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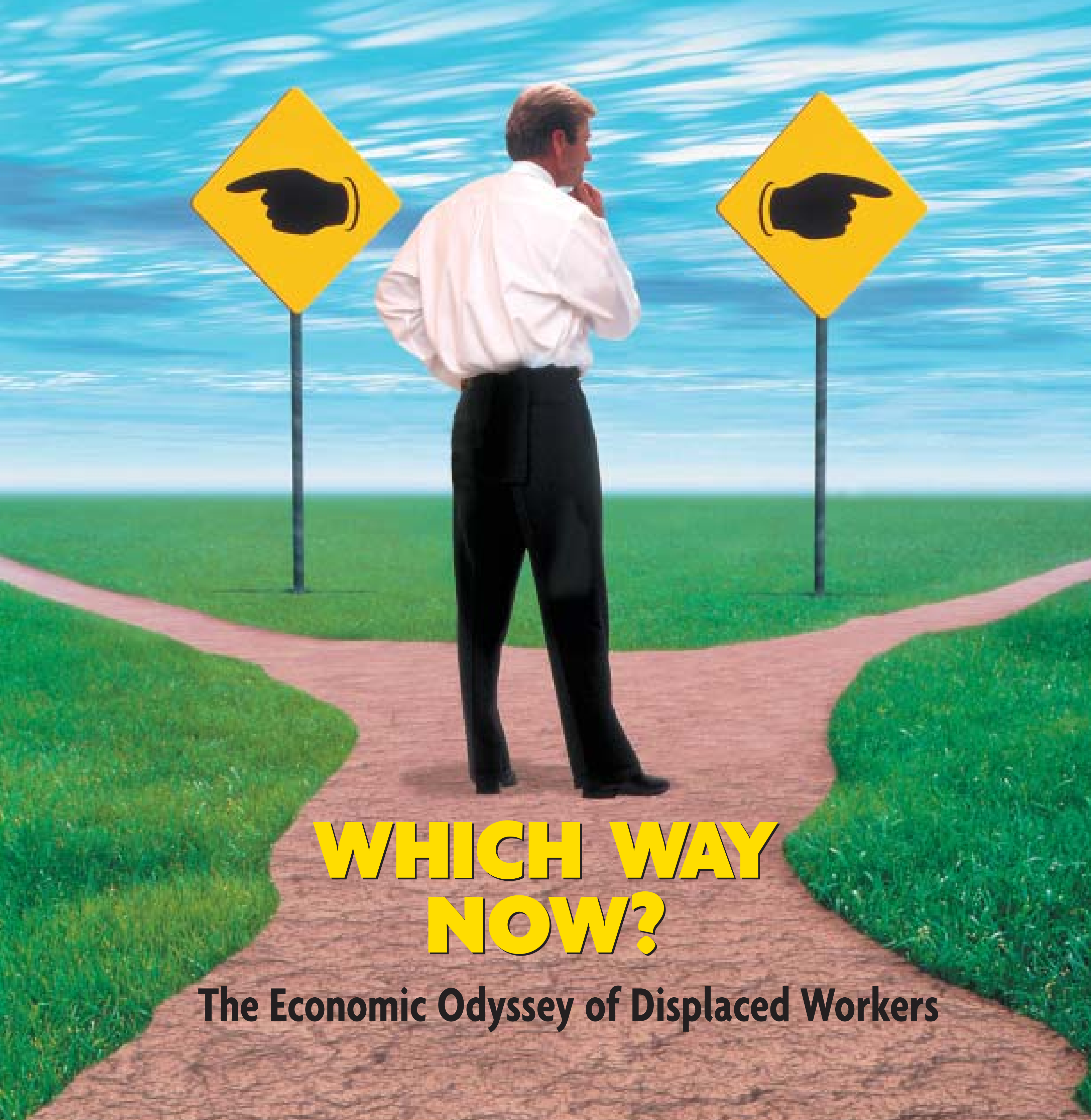
REGION FOCUS

SUMMER 2004 THE FEDERAL RESERVE BANK OF RICHMOND



WHICH WAY NOW?

The Economic Odyssey of Displaced Workers

REGION FOCUS

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COVER STORY

FEATURES

DEPARTMENTS

COVER ART: CORBIS

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of Richmond
P.O. Box 27622
Richmond, VA 23261
Phone: (804) 697-8000
Fax: (804) 697-8287
E-mail: rich.regionfocus@rich.frb.org
www.rich.frb.org/pubs/regionfocus

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Parting Shots

My first "Noteworthy" column appeared in the inaugural issue of *Region Focus*, back in the summer of 1997. It has been a great pleasure to write these columns every quarter. I'm trained as an economist, but serving as a Reserve Bank president naturally requires me to spend substantial time on administrative and managerial tasks. Writing these columns has ensured that I would spend at least some time, on a regular basis, focusing on economic issues outside the ones I encounter as a monetary policymaker. And the list of these issues is rich — from international trade to farm policy to education reform, to name just a few.

Since I will be retiring at the end of July 2004, this will be my final "Noteworthy" column, and I want to take a slightly different approach. *Region Focus*, and my columns that appear within it, address many issues with ramifications that extend well beyond the geographic region we serve. But, as its name implies, the central mission of *Region Focus* is to share information about the Fifth Federal Reserve District — Maryland, the District of Columbia, Virginia, North Carolina, South Carolina, and most of West Virginia — with our principal constituents: the people who live and work in our region. With this in mind, I thought it might be useful to reflect a bit on the merits of the Federal Reserve's regional structure.

For me, the most important word in our name — Federal Reserve System — is "Federal." It did not have to be this way. The framers of the Federal Reserve Act, or those who subsequently amended it, could have opted for a "Central Reserve System" or a "Central Bank of the United States." Such a system might have been seen as offering some benefits: Tough decisions, for example, might be made more quickly in a more centralized system.

Fortunately, the framers and their successors recognized what would be lost in a centralized structure. The United States obviously is a much more integrated society and economy now than it was in 1913, when the original Federal Reserve Act was written, or in the 1930s, when many of the most important amendments were made, but it is still a vast country made up of identifiable regions with clearly distinct cultures and economic bases. Federal Reserve monetary policy, of course, by its nature affects the entire national economy, and cannot be differentiated across individual regions of the country. It is critically important, however, that policy decisions be made with full awareness of conditions in particular regions, and the Fed's 12 regional Reserve Banks are ideally structured to provide this awareness.

The Banks gather detailed economic intelligence in the respective regions — statistical data, to be sure, but also often highly useful anecdotal, "grassroots" information from the business and community leaders on their boards of directors and advisory councils. I have made it a point to augment this knowledge with information from regular visits to smaller communities in our District, such as Aiken, S.C.; Cambridge, Md.; and Logan, W.Va., where my colleague Kemper Baker and I have conducted town meetings on local economic conditions. With the help of Ray Owens and other members of our regional economics staff, I include summaries of this information in my statements at Federal Open Market Committee meetings. Sometimes a director, or another of our business contacts, or a participant in one of our town meetings will make an especially insightful point, often in a particularly blunt or colorful manner, and I frequently pass such remarks along pretty much verbatim to the Committee. Reporting that factories in a particular industry are operating "flat out" says more than a statement in a published statistical report that "operating rates at factories in industry X are approaching capacity limits."

All this may strike some readers as trivial, but I believe that Fed policy decisions are enhanced by being made in an outside-the-Beltway atmosphere, even though the meeting room is in the heart of Washington, D.C. Conversely, I believe the public's confidence in Fed policy is reinforced by the knowledge that policymakers are in close touch with the views of — and, indeed, are neighbors of — large and small businesses and households across the country.

Let me offer my warmest thanks to all the wonderful people in our District who have helped me do my job more effectively over the years. It has been a great privilege and pleasure to work with you and serve you. I won't say I will miss you after I retire, because I look forward to staying right here with you, and hopefully crossing paths frequently with many of you, in what I like to call "God's Country."

AL BROADDUS
PRESIDENT
FEDERAL RESERVE BANK OF RICHMOND

Richmond Fed Appoints New President

Jeffrey M. Lacker has been appointed president of the Federal Reserve Bank of Richmond, effective August 1, 2004. He succeeds J. Alfred Broaddus, Jr., who in November announced his intention to retire. Lacker is currently senior vice president and director of research at the Richmond Fed.

The appointment was made by the Board of Directors of the Federal Reserve Bank of Richmond and approved by the Board of Governors of the Federal Reserve System in Washington, D.C.

Wesley S. Williams, Jr., chairman of the Federal Reserve Bank of Richmond's Board of Directors, made the announcement. "After conducting a nationwide search, I am pleased to say that Jeff Lacker, the Bank's current director of research, proved to be a natural choice to lead the Federal Reserve Bank of Richmond. Jeff is a respected economist with sound knowledge of monetary policy, the nation's banking system and the Federal Reserve's role in the payments system. Jeff has the rare combination of knowledge and Federal Reserve experience to provide the vision needed in facing the challenges of the future," Williams said.

"Additionally, he is a brilliant manager, and is uniquely attuned to the community development responsibilities of the Federal Reserve Banks and System. My colleagues on the Richmond Fed board concluded that Jeff was clearly the best possible choice to carry forward the laudable traditions of this great institution, and to serve our Fifth District communities."

Williams also expressed appreciation to Al Broaddus for his 34 years of service to the Federal Reserve Bank of Richmond. Broaddus turns 65 in July, the age at which Fed presidents usually retire.

"It has been a great pleasure working with Al Broaddus," Lacker said. "He leaves behind an outstanding legacy of contributions to monetary policy, the Richmond Fed, and the Federal Reserve System. I am honored to have been chosen for this post, and I look forward to working with community, business, and banking leaders around the District." Lacker is only the seventh person to lead the Richmond Fed in its 90-year history.

"I have known and worked closely with Jeff for many years," Broaddus said. "He is a strong and collegial leader and an excellent economist. He is a superb choice to lead our Bank on the next stage of its long journey of distinguished public service."

Lacker, 48, received a Ph.D. in economics from the University of Wisconsin, and was on the faculty of Purdue University's Krannert School of Management from 1984 to 1989. He is the author or co-author of numerous articles in professional journals, including the *Journal of Political Economy*, the *Journal of Monetary Economics*, and the *Journal of Macroeconomics*. Lacker joined the Richmond Fed in 1989 as an economist, and was appointed director of research and senior vice president in May 1999. **RF**

Chief Executive Officers of the Richmond Fed

George J. Seay
Governor
October 5, 1914 - February 29, 1936

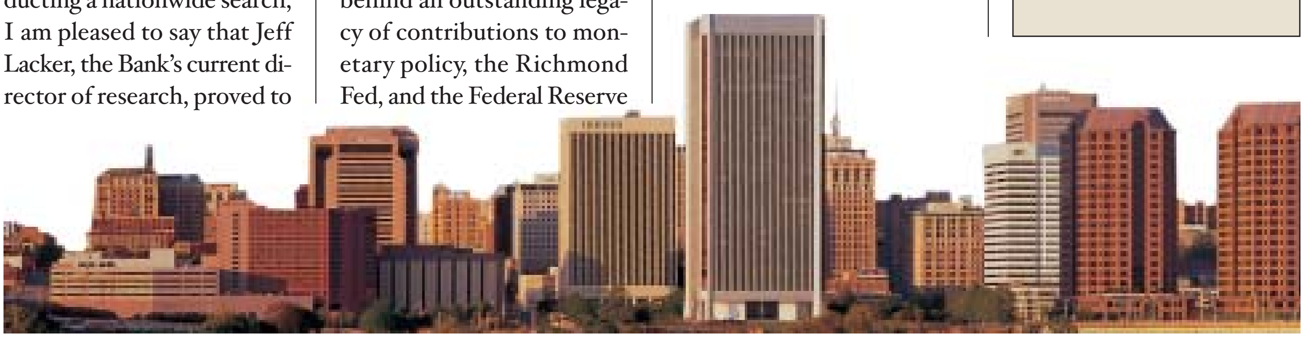
Hugh Leach
President
March 12, 1936 - February 28, 1961

Edward A. Wayne
President
March 1, 1961 - March 31, 1968

Aubrey N. Heflin
President
April 1, 1968 - January 16, 1973

Robert P. Black
President
August 6, 1973 - December 31, 1992

J. Alfred Broaddus, Jr.
President
January 1, 1993 - July 31, 2004



The Fed & the ECB

Their regional structures are strikingly similar, but important differences remain

BY JOHN A. WEINBERG

After a long period of feudal rule by the shoguns, imperial rule returned to Japan in 1863. The emperor sought to outfit the nation with the institutions of a modern state. His attempt to modernize the military is what brought Tom Cruise's character to the country in the recent film, *The Last Samurai*. A less cinematic part of the emperor's reform program was the founding of the Bank of Japan, to centralize and govern the issue of currency.

From the perspective of the 21st century it may seem only natural that a central bank should be considered an integral part of a modern state. But that wasn't always the case, and even at the time when the Bank of Japan opened its doors for business, such institutions were not universal. For instance, with the closing of the Second Bank of the United States in 1836, the United States was without a central bank until the founding of the Federal Reserve System in 1913.

AP PHOTO/BERND KAMMERER

The Euro sign is illuminated in front of the European Central Bank (ECB) in downtown Frankfurt, Germany.

When the Fed was founded, the United States joined a club of 20 countries with central banks. This number rose rapidly in the second half of the 20th century, as colonial power receded and the number of sovereign states grew. By 1997, the world's group of central banks numbered 172. One could even argue that recent decades have witnessed a new era in which central banks' visibility among economic and government institutions has reached new highs.

The Federal Reserve's success at achieving and sustaining low inflation under the Chairmanships of Paul Volcker and Alan Greenspan has brought heightened public attention to this country's central bank. Another recent phenomenon has been the efforts by a number of countries to strengthen their monetary institutions. Notably, the late 1990s saw major revisions to the laws governing the Banks of England and Japan.

The Founding of the European Central Bank

The focus in this period was the refinement of the relationship between a country's central bank and its government. This focus reflects a growing appreciation of the importance of central bank independence. Since all central banks are created by the authority of a nation's government, no central bank is really totally independent. Still, the ability of central banks to exercise independent judgment in their pursuit of monetary and financial stability has grown considerably in many countries.

An independent central bank is free to make its own decisions without direct government intervention in the control of such monetary policy instruments as the interbank interest rate. At the same time, the central bank is typically accountable to the government for the

European Union (EU) Member States in the European System of Central Banks (ESCB)

Austria*	Latvia
Belgium*	Lithuania
Cyprus	Luxembourg*
Czech Republic	Malta
Denmark	Poland
Estonia	Portugal*
Germany*	Slovakia
Greece*	Slovenia
Finland*	Spain*
France*	Sweden
Hungary	The Netherlands*
Ireland*	United Kingdom
Italy*	

*EU states that have adopted the Euro and participate in the implementation of monetary policy for the Euro area

results of monetary policy. This arrangement is a far cry from the origins of many central banks, which started as banks for the government, with a main mission of facilitating war finances.

The crowning event of this wave of central bank developments was the creation in 1998 of the European Central Bank (ECB). The ECB is unique in that it is the first supranational central bank, serving a community of sovereign states. An institution of this kind would not have been thinkable in an earlier time when central banks were thought of more as arms of the government treasury than as independent monetary institutions.

The ECB's creation raises new questions about central bank governance. Just as a consensus was emerging about the importance of independence for a national central bank, the ECB came along and upped the ante. Now the issue is the relationship between a central bank and multiple governments, as well as the relationships among governments in the operations of the European monetary system.

The other unique aspect of the ECB is that it did not simply replace the national central banks of its member countries. Rather, the ECB was placed at the center of the European System of Central Banks. In this regard, the ECB's closest precedent is the Federal Reserve System.

Like the ECB, the Fed is a system of central banks, with 12 regional Banks and central authority resting with the Board of Governors. In the Richmond Fed's 1999 Annual Report, economist Marvin Goodfriend examined the similarities and differences between these two institutions, and discussed how their shared decentralized structure helps build credibility in the pursuit of price stability.

The Makeup of the Eurosystem

The European System of Central Banks (ESCB), or "the Eurosystem," came into being when many of the nations of the European Union (EU) decided to adopt a common currency, the Euro. If these nations were going to abandon their national currencies in favor of a single, continent-wide currency, they needed a new institutional framework for controlling the supply of money over the Euro area. The Eurosystem is made up of the 12 national central banks in the Euro area (see chart) and the ECB.

The terms Eurosystem and European System of Central Banks are sometimes used interchangeably, but they actually refer to two slightly different entities. While the Eurosystem includes only those countries that have adopted the Euro as their common currency, the ESCB includes all 25 member nations of the EU. Three countries — Denmark, Sweden, and the United Kingdom — were parties to the original treaty that established the Euro and the ECB but have so far elected not to give up their national currencies. In addition, the 10 countries that joined the EU in 2004 — many of them part of the former Soviet bloc — have not yet adopted the Euro.

Only those countries that are part of the Eurosystem participate in the formation and implementation of monetary policy in the Euro area. The broader ESCB provides a forum for cooperation among all the central banks in the EU on a number of issues. It is, for instance, one of the means by which the 25 member nations coordinate their efforts in bank supervision and regulation.

The Fed and the Eurosystem

On its face, the monetary policy setup of the Eurosystem is quite similar to the Federal Reserve System. The key policymaking body is the Governing Council, which is comparable to the Fed's Federal Open Market Committee (FOMC). The Governing Council is made up of the Governors from the 12 national central banks and the six members of the ECB's Executive Board. Since they represent the distinct economic perspectives of their individual countries, the national central bank governors play a role similar to that of the presidents of the 12 regional Federal Reserve Banks. Similarly, the Executive Board is like the Fed's Board of Governors. The members of both of these Boards are government appointees.

As one might expect, the appointment process for members of the ECB's Executive Board is a little more complicated, given the need for the multiple national governments to make a coordinated decision. In the United States, the President makes Board appointments with the consent of the Senate. ECB Board members, on the other hand, are appointed through the consent of the heads of all 12 of the national governments.

While the makeup of the Fed's and Eurosystem's policymaking committees are similar, there is a difference in how they vote on monetary policy decisions. The FOMC has 12 voting members at any given meeting. The seven members of the Board of Governors vote at every meeting, as does the president of the New York Fed. The other 11 Reserve Bank presidents vote on a rotating basis, with four voting in any given year. In the Eurosystem's Governing Council, all the members vote all the time. As a result, decisionmaking power is more decentralized in the Eurosystem.

The relationship between the ECB and the national central banks in the

Eurosystem is also different from the relationship between the Reserve Banks and the Federal Reserve Board of Governors. The Board of Governors exercises general supervisory authority over the Reserve Banks. For instance, the Board approves the appointments of Reserve Bank presidents and directly appoints a third of all Reserve Bank directors. The ECB does not have the same sort of central authority in the Eurosystem. In fact, the governors of the national central banks have ultimate control over the staff of the ECB. Such decentralized control was useful in getting the many countries that make up the Euro area to agree to give up their own monetary sovereignty.

Finally, responsibility for the safety and soundness of a member country's banking system lies primarily with that country's national government and central bank. So the ECB does not take a direct part in bank regulation or in the provision of emergency credit to banking institutions. This is different from the Fed, where the Board has ultimate responsibility for bank supervision, together with the other federal bank regulatory agencies. The Reserve Banks implement bank supervisory and regulatory policy, but they do so under "delegated authority" from the Board.

Despite their differences, the Eurosystem and the Federal Reserve play a fundamentally similar role. Each provides a unified monetary framework for a large, diverse, and integrated economy. In addition to the formulation and implementation of monetary policy, both systems also provide infrastructure for the clearing and settlement of interbank payments, facilitating the integration of commercial and financial activity over wide geographic areas. In the case of the Eurosystem, the ECB's "TARGET" system links the interbank payment mechanisms of the national central banks.

Of course, the most significant similarity between the two institutions is their regional structure. According to Goodfriend, this brings distinct benefits. Perhaps most important, the regional structure can enhance credibility. Credibility is important, because it enables a central bank to better manage the public's expectations regarding inflation. Managing expectations, in turn, facilitates the achievement of price stability.

