a more services-based economy left many Americans yearning to learn more about the way life used to be. “The more modernized society becomes, the more people are going to appreciate heritage tourism. [It’s] all about nostalgia,” notes Timothy.

States like Virginia are rich in colonial and Civil War history, so it’s

not surprising that Charlottesville, Williamsburg, and other cities in the Old Dominion have been involved in heritage tourism for a while. But it’s only since the 1990s that this market has been broadly recognized.

One reason is the need for new avenues of economic activity in rural areas. The decline in agriculture and manufacturing has idled labor and other resources. Also, as the economy has become less goods-oriented, communities have been pursuing service niches like tourism.

Urbanized areas have been turning to heritage tourism for similar reasons.

Matewan Turns to Tumultuous Mining History for Tourism

All around Matewan, W.Va., are reminders of its place in labor history. The exterior of the old post office still has bullet holes from the May 19, 1920, gunfight involving the town’s chief of police, the mayor, local miners, and the security guards hired to evict unionized workers from company-owned homes.

Interest in this violent episode has brought some heritage tourists to Matewan. But the town’s isolated location in southern West Virginia and lack of amenities mean that it faces steep hurdles in trying to become the next Colonial Williamsburg.

John Sayles’ 1987 movie, “Matewan,” raised awareness of the town’s story, says Christy Bailey. She manages the National Coal Heritage Area, one of 27 regions of historic significance designated by U.S. Congress. Tourists who came to Matewan shortly after the film’s release expected the quintessential coal mining community they saw on the big screen. In reality, Matewan looked like any other small town of the 1980s, which is why the film was shot in neighboring Thurmond.

Massey Energy joined with local business owners and residents to form the Matewan Development Center to preserve more of the town’s history for tourists. The organization marshaled well over \$1 million in state and federal funding to restore nine buildings and helped the town earn National Historic Landmark status in 1997. It also stages an annual reenactment of the historic gun battle, as well as a Hatfield-McCoy Reunion Festival to commemorate the notorious family feud that took place in and around Matewan.

Bailey says Matewan has done a good job of preserving its historic resources but needs help in interpreting them for the public. “You see the town, but

you don’t know what it means,” she argues. A replica of the town’s former train depot houses a visitor’s center where people can sign up for a guided tour or view exhibits, but visitors are mostly on their own when the center is closed.

And there is little else to do, other than rent an all-terrain vehicle and ride the Hatfield-McCoy Trail System. “This is the coalfields, so you’re not going to find opera here,” says Cleeta Mullins, executive director of the Coalfield Convention and Visitors Bureau.

While Matewan has a compelling story to tell, there are limitations on the size of the tourism sector that can be built around it. The town has little infrastructure to support throngs of visitors. The closest lodging options are a six-room bed and breakfast and a Super 8 motel about eight miles away. Additional accommodations and a regional airport are available less than 15 miles northwest in Williamson, but the roads leading there are narrow, curvy mountain passes that are difficult for tour buses or recreational vehicles to negotiate.

Also, Matewan is isolated from heritage sites such as the Beckley exhibition mine, both from a geographic and marketing standpoint. This makes it harder for tourists to justify a separate trip, putting the onus on town officials to offer quality historic attractions and effectively market them. “People will go off the beaten path if there is something they want to see,” notes Bailey.

For now, five more buildings await restoration. The money and business support for heritage tourism isn’t there anymore, says Johnny Fullen, mayor of Matewan from 1984 to 1998. The population has shrunk, businesses have closed, and the town barely has the resources to keep police officers on the streets. — CHARLES GERENA



Downtowns that aren't the economic hubs they once were are being rediscovered for their historic theaters, while old manufacturing facilities are being redeveloped to give tourists a glimpse into the nation's industrial past. For example, Bethlehem Steel's shuttered plant in Pennsylvania is being turned into a museum of industrial history.

Finally, the tourism industry started identifying culture and heritage as a distinct submarket. Initiatives like the National Park Service's National Heritage Areas and the National Trust's program laid the groundwork on the federal level in the 1980s.

"There are two ways of making money in tourism — get more visitors to come, and get the visitors who come to spend more money and stay longer," says Webb of the National Trust. Tourism officials realized that, at some point, bringing in additional visitors begins to erode a community's quality of life. So, "the idea of looking at high-value travelers had an awful lot of appeal."

According to a 2003 report by the Travel Industry Association of America (TIA), travelers who participate in heritage, cultural, arts, or historical activities or events spend more money per trip on average — \$623 vs. \$457 for other travelers. And their trips last longer — 4.6 nights vs. 3.4 nights. Part of the reason is that this category of tourists tends to be wealthier, with a median household income of \$55,600 in 2002 compared to \$42,409 for the nation as a whole.

At the same time, baby boomers are getting older, and tourism experts believe that older people have a

greater interest in their roots. "As people age, they become more nostalgic," says Arizona State's Timothy. The TIA's report confirmed this assessment, finding that baby boomer households comprised 41 percent of heritage tourism-related trips in 2002.

The report also found that college-educated households accounted for 58 percent of heritage and culture-related trips (by comparison, about 24 percent of people older than 25 have a college degree). Generally, people who are knowledgeable about history are more likely to get something out of heritage tourism, plus education influences a person's level of affluence and travel.

These trends have converged to make heritage tourism a lucrative part of the travel and tourism industry. Nationwide, 217 million person-trips were taken for heritage and cultural purposes in 2002, or one in five of all domestic person-trips taken that year. (A person-trip equals one individual traveling 50 miles or more away from home, one way.)

The South Atlantic region, which includes the Fifth District and three other states, is a popular destination for heritage tourism, receiving about 26 percent of historic and cultural trips in 2002. Among the top 10 states for heritage tourism were Virginia (number six) and North Carolina (number nine). (The District of Columbia did not rank in the top 10, despite its wealth of historical and cultural attractions.)

Where it has succeeded, heritage tourism has brought new economic activity to communities. Jobs in hospitality and tourism tend to offer

lower wages than other employment sectors, but they provide a secondary source of income for rural residents like farmers, says tourism consultant Elaine Carmichael. They also provide entry-level jobs for young people.

Intangible Preservation

Preserving the less tangible aspects of a community's history is just as important as preserving physical sites like Monticello, but it can be even more difficult to accomplish. "If you preserve a building, you can solicit donations to protect it or charge admission," notes Robert Healy, an economist at Duke University who has studied tourism development. "But what if heritage is embodied in what a person knows how to do?"

Healy believes the answer is to convert the intangible aspects of heritage into things with economic value. For example, decoys that used to be carved for hunters of waterfowl along the Eastern Shore of Maryland are sold and exhibited as art. In the small town of Cherokee, N.C., an outdoor drama called "Unto These Hills" recounts the triumphs and tragedies of the Eastern Band of Cherokee, who have lived in the mountains of North Carolina for hundreds of years.

Besides preserving its heritage, a community has to give tourists something that feels real and relevant. "The consumer expects [authenticity] now and is more demanding," says Randy Cohen, vice president of research and information at Americans for the Arts. "As Americans travel around the country, we want to learn about our history and understand where we came from, the good and the bad." **RF**

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License to Bill

LICENSING OCCUPATIONS: ENSURING QUALITY OR RESTRICTING COMPETITION?

BY MORRIS M. KLEINER

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REVIEWED BY BETTY JOYCE NASH

Who knew some states require a license to raise frogs? Boxers, auctioneers, and hair braiders along with doctors, lawyers, and dentists, of course, all need licenses. So do wrestlers. California licenses 178 occupations, while Kansas regulates only 47. Most Fifth District states fall somewhere in between: from South Carolina, which licenses 55 occupations, to Maryland, which licenses 89.

Morris M. Kleiner, a labor economist at the University of Minnesota, has spent much of his career studying licensing. In his new book *Licensing Occupations: Ensuring Quality or Restricting Competition?*, he covers a lot of ground, from the earliest codified laws, the Babylonian Code of Hammurabi, to present trends.

Today, licensing is one of the fastest-growing labor market institutions in the United States. It hasn't exactly resulted in what consumers might expect. Economists have found that occupational licensing increases prices in most regulated services by driving up wages from 4 percent to 12 percent. Meanwhile, it's unclear whether quality improves enough so that consumers are better off.

In an effort to provide a full account of licensing's costs and benefits, Kleiner has gathered history and research, adding new analysis, tables, and figures that document and update licensing issues. He discusses at length the economic theory that underpins licensing and includes state trends as well as how employment rules abroad affect the labor market and wages in the European Union. The ultimate question is whether the public is better off when occupations are regulated or whether consumers just end up paying more without much benefit.

More Licensing but Less Research

Although the number of people in licensed occupations has grown to

about 20 percent of the work force from some 4.5 percent in the 1950s, studies of licensing lately have been few and far between. How come?

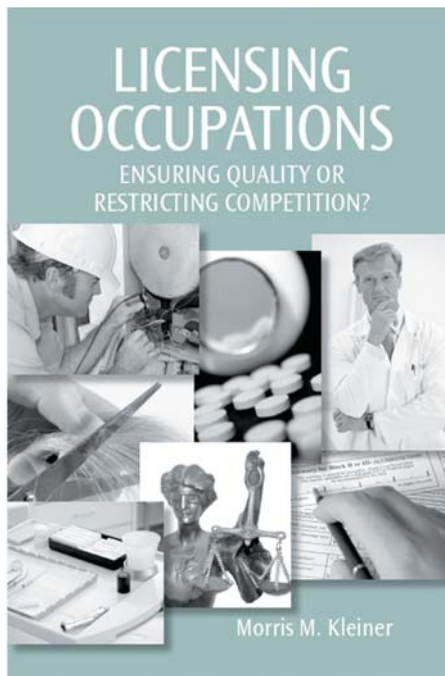
On the recent dearth of research, Kleiner has this to say: "Perhaps this lack of recent analysis is because the topic lies at the intersection of labor economics, law, and industrial organization and thus does not fit easily within one of the subfields of the social sciences as they have evolved."

Kleiner explains the nuts and bolts of licensing. Usually it's the members of a profession themselves who lobby for licensing, reasoning that it's necessary to stipulate certain training and benchmarks of quality, especially as technology has grown, requiring higher-skilled labor. But there's another, less-publicized motivation: "The expectation from economic theory is that licensing may create windfall gains or rents, and that these prospective gains in income provide an important impetus for licensure," Kleiner writes. In other words, licensing may be more beneficial to those licensed than to consumers.

For high-income professions, like dentists and lawyers, regulation results in a kind of monopoly power because entry is limited in a variety of ways. (Licensing of this sort is not to be confused with the academic training that lawyers and doctors, among others, undergo — though, in some cases, obtaining such formal training may be a licensing requirement.) Professional associations justify resulting higher prices by explaining that expert supervisors and standardized practices bring about higher quality service on average. (Standard practices can also stifle innovation, though, Kleiner points out.)

Licensing and Consumer Welfare

Most of us assume licensing provides assurances of quality and safety in the case of medical professionals or home builders or furnace fixers. But when is the last time you checked a state regulatory Web site to make sure your doctor still had a license? Perhaps we depend too much on



those pieces of paper on the wall. But most people would like for their furnace repairman to know something about boilers before hiring him. So it stands to reason that licensing would protect consumers, right?

Not necessarily. The impact of licensing on quality is unclear. Kleiner and others who have studied the issue say licensing shows “no effects on average consumer well-being relative to little or no regulation.” What is clear, though, is that increased prices are associated with highly regulated services. Even when entry restrictions raise the quality of practitioners, fewer people may use their services as the price and wait time go up. So some consumers are made worse off. The wealthy, and in the case of health care, those with generous insurance plans may be exceptions because they can afford to pay the higher prices.

As a result, licensing can raise significant distributional concerns.

Could lack of regulation contribute to catastrophe, such as disease or building collapse? “Although there are many anecdotes that document worker negligence or incompetence that have led to major serious injury or even deaths, there is little evidence that licensing would have eliminated serious tragedies in any systematic manner,” Kleiner writes.

Economists point out that licensing and restrictive rules limit supply and mobility across state lines in some professions. And everyone knows what limited supply can do: curtail consumer choices, especially if prices and wages have become unaffordable for some people, which sometimes happens with the poor and dental care, for example. For professions with higher education and earnings (dentists, lawyers, doctors, and so forth), Kleiner says, licensing “appears to have large effects through either limiting entry or restricting movement into the state. However, for other occupations such as teachers, nurses, and cosmetologists, the impact of licensing on earnings is murky, with some studies finding small effects and others finding none.”

Licensing keeps out the competition, according to the “capture theory.” If demand for a service is relatively inelastic, then higher prices will lead to higher income for the licensed professionals. That means the benefits are larger for dentists than for hairdressers, for example, because there are fewer substitutes for dentists than hairdressers.

Alternatives

Occupational licensing is often justified on the grounds that “information asymmetries” create market failures. In short, the consumer of a service may not be able to accurately judge the claims of a provider. Consider a person going to a mechanic to get his car fixed. Does the car really need all the repairs that the mechanic suggests? Or is he taking advantage of the consumer’s relative lack

of knowledge? And, assuming that all the repairs are necessary, is the mechanic capable of actually doing the job? These are tough questions for the average consumer to answer. Proponents of licensing argue that a third party is often necessary to set basic standards for providers so that consumers can be reasonably assured that they are going to get an accurate diagnosis and good service.