Historically, central banks have sometimes come under political pressure to stray from price stability, often to help finance government deficits with inflationary monetary policy. The diffusion of power in a system of regional central banks like the Fed or the Eurosystem, says Goodfriend, "makes it more difficult for outside pressure to be brought to bear on a central bank."

After presiding over high and variable inflation throughout much of the 1970s, the Federal Reserve faced the daunting task of credibly claiming that it could achieve the goal of price stability. But over a long period beginning in the 1980s, the Fed brought inflation down and kept it low in a way that convinced the public that earlier inflationary policies were unlikely to return. The ECB and the Eurosystem, by definition, came into being without such an institutional history. So in order to establish credibility as an inflation fighter, it had to do so through other means. Its founding document, the Maastricht Treaty, states that the primary objective of the Eurosystem will be to maintain price stability. This is a less ambiguous mandate than has ever been given to the Fed.

It's important to note, though, that however credibility is established, the dispersed power of the regional structure should help in its preservation. This is true for both the Federal Reserve System and the Eurosystem.

The regional structure also allows a central bank to have a significant presence in the diverse areas served by the common monetary policy. This regional presence has many beneficial effects. Contact with and knowledge of regional economic conditions permit diverse perspectives to enter policy deliberations. And the regional presence also makes it easier for a central bank to communicate with and explain its policies to a wide set of participants in the economy. Specialized regional knowledge can also be useful for monitoring conditions in the banking industry to help make prudent decisions about the provision of emergency central bank credit to private financial institutions.

The Future of Supranational Central Banks

Should we think of the design of the Eurosytem as a conscious attempt to mimic the Federal Reserve, the way Japan's creation of a central bank in the 19th century was directly modeled on European central banks of the time? Probably not. Given the distinct political and institutional histories of the countries involved, the regional structure adopted was probably the only practical way to link the countries in a unified monetary system. The similarities seem to follow naturally from the comparable size and diversity of the U.S. and EU economies. Perhaps, as other regions experience growth and economic integration, and as the economies of other large nations continue to grow, we will see more entries into the ranks of regional systems of central banks. **RF**

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Visit **www.rich.frb.org/pubs/regionfocus** for links to relevant Web sites.

JARGONALERT

Elasticity

BY AARON STEELMAN

In April and May, gasoline prices rose to nearly $2 per gallon in most areas of the country. Did this cause people to drive less? Probably. For instance, some people may have foregone the proverbial Sunday drive in order to conserve gas. But it probably didn't deter many people from driving their cars to work. They figured that the convenience of using their own vehicles, instead of relying on mass transit or hitching rides with co-workers, was well worth the extra money paid at the pump.

This means that demand for gasoline is relatively price inelastic: Even though the price went up, people still decided to buy it. (Of course, if gasoline had shot up to $5 per gallon, it might have been a different story. Public transit might have started to look a lot better then.)

ILLUSTRATION BY TIMOTHY COOK

Not all goods are as price inelastic as gasoline. For instance, it is possible to buy fresh peaches in the winter — if you are willing to pay the price. But most people are not. Perhaps the biggest reason is that many substitutes are available. For instance, you might prefer a peach but decide that an apple will do instead. The availability of substitutes boosts the price elasticity of fresh peaches.

Or consider coffee. You might think that coffee is one of the most price inelastic goods around. After all, some people would rather forego a shower in the morning than a cup of coffee. But if the price of coffee tripled, you would probably see a lot of coffee drinkers switch to tea or soda. The reason: It's not the coffee itself they crave so much as it is the caffeine the coffee provides. As long as low-cost caffeineted substitutes are available, coffee will remain a relatively price elastic good.

So when thinking about elasticity in economic terms, it can be useful to imagine a rubber band. Imagine that you are able to stretch the rubber band with ease if you switch to a substitute or stop consuming a good when its price rises. The good in that case is relatively price elastic. Now imagine that you have a hard time moving the rubber band if you continue to buy the good even though its price rises. The good in that case is relatively price inelastic.

In each case, demand and price move in opposite directions. The difference is one of degree, not principle. The demand for peaches is reduced much more than demand for gasoline. But higher prices means less demand in both cases.

Are there examples where price and demand actually move in the same direction — that is, goods for which demand increases as price increases? The early 20th century economist and sociologist Thorstein Veblen thought so. He argued that people bought expensive goods to boost their status. The higher the price, the better the good, or so the thinking goes. There may be some cases of such conspicuous consumption. Indeed, many people can probably think of isolated examples from their own experience. But those examples are just that — isolated — and not the norm.

When economists discuss elasticity, they usually consider how sensitive people are to changes in prices. But prices are not the only thing that can affect demand for goods. Income can as well. For example, you might really like cashmere sweaters but decide that a polyester pullover is a more sensible option. But that could all change if you got a higher-paying job. With more money at your disposal, cashmere sweaters might suddenly become part of your wardrobe. If so, the demand for cashmere sweaters is pretty income elastic. Items that fall into this category are called "normal goods." People demand more of them as their income increases. In contrast, the demand for "inferior goods" actually falls when income increases. In the example above, polyester pullovers are an inferior good, because you demand fewer of them after you get a raise. Another common example of an inferior good is bus service. With higher income, you may decide to fly or take the train to New York, instead of going by Greyhound.

Some products can move from normal goods to inferior goods relatively quickly as technology improves. Consider video cassettes. Until recently, if you wanted to watch a movie at home, you either rented or bought VHS tapes. But now most people choose DVDs instead. DVDs are generally more expensive, but they offer better picture quality and more special features. Video cassettes have gone from being a normal good to an inferior good, and the same may happen to DVDs as newer technologies emerge. **RF**

Learning to Compete

BY AARON STEELMAN

The market system is based on competition. Firms compete for consumers' dollars and, in the process, tend to improve each other's performance. The consumer is rewarded with higher-quality products at lower prices.

This is true for nearly every industry, including those essential for human existence, such as food, clothing, and housing. But in the area of education, competition is relatively limited. Parents are taxed to pay for government-run schools that their children are assigned to attend. There are, of course, private schools that operate outside this system. But only about 11 percent of elementary, middle, and high school students are enrolled in such institutions.

A major reason for the relatively low rate of private school attendance is cost. Many families simply cannot afford to pay twice for education — once with their tax dollars and then again when the tuition bill from the private school arrives.

Some education analysts have argued that the best solution is to give parents vouchers roughly equal to the amount of money they pay each year to fund their local public school. If they are happy with that school's performance, they could continue sending their children to it and not use the voucher. But if they think their children could do better elsewhere, they could use the voucher to help pay the tuition bill at a private school of their choosing.

Some cities, such as Cleveland and Milwaukee, have implemented limited voucher systems. But well-organized opposition from teacher unions and other groups have prevented their adoption in most places.

So reformers have turned to a less controversial option: charter schools. These schools receive public funds but are allowed greater flexibility in setting their curricula than are traditional public schools. Currently, about 685,000 students are enrolled in charter schools across the country. (Charter schools are permitted in the District of Columbia and 41 states, including all of those in the Fifth District except West Virginia.)

The most obvious benefits of charter schools accrue to the students who attend them. They are able to opt for an educational environment that better suits their needs and interests. But those students who remain in traditional public schools also benefit from the existence of charter schools, according to a new paper published by the National Bureau of Economic Research.

In "Does School Choice Increase School Quality?" economists George M. Holmes, Jeff DeSimone, and Nicholas G. Rupp examine standardized test scores for students enrolled in North Carolina's public schools from 1996 to 2000 — a period in which the number of charter schools jumped from zero to nearly 100. They find that when a traditional school faces competition from a charter school, test scores at the traditional school increase considerably.

One might say this stands to reason: Students who are faring the worst in traditional schools are those most likely to leave for charter schools, thus increasing average test scores at the traditional schools. Actually, quite the opposite is true. Of students the authors were able to identify, "approximately 75 percent of those who switched had a higher score than the average score in the traditional school the year before they left. This is direct evidence that charter-induced growth in traditional school performance is not a manifestation of an exodus of low-scoring students."

Instead it is probably a manifestation of competition. "When a charter school opens, the traditional school, which previously held a monopoly on public education in a feeder district, faces the prospect of losing students to the new competitor," the authors write. "To the extent that the school's agent (ostensibly a principal) experiences disutility from a decline in enrollment, this might lead to an increase in the traditional school's quality in order to retain students."

In other words, the charter school represents a threat to the traditional school's market. This can encourage the traditional school to improve its level of instruction — just as the opening of, say, a new restaurant might encourage nearby eateries to improve the quality of their food and service.

But in both cases the competitor must be relatively nearby, otherwise it does not pose a credible threat to the incumbent. The authors argue that the effects of charter schools beyond roughly 15 miles from a traditional school are likely to be quite small. Fortunately, though, this is not a huge problem in North Carolina. In those counties with charter schools, 90 percent of traditional schools are located within 12.5 miles of the charter. **RF**

"Does School Choice Increase School Quality?" by George H. Holmes, Jeff DeSimone, and Nicholas G. Rupp. National Bureau of Economic Research Working Paper 9683. May 2003.

LOSING POWER

Duke Power Struggles with Textile Load Loss

Duke Power's roots are intertwined with those of the textile industry in the Carolinas. Duke's first power plant was built on the Catawba River in 1904 to supply electricity to a cotton mill. Textiles in the region flourished throughout most of the 20th century, as did Duke Power, providing low-cost electric power crucial to the industry's success—and sharing in its prosperity.

Earnings and employment in the Carolinas' textile business have declined dramatically. Textile manufacturing employment in the Carolinas has fallen by 44 percent just since 1997. And Duke Power has suffered a sharp drop in sales as a result of textile plant closings and curtailed operations. Its kilowatt-hour sales of electricity to textiles firms have tumbled 37 percent since 1997.

But sales to residential and commercial customers have risen, helping to offset the decline in industrial sales. Duke wants its industrial base growing again and is aggressively pursuing opportunities to bring new industrial firms to the region. Since growth prospects in textiles are slim, the company has turned to other industries.

"We want to reverse the loss of manufacturing," says company spokesman Tom Williams. "We are expanding our economic development efforts and focusing on the manufacturing sector." Such efforts have led to identifying and targeting industries that have the best potential for growth in coming years, such as pharmaceuticals, plastics, paper products, and motor vehicle assembly and parts.

Manufacturing is believed to create more jobs, spinning off employment in other sectors, including services. Duke cites BMW's automobile assembly plant in South Carolina as an example. According to research conducted at the University of South Carolina, 4,327 jobs were created at BMW's manufacturing plant and 16,691 total jobs were added in the region as a result of the investment.

Manufacturers also have attractive electric load characteristics, using lots of electricity during off-peak periods when it's easier for electric systems to handle the loads. Industrial customers also consume a lot of electricity.

Despite the textile industry's contraction, Duke still sells massive amounts of power to textile firms. (Sales to the sector represented 31 percent of the company's industrial sales in 2003.) There's also reason to believe that the decline in the industry may be slowing, and that the firms left are more specialized and thus more competitive.

Diversifying can't hurt, though. It would mean higher industrial sales growth and less risk for Duke Power.

— ROBERT LACY

Duke Power's Marshall Steam Station is located near Charlotte, N.C. Duke is working to attract manufacturing customers to offset declines in its sales of electricity to textile firms.

ASIAN IMPORT

Testing the Bay Waters

The Suminoe oyster is at the center of proposals to revive the Chesapeake Bay. This Asian import promises to supplement native Eastern oysters that clean the bay and support the livelihoods of fishermen in Maryland and Virginia. But public officials, the seafood industry, and researchers are wrangling over how to introduce a nonnative species into the bay without sparking a destructive invasion.

Commercial landings of Eastern oysters in the Chesapeake Bay have rapidly fallen over the last century to a fraction of historic levels. Two deadly diseases, MSX and dermo, and overfishing are widely considered the culprits.

In 1995, Virginia lawmakers asked the Virginia Institute of Marine Science (VIMS) to evaluate the introduction of nonnative species as a way to reverse the bay's decline. Their first tests focused on Pacific oysters, which thrive off the West Coast and other fisheries worldwide. The oysters didn't respond well to the bay's environment and they didn't taste as good as the Eastern oyster.

COURTESY OF MARYLAND WATERMEN'S ASSOCIATION

Compared to oysters native to the Chesapeake Bay, Suminoes grow faster and larger, and they are more resistant to disease.

Field and laboratory tests of Suminoe oysters by VIMS and the Virginia Seafood Council were far more successful. The nonnative organism grew to market size two to four times faster than native oysters and resisted MSX and dermo. And the meaty oyster tasted good. This excited aquaculture firms, commercial fishermen, and government officials in bay communities looking to improve the regional economy.

Suminoe oysters could be ecologically beneficial as well as commercially so. They could improve water quality in the Chesapeake Bay by feeding on algae, whose massive blooms deprive fish of oxygen and block sunlight from nourishing underwater sea grasses, promoting dead zones in the bay.

A 2004 report from the National Research Council was more cautious. “Introducing these nonnative oysters in the Chesapeake Bay is not a magic bullet for either saving the oyster industry or restoring the bay,” noted Dennis Hedgecock, co-chair of the 11-member team that worked on the report. “But contained aquaculture of infertile nonnative oysters on a small scale would provide more information for industry and policymakers to make a sound decision on further use of nonnative oysters.”

The report’s authors and other researchers are concerned that little is known about the biology of Suminoe oysters, making it difficult to predict whether their net effect on the bay would be positive or negative. The nonnative species could invade, spread throughout the bay and crowd out Eastern oysters and other native marine life. It could also serve as a carrier for nonnative pathogens. For example, an earlier effort to introduce the Pacific oyster in the 1950s may originally have brought MSX to the bay.

To fill the knowledge gap, the U.S. Army Corps of Engineers and a team of state and federal regulators are evaluating the introduction of Suminoe oysters. Eight aquaculturists are testing large-scale cultivation of Suminoes, scheduled to end in April 2005.

— Charles Gerena

RICHMOND RETAIL

Open-Air Centers Compete for Luxury Shoppers

Richmond, Va., is shopping these days at two upscale malls that opened within weeks of each other in September 2003. Richmond’s two regional malls were the only two such centers that opened in the nation.

Though unusual, it was happenstance helped along by competition between the two mall owners, says Brian Glass, vice president of retail brokerage at the real estate firm Grubb & Ellis/Harrison & Bates. Forest City Enterprises owns the new Short Pump Town Center. Taubman Centers Inc. built its competing mall, Stony Point, to complement its existing indoor mall, Regency Square. Until the new malls were built, Regency dominated Richmond’s mall landscape. “We ended up with dueling malls,” Glass says.

Stony Point Fashion Park and Short Pump Town Center are outdoor malls, decked out lavishly with fountains and brick facades.

“[These] tend to be higher-end in the tenant mix and inclusion of streetscapes and entertainment,” says Patrice Duker, spokesperson for the International Council of Shopping Centers. “Very atmospheric.” The expensive stores and boutique retailers are new to Richmond retail. The general manager of Stony Point and Regency, Sid Welch, says stores selling luxury items are riding high, particularly Saks Fifth Avenue. Stony Point is 99 percent leased and occupied, according to Welch, and many stores are exceeding sales expectations, especially the sporting-goods retailer, Galyan’s. (Galyan’s has been acquired by rival Dick’s Sporting Goods.)

“I think Richmond was thirsty for upscale shopping,” he says, adding Richmonders had been driving to high-end malls in the Washington, D.C., area or Norfolk’s MacArthur Center. “Saks, for example, could look at the zip codes and tell you how many dollars were being spent in Northern Virginia from Richmond. There was definitely a hunger for that upscale shopping that didn’t exist in Richmond. Hopefully we’ve captured the majority of that.”

But one of the most chi-chi tenants, Lord & Taylor, never showed up at Short Pump. Instead, the company backed out and sent the mall scrambling to find new businesses that would generate comparable sales. Whether Richmond can support luxury retailers such as Louis Vuitton at Stony Point and Nordstrom’s at Short Pump is still a question yet to be answered, Glass says. But his informal retail survey indicates that the restaurants at both malls are faring especially well.

“It turned out that the restaurants were the components reaping the harvest – Maggiano’s at Short Pump, Flemings and P.F. Chang’s China Bistro and Brio Tuscan Grille at Stony Point,” he notes, adding that the Cheesecake Factory will replace Lord & Taylor at Short Pump Town Center.

As for open-air mall shopping, it's popular because it saves time for today's destination-oriented consumer. Shoppers spend an average of 56 minutes at an outdoor mall and 76 minutes in an enclosed shopping center, Duker says. These days, people like to park nearby, shop at two or three stores, and head home.

—Betty Joyce Nash

DEAL SOLIDIFIES REGIONAL PRESENCE

SunTrust Enters the Carolinas

SunTrust Banks Inc., of Atlanta, has agreed to purchase National Commerce Financial Corp., of Memphis, Tenn., the parent company of Central Carolina Bank. The $7 billion deal will fill in SunTrust's market with some 233 branches in the Carolinas, pushing it to No. 3 in market share in the Southeast. The merger will rank SunTrust No. 7 in the United States, with $148 billion in assets and $97 billion in deposits.

SunTrust's branches stretch from Maryland to Florida. Until this deal, there was one huge void in its service area: the Carolinas. The bank's new branches will include significant clusters in some of the fastest-growing metropolitan areas in the Carolinas: 71 in Raleigh-Durham, 57 in Greensboro-Winston Salem, 47 in Greenville-Spartanburg, and 36 in Charlotte-Gastonia. Bank officials say branch consolidations will be limited.

SunTrust had attempted to establish a presence in the Carolinas in 2001 by acquiring Winston-Salem-based Wachovia Corp. But Charlotte-based First Union Corp., beat them, creating the fourth largest bank in the United States. (The consolidated firm retained the Wachovia name.)

SunTrust hopes the acquisition of Central Carolina Bank will help it compete with Wachovia and another southeastern rival, Bank of America. The deal remains subject to shareholder and regulatory approval.

—Aaron Steelman

MORE MONEY FOR MOORE

Donation To Fuel USC's Effect on State Economy


KEITH MCGRAW

The Moore School of Business will use its $45 million donation to expand programs such as its Professional MBA, which offers instruction at multiple classrooms via satellite.

Financier Darla Moore made history last April by donating $45 million to the business school at the University of South Carolina. Combined with her $25 million contribution in 1998 to the school bearing her name, Moore became the nation's largest private donor to a business school.

She explained the motivation behind her generosity in a statement. "If our students are prepared with state-of-the art training and a rigorous educational environment, then they can add fuel to the economic engine of our state's future, as well as our nation's."

Her money will be combined with matching funds from the USC Board of Trustees and donations raised over the next few years to upgrade the business school's decades-old facilities. It will also augment the school's $62 million endowment, positioning it to expand its role as a source of talent and technical assistance for South Carolina businesses.

In today's competitive global economy, developing human capital — the collective knowledge, skills and abilities of a population that make them productive — is essential for making a work force responsive to change. Business schools supply this capital through degree programs and executive education for working professionals. Each institution finds its own way to balance instruction on the fundamentals of business and economics with practical, specialized coursework to meet the needs of employers.

"It's not just an academic enterprise in an ivory tower," says Philip Quaglieri, dean of the College of Management at the University of Massachusetts-Boston. "We like to think of it as the human resources department for business and industry." As part of a workgroup of the Association to Advance Collegiate Schools of Business, Quaglieri examines how schools contribute to metropolitan area economies.

In the case of the Moore School of Business, only some of its human capital stays in South Carolina. Most students leave the state after graduation because of the lack of challenging employment opportunities and the demand for MBAs elsewhere, according to the school's dean, Joel Smith III. Still, Smith views out-of-state alumni as ambassadors who can raise South Carolina's visibility and send new industry back home.

Business schools also offer expertise to companies. Moore's research division produces economic data and analysis that help inform the decisionmaking of businesspeople. More directly, Moore sends its faculty and students into the trenches as consultants. For example, the Faber Entrepreneurship Center pairs students with local small businesses to assist in accounting, marketing, and other areas.

In addition, business schools support businesses via incubators for startups, small business development centers, and research centers. The Moore School's Center for International Business Education and Research studies how to improve U.S. competitiveness in the global economy. The school also operates the South Carolina Real Estate Center, and the Center for Information Management and Technology Research.

With millions in new funds, the Moore School of Business will do more to invigorate the state's economy, a mutually beneficial effort. "We want to contribute to the building of an economic system in South Carolina that provides greater opportunities for the graduates we are producing in the process," notes Smith.

—Charles Gerena

ASPHALT ANTIDOTE

"Living" Roofs Absorb Runoff

While we are well aware of the aesthetic and ecological value of growing plants and trees on lawns and indoors, most people don't realize that growing plants on a rooftop can drastically reduce storm-water pollution.

Living roofs, also known as green roofs, consist of multiple layers that promote plant growth, provide proper water drainage and filtration, and prevent roots from growing into a building—all while absorbing up to 100 percent of rainfall. Living roofs have been covering European industrial and office buildings for more than a quarter century. But Chris Taylor, director of marketing and operations for Building Logics in Virginia Beach, Va., says such roofs have been slow in coming to the United States.

"We've been doing this now for three years, and it's a hot topic with architects and designers," Taylor says. "I think you will find more and more of it in the future, but the practicality of it needs to be demonstrated."

Living roofs cost about 30 percent more than a conventional roof, but the roofs partly pay for themselves in storm-water runoff prevention, among other benefits. Runoff is dirty water, full of sediment, drippings from automobiles, and litter. It infiltrates rivers and streams and can be blamed for half of the water pollution in the United States, according to the U.S. Environmental Protection Agency.

Local government officials in Arlington County, Va., hope to show the benefits of the green roof with Courthouse Plaza in Arlington. The retrofit roof covers the original tar and gravel roof making it pleasant to gaze on from surrounding buildings, says Joan Kelsch, an environmental planner for Arlington County. "The roof also makes the building cooler, thus saving energy on air conditioning. ... The soil and plants protect the waterproofing layers so they last up to two to three times longer than a standard roof, which saves significant amounts of money in the long run," says Kelsch. And, the roof mitigates the impact of storm-water runoff.

The structure of a green roof is not significantly more expensive than a conventional roof, says Taylor of Building Logics. "The additional layer of a soil medium and the planting on top of that is where the extra dollars come from," says Taylor.

The cost of living roofs may decline as they gain acceptance and competition increases, says Roger Schickedantz, an associate partner with the Charlottesville, Va., firm, William McDonough + Partners. A green roof adds about $11 to $13 per square foot to the cost of a conventional roof, he says. The Charlottesville firm designed the world's largest living roof on the Ford Motor Company's renovated Rouge assembly plant (see "Dollars in the Dirt" in the Winter 2004 issue of *Region Focus*).

Before he began specializing in green roof plants, Ed Snodgrass, owner of Emory Knoll farms in northern Maryland, discovered the value of drought-tolerant perennials while trying to make his farm more sustainable. With a background in environmental education, Snodgrass realized that plant cover would "become an issue with the explosion of the suburbs around Washington, Baltimore, Richmond, and Philly."

As farmland turns to asphalt and rooftops, green roofs could play a big role in storm-water prevention. Roofs represent 15 percent to 30 percent of the total land area in major cities. That's a lot of potential for green space.

But rooftop renewal won't happen quickly without incentives. "Having watched the slow pace at which solar panels are being accepted in the United States, I wouldn't expect green roofs to fall into place any faster," Schickedantz notes. "Both these technologies seem to flourish only where there are incentives or regulations in place."

—Jennifer Sparger

JOAN KELSCH

Completed in October 2003, this retrofit living roof atop the Arlington County Government Center is filling in quickly. The county also plans to top a community center and a fire station with sections of vegetative roofing.

THE ROAD TO Recovery

Retraining programs throughout the Fifth District are preparing displaced manufacturing workers for new niches in the global economy

BY KARL RHODES

For the first 30 years of her life, Shirley Smith rarely left her home state of North Carolina. After high school, she settled into a factory job in the small town of Dunn, about 40 miles south of Raleigh, where she spent the next 13 years making components for electric motors.

Smith was no world traveler, but she started thinking more globally three years ago when her employer — Morganite Inc. — began talking about building a plant in China. As the new factory came on line, the company began laying off employees at its plant in Dunn.

The company let Smith go in March 2003, and within a week she had enrolled in the North Carolina Truck Driver Training School at Johnston Community College in Smithfield. "It was something I had been thinking about," Smith explains. "I went into truck driving because everything that's going overseas is being shipped back to the United States. ...Whether it's coming by train or by boat or by plane, it has to get on that truck to get to the stores."

Across the Fifth District, thousands of displaced workers like Smith need retraining to compete in an increasingly global job market. If they return to the work force with new skills that are in high demand, the economy surges ahead. If they fail to return to the work force at all, the economy suffers.

"One of the most significant things I have experienced in my professional career is the sheer number of people from traditional industries who have been displaced either due to outsourcing or automation," says Larry Keen, vice president for economic and work force development for the North Carolina Community College System.

The community colleges are trying to rise to the challenge, but their budgets are tight. Four-year universities and private vocational schools are meeting some of the new demand, but community colleges are the primary delivery mechanism for retraining in the Fifth District.

President George W. Bush highlighted that fact in April during a visit to Central Piedmont Community College in Charlotte, N.C. Bush praised the college for working closely with employers to ensure that its retraining programs are relevant, and he pledged to make retraining a higher priority nationwide.

"We're not training enough people to fill the jobs of the 21st century," Bush said. "There is a skills gap. And if we don't adjust quickly ... and if we don't properly use our community colleges ... we're going to have a shortage of skilled workers in the decades to come."

The president touted North Carolina's transition from tobacco and textiles to computer technology and biotechnology, but employment opportunities in these growth industries are dwarfed by job openings in restaurants and stores. Created and supported by heightened consumer spending, these jobs are characterized by low pay and high turnover. They are viewed as a last resort by many displaced factory workers, but they provide important entry-level opportunities for people who are willing to learn on the job and work their way up into better positions.

Where The Jobs Are Now

The occupational divide between selling potato chips and fabricating microchips is filled by dozens of professions that are constantly seeking qualified employees. In the Fifth District, demand is particularly high for nurses, teachers, truck drivers, and construction workers.

It's not just nurses, it's all allied health occupations, says James Skidmore, chancellor of the West Virginia Council for Community and Technical College Education. West Virginia has many qualified people on waiting lists to enter health-care training programs, he says. "If we had money to put in the nursing programs and really expand them ... we could put a lot more people to work in high-paying jobs."

West Virginia has the opposite problem filling jobs in its chemical manufacturing industry, where there is strong demand for chemical technologists. The community colleges have a program that trains people to enter that high-paid, high-skilled occupation, but the program struggles to attract students who have the academic background to be successful, Skidmore says. "That's a little bit frustrating."

Sometimes the people who need retraining don't want retraining, observes Pat Sherlock, supervisor of the Dislocated Worker Unit for the South Carolina Employment Security Commission. "They want their next job," and they want it next week, she says. So it can be difficult to convince them "that if you don't get that GED, you're going to have a hard time getting your next job, even though you've worked the past 30 years without a GED. In today's climate, that's probably not going to happen again."

One exception to that rule is truck driving. Students don't need a GED to enter the North Carolina Truck Driver Training School, says Paul Jump, the program's acting director. What they need, he says, is a flexible, easy-going nature.

The school gets its share of displaced factory workers, Jump notes, "but we get students from almost every walk of life including lawyers, sales professionals, teachers, and airline pilots." They range in age from 18 to 72, and they receive 384 hours of instruction, most of it hands-on. Full-time students complete the course in eight weeks, learning everything from safety and map reading to maneuvering the tractor-trailers in and out of tight spaces. Graduates who are willing to travel extensively generally have no trouble finding jobs that pay pretty well, Jump says.

Construction is another industry that offers career opportunities to people who are willing to retrain. "Anybody who wants to go into residential construction can get a job immediately," declares Steve Vermillion, executive director of the Associated General Contractors of Virginia.

Some construction trades are taught at vocational schools and community colleges, but "training is more on the job than anywhere else," Vermillion says. The average age of highly skilled construction workers keeps going up, he notes, so "filling those positions is going to get interesting in the coming years."

Where The Jobs Will Be

Retraining programs struggle to hit moving targets. Even if they knew exactly how many truck drivers are needed right now, it's difficult to accurately predict how many will be needed two years down the road.

Providing specific training incentives to relocating or expanding businesses is one way to target resources, but even these programs sometimes miss the mark. (See "The Baiting Game" from the Spring 2004 issue of *Region Focus*.)

"There is very little information out there about job opportunities and what kinds of skills people will need in the future," says Aaron Fichtner, director of research and evaluation for the John J. Heldrich Center for Workforce Development at Rutgers University.

The 10-year occupational projections that states submit to the U.S. Bureau of Labor Statistics provide a good starting point, Fichtner says, "but we need qualitative information ... that can help form the foundation of education and training programs" that will meet specific industry needs. "Right now our feeling is that the education and training system isn't as efficient as it could be ... because there is very little information about the demand side," he says.

The Heldrich Center recently convened business advisory groups that profiled the skills needed for key occupations in New Jersey's "cutting-edge industries" including biotechnology, security, e-learning, e-commerce, and food/agribusiness. "What we are trying to do is build a system where you have ongoing dialog between employers and educators and the work force development system," Fichtner says. "You are never going to get it right all the time, but it's worth trying. It's a big improvement."

This idea also appealed to North Carolina's Golden LEAF Foundation, an organization that uses half of the state's tobacco settlement money to fund economic development projects. Last summer, after consulting with the state's biotechnology employers, the foundation earmarked $60 million to establish and support a statewide Biotech Training Consortium. The commitment included $33.5 million for a Biomanufacturing Training and Education Center at North Carolina State University, $17.8 million for a Biomanufacturing Research and Training Enterprise at North Carolina Central University, and $8.7 million for "BioNetwork" training and education programs at several community colleges.

H. Martin Lancaster, president of the North Carolina Community College System, has called BioNetwork "the most important and most exciting economic development effort in the North Carolina Community College System right now … and for the foreseeable future. It is our commitment to meeting the long-term skills

Hot Jobs

Ranked by average annual job openings in the Fifth District

Occupation	NC	VA	MD	SC	WV	DC	5th District	Salary[a]
Cashiers	7,290	5,450	560	810	1,220	30	15,360	$16,940
Retail Sales	6,880	5,600	770	700	1,030	10	14,990	22,260
Food Prep/Service (Including Fast Food)	5,540	5,660	630	1,020	1,100	100	14,050	15,260
Waiters/Waitresses	5,440	4,150	510	650	740	40	11,530	15,780
Laborers/Freight, Stock, and Material Movers	3,790	2,470	560	730	730	50	8,330	21,650
Registered Nurses	3,470	2,290	710	830	590	80	7,970	51,230
General Office Clerks	2,730	2,720	720	530	430	270	7,400	23,780
Customer Service Representatives	2,000	2,560	1,160	500	240	70	6,530	28,560
Postsecondary Teachers	2,790	1,960	630	320	310	90	6,100	NMF
Janitors/Cleaners	2,320	2,220	450	390	420	300	6,100	20,320
Computer Support Specialists	1,500	2,230	950	350	90	200	5,320	42,640
Stock Clerks and Order Fillers	2,720	1,960	170	120	300	NA	5,270	21,490
General/Operations Managers	2,720	NA	1,100	680	360	150	5,010	88,700
Elementary School Teachers[b]	2,180	1,660	240	660	210	NA	4,950	44,350
Nursing Aides, Orderlies and Attendants	2,200	1,510	570	350	260	40	4,930	21,050
Teacher Assistants	2,180	1,620	340	600	140	50	4,930	20,220
Truck Drivers (Heavy and Tractor-Trailer)	1,990	1,440	270	870	220	10	4,800	34,330
Maids and Housekeepers	1,870	1,530	400	370	270	170	4,610	17,520
Security Guards	1,370	1,780	410	610	220	110	4,500	21,520
First-Line Supervisors/ Managers of Retail Sales Workers	2,300	1,030	510	240	260	NA	4,340	35,560
Landscaping/Groundskeeping	1,490	1,580	420	430	170	20	4,110	21,610
Computer Software Engineers (Applications)	810	2,270	560	220	70	60	3,990	75,750
Child Care Workers	2,100	1,060	320	230	200	30	3,940	17,400
Secondary School Teachers[b]	1,130	1,420	400	640	170	10	3,770	46,790
Executive Secretaries/ Administrative Assistants	1,570	1,260	490	150	120	70	3,660	35,810

[a]Mean annual salary from the "May 2003 National Occupational Employment and Wage Estimates" from the U.S. Bureau of Labor Statistics

[b]Does not include special education or vocational education teachers

NA — Not Available

NMF — No Meaningful Figure (Salaries vary widely by specialty)

SOURCE: 2000-2010 occupational projections submitted by each state to the U.S. Bureau of Labor Statistics needs of North Carolina's biotechnology and biomanufacturing cluster."

In a presentation to the State Board of Community Colleges last year, Lancaster said that "over the next three years, 6,000 new workers with less than baccalaureate degrees will be needed in biotechnology and biomanufacturing. ... That's a huge opportunity and challenge for community colleges." The payoff, he concluded, "will be a secure economic future founded on good jobs that pay well."

Biotechnology has replaced computer technology as the darling of work force development efforts in several states, but some economists maintain that the demand for computer skills is bouncing back faster than expected.

"Many people who lost information technology (IT) and telecom jobs in 2001 and 2002 started their own companies, and we're starting to see the benefits of that," says William F. Mezger, an economist with the Virginia Employment Commission. "The big thing in Virginia was the loss of WorldCom," he says, "But we seem to be getting a pretty strong rebound, particularly in Northern Virginia." And the same is true for Maryland and Washington, D.C., Mezger says.

The demand for computer skills has been down somewhat in West Virginia during the past two or three years, says Skidmore. But "those are still high-wage, high-skill jobs ... and certainly I think that's one of the areas that will rebound quickly." IT jobs are more broad-based than they originally were, he notes. "Hospitals, banks and different organizations need IT workers."

Despite several high-profile IT layoffs in the Fifth District in recent years, Mezger says the Virginia Employment Commission is not reducing its hefty projections for IT jobs in its 2002-2012 occupational forecast.

Lifelong Learning

Four-year universities in the Fifth District report that some displaced workers are going back to school to earn bachelor's degrees and master's degrees, but work force development experts are not predicting shortages of college graduates with liberal arts degrees.

In a recent speech at the University of Richmond, Virginia Gov. Mark Warner said: "We've created this notion that the only way to meaningful success is to get a college degree and then an advanced degree of some kind. We should put more value on technical education. A community college degree produces more earning power than going to UVA for three years and dropping out."

That may be true, but the value of a four-year college degree is going up fast, counters Robert Silberman, chairman and CEO of Arlington, Va.-based Strayer Education Inc., the parent company of Strayer University. "Independent of anything that is going on in the economic cycle ... the most compelling reason why people go back to school and finish their bachelor's

Changing Lanes

After Michael Fermaglich lost his information technology (IT) job at Bank of America, he got retrained at Catawba Valley Community College. Then he commuted two hours each way to a job that paid about half what he was earning at the bank. And he loved it!

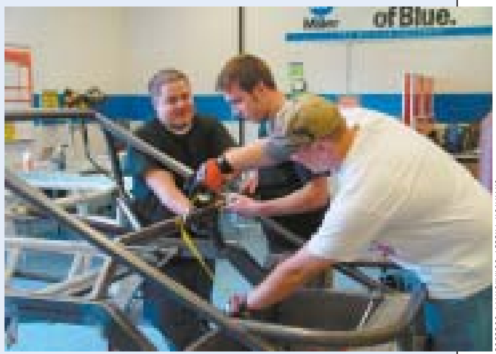
Fermaglich, 30, used to manage computer networks for Bank of America's asset management group in Charlotte, N.C. It was one of those rock-solid, high-tech, high-finance jobs that was supposed to be the staple of the "new economy." But when the bank laid him off in November 2002, Fermaglich decided to abandon the IT field to pursue his dream of building race cars.

"While I was working at the bank, I had been helping out some of the smaller teams in the ... Automobile Racing Club of America," Fermaglich recalls. But to turn his hobby into a career, he knew he would need more intensive training. So he enrolled in the Bobby Isaac Motorsports Program at the community college, where he learned how to build race cars from scratch.

Fermaglich completed the community college program in four months by taking two or three courses at a time to accelerate his retraining. His timing was good. The Bank of America severance pay was running out when Andy Petree Racing Inc. called the school looking for students who were ready to start working in a real race shop. At that time, the Petree team was competing in NASCAR's Busch Series with Paul Menard as its driver.

Fermaglich joined the team in May 2003, and he commuted two hours each day to the team's shop in Asheville, N.C., where he helped assemble the cars.

The community college program was good preparation, but "when I got a job with Andy Petree Racing, I found out that I didn't know as much as I thought I did," Fermaglich admits.



CATAWBA VALLEY COMMUNITY COLLEGE

Building race cars from scratch is what the motorsports program at Catawba Valley Community College is all about. Here students measure a frame for a Nextel Cup race car.

"There is so much to learn in this business with the cars and how to set them up and put them together to gain an advantage."

Fermaglich enjoyed working for Petree very much. "I love working on the cars, so it's not a big deal to work late hours or long hours."

Fermaglich isn't married, and he has no children, so the long hours are easier for him to manage, but he says that the cut in pay made him hesitant to leave IT. "I was making about twice as much money in the IT area," he says. "But as you gain experience, and if you stay in racing long enough, the pay dramatically increases."

In mid-June Fermaglich was testing that theory by looking for a new job. Petree laid off the majority of its employees after losing its corporate sponsor. "That goes with the business," Fermaglich says. "You just have to deal with it."

Just one week after losing his job, Fermaglich was interviewing with other racing teams. He was weighing one opportunity, and he was anticipating a second job offer. Now that he has some experience in the industry, he says he can "pretty much pick and choose who I want to work for. ... I don't have any plans to go back to corporate America."

—KARL RHODES

Digital Dominion

Virginia predicts the most computer-related job openings per year

Occupation	VA	NC	MD	SC	DC	WV	5th District	Salary*
Computer Support Specialists	2,230	1,500	950	350	200	90	5,320	$42,640
Computer Software Engineers (Applications)	2,270	810	560	220	60	70	3,990	75,750
Computer Systems Analysts	1,350	740	660	130	310	60	3,250	66,180
Computer Software Engineers (Systems)	1,610	650	600	190	160	20	3,230	78,400
Network/Computer Systems Administrators	900	660	400	120	90	40	2,210	59,140
Computer/Information Systems Managers	790	540	370	110	120	60	1,990	95,230
Computer Programmers	1,180	390	80	40	10	30	1,730	64,510
Network Systems/ Data Communications Analysts	470	310	260	110	60	30	1,240	62,060
Data Entry Keyers	430	140	20	10	40	40	680	23,590
Database Administrators	320	170	90	20	60	20	680	61,440
Computer Hardware Engineers	110	40	60	10	NA	NA	220	79,350
Computer Operators	110	70	NA	NA	NA	10	190	31,870
Computer/Information Scientists (Research)	70	NA	80	NA	20	NA	170	84,530
Total Computer-Related Job Openings	11,840	6,020	4,130	1,310	1,130	470	24,900	

*Mean annual salary from the "May 2003 National Occupational Employment and Wage Estimates" from the U.S. Bureau of Labor Statistics

NA — Not Available

SOURCE: 2000-2010 occupational projections submitted by each state to the U.S. Bureau of Labor Statistics

degrees is that the earnings power of someone in the work force with a college degree is twice what it is with a high school degree," Silberman says.