But, as has been discussed, licensing may be a costly way to achieve this goal. Kleiner suggests

that it might be possible, instead, to use certification, a weaker form of regulation. Certification documents that providers have met specific standards yet does not carry licensing’s restrictions on competition imposed through barriers to entry and mobility. Physicians, for example, can become “board certified” in specialties. Some 200 occupations have certification. Registration is another possibility, one that is even less restrictive. People file information and qualifications with an agency before practicing, which could also include posting a bond.

Kleiner compares licensing with certification in two states. Minnesota certifies physical therapists, respiratory care providers, and physicians’ assistants, while Wisconsin licenses those professions. Evidence showed that licensing compared to certification in those professions “provides no obvious benefits to consumers as measured by complaints to regulatory boards.”

But to change the current system, occupational licensing needs more visibility. As Kleiner points out in the book’s final paragraph, “policies passed by legislatures on occupational licensing are back-burner issues.”

Kleiner’s book is a thorough examination of a topic that’s not as exciting as interest rates or the stock market. But quieter economic trends need airing too. In simple prose that only occasionally strays into economic jargon, Kleiner makes a strong case against excessive licensing. Such rules can keep people out of occupations, raising prices and distorting labor markets. How much longer will we allow professionals, rather than consumers, decide who can provide the most competent service?

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Kleiner and others say licensing shows “no effects on average consumer well-being relative to little or no regulation.”

DISTRICT ECONOMIC OVERVIEW

BY ROBERT LACY

The Fifth District economy expanded at a moderate pace in the fourth quarter of 2005. Services and retail firms reported fairly strong gains in revenues, and manufacturers said that new orders and shipments moved higher during the quarter. Personal income and employment rose as well, and the District's unemployment rate edged lower. Although the manufacturing and real estate sectors slowed toward the end of the quarter, the District's economic expansion remained firmly intact heading into 2006.

Services Sector Growth Continues

Retailers and services businesses in the District reported relatively strong sales gains in the fourth quarter. Retail sales during the holiday season turned out better than expected, and the increasing popularity of gift cards provided considerable retail sales momentum into January 2006. Big-ticket sales in the fourth quarter were spotty at times though; automobile and light truck sales were particularly variable, surging when dealers offered price discounts, only to tail off when incentive programs ended.

In contrast to the strength of

The Fifth District's economic expansion remained fully intact heading into 2006.

activity in most services sectors, residential real estate activity slowed in the fourth quarter. Real estate agents tell us that homes for sale tended to stay on the market longer and that sales slumped in many areas. Home prices, however, continued to rise at a steep pace in much of the region. According to HUD's Office of Federal Housing Enterprise Oversight, home prices in the District of Columbia, Maryland, and Virginia were 20 percent to 22 percent higher than a year earlier.

Manufacturing Output Rises

District manufacturers said shipments, new orders, and capacity utilization grew at a solid pace in October and November. December activity, however, was somewhat sluggish. Electronics manufacturers and producers of rubber and plastics products tended to report the best gains during the quarter. "We are still very busy; new orders

and backlog are up," according to a Fifth District plastics manufacturer in October. Declining textile production contributed to the slower manufacturing environment in December — a North Carolina textile manufacturer cautioned "domestic manufacturing is still shaky at best" and expected a "flood" of Chinese imports to present significant challenges for U.S. manufacturers in 2006.

The District's manufacturing sector received a boost in the fourth quarter with the opening of Dell's computer manufacturing facility in Winston-Salem, N.C., in October. The 750,000 square-foot facility is the company's largest in the United States. MeadWestvaco's announcement that it would relocate its headquarters from Stamford, Conn., to Richmond, Va., creating 400 executive and administrative jobs in the area, was also welcome news. MeadWestvaco makes packaging, coated and specialty papers, and consumer and office products.

Labor Markets Healthy

Fifth District payroll employment in the fourth quarter was 1.7 percent higher than a year earlier, a bit stronger than the 1.4 percent growth rate nationwide. Across District states, employment gains tended to be centered in professional and business services and in construction industries, contrasted by a general decline in manufacturing employment.

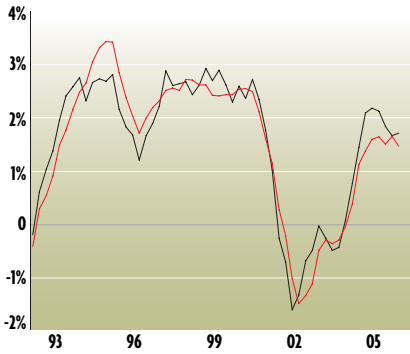
The District's unemployment rate edged down to 4.8 percent in the fourth quarter. Among District states, Virginia and Maryland continued to record the lowest unemployment rates, in part because of the vibrant labor market in the Washington, D.C., metropolitan area. The unemployment rate in that area dropped to 3.1 percent, the lowest level in four years.

Economic Indicators

	4th Qtr. 2005	4th Qtr. 2004	Percent Change (Year Ago)
Nonfarm Employment (000)			
Fifth District	13,513	13,289	1.7
U.S.	134,161	132,244	1.4
Real Personal Income (\$bil)			
Fifth District	897.9	879.5	2.1
U.S.	9,318.2	9,163.6	1.7
Building Permits (000)			
Fifth District	56.5	53.4	5.9
U.S.	480.0	471.7	1.8
Unemployment Rate (%)			
Fifth District	4.8%	4.9%	
U.S.	5.0%	5.4%	

Nonfarm Employment

Change From Prior Year
First Quarter 1992 - Fourth Quarter 2005



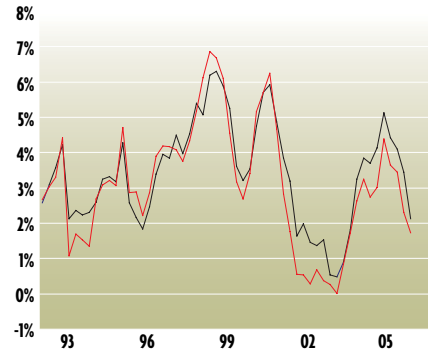
Unemployment Rate

First Quarter 1992 - Fourth Quarter 2005



Real Personal Income

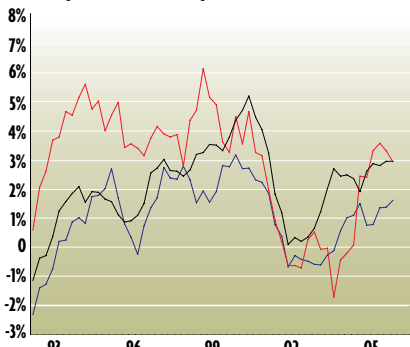
Change From Prior Year
First Quarter 1992 - Fourth Quarter 2005



— Fifth District — United States

Nonfarm Employment Metropolitan Areas

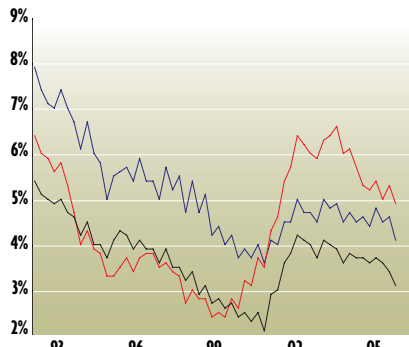
Change From Prior Year
First Quarter 1992 - Fourth Quarter 2005



— Charlotte — Baltimore — Washington

Unemployment Rate Metropolitan Areas

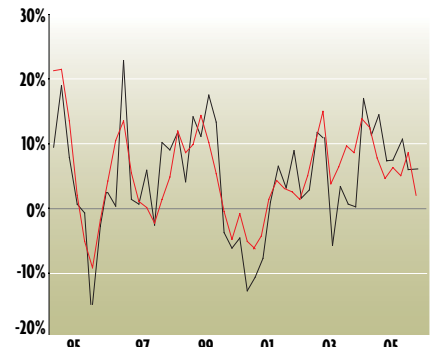
First Quarter 1992 - Fourth Quarter 2005



— Charlotte — Baltimore — Washington

Building Permits

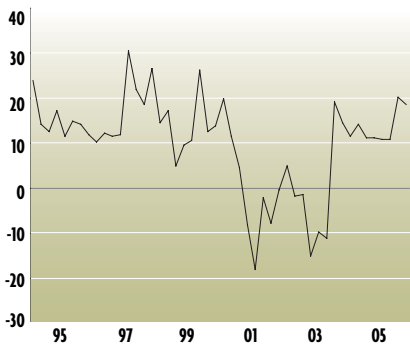
Change From Prior Year
First Quarter 1994 - Fourth Quarter 2005



— Fifth District — United States

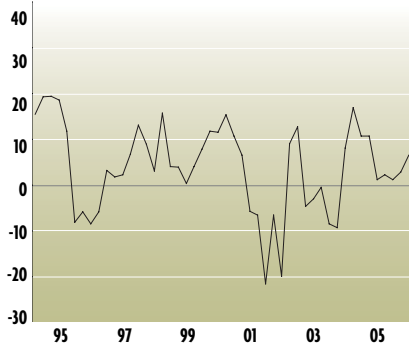
FRB—Richmond Services Revenues Index

First Quarter 1994 - Fourth Quarter 2005



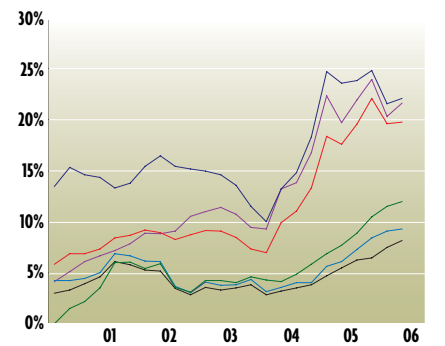
FRB—Richmond Manufacturing Composite Index

First Quarter 1994 - Fourth Quarter 2005



House Prices

Change From Prior Year
First Quarter 2000 - Fourth Quarter 2005



NOTES:

1) FRB-Richmond survey indexes are diffusion indexes representing the percentage of responding firms reporting increase minus the percentage reporting decrease. The manufacturing composite index is a weighted average of the shipments, new orders, and employment indexes.
2) Metropolitan area data, building permits, and house prices are not seasonally adjusted (nsa); all other series are seasonally adjusted.

SOURCES:

Income: Bureau of Economic Analysis/Haver Analytics
Unemployment rate: LAUS Program, Bureau of Labor Statistics, U.S. Department of Labor, <http://stats.bls.gov>.
Employment: CES Survey, Bureau of Labor Statistics, U.S. Department of Labor, <http://stats.bls.gov>.
Building permits: U.S. Census Bureau, <http://www.census.gov>.
House prices: Office of Federal Housing Enterprise Oversight, <http://www.ofheo.gov>.

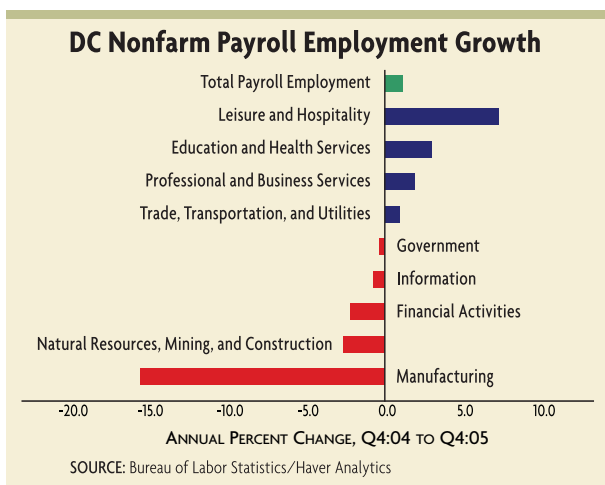
STATE ECONOMIC CONDITIONS

BY ANDREA HOLMES

District of Columbia

As 2005 drew to a close, District of Columbia business and household financial conditions showed solid expansion. Furthermore, real estate activity remained steadfast, despite continued price acceleration amid evidence of moderation nationally.

Businesses in the District of Columbia continued to expand payrolls in the fourth quarter. Job numbers rose 3.1 percent, reversing two quarters of job losses and marking the strongest quarterly job growth since late 2001. For all of 2005, the leisure and hospitality sector led payroll growth, with total employment rising 7.3 percent. The



increased work force proved advantageous with the National Cherry Blossom Festival in early 2006, as hotel occupancy in the area is typically boosted by 12 percent.

Other recent economic indicators also pointed to an upturn at businesses. Venture capital inflows into District of Columbia firms totaled \$13 million in the fourth quarter, up from a relatively shallow inflow of \$2 million a quarter earlier.

Household financial conditions also brightened. The District of Columbia's unemployment rate fell 0.3 percentage point to 6.0 percent in the fourth quarter — the lowest rate since early 2001. Adding to the positive tone, the number of unemployment benefits claimants decreased in the fourth quarter, reversing a slight uptick the quarter before. And personal income advanced 0.9 percent at year's end, bringing total growth for 2005 to 2.8 percent, the second-strongest annual growth rate districtwide.