As the Fifth District moves from a manufacturing-based economy to a knowledge-based economy, the value of a college degree, as a factor of production, is going up, and the value of a high school degree is going down, Silberman contends. "In a manufacturing-based economy, a college degree just wasn't that important. There were a number of well-paying, professionally satisfying jobs that did not require a college degree, but the kind of skill sets that are necessary to prosper in a knowledge-based economy really do require a college degree."

Whether it's pursuing a Ph.D. or a GED, lifelong learning is becoming the watchword among retrainers throughout the nation. "How do you create a system that encourages lifelong learning and supports lifelong learning for people who are employed, as well as people who are unemployed? That's a key issue," says Fichtner at Rutgers University. "People are going to have to be constantly improving their skills, even when they think they are in a stable job. ... That starts, obviously, with basic education and literacy and then moves up to professional and technical skills. ... People don't tend to think about these issues until it's almost too late."

On The Road

Truck driver Shirley Smith admits that she had grown complacent in her manufacturing job. "After you've stayed with a company so long ... you don't think there's anything else out there," Smith explains. Luckily for her, though, she was able to quickly land a long-haul truck-driving job with Colonial Freight Systems Inc. — thanks in no small part to graduating fourth in her class at the North Carolina Truck Driver Training School.

Smith's first training run was to California, and it "seemed like everything that could go wrong did go wrong with that load," she recalls. She and her trainer blew a tire in Arkansas, and Smith got terribly homesick after the first three days.

"If you really love your family and you want to be with your family, over-the-road truck driving is going to be a hard job for you and for your family too," she says. Smith wants to do more for her father, who is in poor health, but she is often gone for two or three weeks at a time.

Ironically, Smith's father was the one who insisted that she pursue long-haul trucking because it pays better than local trucking and provides a more secure future. Smith brings home about $700 a week — $1,000 if she works the weekend too. At the Morganite plant, her take-home pay was less than $350 per week.

Truck driving isn't for everyone, warns Paul Jump, who was Smith's instructor at the school. Long-distance drivers can be on the road 30 days at a time, he says. They sleep in their trucks. And their schedules for sleeping, eating and personal hygiene are erratic. One reason there are so many jobs available to truck drivers is because the annual turnover rate for long-haul truckers is nearly 100 percent, Jump notes.

Smith says she still has second thoughts during those long stints away from home, but she prefers the open road to a closed factory. "They don't put windows in factories." she explains. "Whenever you go to work, you want to be happy. You don't want to be upset or stressed out. The only stress that I have found in [trucking] is in traffic, whenever cars are trying to take your bumper off, and you know that if you hit them, it's automatically going to be your fault."

Getting The Most Bang For The Buck

In his speech at Central Piedmont Community College, President Bush praised workers like Smith who are getting retrained and meeting critical needs in the work force. He also proposed more funding — coupled with greater accountability — for retraining programs at community colleges.

"We've got money coming your way," he pledged. "Tell us how many people have actually found a job, how much they earn on their jobs, and how long they stay on those jobs. That's what ought to be measured and nothing else."

Under the Workforce Investment Act, one-stop employment centers already compare displaced workers who get retraining to those who don't. The results seem to show that retraining gives workers an advantage but not necessarily a huge one. In South Carolina, for example, 92 percent of retrained workers found jobs in the 2002-03 fiscal year, but 86 percent of workers with no retraining also found jobs. The retrained workers replaced 99 percent of their earnings, while the workers with no retraining replaced 92 percent of their earnings.

Such results are pretty bright — perhaps surprisingly so. In a widely cited study published in the *American Economic Review*, economists Louis Jacobson, Robert LaLonde, and Daniel Sullivan tracked more than a decade's worth of wage data for a group of Pennsylvania workers. They found that people displaced from manufacturing jobs experienced a roughly 20 percent decrease in long-term earnings if they took a job within the same industry, and an 18 percent drop if they moved to a new one. The figures for non-manufacturing workers were similarly dismal.


TWYLA CASEY WELLS

Instructor Paul Jump (far left) with graduating students at the North Carolina Truck Driver Training School.

"Our results indicate that there is something intrinsic to the employment relationship itself that is lost when workers are displaced," Jacobson, LaLonde, and Sullivan conclude. For instance, many job skills may be firm-specific and not particularly valuable to a new company, even if that company is part of the same industry.

Moreover, evaluating individual work force programs is extremely difficult, says Fichtner at Rutgers University. You really need perfect experiments where people are randomly assigned to get training or not to get training, and "you don't want experiments that are going to impact people's lives in that way," he says.

Even when researchers compare displaced workers who have similar "observable characteristics," as they did in a recent Rutgers study, there are too many "unobservable characteristics," Fichtner explains. "It may be that people who don't get training ... know that their uncle has a job for them, or they know that they have a good resume, and they are going to get a job, and they are confident. So they may self-select out of getting training. ... Or it may be that people who get training are those people who are really committed to improving their education level and their skill level, and maybe those people are more likely to get employment without training also. ... There's no way to know."

But there is general agreement that the value of retraining is increasing rapidly as all jobs become more intellectually challenging and globally portable. In a recent speech, Federal Reserve Chairman Alan Greenspan hailed "the increased flexibility of our labor market" as an important contributor "to economic resilience and growth." He was referring primarily to companies' ability to hire and fire workers on short notice, but he tipped his hat to community colleges for providing "new job skills that meet the evolving opportunities created by our economies."

Greenspan also noted that "workers, of necessity, migrate with the capital." Historically, those migrations have been from one region to another — leaving behind neglected towns and other wasted resources. Those geographic migrations are likely to continue, but for more and more people, retraining can create intellectual migrations from dying industries to thriving industries, from lower skills to higher skills, and from working class to middle class. **RF**

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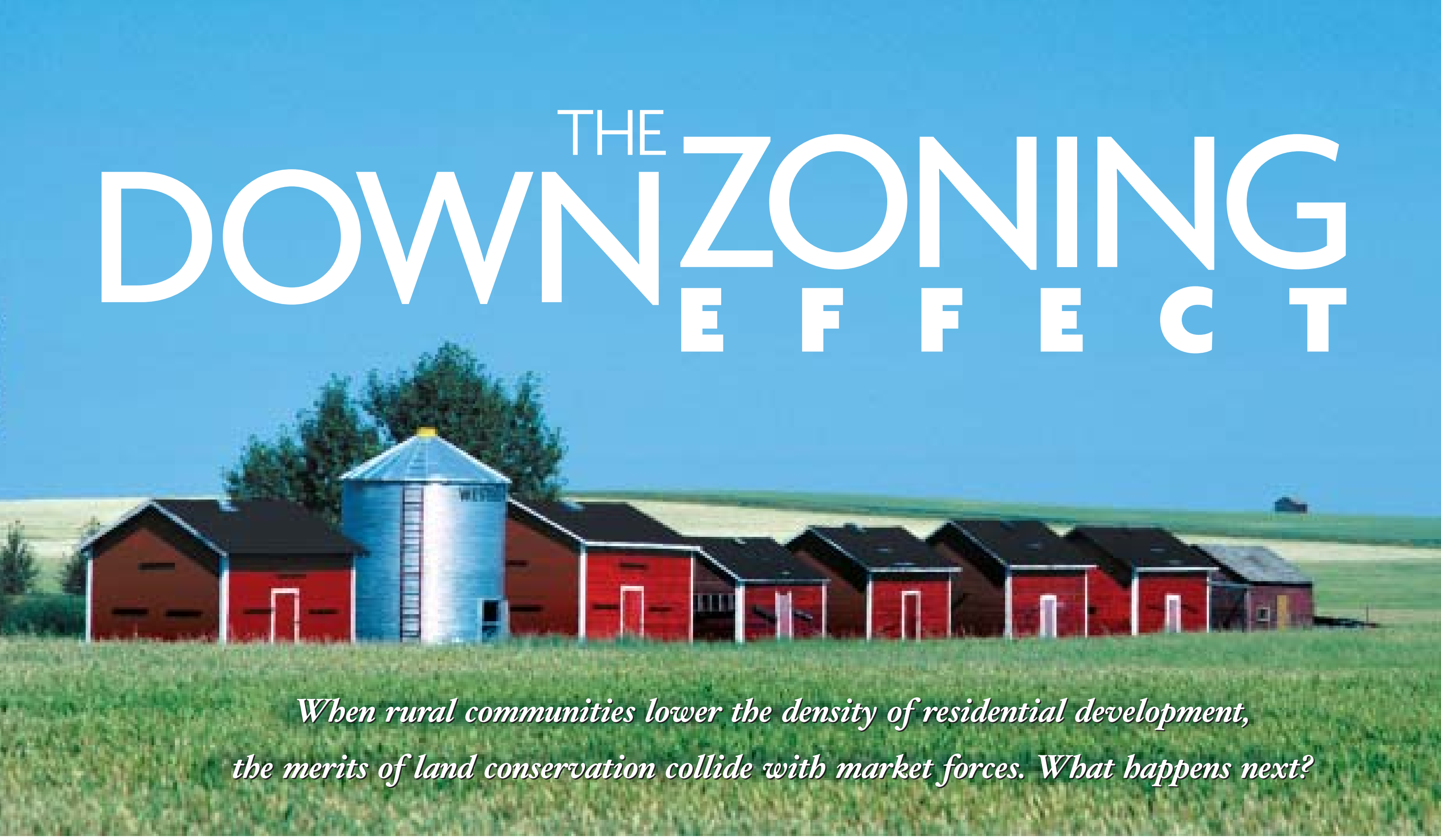
THE DOWNZONING EFFECT



When rural communities lower the density of residential development, the merits of land conservation collide with market forces. What happens next?

BY CHARLES GERENA

A middle-aged woman knits as she patiently waits in one of the hard plastic chairs lined up in the large meeting room at Cecil Community College in northeast Maryland. She has come with her husband and dozens of other residents on this April evening to learn about a proposed change in land-use management that could affect every farmer and landowner in Cecil County.

Cecil is like many rural communities in Maryland and Virginia. Its population has swelled in recent decades, more than doubling from 1950 to July 2003, according to the U.S. Census Bureau. As residential development grows, so do concerns about preserving the thousands of acres of farmland that cover one-third of the county.

In response, the local planning commission recommended changes to Cecil County's comprehensive plan in March. The recommendations included a drastic "downzoning" of two rural zoning districts.

Downzoning is the practice of restricting the type or amount of development allowed on a property. Usually this is accomplished by reducing the ratio of housing units per acre that can be built, or the allowable density of the property. In the case of Cecil County, planners want to reduce the allowable density in the northern part of the county from one house for every five acres to one house per 20 acres. They also want to lower the density in southern Cecil further from a 1-8 ratio to a 1-30 ratio.

This isn't a recent phenomenon. Twenty-two years ago, officials in Fairfax County, Va., downzoned 41,000 acres along the rivers and tributaries that feed the Occoquan Reservoir to help protect the drinking water supply. Other local governments in Maryland and Virginia have downzoned to protect environmentally sensitive areas, to prevent sprawl from gobbling up farmland, and to preserve open space. In addition, cities have implemented downzoning to keep commercial development from encroaching on residential neighborhoods.

While downzoning has been widely embraced, the practice also has been widely criticized because it can create an artificial shortage of land for residential growth as well as cause a supply-demand mismatch for private development and public infrastructure. It can also alter land-use options so drastically that landowners don't get the price they want for their property and residents don't get the development they want in the future.

Land conservation advocates like Robert Etgen counter that downzoning can succeed in preserving space while accounting for these issues. It's a matter of balancing "the benefits and burdens to the greatest number of people," says Etgen, executive director of the Eastern Shore Land Conservancy in Maryland. Any government action that restricts the use of property is going to have a cost. The question is whether the benefits outweigh the costs and how those costs are spread out.

Working Against the Tide

Localities like Cecil County are grappling with the costs and benefits of downzoning as housing development consumes a growing amount of rural land (see table). Other factors besides population growth are driving development into the countryside.

For one thing, developed areas often don't have the modern houses with spacious landscaping that people want, nor do they have sufficient land to build this type of housing.

Some blame these shortfalls on zoning policies. "Lot prices are driven up by downzoning and other restrictions on development in more urbanized jurisdictions," notes economist Anirban Basu, chairman and CEO of the Sage Policy Group in Baltimore. In contrast, "rural jurisdictions are often able to supply homebuilders with cheap lot prices."

Also, rural communities often are perceived as healthier places for families because of lower crime rates and better schools. "There is a growing number of households who are empty nesters ... free to move anywhere they want," observes Basu. Still, "more households are moving away from center cities than moving back to them."

At the same time, workers aren't as "place-bound." Michael Peddle, an economist and faculty associate at Northern Illinois University's Center for Governmental Studies, says there is a reduced need to be close to densely populated areas because "more people are able to work at home or telecommute."

Interstates enable people to reach jobs within a wider radius of their homes. For instance, 33 percent of Cecil County's residents travel over the state border into New Castle County, Del., for work.

Cecil is just one of the counties mentioned in a December 2003 report on downzoning by the Maryland Center for Agro-Ecology. The report identified several regions of Maryland as experiencing development pressure: the middle and upper Eastern Shore, which includes the counties of Cecil, Kent, Caroline, Queen Anne's, Dorchester, and Talbot; and the southern Western Shore, which encompasses the counties of Calvert, Charles, and St. Mary's. Many of these counties have either considered or implemented downzoning to alleviate this pressure. Interest in downzoning also has increased in the rapidly growing suburbs of Northern Virginia, including Loudoun and Fairfax counties.

"That's the backdrop of why jurisdictions look at downzoning; they are faced with patterns of development that are ultimately unsustainable," explains Paul Gilbert, president of the Northern Virginia Conservation Trust. "Downzoning is one way to take a broad-brush approach. It takes a large area and says, 'We're going to reduce the building potential for this area because otherwise it will be gobbled up.'"

In several rural communities, downzoning has succeeded in keeping development out of designated areas. Just north of the nation's capital, Montgomery County, Md., has remained predominantly rural due to its aggressive land management activities, which included a 1980 downzoning of more than 90,000 acres in its western and northern sections. Water quality has remained stable or improved in the Occoquan Reservoir thanks in part to Fairfax County's 1982 downzoning.

But working against the tide of market forces can cause unexpected problems. For instance, Basu says that downzoning in rural areas where government has allowed some growth to occur results in surplus public infrastructure.

"The public makes its intended investments to serve a particular area, a community forms around that infrastructure, and then community leaders ask that the area be downzoned because they are unnerved by the prospects of school overcrowding and increased traffic," he describes. If the opponents of excessive development get their way, "what you get is less dense development than had been anticipated. ... That leads to the underutilization of infrastructure."

Another problem with downzoning is that it doesn't address the unmet demand for residential development. Consequently, constraining the supply of land in one location may cause development to spread farther out, which feeds sprawl rather than curbs it.

Therefore, planning experts and land conservationists agree that downzoning must accompany other policy actions that accommodate future development in some way. These include removing regulatory barriers to denser development in urban areas, and offering redevelopment incentives.

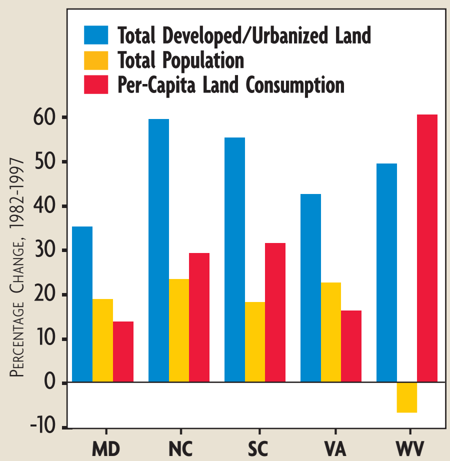
Montgomery County uses transfer of development rights (TDRs), a policy tool commonly implemented in conjunction with downzoning. When downzoning reduces the allowable density of a property, the landowner retains the right to develop at the original density in the form of a TDR. The TDR cannot be used on downzoned property, which is called the sending area. It can be used to build only in receiving areas, which are usually where development is already dense and public infrastructure is already in place. The idea is that developers will buy TDRs from landowners so that they can exceed the allowable density in receiving areas. In the process, development shifts from sending areas to receiving areas.

This Land is *My* Land

While downzoning can preserve rural landscapes, landowners are usually apprehensive about how it will affect the equity they have built up. Cecil County residents are no exception. While some support the proposed

A Growing Appetite

Over a 15-year period, every Fifth District state saw the pace of development exceed population growth. This accelerated the rate of per-capita land consumption. However, Maryland and Virginia had lower growth in per-capita land consumption, partly because they were relatively better at reigning in land development.



SOURCE: *Outsmarting Smart Growth: Population Growth, Immigration, and the Problem of Sprawl*, Center for Immigration Studies, August 2003

Getting Something in Return

All David Lucas wanted to do was make some money building beach houses on the Isle of Palms, a scenic barrier island near Charleston, S.C. He started a residential project in the late 1970s, but it came to a halt when the state passed legislation in 1988 that prohibited new beachfront structures seaward of an erosion line. Two of Lucas' lots were affected, rendering useless property that cost almost $1 million to acquire.

As far as Lucas was concerned, the state's zoning change was a "taking." Under the Fifth Amendment, landowners are entitled to "just compensation" when the government physically takes private property for public use, like a road or a school. He sued the state and won $1.2 million, then appealed a reversal of that decision all the way to the Supreme Court. In 1992, the court sided with Lucas, finding that landowners suffer a taking when a government regulation eliminates all economically beneficial uses of their property.

This sounds like an equitable outcome, right? Well, the situation gets more complicated when a government's downzoning affects the development value of rural land. Some believe that when farmers get a lower price for their land because it isn't zoned for dense development, that lost value should be considered a partial taking.

But requiring governments to compensate owners of downzoned land for a partial taking would be a mistake, according to Philip Pryde, a former geography professor at San Diego State University. "The courts, in decisions going back to at least 1922, have noted that government would be hard-pressed to function normally if compensation were required any time a decision had an adverse effect on property values," he wrote in a 2000 position paper for Republicans for Environmental Protection, a New Mexico-based advocacy group.

There are mechanisms for "achieving equity" when property values are affected by zoning changes, says Paul Gilbert, president of the Northern Virginia Conservation Trust. The owner of downzoned land could receive a transfer of development rights (TDR), which could be sold to developers to give them the ability to build in densely urbanized areas.

TDR programs help spread the cost of land conservation rather than have farmers shoulder all of it, notes Kevin Schmidt, director of the Mid-Atlantic regional office for the American Farmland Trust. "Downzoning is a very effective tool, but to be palatable to the landowner and to be as equitable as possible ... you couple it with some type of incentive." —Charles Gerena

downzoning, "others, many of whom are farmers, are threatened by any attempt of government to take away their right to sell their land to a developer, claiming it is like taking away their retirement," wrote reporter Cheryl Mattix in the April 2 edition of the *Cecil Whig*. This sentiment was echoed in several letters to the editor following the article's publication.

While it seems counterintuitive to landowners, several studies claim that downzoning doesn't automatically wipe out the development value of rural property.

The Center for Agro-Ecology's report analyzed sales of agricultural land in eight counties, excluding parcels that were smaller than 20 acres, located near a waterfront or marsh, or had other traits that would skew their value. For each county, researchers averaged together land sales over a period of years, then compared the average per-acre value of land in four counties that had downzoned against average land values in four counties with similar real estate markets that didn't downzone.

"We found that, for the most part, either the acreage value was consistent between [downzoned and non-downzoned] counties or the value had increased for the county that had downzoned," says Sarah Taylor-Rogers, lead author of the report and former secretary of the Maryland Department of Natural Resources. She has explained these findings at several public forums, including the April informational meeting on downzoning in Cecil County.

Robert Gray, an Alexandria, Va.-based planning consultant who contributed to the Center for Agro-Ecology report, reached a similar conclusion in a 1991 study for the state of Maryland. His team of researchers looked at four counties that had enacted downzoning, comparing sale prices of large plots of land three years before they were downzoned and several years after to detect any changes.

Gray's explanation is that real estate markets don't always take downzoning into account when valuing a property. Although a typical middle-income subdivision cannot be developed on the site, he says that developers figure they can lobby to remove the downzoning in the future.

However, community groups have a strong incentive to lobby for keeping the zoning in place. Economist Anirban Basu says that downzoning creates an infrastructure windfall for existing residents. "There is more public capacity on a per-capita basis," he explains.

Even if the property remains downzoned, Gray believes it may still have value in the real estate market. There have always been homebuyers willing to pay a half million dollars for a nice home surrounded by a huge area of open space, he notes. (Indeed, such a buyer can find several high-dollar properties by thumbing through the *Cecil County Real Estate* guide.) According to Gray, this demand has increased as disposable incomes have increased, enabling more retirees and city dwellers to fulfill their desire to move out into the country.

In fact, there are a few examples of downzoned property becoming more valuable. Usually, this occurs when the property offers a waterfront view or other desirable natural characteristics that are safeguarded by downzoning. The initial price of downzoned land may not reflect how much people value preserving the land's esthetic qualities, notes Michael Peddle. In the long run, however, the market might recognize the value of land preservation. "In many cases, the original landowner may not be the person who ends up benefiting. It may be a subsequent landowner or a developer."

There is another possible explanation behind the studies' conclusions on downzoning and property values. In rural communities far from development, the demand for land is lower and the development potential is much smaller. Peddle says this is due to greater uncertainty about the property's future use. "If you are in the path of development, you can see the logical path of infrastructure and the demand for the land." Therefore, landowners likely have little to lose from downzoning.

On the other hand, demand is greater in rural communities that are close to densely developed communities. Therefore, the development potential of properties is higher and downzoning could result in a major loss in value for landowners.

Another study in progress will likely come to a different conclusion than those arrived at by Gray or Taylor-Rogers. Michael Samuels, a real estate consultant at Clarion/Samuels Associates in Wayne, Penn., compared properties within townships in New Jersey. His preliminary findings show that when townships increased the minimum lot size for residential development from one acre to 10 acres, land values decreased. In markets where there was a demand for 10-acre lots, the value of downzoned property fell more than 50 percent. In markets where there was no demand for such lots, downzoned property lost all of its development value.

What accounts for these differing conclusions? The Center for Agro-Ecology's study took a macro view by doing a county-to-county comparison of land values, so the negative effects of downzoning on individual properties may not show up when they are averaged together. In contrast, Samuels took a micro view by comparing land values within communities.

Samuels' approach arguably is more methodologically sound, but both studies have a hard time distinguishing "causation" from "correlation." For instance, land prices could rise in areas where downzoning has occurred, but that doesn't necessarily mean that one event led to the other. Instead, they may simply be associated with each other and something else is the real cause.

What is certain is that downzoning takes some development options off the table. Whether that results in an increase or decrease in land prices depends on the property in question, the availability of suitable land for development nearby, and the local demand for lower density housing.

In graduate school, Peddle and his friends would debate whether height restrictions on buildings in Washington, D.C., increased or decreased the value of land. "It's not an unambiguous answer," he says. "You can't develop the land as intensively, so that would tend to decrease the price of land. But it decreases the supply of useable space, which would increase the price."

What's It Good For?

Another way of describing the effect of downzoning is that it alters what real estate appraisers refer to as the "highest and best use" of a property. The Appraisal Institute defines this as the use of land that is "physically possible, appropriately supported, financially feasible, and that results in the highest value."

During his presentation at the April informational meeting on downzoning, Samuels explained to Cecil County residents that there is a point at which downzoning becomes so restrictive that the typical developer isn't willing to pay a higher price than farmers for rural property.

Instead, agricultural land will probably remain agricultural. That would be good news if the landowners can continue to profit from it. Some tobacco farmers, for example, have converted their fields to grow grapes and other high-demand crops. Still, pricing pressures continue to weigh on a variety of agricultural sectors, so farming may not turn out to be the most profitable use of downzoned land.

Someone could purchase the land for low-density development. That would be bad news for local government officials who enacted downzoning to preserve land for agriculture. On the plus side, low-density development doesn't lead to big jumps in population, which require additional roads, utilities, and schools.

Downzoned land could even become a luxury estate. That's not considered welcome news to neighboring landowners. After the April informational meeting, several farmers stood around complaining about downzoning benefiting the rich. The president of the Cecil County Farm Bureau, for instance, expressed his disdain about downzoning resulting in "an increase in affluence."

Why should residents care if downzoning causes upper-income people to move into their community, especially since they make big bucks from the sale of their land? Aside from raising the usual suspicions about the well-to-do, it could make housing less affordable. By reducing the supply of land available for dense residential development, downzoning makes the remaining land more valuable and, thus, more costly for developers acquire. Those costs are, in turn, passed on to consumers. Bottom line: Homebuyers pay more.

In the end, local planners and elected officials must weigh the costs of downzoning against the anticipated benefits. But in order to do that, their constituents have to be informed, and it's easy to get lost in planning jargon and statistical analysis of property value impacts. Halfway through the informational meeting in Cecil County, the slides of scatter graphs caused many eyes to glaze over.

The challenge is to ensure that a community knows what it is getting into with downzoning and why. If they don't perceive downzoning as a worthwhile endeavor for the community and fair to landowners, they'll revolt as they did in Loudoun County, Va., where voters kicked out members of the board of supervisors after they enacted downzoning last year. **RF**

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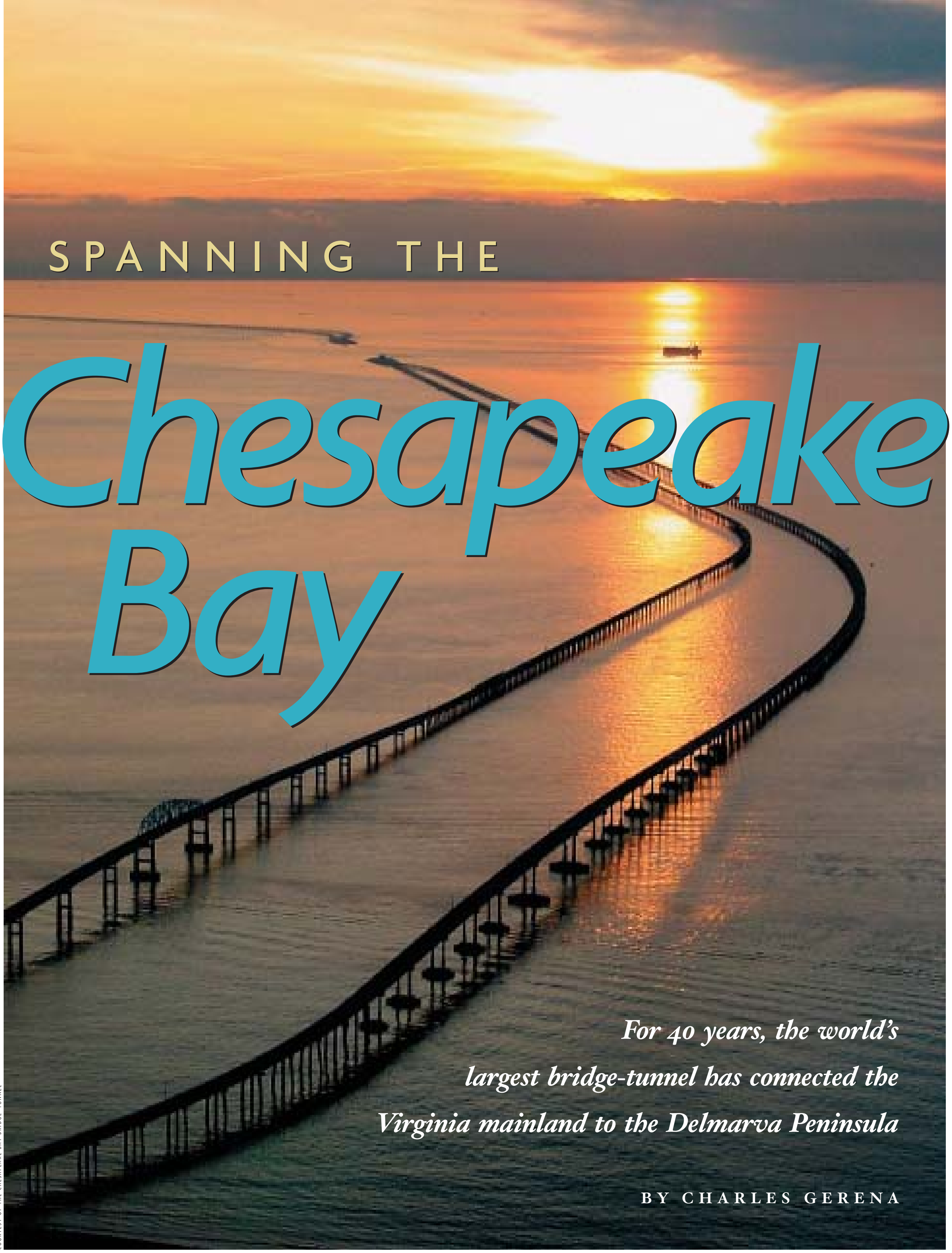
SPANNING THE Chesapeake Bay



COURTESY OF THE CHESAPEAKE BAY BRIDGE-TUNNEL

For 40 years, the world's largest bridge-tunnel has connected the Virginia mainland to the Delmarva Peninsula

BY CHARLES GERENA

Before the first cars crossed the Chesapeake Bay Bridge-Tunnel on April 15, 1964, the governor of Virginia and other leaders touted the significance of connecting Virginia Beach, Norfolk, and other cities in the Hampton Roads region to the two rural counties of Virginia's Eastern Shore. They heralded the 17.6-mile system of concrete trestles, steel bridges, and mile-long tunnels as a faster, more reliable transportation link for the growing number of motorists and truckers wanting to cross the bay.

The bridge-tunnel's anniversary this past April was observed with less hoopla than its momentous debut as one of the seven engineering wonders of the world. A restaurant on one of the bridge-tunnel's man-made islands served free cake, toll takers passed out commemorative bookmarks, and one lucky set of travelers received a gift basket. After 40 years, the bridge-tunnel has become part of the backdrop of Hampton Roads and the Eastern Shore, playing a different economic role in each region.

The Missing Link

Before Interstate 95 was substantially completed through Virginia in 1964, drivers traveling between New York and Florida often hugged the coastline. But to cross the southern section of the Chesapeake Bay, they had to hitch a ride on one of the steamer ships or private ferries that ran between Hampton Roads and the southern tip of the Eastern Shore.

When the Pennsylvania Railroad stopped running steamers, ferries couldn't keep up with the growing demand from interstate travelers and locals. James Brookshire Jr., executive director of the Chesapeake Bay Bridge and Tunnel District, says it took 90 minutes to make the trip by boat, plus time to load and unload passengers and vehicles. The ferry crossing was "the one bottleneck" along the East Coast that needed help.

Virginia legislators created a private commission in 1954 to take over the ferry service and deal with the bottleneck, then decided two years later that a fixed crossing was the long-term solution. After a study found such a crossing to be financially feasible, the commission sold $200 million in revenue bonds in 1960 to finance the construction of the Chesapeake Bay Bridge-Tunnel (CBBT).

Today, the CBBT continues to facilitate interstate traffic, supporting three important industries in the Hampton Roads area. "We need to get trucks to our ports, we need to get our tourists in and out during the summer months, and we need to get inputs and outputs to and from our factories," describes John Whaley, deputy executive director of economics at the Hampton Roads Planning District Commission.

Though the CBBT handles fewer vehicles compared to Hampton Roads' other entry points (see table), its traffic volume continues to grow along with the volume on US-13. This four-lane road passes through Philadelphia and Wilmington, Del., and snakes down the center of the Delmarva Peninsula for over 200 miles until it reaches the CBBT. More people are choosing this route into and out of Hampton Roads over the busy interstates.

The region's trucking companies often serve customers in the Northeast, so they have plenty of big rigs traveling west on I-64 and north on I-95, and vice versa. But the interstates can be frustrating, notes Whaley. "Lots of trucks don't want to have to go through Washington, D.C., if they are coming from the north. I-95 is hectic and I-64 is hectic. Then, you have to go through the Hampton Roads Bridge-Tunnel, which in the summertime becomes pretty jammed up. I'm told that many truckers will get on US-13 north of D.C. and have pretty clear sailing all the way to Hampton Roads."

By using US-13 and the CBBT, truckers shave 95 miles off their trip between Wilmington and Hampton Roads. This reduces fuel consumption, which is especially important given today's high gasoline costs.

The alternative route also saves fuel because it provides stretches of smooth driving with relatively few starts and stops. Drivers pass through only two towns of any size – Dover, Del., and Salisbury, Md. – enabling trucks to travel 55 miles per hour for most of their journey. Pat Patterson, a personnel manager at Givens Transportation in Chesapeake, Va., says this is the optimal speed for fuel efficiency, but drivers have a hard time maintaining it on I-64 and I-95. "If you're not running 70 miles an hour you have to get out of somebody's way," he complains.

Tourists also turn to US-13 and the CBBT to save time, and to take a break from the lack of interstate scenery. Hampton Roads residents travel the route to head north, while Canadians and travelers from Northeast cities use it to head south.

In addition to facilitating interstate travel, the CBBT connects Virginia's Eastern Shore to the mainland. "It's our lifeline to Hampton Roads if you live from Exmore south," says Julie Badger, chief financial officer at Farmers & Merchants Bank-Eastern Shore in Onley, Va. (Exmore is near the mid-point of the Eastern Shore, with Accomack County above and Northampton County below.) "A lot of people head south for entertainment, health care, and shopping."

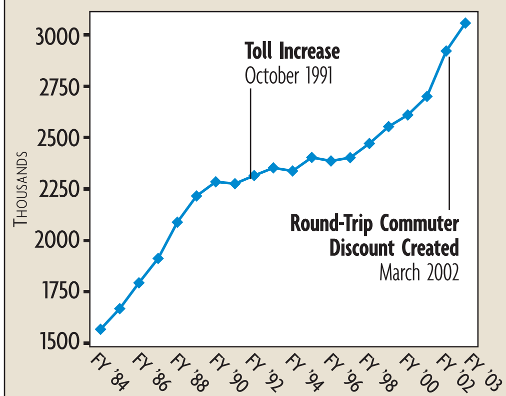
The 51,400 people living in Accomack and Northampton aren't sufficient to interest mass retailers like Kmart, which closed its store in Exmore last year. Only smaller retailers and supermarkets operate in these counties, and mostly along US-13 to take advantage of the traffic flow.

The CBBT also enables Hampton

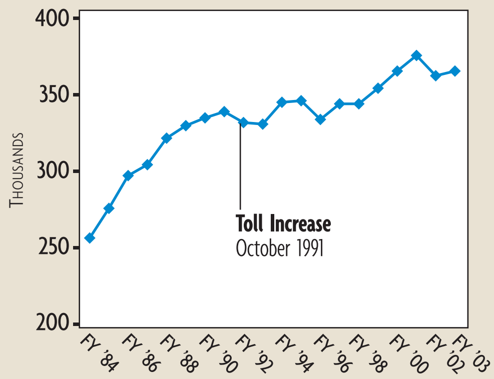
Busy Across the Bay

The Chesapeake Bay Bridge-Tunnel has seen steady growth in automobile and truck traffic in the last 20 years. Changes in the toll seemed to have little effect on demand.

Traffic by Fiscal Year, Passenger Cars and Light Trucks, 1984-2003



Traffic by Fiscal Year, Heavy Trucks and Recreational Vehicles, 1984-2003



SOURCE: Chesapeake Bay Bridge-Tunnel Commission

Roads businesses to provide goods and services needed in both counties. For example, residents have seen construction crews making the round-trip across the bridge-tunnel daily to work on residential projects throughout the Eastern Shore. "Anybody who wants to get a house built has to go outside of the area because [the locals] are saying it will be two years before they can get to you," notes John Ordeman, a retired teacher who belongs to a community group called Citizens for a Better Eastern Shore (CBES).

The Road to Economic Growth?

Although the Chesapeake Bay Bridge-Tunnel facilitates the flow of people and goods, it hasn't provided the amount of economic stimulus that major roadways usually bring to rural areas. "When the bridge-tunnel opened, it was expected to have a great economic impact on the Eastern Shore. That didn't happen for quite a long time," says Denard Spady, executive director of CBES.

Spady blames the early completion of I-95 in 1964 and delays in upgrading US-13 for dampening traffic flow across the CBBT in its early years. Even when the number of people and goods started growing, eventually requiring the construction of a parallel set of trestles and bridges in 1999, it didn't always translate into new homes and businesses on the Eastern Shore.

While the region has a good transportation infrastructure and is rich in natural resources, it lacks other factors necessary to support economic activity. These include a sufficient amount of skilled labor, developable land, and water and sewer lines.

One industry on the Eastern Shore that has been able to leverage the CBBT is tourism. More than 900,000 vehicles passed through the bridge-tunnel's tollgates during the peak summer months of July and August last year, a 36 percent increase from the same period in 1990.

The Travel Industry Association of America has said that more Americans are taking driving vacations, staying close to home, and visiting rural destinations. All three trends have contributed to a growing number of tourists visiting Virginia Beach and other parts of the Hampton Roads area, and the bridge-tunnel has enabled them to discover the joys of the Eastern Shore simultaneously. In addition, Hampton Roads residents cross the bridge-tunnel to escape city life.

To stimulate non-tourism economic growth in Virginia's Eastern Shore, efforts began several years ago to reduce the $10 toll for motorists crossing the CBBT. Advocates argued that the toll was a barrier to economic development. A 2001 study commissioned by the Accomack-Northampton Planning District Commission predicted some acceleration in household growth and a subsequent increase in traffic in areas closest to the bridge-tunnel if the round-trip toll was lowered from $20 to $14.

"A reduction in the cost of travel through a toll discount gives the southernmost portions of Northampton County a comparable commute cost profile to other outlying areas of the [Hampton Roads] metropolitan region," noted the study's authors. "This, combined with other features of the area, may make it more attractive to residential development aimed at the commuter market."

But some residents opposed a toll

Scenic Shortcut

Tourists and truckers traveling between Hampton Roads and Wilmington, Del., save 95 miles by taking the Chesapeake Bay Bridge-Tunnel and US-13 instead of the busy interstates.

*The Hampton Roads region includes the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg; and the counties of Gloucester, Isle of Wight, James City, Southampton, Surry, and York.

SOURCES: Hampton Roads Chamber of Commerce and Hampton Roads Planning District Commission reduction because it would undercut the financing of future projects, such as the construction of additional tunnels to connect to the CBBT's second set of bridges and trestles. Others feared that development would accelerate and change the rural nature of the Eastern Shore.

Tinkering with the Price of Passage

In March 2002, the commissioners who oversee the CBBT sided with growth advocates. They voted to reduce the round-trip toll from $20 to $14 for travelers completing the journey within 24 hours.

In two years, the toll change didn't seem to have a big impact. Residents say they have seen an acceleration of real estate speculation and residential construction as developers play up the cheaper cost of crossing the CBBT, but some of this activity was probably taking place before the toll change.

Studies commissioned by the Virginia Department of Transportation (VDOT) and the CBBT Commission in 2000 concluded that the bridge-tunnel's traffic flow would not change significantly in the short term by cutting the toll a few dollars. In other words, the demand for the bridge-tunnel appeared to be relatively "price inelastic" for several reasons (see the Jargon Alert column on p. 6 for a discussion of this term).

First of all, most residents need to cross the bridge-tunnel only occasionally. They tend to do most of their business locally and a growing number of them are retirees, either the 65-and-older crowd who no longer have a daily commute or younger people who run a business locally or from home.

Many people, in fact, live on Virginia's Eastern Shore because of its relative isolation. "When people move to the Eastern Shore, it's a lifestyle decision," says Julie Badger at Farmers & Merchants Bank. "If you … want a Starbucks, a multiplex, chain restaurants, and a mall, none of that is here. That kind of person won't move here."