Turning to the District of Columbia's real estate market, home prices advanced briskly in the fourth quarter, with prices rising 22 percent over a year earlier. Sharply higher prices, however, appear to have not yet deterred buyers. More than 12,500 homes were sold during the fourth

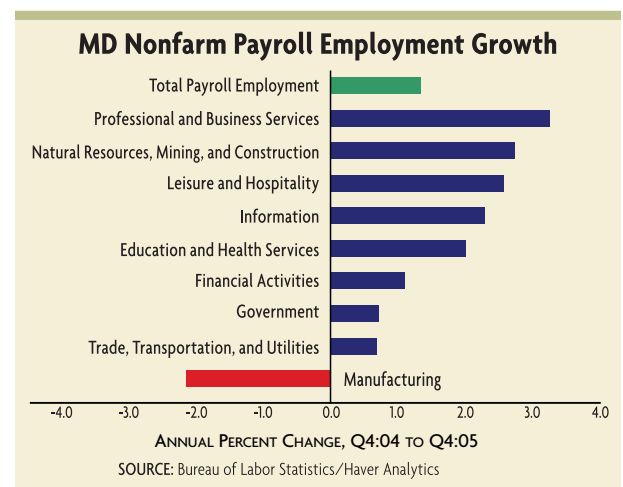
quarter, roughly 2,000 more than a quarter earlier. The continued strength of the housing market was apparent in readings on future construction as well, as fourth-quarter permit applications outnumbered third-quarter levels.

News from the broadly defined Washington, D.C., MSA was even more upbeat than in the District of Columbia proper. Fourth-quarter payrolls expanded 4.4 percent, and the unemployment rate dropped 0.3 percentage point to 3.1 percent. Real estate markets beyond the city borders were less robust by comparison, however, with fourth-quarter new construction applications 13 percent below year-earlier levels.

Maryland

Maryland's economic prospects continued to brighten in late 2005. Businesses in the state boosted payrolls 1.0 percent in the fourth quarter, marking three straight years of positive job growth. For the year as a whole, employment growth came almost entirely from service-providing establishments. The exception to this rule was the construction sector, where steady demand for new housing in 2005 fueled job growth.

Adding to the upbeat tone at businesses, venture capitalists infused \$155 million into Maryland in the fourth quarter, more than matching the third-quarter inflow and registering the largest net gain in exactly one year. Significantly, seed stage companies represented 40 percent of the businesses receiving funding, suggesting a firming in investor confidence.



Financial conditions at Maryland households also brightened. In line with stronger payroll growth, the jobless rate fell 0.2 percentage point to 4.0 percent, nearly a full percentage point below the national rate. Additionally,

initial jobless claims were 4.0 percent lower than the previous year, marking two straight years of improvement in what is another indication of labor market improvement. Fourth-quarter personal income measures were also generally on track — Maryland incomes rose 0.6 percent in the last quarter of the year.

By most measures, Maryland residential real estate activity decelerated in late 2005. Mirroring activity in most other District states, fourth-quarter existing homes sales declined compared to both the previous quarter and a year earlier. New building permit authorizations also dwindled in late 2005, coming in 9.7 percent below year-earlier levels. The pace of quarterly home price appreciation in Maryland, while still historically high at 19.2 percent, also eased somewhat in the fourth quarter, influenced perhaps by diminished demand.

The Baltimore metro area economy generally matched activity recorded statewide. Payrolls rose by a solid 5.7 percent in the fourth quarter, and the jobless rate plummeted 0.5 percentage point to 4.1 percent. New construction activity in Baltimore, however, outperformed the state as a whole — building permits jumped at a 4.7 percent annual rate in the fourth quarter.

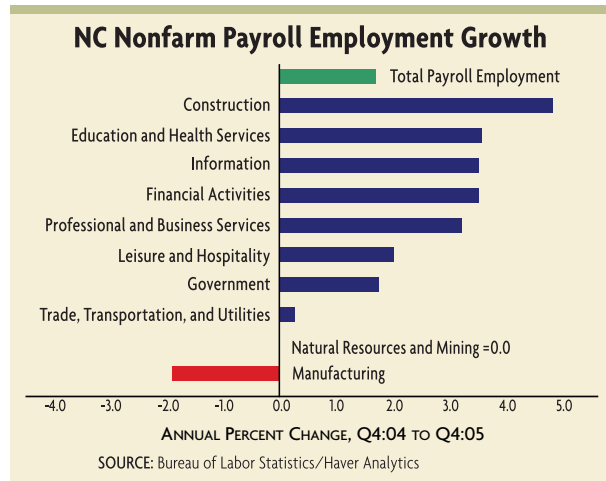


North Carolina

Heading into 2006, economic momentum was more in evidence in North Carolina than a year earlier. Businesses in the state continued to boost payrolls in the fourth quarter, causing nonfarm employment to increase 2.0 percent. Looking back over the year, job numbers expanded the most at construction firms and education and health services establishments. By comparison, weakness remained firmly entrenched in the goods-producing sectors — natural resources and mining payrolls were flat for the year, and manufacturers trimmed jobs by 1.9 percent.

Year-end numbers on venture capital investment were also more encouraging. Fourth-quarter inflows totaled \$91 million, with the majority of the capital slotted for the expansion of existing firms. Although the fourth-quarter reading marked the smallest quarterly injection in all of 2005, investment for the year totaled \$508 million, the largest annual inflow since 2002.

Outside of business activity, household financial conditions remained steady. With the fourth quarter's solid payroll employment gain, the unemployment rate inched lower to 5.2 percent, even though more than 22,000 new persons entered the labor force over the same time period. The solid pace of job growth aided household finances as personal income expanded at a 0.9 percent annual rate in the fourth quarter. On a less positive note, however, the number of state residents applying for unemployment benefits for the first time rose by 14.6 percent in the fourth quarter, following two quarters of improvement.



Indicators of North Carolina's housing markets sent mixed signals in the fourth quarter. Existing home sales declined 21.6 percent in the last quarter of the year, suggesting a considerable loss of market momentum. Indicators of future construction also cooled somewhat — new building permit authorizations edged lower in the fourth quarter, following a shallower decline a quarter earlier. So far, the slight downshifting in demand has yet to filter through to home prices, however. According to the latest data, the average home price moved 10.4 percent higher in the fourth quarter — the largest quarterly appreciation rate in the history of the series.

North Carolina's metro areas also saw steady job growth in late 2005. In the fourth quarter, Charlotte and Raleigh-Durham posted payroll employment gains of 8.3 percent and 6.7 percent, respectively. Likewise, both metros saw a decline in their jobless rates. In real estate, new construction activity in Charlotte and Raleigh-Durham mirrored that of the state — both posted declines in new building permit authorizations from the third quarter.