Second, more residents earn high incomes, and the cost of the bridge-tunnel toll isn't significant to them. In 1990, only 3.4 percent of the Eastern Shore's households made $75,000 and more. Ten years later, that percentage tripled to 10.2 percent of households.

Would a change in the price of passage across the CBBT affect the flow of commercial vehicles? The tolls for trucks are more than double the motorist toll, but their bottom-line impact is small. "If you are a trucker bringing in $50,000 worth of cargo, the cost of the toll is not really significant," says economist John Whaley of the Hampton Roads Planning District Commission.

The toll isn't a big factor for many Eastern Shore businesses either because they don't have to use the CBBT. For example, Ed Tankard has seven to eight trucks carrying plants from his family-owned nursery in Exmore to customers every day. None of them head south. Instead, they head north to markets like Philadelphia, New York, and Boston. While businesses on the Eastern Shore serve some customers to the south, Tankard says that most of their demand has historically been from the north.

A poultry processing facility operated by Perdue Farms, the Eastern Shore's largest employer, reportedly uses the CBBT to access the port in Hampton Roads. However, other poultry firms in the region don't produce a majority of their chicken for export. "Most of our finished product goes north through Delaware or west … to Annapolis," says Bill Satterfield, executive director of the Delmarva Poultry Industry Inc., a regional trade group.

Data from a VDOT study of the US-13 corridor supports this anecdotal evidence. Average daily volume on US-13 is higher at points north of the midpoint of the Eastern Shore compared to points south of the midpoint, including the bridge-tunnel.

In the final analysis, it would probably take a drastic reduction of the CBBT toll or its elimination to dramatically affect traffic patterns or residential development in southeastern Virginia. The likelihood of that happening is slim, however. The bridge-tunnel depends mostly on toll revenue to cover its annual maintenance and operating costs and to pay off construction bonds.

In fact, the commission decided to boost the price of passage in June 2004 to help finance the new tunnels. The one-way toll for motorists rose two dollars to $12, while the round-trip toll increased three dollars to $17. Also, five-axle tractor trailers and commercial buses have to pay $5 more.

Officials say the new capacity will be necessary to handle traffic growth projected for the next 40 years. Since the toll increases probably won't slow this growth, the Chesapeake Bay Bridge-Tunnel will likely continue to support economic activity in the Eastern Shore, Hampton Roads, and beyond. **RF**

Major Arteries

Among the thoroughfares carrying traffic in and out of Hampton Roads, Va., the Chesapeake Bay Bridge-Tunnel accounts for a relatively small share of the region's traffic volume.

Facility (No. of Lanes)	Est. Vehicles Per Day (min.-max.)
Chesapeake Bay Bridge-Tunnel (4)	10,000 – 20,000
Chesapeake Expressway (4)	10,000 – 30,000
Hampton Roads Bridge-Tunnel (4)	80,000 – 100,000
US-460 (4-6)	40,000 – 85,000
Max. capacity for typical 2-lane facility	20,000 – 25,000
Max. capacity for typical 4-lane facility	75,000 – 80,000

SOURCE: Hampton Roads Planning District Commission

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On the Outside Looking In

Millions of Americans do not use conventional banking services, but is that necessarily bad?

BY ROBERT W. KIDD

A vibrant, 30-something female is buzzing about her home preparing for an evening out. Behind schedule and with curlers in her hair, she frantically applies mascara. Suddenly, she remembers her monthly bills are due. No problem. She calmly sits down at her computer, logs on to her bank's web site, and, voila, those pesky bills are paid. "All in under three minutes" is the commercial's tagline. Clearly, banking must be a snap — just point and click.

Plus, the advantages of having a traditional banking relationship can be significant. A deposit account provides a cushion for financial emergencies, facilitates wealth building, and allows for credit history development. Further, consumer protection laws regulate mainstream financial service providers to shield customers from discriminatory and predatory lending practices. Yet, despite these obvious benefits, roughly 9 percent to 10 percent of U.S. households are "unbanked" — meaning they do not have a checking, savings or other deposit account with a regulated financial service provider like a bank, credit union or thrift. Why do millions of Americans forego the traditional banking system?

Underserved or Self-Served?

Studies consistently reveal that unbanked households share similar socioeconomic characteristics. For instance, they tend to have lower-than-average incomes. The Federal Reserve Board has estimated that 83 percent of households without a checking account earn less than $25,000 annually while 99 percent of households making more than $50,000 do have an account. In addition, the unbanked tend to live paycheck-to-paycheck and spend most of their income each month.

Some claim that the unbanked lack access and are purposely "underserved." They argue that since low- and moderate-income (LMI) customers are less profitable, banks are not interested in serving LMI communities.

To support this criticism, consumer advocates point to studies that show there has been a reduction in the number of bank branches in LMI neighborhoods. For instance, a Federal Reserve Board study, "Changes in the Distribution of Banking Offices," confirmed that while the overall number of bank offices between 1975 and 1995 increased, the number in LMI neighborhoods decreased. However, the authors also point out that the low- and moderate income areas which were losing offices were also experiencing declines in population. In 1975, low-income neighborhoods had the largest number of offices per capita; by 1995, there was relatively little difference across income categories.

The Financial Service Centers of America (FiSCA), a trade organization representing the check-cashing industry, characterizes customers not as "unbanked" or "underserved" but as "self-banked," who "use check cashers to obtain those specific services they need and they pay only for what they use."

Daniel Tatar, an economist and assistant vice president at the Federal Reserve Bank of Richmond, agrees. "We assume that the unbanked need to be in the banking system but I am not certain that they should be. I think there are today some alternative delivery systems that meet certain needs. Some people are making a very rational decision by not having a bank account."

Several surveys of the unbanked reveal that they choose not to have a checking account for a variety of reasons. Most respondents said that they did not write enough checks to make it worthwhile, that they did not like dealing with banks, or that they did not have enough money. Others said that the service charges were too high. Another reason was the desire to keep financial records private and safe from creditors. While a few mentioned they were uncomfortable dealing with banks, 49 percent of the unbanked still cash their checks in banks, even though they do not have a deposit account with those institutions.

Where Do The Unbanked Go?

Unbanked households have the same financial needs as a banked household. The unbanked must still convert their payroll checks into a usable form, such as cash, and pay their monthly rent and utility bills. But if they are not using the traditional banking system, how are they satisfying these needs?

There are approximately 11,000 neighborhood non-bank financial service centers, such as commercial check-cashing outlets (CCOs), in the United States. In addition to cashing their payroll check, a customer may choose from a wide range of other fee-based products and services. For instance, many CCOs sell money orders, prepaid telephone cards, postage stamps and envelopes, mass transit fare cards/tokens, lottery tickets, direct deposit services, photocopier and fax services, and deferred deposit accounts. Many CCOs also accept utility bill payments, process money transfers, exchange foreign currency, collect automobile registration and rent payments for public housing, and provide income tax preparation.

CCOs offer customers ease and convenience as a "one-stop shop" — for a fee of course. For instance, these centers cash approximately 180 million checks a year with an estimated face value of more than $55 billion. The fee revenue for this service alone is estimated to be almost $1.5 billion a year.

However, given the tenuous financial condition of most unbanked, there is obvious concern that these fees are paid by households that can ill afford them. According to economist John Caskey of Swarthmore College, "the problem created by the regular use of CCOs is that they are an expensive source for payment services. Outside of a small number of states with strictly binding fee ceilings, most CCOs charge between 2 percent and 3 percent of the face value of a check to cash it. A family with $18,000 in take-home pay that uses such CCOs regularly can easily spend $400 or more of its limited annual income just to obtain basic payment services."

Pent-Up Demand

Finding opportunities for growth is a chief challenge for banks. "Although mergers will continue to take place, opportunities to create substantial value have diminished and relatively fewer deals will pack the punch of the 1990s," states a recent report from the consulting firm McKinsey & Company. "Executives of large banks must look for new ways to increase earnings." The unbanked population may serve as a growth engine, especially if as one estimate suggests, the unbanked represent a $4 billion market.

A niche market that both McKinsey and Caskey identify as an opportunity for banks is the unbanked Hispanic population. McKinsey's Andres Maldonado and Alejandra Robledo estimate that every year immigrants in North America and Europe send more than $60 billion to their home countries. Over half of all global remittances originate in the United States, and 65 percent of that money goes to Latin America.

Convincing Hispanic immigrants to use the banking system to help handle these remittances and open bank accounts involves more than just hiring Spanish-speaking tellers. According to Tatar, Hispanic immigrants who have experienced Latin America's economic crises firsthand bring with them a lack of confidence in institutional banking systems. This presents considerable challenges for traditional banks in the United States.

Banking The Unbanked

Caskey has outlined a strategy for banks to serve the unbanked. He recommends that banks open "outlets," or special branch offices providing both traditional services and services that nonbank financial service providers offer: one-stop shopping for utility and other household bills, money orders, and wire transfers. It's also important that they locate in areas convenient for LMI households. He believes that since banks benefit from economies of scale, have direct access to check-clearing systems, and have a relatively low cost of financial capital, banks should be able to set fees for services which are highly competitive yet reasonably profitable. Caskey claims that "assuming outlets attract moderately high volume of check-cashing business and that outlets levy check-cashing fees in the neighborhood of 1.0 percent to 1.5 percent, outlets should earn about $100,000 a year from check-cashing and other payment service fees."

Caskey points to Union Bank of California as a noted success story of a traditional firm transitioning unbanked customers into the banking system. In 1993, Union Bank created "Cash & Save" outlets that offer check-cashing services and traditional banking services in LMI areas. Within a few years of patronizing the outlets, 40 percent of its check-cashing customers use at least one traditional bank product.

Whether banks will succeed in providing a compelling option to the unbanked remains to be seen. In the meantime, it is clear to economists like the Richmond Fed's Tatar that check-cashing outlets are meeting a need in the market. But a balance must be struck. "People need choices. Don't take those choices away," says Tatar. But government also "has a responsibility to protect people. You can have viable financial options available as long as they do not exploit. Sometimes these alternative systems are not wrong. What we need to do is find a way to make it fair." **RF**

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Blowing in the Wind

North Carolina acts to cut upwind pollution

BY BETTY JOYCE NASH

Everybody lives downwind from someone. Just as wind picks up leaves from a neighbor's yard and scatters them onto your raked lawn, so, too, dirty air drifts from state to state, miles from original sources.

Pollution transport has grown into a touchy regional issue as pressure mounts to clean the air in the wake of recent reports that more than half the people in the nation breathe air that doesn't meet federal standards.

In Fifth District states, most metropolitan areas don't measure up. The United States Environmental Protection Agency (EPA) in April reported that about 159 million people live where ozone pollution exceeds standards. Ozone is a gas that damages lungs and aggravates breathing problems. It forms from a brew of chemical emissions, gasoline vapors, and solvents, and worsens in summertime.

Theories of pollution control have changed as scientists gain more information. For example, tall smokestacks, built in response to existing clean air rules, thrust dirty air high into the atmosphere to dilute it. While that helps clean local air, experts now know that the tall stacks send pollutants far and wide, borne by wind and weather patterns.

Epidemiological science has spoken loudly about health effects of tiny particles of pollution called particulate matter. The smaller the particles, the more damage they do. The EPA has set and courts have upheld a standard of 2.5 microns or smaller, with 2.5 being about one-tenth of the diameter of a human hair. Because they are minuscule, the particles can lodge in people's lungs too deeply to be expelled naturally. Those particles, produced by combustion, can cause a wide range of problems, from respiratory and pulmonary distress, among others, to premature death.

Dirty air looms large over both coasts and it won't dissipate without substantial costs to power producers and, by extension, people who use electricity. Sulfates, formed from sulfur dioxide, are responsible for particle pollution and are emitted primarily from coal-fired power plants.

Market approaches that set caps and allocate allowances have helped cut sulfur dioxide (SO_2) pollution efficiently in the EPA's acid rain program. Deeper cuts of SO_2 and other pollutants are in store and the EPA is suggesting market caps as a way for states to reach goals.

In the Fifth District, North Carolina has pushed regional air-quality issues to the forefront by filing a petition with the EPA that would force its upwind neighbors to reduce pollution.

North Carolina's Clean Smokestacks

North Carolina in 2002 passed a law mandating air pollution standards stricter than those set by the federal government. The law will cut nitrogen oxide (NO_x) by 77 percent by 2009 and sulfur dioxide (SO_2) by 73 percent by 2013. Those two chemicals figure prominently in formation of particulates. The standard is more strict than the Clean Air Interstate Rule proposed by the EPA late last year for 29 Eastern states and Washington, D.C.

North Carolina's legislators bought into the strict controls for a variety of reasons, says Michael Shore, Southeast air quality manager for Environmental Defense. For example, there is continuing public outcry over pollution that obscures visibility in the Tarheel State's prized Southern Appalachian region, degrading the view and the tourist economy. Since 1948, annual average visibility in the Southern Appalachians has decreased 60 percent, 80 percent in summer and 40 percent in winter. Visibility should be 113 miles, but averages 25 instead.

The state also knew from its own data that some areas would not meet the EPA's latest particulate matter standards, says Tom Mather, spokesman for the North Carolina Division of Air Quality.

North Carolina's Attorney General last spring asked the EPA to instruct upwind states to cut power plant emissions to help clean its air.

Recognizing that certain pollutants, such as NO_x, travel widely, EPA has targeted NO_x reduction to clean up downwind states, says Rona Birnbaum, chief of assessments and communications for EPA's Clean Air Markets Division. "It's not just a phenomenon that can be addressed adequately by local controls," she says. The Clean Air

Interstate Rule would require states to cut SO_2 and NO_x emissions. States would have flexibility to choose what sources to control and how to achieve the caps on pollution.

North Carolina submitted its petition after the EPA proposed this rule, notes Carla Oldham, an environmental scientist with the EPA's Air Division.

"Some states showed interest in developing regulations somewhat similar to North Carolina's but they hadn't really made any progress," Oldham says.

Petition 126, which refers to the clause allowing the appeal, has been used before. In the late 1990s, Northeastern states could not meet federal standards for ozone levels. They blamed interstate transport of NO_x and the states resorted to the 126 petition.

The states weren't sure the EPA would finalize the rule or that the states in question would follow the rule. The EPA and the states agreed that if the agency stayed on track with its requirement that states submit plans to reduce NO_x, the states would defer action under the petition.

"That worked out nicely for us because with states knowing 126 was out there, if they didn't respond to [the call for plans to reduce NO_x], then the EPA would regulate their sources. [It was] a strong incentive for states to regulate," Oldham says.

Discussions are under way between the EPA and North Carolina to resolve the issue, given the proposed rule, which may be final this fall and affect the petition's outcome. The rule would require states to submit plans to achieve pollution cuts.

The Price of Air

Further cuts in emissions will cost big money because even the savviest of power plant operations will need scrubbing systems that remove SO_2 and NO_x. Power plants emit 63 percent of the nation's SO_2 and about 22 percent of NO_x.

Duke Power last winter began a $400 million project at the Marshall Steam Station located near Charlotte, according to spokesman Thomas Williams. The effort will cut the plant's sulfur dioxide emissions by 90 percent. Duke Energy will spend $1.5 billion within seven years to comply with Clean Smokestacks. (That legislation allowed North Carolina's biggest power producers, Progress Energy and Duke, to recover costs by freezing rates through 2007. Rates had been scheduled to decline, as projects were amortized and paid off, but will stay the same for now.)

Dan Genest, a spokesman for Dominion Resources, based in Richmond, Va., said the company does not know how much it will cost to comply with the EPA's proposed air pollution rules. But he says the firm's 10 coal-fired plants in Virginia and West Virginia will likely require scrubbers to remove pollutants. Currently, Dominion Virginia Power has scrubbers on all three units at Mt. Storm in northeastern West Virginia, on both units at Clover in Halifax County, Va., and plans for scrubbers on the two biggest units at Chesterfield Power Station in 2010 and 2011.

Continuing to breathe the unavoidable, minuscule particles of soot and ozone will be expensive, too, though. Estimates of the annual costs of implementing the rule are $3 billion and $4 billion in 2010 and 2015 respectively. The EPA's benefit-cost estimates put the annual benefits at $58 billion in 2010 and $84 billion in 2015 [both estimates in 1999 dollars].

The analysis did not place dollar values on impacts such as the effect on recreational demand from damaged forests, damage to ecosystems, effects of acid deposits to commercial and recreational fishing, among others. But benefits include 1 million fewer days annually lost to workplace absences by 2010 as well as 22,500 fewer hospital admissions and emergency room visits by 2015. And the rules are expected to prevent nearly 10,000 premature deaths annually by 2010. On linking particulate matter with premature death, the EPA's cost-benefit analysis notes: "Inhalation of fine particles is causally associated with premature death at concentrations near those experienced by most Americans on a daily basis. Although biological mechanisms for this effect have not yet been definitively established, the weight of the available epidemiological evidence supports an assumption of causality."

Cost-benefit analyses are always controversial, especially when the calculation involves placing value on human life. The practice raises a host of ethical issues — as well as tricky technical questions for those charged with determining dollar figures. The EPA's estimates of a statistical life have been criticized by some as too low and by others as too high. "I know that many economists intimately familiar with the statistical life estimate the EPA uses in its analyses feel it is too high," says David Evans of Resources for the Future. The numbers of lives saved or asthma attacks reduced, for example, are not disputed but the value is. "This is particularly true for the benefits of reduced mortality, which constitutes the bulk of the benefits of reduced SO_2 and NO_x emissions."

Power plants will pass on costs to ratepayers, as any business would, increasing the cost of doing business for industrial and business users and monthly bills for people. Economic theory would suggest that if electricity is associated with pollution, then users should bear as much of the full cost as feasible.

Clean air, economists have urged, can be achieved more efficiently through market-based approaches, which often can out-perform traditional command and control regulation. Evidence from the cap-and-trade program to control SO_2 bears out this notion.

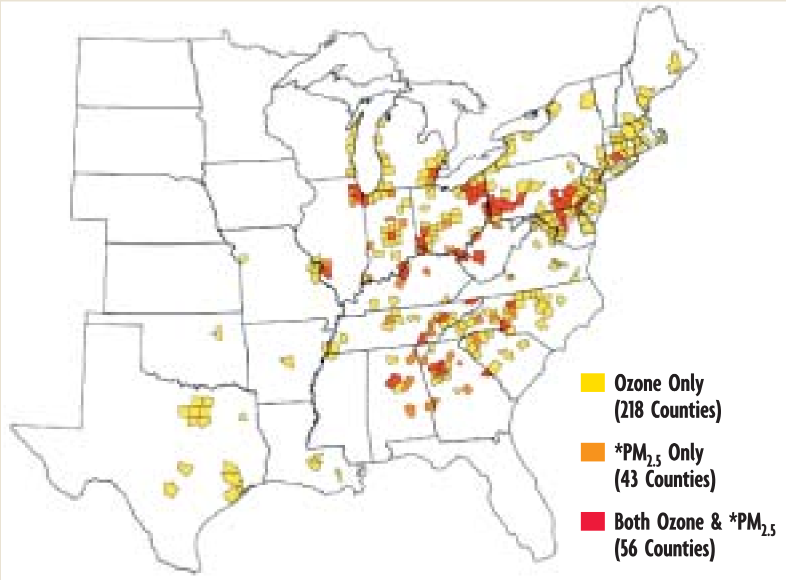
In 1990, the Clean Air Act Amendments capped power plant emissions at half the 1980 levels. The industry was allocated a fixed number of allowances and firms gave up one allowance for every ton of sulfur dioxide emitted. Firms may trade allowances among facilities or bank them for future years.

Birnbaum of the EPA says the cap-and-trade programs, including a trading plan among Northeastern states to reduce NO_x emissions, have been an efficient model for cutting pollution transport.

The operative word when describing a trading program is "cap," notes Birnbaum. For example, the EPA's new Clean Air Interstate Rule, if adopted, will cap NO_x and SO_2 emissions at 65 percent and 70 percent of current levels respectively by 2015.