South Carolina

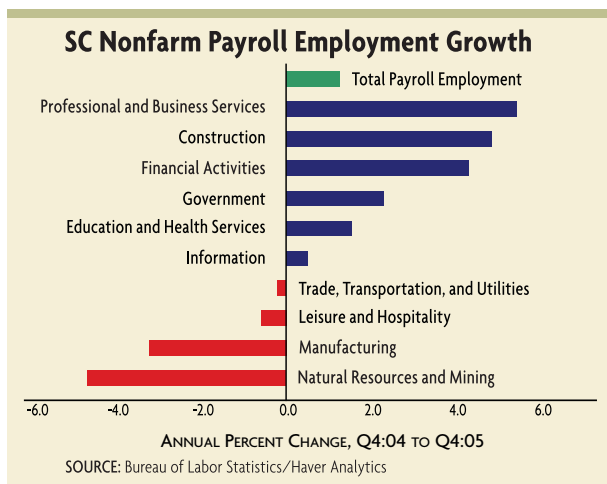
Although much improved from a year earlier, economic activity in South Carolina advanced at a slower pace in 2005 than in other District jurisdictions. In the fourth quarter, South Carolina added 13,667 jobs, nearly three times the third-quarter gain. As shown in the chart, the professional and business services sector displayed the most strength in 2005 — payrolls expanded by 5.4 percent. In contrast, weakness persisted in the goods-producing sectors, with manufacturing employment and natural resources and mining payrolls contracting 3.2 percent and 4.7 percent, respectively.

Business activity was a bit more subdued at less established firms as well. For instance, although venture capitalists injected \$1.2 million dollars into a startup semiconductor firm in the fourth quarter, total 2005 venture capital funding amounted to only \$5 million, the smallest annual inflow in over a decade.

Among South Carolina households, the latest data indicated continued optimism regarding the strength of the labor market, as the number of job seekers increased by nearly 18,700 in the fourth quarter. This sizable increase in the labor force, however, pushed the unemployment rate up 0.4 percentage point to 7.2 percent, the highest jobless rate in more than a decade. On a brighter note though, fourth-quarter personal income growth was the strongest districtwide, posting a 1.1 percent gain from a quarter earlier.

As in other Fifth District states, the median price for a South Carolina home continued to move higher in 2005, rising by 8.1 percent in the fourth quarter alone. Evidence suggests that demand continues to push prices higher — fourth-quarter existing home sales were 15.6 percent above the year-ago level, marking the strongest growth rate districtwide. Prospects for new construction also remained on track — new building permits filed in the fourth quarter were significantly higher over the year.

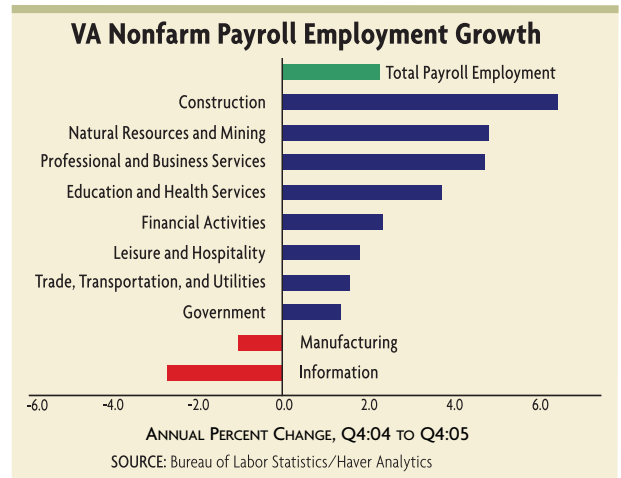
Economic activity in South Carolina's metro areas mirrored that of the state. Payroll employment expanded at



a 10.2 percent rate in Columbia while Charleston experienced a smaller pickup of 3.3 percent. Also, both metros recorded similarly strong gains in their labor forces, resulting in somewhat higher jobless rates in the fourth quarter. New construction also slowed in both metropolises in the fourth quarter, but as seen statewide, remained well above year-ago levels.



Most barometers of Virginia's economic health were positive in late 2005, with the state posting the lowest fourth-quarter unemployment rate districtwide. Payrolls increased by 2.0 percent, or 18,600 jobs, in the



last quarter of the year, marking over two consecutive years of positive job growth. Among major industries, construction establishments created the most new jobs in 2005 as demand for new housing remained generally robust in Virginia's major metro areas in the early part of the year.

Backed by a stable labor market, household conditions also remained on course in the fourth quarter. The jobless rate dropped 0.2 percentage point to 3.4 percent, despite an inflow of 12,500 job seekers into the labor market. And although the number of first-time claimants for unemployment insurance increased by 7.1 percent, the level remained below that of a year ago. Personal income also continued to expand in the fourth quarter. Compared to a year ago, incomes stood 2.9 percent higher, the strongest annual increase recorded among District states.

Business activity also firmed across the state, despite venture capital investment into Virginia businesses edging lower in the fourth quarter. Capital inflows totaled \$56 million, roughly one-third less than the amount recorded in the third quarter. On the upside, however, annual investment totaled \$402 million, marking the largest annual infusion in three years.

Economic activity in Virginia's metro areas also continued to look up, with businesses in the Norfolk and Richmond metro areas boosting payrolls by 2.0 percent and 5.8 percent, respectively. In line with strengthening labor markets, the jobless rate also posted healthy declines in both areas.

On the real estate front, the pace of home price appreciation in Virginia decelerated in the later part of the year, yet still remained historically high — the state recorded a 15.5 percent jump in the fourth quarter alone. The moderation in prices is likely in response to the recent slowdown in demand growth, as illustrated by the 11.3 percent decline in fourth-quarter home sales. New

construction also advanced at a more moderate pace – the number of building permits issued in the fourth quarter were below those recorded a quarter earlier.



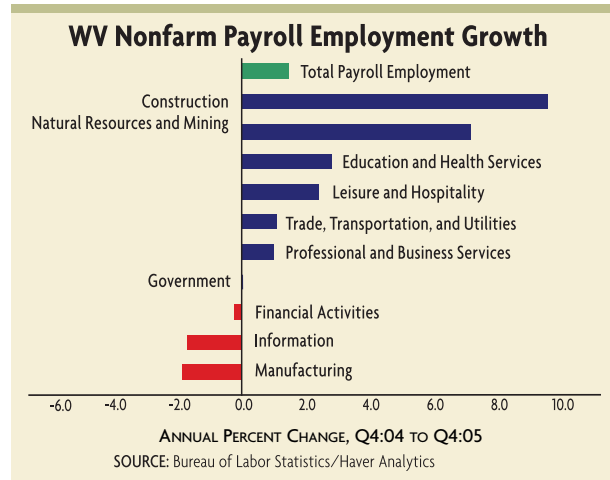
West Virginia

West Virginia's economy expanded strongly through the end of 2005, with the most recent data showing a steady improvement in both household and business financial conditions. Real estate markets made solid headway over the year, though activity moderated somewhat at the end of the year.