Ozone and Fine Particle Pollution

Eastern counties that exceed standards for ozone and fine particle pollution



NOTE: Based on 2000-2002 data of counties with monitors that have three years of complete data

*Fine particle matter that can lodge deeply into the lungs

SOURCE: Environmental Protection Agency Office of Air and Radiation

Trading plans are often misunderstood, with people sometimes confusing credits as rights to pollute.

"One thing you have to realize is that you can't just buy a credit," Birnbaum explains. "There has to be an emission reduction someplace above and beyond where they're allowed to be." In the SO_2 trading plan, most of the reductions occurred in higher-emitting states in the Ohio River Valley, where many older power plants operate.

"And typically those are the plants that contribute to a broader scale of problems in multiple states," Birnbaum says.

Another distinguishing feature of a trading plan is that a ton of a pollutant becomes a commodity. That puts the focus on monitoring and assessment rather than prescriptive regulation. "Stringent, accurate, continuous emissions monitoring is a critical component of that program," Birnbaum says. "If they're [emissions] being sold, banked, or traded, you need to track every emission and every allowance that's traded."

Emissions caps, as currently designed, are not adjusted for the size of the economy. As the economy grows and electricity demand heats up, sources must meet demand within the cap. Flexibility allows power producers to figure out how to meet the cap in the most efficient manner.

The SO_2 cap-and-trade plan cut pollution by half at about half the expected cost, according to Denny Ellerman, executive director of the MIT Center for Energy and Environmental Policy Research.

Cap-and-trade plans allow flexibility, and that sparks innovation. The SO_2 program "also has resulted in innovation through changes in organization and technology, in the organization of markets, and through experimentation at individual boilers, much of which arguably would not have occurred under a more prescriptive approach to regulation," write Dallas Burtraw and Karen Palmer. The discussion paper was written for the Washington, D.C.-based think tank, Resources for the Future.

Local Gain, Regional Pain

While local cuts in SO_2 emissions cleaned local air, experts realized that power plants' tall stacks added to pollution transport, write Burtraw and Palmer:

"Emitted high in the atmosphere, SO_2 emissions from coal plants travel hundreds of miles and convert to sulfates that, as particulates, play an important role in air quality affecting human health and visibility."

Contributing to the problem of acid rain and particulates in the Eastern United States is the continued burning of high-sulfur coal found in the Appalachians and the Midwest. That's encouraged by the high cost of transporting low-sulfur Western coal and by coal industry politics that encourage using the high-sulfur local coal.

To tackle regional air pollution, the EPA has expanded the number of states involved in its original nine-state NO_x cap-and-trade plan to solve summertime smog problems in the Northeast. That plan has been blended into another plan covering more Eastern seaboard states. Virginia is among the states covered by the plan this year, and the state auctioned 5 percent of its NO_x allowances, raising $10.5 million. (Virginia and Kentucky are the only states to sell allowances rather than give them to electric utilities.)

Ultimately these programs will fall under the proposed Clean Air Interstate Rule. The rule will cover NO_x and SO_2 emissions in 29 Eastern states and Washington, D.C.

And the market innovations used to control pollution will make it cheaper to buy more clean air. **RF**

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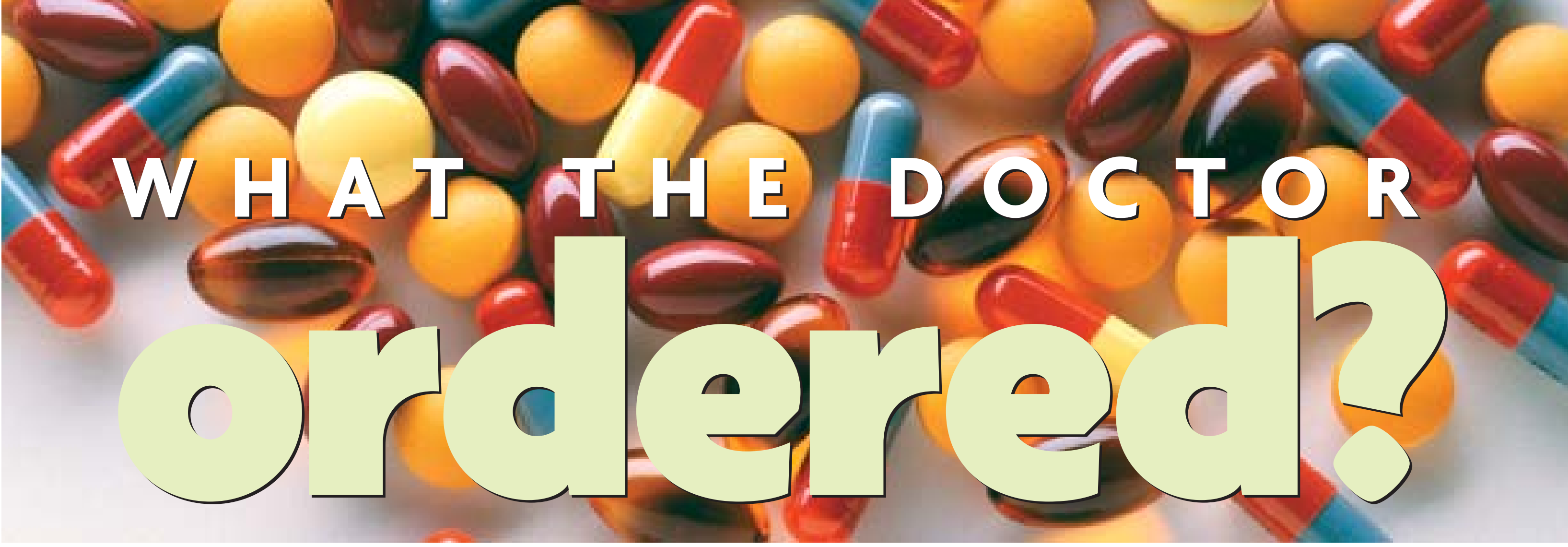


WHAT THE DOCTOR ordered?

The economics of drug reimportation

BY AARON STEELMAN

If there is a concept that enjoys almost universal support among economists, free trade is it. According to a survey published in the *American Economic Review*, 95 percent of U.S. economists agreed with the proposition that "tariffs and import quotas reduce general economic welfare." So the case of drug reimportation should be clear-cut, right? Not exactly.

American drug companies routinely sell their goods abroad at prices lower than those found in the United States. For instance, many American consumers could probably order their prescriptions more cheaply from a pharmacy in Toronto than one in Baltimore. Why not allow those drugs to be sent back to the United States for sale at Canadian prices, a practice that is currently prohibited by law?

That's a good question, says Rep. Gil Gutknecht (R-Minn.). He says that people who regularly take prescription drugs should be able to buy their medicines from pharmacies abroad — and has introduced a bill that would legalize the practice. Gutknecht, who represents a largely agricultural district, argues that if free trade in farm products is a good thing, then free trade in prescription drugs should be as well. "The more I studied the differences between what Americans pay for prescription drugs and what the rest of the industrialized world pays for those same drugs, the more I came to the conclusion that if markets work with pork bellies, they will work with Prilosec," he has said.

This analogy may seem apt, but many economists argue that the case is more complicated. Drugs are unlike other goods because they are often extremely expensive to develop. For instance, industry estimates put the average cost of developing a new drug at $800 million. That cost has to be recouped in some way. Canadian law, though, puts strict limits on drug prices, setting the maximum price just above the marginal cost of production. That may seem fair. But it does not take into account the high research expenses that drug companies face, which drive up the *average* cost of pharmaceuticals. If drug companies relied on the Canadian market alone, they probably could not turn a profit on many of their goods. So why do they enter the market at all?

Here it might be useful to draw an analogy with the airline industry. The cost of putting a plane in the air is roughly the same whether that plane is empty or full. So once the airline has sold enough tickets to make the flight profitable, it has a strong incentive to fill the rest of the seats, even if that means charging less for the 50th ticket sold than the first.

The case of prescription drugs is similar. In order to make a profit, the pharmaceutical company needs a relatively large market that is willing to purchase its drugs at relatively high prices. In most cases, that market is the United States. This allows consumers in other countries with pharmaceutical price controls, such as Canada, to effectively act as free riders. Having already recouped their research expenses, pharmaceutical companies are willing to sell their goods abroad at lower prices, because the cost of making and distributing, say, the one millionth Prilosec pill is quite small.

So what would happen under a regime of drug reimportation? It's hard to say for sure, of course. But economists have offered some informed speculation. American drug companies might sharply cut their shipments of drugs abroad, knowing that those goods would wind up back in the United States. Or they might try to renegotiate the prices they can charge in foreign markets, raising the average global price, and thus reducing the potential economic damage they face from reimportation. Neither scenario would do much to help American consumers and could potentially harm foreign consumers a good deal.

A better solution, instead, may be to encourage other industrialized countries to relax their price control regimes. The vast majority of pharmaceuticals are developed in the United States. Part of that is because American companies employ researchers — many of whom are foreign born — with the knowledge required to produce groundbreaking drugs. But part of it is also due to the structure of the U.S. health-care system. American companies are rewarded in the marketplace for developing drugs that make our lives better and longer. If other countries were to liberalize their systems, they, too, might become home to innovative pharmaceutical firms — companies that could compete with American incumbents and drive down prices for everyone. **RF**

BOOK REVIEW

Baseball Science

MONEYBALL: THE ART OF WINNING AN UNFAIR GAME
BY MICHAEL LEWIS
NEW YORK: W.W. NORTON, 2003, 288 PAGES

REVIEWED BY
AARON STEELMAN

Talent. For some people it's a blessing. For others, such as Billy Beane, it can seem like a curse.

There are few things as sad as promise gone unfulfilled, and by all measures Beane was one of the most promising baseball talents of his generation. Standing 6 feet 4 inches, with blazing speed and a quick bat, Beane was labeled a "can't-miss" prospect. The New York Mets selected the 18-year-old in the first round of the 1980 amateur draft, along with another high school phenom, Darryl Strawberry. The two were supposed to be the pillars around which a championship team would be built. Strawberry lived up to this role — at least for a while. He was a star on the 1986 team that won the World Series, and had several more good seasons for the Mets before personal problems and injuries cut short his career.

Billy Beane's career, on the other hand, never really got off the ground. He played six mediocre seasons in the Major Leagues, mostly as a backup, compiling a career batting average of just .219.

The can't-miss prospect proved to be a bust. Why? Nobody really knew at the time, including Billy Beane. Maybe he lacked dedication. Maybe he lacked confidence. Or maybe he just wasn't as good as people thought. After all, Beane had little to recommend him other than raw talent and gaudy high-school statistics. He had never proven himself against top-notch competition before the Mets spent a first-round pick on him.

Unlike another talented young slugger from the San Diego area, Mark McGwire, Beane hadn't played college baseball. McGwire, in contrast, already had three years at the University of Southern California and a trip to the 1984 Olympic Games under his belt when he was drafted. In other words, McGwire had more than just talent, he had a track record. One could use a wide range of objective measures to evaluate McGwire, while with Beane one had to rely on subjective measures. McGwire, of course, would go on to become one of the most prolific home-run hitters in baseball history, while Beane knocked only three pitches out of the park during his entire career.

Bill James' approach, called "Sabermetrics," employs statistical and mathematical techniques to analyze baseball records.

To longtime baseball scouts, though, subjective measures were paramount. They believed they could spot a future star just by looking at him. As long as a player was fast, strong, and had a good arm, he could be turned into a big-leaguer. Billy Beane fit this profile perfectly. He benefited from the way scouts judged players. But after his playing days were over, Beane would devote his efforts to proving these

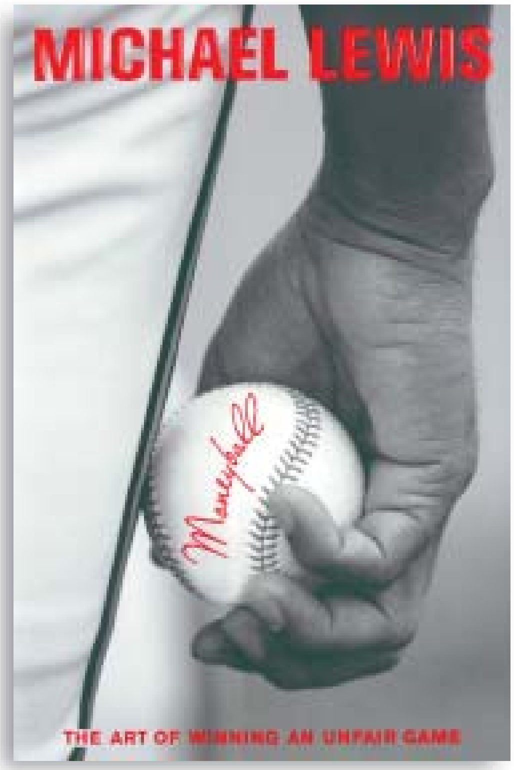
Editor's Note: Beginning with this issue, we introduce a book review department to *Region Focus*. First up: Michael Lewis' *Moneyball*, which discusses the economics of Major League baseball, an especially appropriate topic for the summer issue.

"baseball minds" wrong. He would strive to make baseball a science — one where quantifiable, testable measures prevailed over subjective evaluations.

Moneyball is the story of Beane's efforts to implement his theories as general manager of the Oakland Athletics, more commonly known as the A's. Written by Michael Lewis, the book follows the team during the 2002 season, a year in which Oakland won the American League West championship despite having one of the lowest payrolls in all of baseball. Beane and his staff, especially his assistant Paul DePodesta, were able to build a club that could compete with much richer opponents, even the hated New York Yankees, a team that many fans believed were destroying the game by buying up the game's best players. How did Beane and his staff do it? Through careful scouting of amateur players and shrewd free-agent acquisitions.

Consider the way they approached the draft. As Beane could personally attest, many scouts favored talented high-school players — young studs, as it were — over older college players. And while some of these high-school players would have fantastic major league careers — for instance, high schooler Alex Rodriguez was selected first overall in the 1993 draft and is now arguably the game's best player — many more would simply fade from the spotlight. College players were much safer, if less spectacular, bets. Beane and his staff toured the country in search of college players who many teams simply ignored.

For instance, in 1997 the A's drafted right-handed pitcher Tim Hudson. Although Hudson was the Southeastern Conference player of the year his senior season, posting a 15-2 record with the Auburn Tigers, few teams were interested in him. The A's were able to snap him up in the sixth round. Hudson became a regular member of Oakland's starting rotation in 1999, and since then has three times finished in the top 10 for the Cy Young Award, given annually to the league's top pitcher.



The A's also have been able to find bargains in the free-agent market, including many players that teams were anxious to discard. These players did not perform well on certain measures usually given great weight by baseball insiders, such as batting average and stolen bases. But to the A's, these were not particularly important statistics.

Beane and DePodesta were followers of baseball writer Bill James, who published his own *Baseball Abstract* from 1977 to 1988. James' data-heavy books were the products of intense research and some controversy. His approach, called "Sabermetrics," employed statistical and mathematical techniques to analyze baseball records. Early on, James created his own formula called "Runs Created." The idea was to develop a testable hypothesis about what accounted for a team's offensive output. The formula went as follows: Runs Created = (Hits + Walks) x Total Bases/(At Bats + Walks).

James tested his formula using Major League data. If the actual number of runs scored by a team differed dramatically from his predicted number, his model was clearly wrong. "As it turns out, James was onto something," writes Lewis. "His model came far closer, year in and year out, to describing the run totals of every big league baseball team than anything the teams themselves had come up with."

According to the Runs Created formula, the two conventional measures that contributed most to a team's offensive success were on-base percentage and slugging percentage. If a guy could get on base (it didn't matter how — getting a hit or taking a walk both counted) or hit for power, he could help his team score runs. So James combined the two statistics to create a new one: On Base Plus Slugging, known simply as OPS. Beane and DePodesta searched for players with high OPS scores, and found one in Scott Hatteberg.

Hatteberg, in the view of most Major League executives, was just an average player. In a single season, he had never hit above .277 or driven in more than 43 runs for his former team, the Boston Red Sox. Still, Beane and DePodesta noticed that he consistently had an OPS score around .800, thanks in large measure to a good eye at the plate. Hatteberg was no star. But he was a solid player who fit into the Oakland system. And that was exactly what Oakland was developing — a system.

Before the 2002 season, the A's had lost their best player, Jason Giambi, to the New York Yankees, who signed him as a free agent. Beane and DePodesta knew that they could not replace Jason Giambi. There were few players in the league as good — and those who were carried too high a price tag. But they could try to replace Jason Giambi's numbers by acquiring overlooked journeymen who would play their roles as Beane and DePodesta saw them. Hatteberg was the prototypical cog in the Oakland machine. The plan worked perfectly: Even without their star, the A's still won 103 games in 2002 and drew more than 2 million fans.

It's hard to argue with Beane's approach. The A's have performed impressively under his guidance. Since 2000, they have compiled a win-loss record of 392-255, and have gone to the playoffs every year. But some questions remain.

First, why do the A's seem unable to win the big game? The A's make it to the playoffs year after year but fail to advance to the World Series. Could there, in fact, be some "intangibles" necessary to get a team over the hump? For instance, are there, in fact, "clutch players," guys who have an uncanny ability to deliver when the stakes are high? If so, Beane and his staff would not be well prepared to identify such players since their contributions are, by definition, erratic and hard to predict. Also, might the proverbial "character guys" — players who lead the team in the clubhouse instead of on the field — be a key ingredient for a championship team? Again, if this is true, the A's would be likely to overlook them since their real value doesn't show up in a statistical formula.

Second, if Beane's approach is so good, why haven't other teams adopted it? Part of the explanation may be simple inertia. Baseball, more than any other sport, is tradition-bound. Old habits — and prejudices — die hard. Other general managers may look at the A's and simply think that their recent success has been a fluke. In their minds, the traditional way of running a baseball team — from judging talent to managing a budget — has worked for generations (even if it really hasn't) and with time will be proven superior to Beane's unorthodox methods.

To some extent, other teams are adopting Beane's approach. For instance, at the end of the 2002 season the Boston Red Sox named 28-year-old Theo Epstein as the team's general manager. Epstein first discovered Bill James' writings in the fourth grade and hired the Sabermetrics guru as a team consultant. J. P. Ricciardi, who worked closely with Beane in Oakland, was hired by the Toronto Blue Jays in November 2001 to run that team's front office. The Toronto management was impressed by what the cash-strapped A's were able to accomplish and hoped that Ricciardi could bring similar success north of the border. And before the 2004 season DePodesta was lured away from Oakland to become the general manager of the Los Angeles Dodgers.

Third, why haven't Beane's methods been applied to other sports? The pressure to win in professional basketball, for instance, is equally intense. If a more scientific approach would help a team win games, one would think that coaches and general managers would move — however gradually — to adopt it. Yet, if anything, we are seeing the opposite occur. Teams are increasingly basing their draft selections on talent and less on measurable performance. For instance, the number of high-school players being picked has skyrocketed, while it has become fairly rare to see a college senior chosen with a high pick.

Oakland was able to build a club that could compete with much richer opponents, even the hated New York Yankees.

Perhaps this has to do with the differing nature of the two games. In baseball there is a lot of one-on-one action. In a battle between pitcher and hitter, for instance, it's pretty easy to isolate how each player performed. But in basketball, it's not so easy. A guy could be a 30-point scorer because the offense is geared to feature him. On another team he may not look like such a star. Still, there are some objective measures — such as free-throw and field-goal shooting percentages — that could be used to construct formulas similar to the ones employed by Beane and his staff. It's not clear why this hasn't been done.

Whatever shortcomings there may be with Beane's approach to running a Major League baseball team — and the questions above suggest there are some, arguably minor, issues to be resolved — there is no doubt that his methods are interesting. Likewise, *Moneyball* is a fascinating read. Lewis has taken a good story and produced a great book that will appeal to a broad audience.