Fourth-quarter payroll employment advanced 1.8 percent in West Virginia, more than double the job growth in the third quarter. Also positive, employment growth for all of 2005 was equally robust – the state added jobs at a slightly quicker pace than in 2004. By sector, construction and natural resources and mining payrolls posted the strongest growth in 2005. The latter was most likely due to rising coal prices, which have spurred West Virginia's mining establishments to boost production in recent years. In 2005, state coal production totaled 158.6 million tons, up 3.3 percent from a year earlier.

Other indicators of business conditions were also positive. Venture capital investment into West Virginia businesses amounted to \$1.6 million in the fourth quarter, bringing total 2005 inflows to \$10.6 million, double the capital investment recorded in 2004.

The bounceback among households, which was slower to take hold in West Virginia than in other District states, also appears to have firmed. The state's fourth-quarter jobless rate fell 0.3 percentage point to 4.9 percent, reflecting recent labor market health, and personal income rose 0.9 percent during the same period, reversing the



slight contraction recorded in the third quarter.

Economic activity was also upbeat in the Charleston metro area in late 2005. Payrolls in that area continued to climb, rising 1.2 percent in the fourth quarter. In line with the improvement in hiring activity, Charleston's jobless rate fell 0.8 percentage point to 4.2 percent, the lowest rate in the history of the data series.

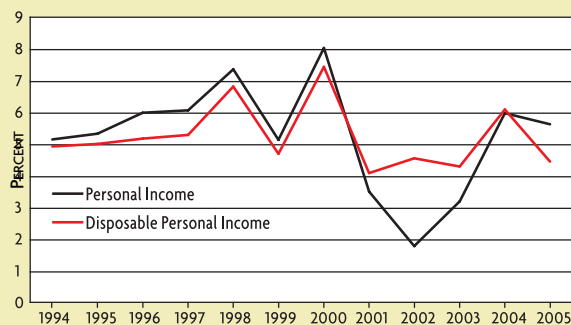
Despite the comparatively recent firming of household financials, West Virginia's real estate market has been steadily advancing for a number of years. The most recent data, however, has begun to suggest moderation. Sales of existing housing units moved 10.9 percent lower in the fourth quarter, following a smaller decline of 3.7 percent a quarter earlier. The slowdown in home sales dampened home price acceleration – the average price of a West Virginia home continued to gain value through the end of 2005, posting a fourth-quarter increase of 9.7 percent, but the pace of growth slowed for the second straight quarter.

Behind the Numbers: The Gap

Every quarter this magazine publishes changes in personal income nationwide and in the Fifth District. Personal income is a broad measure that encompasses wages and salary, dividends, income to proprietors, and rental income to landlords, among other items. As a general reading of how well the country is doing, personal income isn't bad.

But to learn how much cash Americans really have in their pockets, it's necessary to look at a different measure – disposable personal income. This measure accounts for, among other things, the tax bite on U.S. paychecks. That's why, in looking at a historical trend line, you sometimes see gaps between changes in personal income and disposable personal income. The accompanying graphic shows one such gap, which is generally attributed to tax cuts that became effective between 2001 and 2003. Even as growth in

Year-to-Year % Change in Personal Income and Disposable Personal Income



personal income declined, disposable income maintained its growth rate.

— DOUG CAMPBELL

State Data, Q4:05

	DC	MD	NC	SC	VA	WV
Nonfarm Employment (000)	685.3	2,567.1	3,937.3	1,871.9	3,700.5	751.1
Q/Q Percent Change	3.1	1.0	2.0	3.0	2.0	1.8
Y/Y Percent Change	1.1	1.4	1.7	1.2	2.3	1.5
Manufacturing Employment (000)	2.0	139.4	564.2	258.3	295.1	61.4
Q/Q Percent Change	-12.3	-2.4	-0.5	-2.8	-0.8	0.7
Y/Y Percent Change	-15.5	-2.2	-1.9	-3.2	-1.0	-1.9
Professional/Business Services Employment (000)	148.5	387.4	449.5	211.2	619.3	59.3
Q/Q Percent Change	0.6	1.9	3.8	9.4	6.2	3.7
Y/Y Percent Change	1.9	3.3	3.2	5.4	4.7	1.0
Government Employment (000)	232.4	467.0	668.5	332.2	665.1	143.7
Q/Q Percent Change	-1.9	0.7	3.8	4.0	0.2	0.1
Y/Y Percent Change	-0.4	0.7	1.8	2.3	1.4	0.0
Civilian Labor Force (000)	293.2	2,954.8	4,369.6	2,104.0	3,960.8	804.5
Q/Q Percent Change	-3.2	1.1	2.1	3.6	1.3	0.1
Y/Y Percent Change	-1.4	1.9	2.3	2.3	2.0	1.5
Unemployment Rate (%)	6.0	4.0	5.2	7.2	3.4	4.9
Q3:05	6.3	4.2	5.4	6.8	3.6	5.2
Q4:04	7.4	4.3	5.3	6.9	3.6	5.1
Personal Income (\$bil)	27.5	211.9	240.1	109.3	264.3	44.8
Q/Q Percent Change	0.9	0.6	0.9	1.1	0.9	0.9
Y/Y Percent Change	2.8	1.8	1.5	1.8	2.9	1.9
Building Permits	636	6,512	22,441	12,558	13,295	1,057
Q/Q Percent Change	14,812.2	-46.9	-42.7	-22.0	-43.0	-77.2
Y/Y Percent Change	83.3	-9.7	10.1	17.6	-2.7	-2.3
House Price Index (1980=100)	606.2	492.6	310.2	295.0	446.2	224.3
Q/Q Percent Change	24.0	19.2	10.4	8.1	15.5	9.7
Y/Y Percent Change	22.0	21.5	8.1	9.2	19.7	11.9
Sales of Existing Housing Units (000)	12.5	128.2	198.8	120.5	164.0	35.1
Q/Q Percent Change	23.8	-8.2	-21.6	-0.1	-11.3	-10.9
Y/Y Percent Change	-21.9	-11.5	13.4	15.6	-16.3	-10.9

NOTES:

Nonfarm Employment, thousands of jobs, seasonally adjusted (SA) Bureau of Labor Statistics (BLS)/Haver Analytics, Manufacturing, thousands of jobs, SA; BLS/Haver Analytics, Professional/Business Services, thousands of jobs, SA; BLS/Haver Analytics, Government, thousands of jobs, SA; BLS/Haver Analytics, Civilian Labor Force, thousands of persons, SA; BLS/Haver Analytics, Unemployment Rate, percent, SA; BLS/Haver Analytics, Personal Income, billions of chained 2000\$, Bureau of Economic Analysis/Haver Analytics, Building Permits, number of permits, NSA; U.S. Census Bureau/Haver Analytics, House Price Index, 1980=100, NSA, Office of Federal Housing Enterprise Oversight/Haver Analytics, Sales of Existing Housing Units, thousands of units, SA; National Association of Realtors®

Metropolitan Area Data, Q4:05

	Washington, DC MSA	Baltimore, MD MSA	Charlotte, NC MSA
Nonfarm Employment (000)	2,964.2	1,306.1	806.8
Q/Q Percent Change	4.4	5.7	8.3
Y/Y Percent Change	2.1	2.0	2.1
Unemployment Rate (%)	3.1	4.1	4.9
Q3:05	3.4	4.6	5.3
Q4:04	3.6	4.4	5.2
Building Permits	6,843	2,519	5,268
Q/Q Percent Change	-41.4	4.7	-44.2
Y/Y Percent Change	-13.0	-12.7	13.5
	Raleigh, NC MSA	Charleston, SC MSA	Columbia, SC MSA
Nonfarm Employment (000)	273.6	278.0	352.6
Q/Q Percent Change	6.7	3.3	10.2
Y/Y Percent Change	1.5	0.7	0.6
Unemployment Rate (%)	4.1	5.3	5.8
Q3:05	4.6	5.2	5.6
Q4:04	4.2	5.3	5.8
Building Permits	905	2,336	1,694
Q/Q Percent Change	-66.1	-36.6	-29.1
Y/Y Percent Change	0.2	13.5	2.7
	Norfolk, VA MSA	Richmond, VA MSA	Charleston, WV MSA
Nonfarm Employment (000)	771.3	624.2	149.8
Q/Q Percent Change	2.0	5.8	1.2
Y/Y Percent Change	1.8	1.8	0.4
Unemployment Rate (%)	3.8	3.4	4.2
Q3:05	4.2	3.8	5.0
Q4:04	4.0	3.6	4.5
Building Permits	2,719	2,115	75
Q/Q Percent Change	23.0	-60.4	-30.0
Y/Y Percent Change	3.7	-0.6	10.3

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The Economist as Policy Adviser

BY AARON STEELMAN

Economics has made substantial progress since Adam Smith published *The Wealth of Nations* in 1776. Our understanding of how the economy works has improved greatly, as have the tools used to analyze it.

But has this technical progress led to better policymaking? It depends on your time horizon. Economic policy, on the whole, has not been on a steady ascent. There have been significant zigs and zags along the way. The United States started off with a largely free trade program, but at times adopted protectionist measures that harmed material progress and our relations with foreign allies. Currently, the nation's trade policy is relatively liberal, though there are certainly areas where improvement could be made.

The same is true with freedom of contract. Between the end of the Civil War and the New Deal few barriers existed. During the 1930s, however, several measures were adopted that limited the ability of employers and employees to contract freely, from minimum wage laws to maximum hour statutes. Many of those policies remain on the books, though other regulations that were subsequently adopted — such as wage ceilings — have thankfully been lifted.

Monetary policy also has gone through its period of ups and downs since the founding of the Federal Reserve System in 1913. Mishandling of the money supply was arguably the principal cause of the Great Depression. During the 1950s and 1960s, under the direction of William McChesney Martin, Jr., the Fed adopted sounder policies, only to see inflation become both high and variable during the 1970s. It has been a long and arduous climb back to price stability since Paul Volcker assumed the chairmanship of the Fed in 1979 — and the fight against inflation will require continued vigilance.

These are but three examples. One could give many more. The point is: The record is mixed. In some cases, economic principles with a long pedigree — such as open trade policies improve well-being — have been abandoned. In other cases, as the economics profession has made advances — for instance, as the state of monetary economics has improved — so have policymakers. The transmission of ideas, then, from economists to the public and its political representatives is by no means perfect.

What does this portend for future economic research? First, we should not discount those examples where good economics has helped inform good policy. But we also

should not forget those examples where good economics has been willfully ignored. Policymakers, on the whole, are charged with acting in the national interest. But each policymaker has an incentive to act in his own narrow interest. Often this results in the advocacy of policies that will benefit his home district or state — even if they will be costly to the general population.

Economists should keep that in mind when they are asked to assume the role of adviser. The tools of modern economics can sometimes help reveal cases that might be viewed as exceptions to the rule. For instance, in theory there is such a thing as an “optimal tariff” which can improve a nation's welfare. However, in practice, efforts to adopt such a tariff

could lend cover to policies that are blatantly protectionist. Similarly, one can model cases where the use of eminent domain for narrow commercial purposes, such as the building of a shopping mall where housing used to stand, could be beneficial. But one ought to expect those cases to be rare. More important, one should fear that the power to seize property will be used more frequently than the model

suggests — in other words, abused.

This is not to say that economists should censor themselves. Quite the opposite. They should go wherever their research takes them.

When it comes to the implementation of public policy, though, they should take a more cautious or prudential approach. As economist James Buchanan of George Mason University argued in his 1986 Nobel Prize lecture, “Economists should cease proffering policy advice as if they were employed by a benevolent despot, and they should look to the structure within which political decisions are made.”

One way for economists to look at this is through the familiar lens of rules versus discretion. It may be possible to imagine situations where deviating from a well-considered policy rule would be welfare-enhancing, but such action would still be unwise. The goal should be to move from a system of ad hoc decisionmaking toward one in which sound economic principles are applied across a broad set of policy questions, something akin to what Buchanan and his colleagues call constitutional political economy. This might mean foregoing some marginal improvements, but it's also likely to mean fewer big mistakes. I think most people would agree that's a trade-off worth making. **RF**

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Workplace Safety

From construction to coal mining, work can be dangerous. Both market forces and government regulation play a role in keeping workplaces safe, but what is the optimal mix of private and public involvement? In the wake of recent mining accidents in West Virginia, policymakers are rethinking their approaches to protecting employees from on-the-job hazards.

The Economic Impact of Immigration

In the past decade few states have experienced an influx of immigrants, both legal and illegal, as large as North Carolina. In general, studies have shown that immigrants are good for the economy, and North Carolina's economic growth is a case in point. Still, there is growing pressure to tighten the flow of newcomers to the United States. New economic research tries to pin down the net costs and benefits of immigration.

The Rebuilding

Grundy, Va., has been flooded nine times since 1929. How to floodproof a business district that's smack-dab on a river? One approach is to literally move the town. This kind of reconstructive surgery costs a bundle, but some argue it could be an economic tonic.

Citizen Lending

Need a loan? In the Internet age, borrowers and lenders are meeting online, bypassing banks altogether.

Interview

We talk with Guillermo Calvo of the University of Maryland and the Inter-American Development Bank about monetary and international economics.

Federal Reserve

How former Federal Reserve Chairman Paul Volcker tamed inflation and changed monetary policymaking as we know it.

Research Spotlight

The yield curve — the relationship between interest rates on long-term and short-term U.S. government bonds — has been flirting with inversion. Is this as dangerous as some people believe?

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