For instance, the person who first recommended *Moneyball* to me has only a passing interest in America's national pastime. A few years ago, I took him to a Chicago Cubs game. He enjoyed himself. After all, the bratwursts were tasty and the weather was good. But the actions on the field seemed nonsensical, even chaotic to him. Why, for example, did the grounds crew sweep the infield every three innings? It would be more reasonable, he argued, to send them out there as needed — for instance, after an especially long inning in which a lot of runners reached base. Or why did the manager have to wear a uniform like the players, since there was no chance he was going to enter the game? NBA, NFL, and NHL coaches didn't suit up, and he saw no good reason why baseball managers should be any different. To my friend, baseball relied too much on ritual and convention — and I think that's one of the reasons he liked *Moneyball*. To him, it was the story of science and order being applied to a game that, in his view, was unscientific and disorderly.

Of course, to many fans, that's the beauty of baseball. It's a simple game whose quirks are to be appreciated, not scorned, a game with an internal logic all its own. I suspect that those people will get as much enjoyment from reading *Moneyball* as my friend did, even if for very different reasons. **RF**

Virginia Budget Brings Fiscal Fitness But Not Reform

BY BETTY JOYCE NASH

Virginia legislators passed a $60 billion two-year budget after more than 100 days of haggling. The work paid off: The new budget restored the state's AAA bond rating from Moody's Investor Service, which should save the state money when it issues bonds.

The budget is noteworthy because it raises taxes. And as this issue goes to press, tax revenue is rolling in above predictions, growing at an annual 9.3 percent, nearly 3 percent above state forecasts.

While legislators shied away from raising any motor fuel taxes for transportation funding, given uncertainty over gasoline prices, they approved amendments affecting transportation proposed by Gov. Mark Warner. Those changes will move about $19 million from the general fund to the transportation fund and allow the governor to designate $50 million more for transportation projects.

The spending plan aims to restructure the tax code and invest in services. Legislators intended to reduce reliance on personal income taxes. In the past the state has received some 20 percent of revenue through sales taxes and about 55 percent through individual income taxes.

Virginia's Budget 2004-2006

- Raises state sales tax by a half cent
- Raises cigarette tax from 2.5 cents to 30 cents
- Freezes car tax phaseout
- Adds $450 million to rainy-day fund
- Adds $1.5 billion for public schools
- Adds $1 billion for nursing homes, hospitals

The budget deal will increase the state's sales tax by a half cent for most products. The plan eventually adds 30 cents (up from 2.5 cents) to the cost of a pack of cigarettes. (The deal also gradually lowers sales taxes on food, a move that many people say is equitable, since poor people spend a disproportionate amount of income on food.)

Increased revenues will put new funding worth $1.5 billion into public education to pay for rising enrollments, teacher pay, health insurance, and retirement costs. The budget also adds $27 million to expand funds to teach English as a second language. Higher education will benefit. Faculty members will get raises and Virginia students at private institutions will get more tuition assistance.

The plan brought tax breaks for some — like Philip Morris. The cigarette company, which moved its corporate home to Richmond in 2003, will get a $6 million credit on state taxes against income on sales of cigarettes produced for export, a break that expires in 2016.

Ordinary taxpayers got a little something, too. "Widely ignored was some modest reduction in income taxes by slightly raising the personal exemption," says John Knapp, director of the Weldon Cooper Center for Public Policy at the University of Virginia. The exemption went from $800 to $900. The filing threshold was increased, too, from $7,000 to $14,000. That removes 141,000 poor people from the tax rolls.

The car tax was also frozen. The tax is imposed on car owners by local governments, and was cut in 1998 by Gov. Jim Gilmore. The tax ultimately would have eliminated tax on the first $20,000 of a car's value. In its current phase, local governments reimburse citizens for 70 percent of the the tax they pay, and the state reimburses localities for the lost revenue. The budget agreement caps the reimbursement at its current level, about $950 million annually.

Overall, states are digging out of the hole they found themselves in when revenues during the most recent recession dribbled in rather than deluged state treasuries. "At least we're past the shortfall period and we can kind of now look forward," says Scott Pattison, executive director of the National Association of State Budget Officers. For example, state tax collections, adjusted for inflation, fell 7 percent in second quarter 2002 compared to the same quarter of 2001. Coming on the heels of a decade of rising revenue, the shrinking portions put most state budgets on a diet and used up rainy-day funds.

It's easy to see why. Revenues fade when economic activity slows while demand for public services tends to grow. States can fix the problem in two ways — reduce the cyclical variability of the revenue stream or build savings by creating and properly using rainy-day funds.

Sobel and Wagner found that for states with individual income taxes and retail sales taxes that include food, "shifting the reliance more heavily toward one and away from the other will not have a significant impact on overall revenue variability."

Virginia's tax and spending plan did raise eyebrows with its tax hike, but analysts don't see it as reform. Scott Moody of the Tax Foundation, an advocacy group based in Washington, D.C., says that he prefers a flatter tax system without special exemptions. "Anytime you riddle the tax code with special exemptions ... those are social policy programs that don't belong in the tax code," he says.

"To a large extent it [reform] is in the eye of the beholder," adds Knapp.

On the spending side, more money for K-12 and higher education might help boost human capital and ultimately economic growth. But whether "that extra dollar is going to be efficiently spent, that's beyond my analytical ability," says Knapp. **RF**

INTERVIEW

Kenneth Elzinga

Editor's Note: *This is an abbreviated version of RF's conversation with Kenneth Elzinga. For the full interview, go to our Web site: www.rich.frb.org/pubs/regionfocus.*

Many people think economics is boring — certainly not the stuff of which mystery novels are made. But those people probably have never heard of Henry Spearman. He is the hero of three murder mysteries written by economists Kenneth Elzinga and William Breit: *Murder at the Margin*, *The Fatal Equilibrium*, and *A Deadly Indifference*. (Actually, Elzinga and Breit published those books under the pseudonym Marshall Jevons, combining the names of two famous classical economists, Alfred Marshall and William Stanley Jevons.) Spearman — who is modeled after Milton Friedman — uses economic logic to determine who is behind the murders. The books are both fun and informative. As a reviewer for the *Wall Street Journal* remarked of *Murder at the Margin*, "if there is a more painless way to learn economic principles, scientists must have recently discovered how to implant them in ice cream."

Since 1967, Elzinga has served on the faculty of the University of Virginia, where Breit also taught from 1965 to 1983. In addition to his murder mysteries, Elzinga is well known for his work on antitrust issues and the economics of the beer industry. He is also an acclaimed instructor, having won several teaching awards at UVA, and a former president of the Southern Economic Association. Aaron Steelman interviewed Elzinga on June 7, 2004.

RF: When did you and Professor Breit become interested in using fiction as a way to convey economic ideas?

Elzinga: Bill and I were in the U.S. Virgin Islands, on the island of St. John, at a resort called Caneel Bay Plantation. We were vacationing there with my wife. At dinner we often discussed the "beach books" we had been reading. Bill was an avid reader of mystery fiction, about which I knew practically nothing, except the Hardy Boys. One night he described how the genre of mystery fiction had generated sleuths who used different methods of analysis to solve crimes.

As I recall, Bill mentioned Rabbi Small's use of the Talmud and Hercule Poirot's use of psychology as examples. Then he added something that caught my attention. Bill reported that there had never been a central character in all of mystery fiction who used economic reasoning to solve the crime. I suggested to Bill that he ought to create such a character. He responded that he would do so if I agreed to work with him on the project. You have to understand that Professor Breit is an unusually creative and witty person. And he is my best friend. So without giving the matter much thought, I agreed. And we started brainstorming about a novel during that vacation.

I had no idea, at the time, what hard work I had signed on for and no idea how much enjoyment we also would get from the collaboration.

RF: I have read that the hero of your novels, Henry Spearman, is modeled loosely after Milton Friedman. Is that correct?

Elzinga: I'm not sure I would use the word "loosely." Our fictional character, Henry Spearman, is very much like the real-world Milton Friedman — certainly in appearance. But not only in appearance: Over and again, as Bill and I worked on our three books, we would ask ourselves what might Milton Friedman say in this situation. Bill knows Milton much better than I do, and Bill is a mimic. So I would literally hear what sounded like Friedman's voice coming from my pal as we pondered some idea.

Now having said that, obviously there are differences. Henry Spearman teaches at Harvard; Milton Friedman's fame as an economist was at the University of Chicago. Milton Friedman's wife Rose is herself a skilled economist. That did not work for us with Henry Spearman. We created a wife for Henry who does not understand economics, so she could play the Dr. Watson role.

Our fate hinged on what Paul Samuelson thought of a book whose hero was patterned after Milton Friedman.

RF: What difficulties did you encounter in finding a publisher for your first novel, *Murder at the Margin?*

Elzinga: Publishing a work of fiction is a classic chicken-and-egg problem. Once you have published a successful first novel, publishers are interested in considering your second book. You have a track record as an author. But until that first novel is out, no one seems interested.

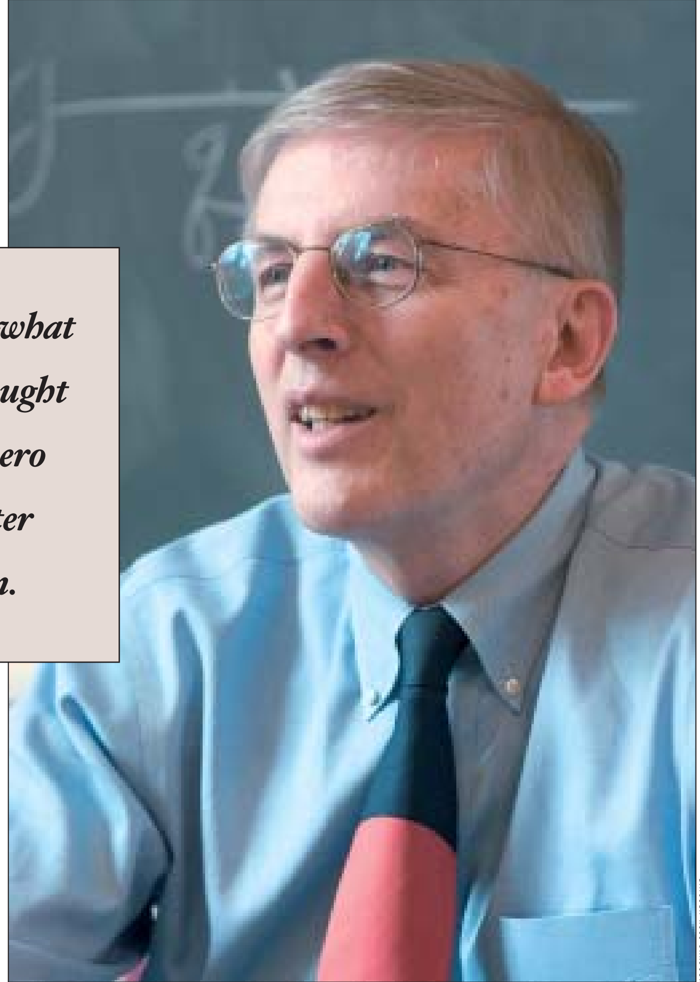
Almost every successful author has a story of how he or she almost never got published. In our case, after being rejected by a number of publishers, a small publishing house that had brought out a couple of books by Milton Friedman and Paul Samuelson became interested because of the Milton Friedman-Henry Spearman nexus. This publisher took our manuscript for *Murder at the Margin* to Paul Samuelson at MIT and told us that if Professor Samuelson liked it, he would publish it. And so our fate hinged on what Samuelson thought of a book whose hero was patterned after Friedman.

Our first break was that Samuelson liked the manuscript. It turned out that his MIT colleague, Bob Solow, also became a fan. Another fan we have is John Nash. So we have a number of Nobel Laureates who like the exploits of Henry Spearman.

Our second big break was that the *Wall Street Journal* reviewed *Murder at the Margin* and gave it a great review. A lot of people read the *Journal* and a lot of them bought the book. Those two breaks in large part explain how we came to write *The Fatal Equilibrium* and *A Deadly Indifference*.

RF: If I may put your fiction writing in a different category, much of your academic work has focused on antitrust. How would you describe the evolution of economic thinking about antitrust over the past 30 years?

Elzinga: The biggest change is the enormous interjection of economic analysis into antitrust enforcement and policy. Every assistant attorney general heading the Antitrust Division, whether the administration is Republican or Democrat, appoints an academic economist as a deputy assistant attorney general. David Sibley of the University of Texas now serves in that capacity. For many years, the only people to hold the deputy assistant attorney general rank at the Department of Justice were attorneys. This is just one snippet of a profound change in economic influence.



LINCOLN ROSS BARBOUR

Any major antitrust case today has economists involved. Cases being considered by either the Federal Trade Commission or the Antitrust Division are now always assessed by economists along with attorneys. In antitrust trials, economists now play an important testifying role.

The intellectual stimulus for much of this has its locus at the University of Chicago, where Aaron Director and others began applying economic analysis to the law, including antitrust law. There is more to the story than what was happening in Hyde Park, to be sure. But the Chicago School of Economics has had an enormous impact on the way antitrust is considered. Even critics of the Chicago School have to understand its influence to offer their critique.

RF: Aspiring monopolists are often accused of using predatory pricing to drive competitors from the market. In the case of foreign trade, the United States has tried to stop that behavior through the enforcement of anti-dumping laws. What is your view of U.S. anti-dumping laws?

Elzinga: Like most economists, I can restrain my enthusiasm for anti-dumping laws. They have little or nothing to do with genuine predatory pricing and a lot to do with rent-seeking by domestic producers of goods seeking import protection. I admire U.S. companies that face import competition and do not hire lawyers and lobbyists to protect them from foreign competition.

To win a dumping case, a domestic producer need not show that the foreign producer is engaging in predatory pricing. If that were the requirement, there would be little to fear from anti-dumping enforcement since very few, if any, foreign producers have even the remote prospect of gaining a monopoly position on sales in the United States through below-cost pricing.

In fact, the economics of predatory pricing as applied to antitrust enforcement is one of the great victories of the Chicago School. One of the most interesting antitrust cases in which I ever participated was brought by two U.S. producers of consumer electronic products that charged the bulk of the Japanese television industry with predatory pricing. I served as the economic expert for the Japanese defendant, and I had the chance to see the insides of a prominent predatory pricing case.

Anti-dumping laws have little or nothing to do with genuine predatory pricing and a lot to do with rent-seeking by domestic producers.

The case went to the Supreme Court where the majority showed their understanding of how unusual it is for predatory pricing to be a viable monopolizing strategy. The Court ruled that predatory pricing was "rarely tried and even more rarely successful." I think those are the exact words of the Court. And, of course, even with their Court victory in hand, the Japanese never monopolized the sale of television sets in the United States. I think, today, the largest seller of television sets in Japan is a Chinese firm! Meanwhile the American consumer has enjoyed a steady stream of competitive benefits in consumer electronic products.

RF: Some economists have argued that there can be no such thing as monopoly in a purely free market — that all monopolies result from grants of government privilege. What do you think of that argument?

Elzinga: That's an argument that has an important lineage in economics. Today, the argument is held and put forth most cogently by members of the Austrian School. I admire a lot about Austrian economics, and I consider it a shame that most departments of economics do not offer more opportunities for students to study Austrian economics. Moreover, I think the argument that all monopolies result from grants of government privilege teaches an important point. The point being: Markets are largely self-correcting, and that cartelization and monopolization are not easily pulled off, notwithstanding the conventional wisdom (outside of economics) to the contrary. The problem is the Austrian thesis borders on being too clever by half.

The real issue is whether the market failure of monopolies and cartels can be identified and remedied by a government agency at less cost than that inflicted by monopolies and cartels upon consumers before the monopolies or cartels are undermined by new entry or cheating or technological change.

When I teach microeconomic principles at the University of Virginia, and I come to cartel theory, I always teach about the instability of cartels because of the cheater problem. It is a powerful theory and there is much truth to it. But I had an opportunity to study the recent vitamin cartel and this cartel operated for more than 10 years, seemingly without government protection or privilege. I'm grateful that the antitrust authorities finally caught the cartel members and that antitrust penalties seek to deter such conduct by other firms.

Aside from cartels, I think if the United States did not have an antimerger law the country would go through a wave of mergers-to-monopoly. Over time, the anticompetitive effects of these mergers might dissipate through new entry. But we have a merger law that allows mergers that are efficiency-driven, and that involve an otherwise failing firm. I'm not sure why consumers should have to wait for the long run to come around when economics provides pretty good guidance of what kinds of horizontal mergers we should try to nip in the bud.

RF: You have done a good deal of research and writing on the economics of the brewing industry. What do you think of the rise of "microbrews" in recent years?

Elzinga: I have watched the rise of microbreweries with interest, going back to Mr. Fritz Maytag's pioneering efforts with Anchor Steam Beer, beginning in the mid-1960s. Microbreweries still supply only a small share of the beer market compared to the major domestic brewers and the importers. But they have added to consumer welfare by bringing new flavors and product variety to the marketplace. And in the process, a place has been made for a group of entrepreneurs to make some money (not all have) and to produce a product for which they have a passion.

Let me mention, however, that to my mind an equally important development in the American beer market has been the place at the table that import brands now have, particularly the Mexicans, and especially Corona. It would have taken a remarkable crystal ball to predict, a decade ago, that a Mexican beer would not just be a fringe supplier, but a top-10 seller.

RF: You have written on the relationship between religion and economics. Many religious people are often hostile to the market system because they believe that markets ignore issues of social justice. Why do you think such concerns are prevalent among people of faith?

Elzinga: I am not sure I have a particularly good answer to that question, but I'll hazard three reasons why so many religious people are hostile to market allocation.

First, we need to realize that many people, perhaps especially seminarians, simply do not understand what Adam Smith called "the obvious and simple system of natural liberty." They do not find the benefits of, indeed the genius of, the market system to be obvious and simple. Incidentally, many of my students at the University of Virginia are the same way.

Many people who have not had so much as one course in economics are confident of their ability to opine on economic subjects. That said, there are clergy who do understand the hidden logic of economic analysis. I admire the work of Father Robert Sirico at the Acton Institute for the Study of Religion and Liberty in Grand Rapids, Mich. He and others are doing pioneering and important work in bringing knowledge of how markets work to clergy and seminarians.

Second, we need to acknowledge that many people do not like the spirit of enterprise that is part of the market system. There are many members of the intellectual class who admire the creativity of writing a poem or composing music. And rightly so. But many of these same people will not admire the creativity involved in coming up with a new product, a new service, or a new form of business organization. Ask yourself this question: Have you ever observed a writer in an important journal or newspaper object to the substantial earnings of an entertainer? I haven't. But the earnings of business entrepreneurs are regularly viewed as somehow suspect, undeserved, or undertaxed.

Third, people of faith often are marked by a deep concern for the poor and oppressed. Now the world was full of poor and oppressed people long before the development of the modern market system. Markets have made possible the prospect of the bulk of an economy's population not being poor and oppressed. Paradoxically, it is the very success of the market system that tempts those who believe in a preferential option for the poor also to believe that if the government were to step in, some kind of mopping-up action would take place and we could end all poverty.

To my mind, the sad thing about many churches is that they have abdicated the responsibility to help the poor, and explicitly or implicitly invited the state to take over the role of compassion. One of the most remarkable things I have ever read was by Peter Bauer, the great scholar of economic development who did so much to teach economists how counterproductive government-to-government aid is in helping the poor in other nations. Bauer was asked in an interview what a person who wanted to help the poor in a less developed country should do. His response: Give your money to a missionary working in that country.

RF: Which economists have influenced you the most?

Elzinga: I would have to mention first, Professor Sherrill Cleland, my first undergraduate teacher in economics. He influenced me to major in economics and then pursue a career in college teaching. In one sense, he influenced me the most because he believed I could be an economist at a time when my goal had been to work in the sporting-goods industry. Professor Walter Adams at Michigan State was the graduate mentor who influenced me a great deal. He gave me a passion to study and understand the institution of antitrust. My colleague Bill Breit influenced me enormously at Virginia, not only as a co-author, but as a teacher. Bill never thought that teaching and research had to be mutually exclusive. Finally, Professor Ronald Coase invited me to spend time at the University of Chicago and that also was an

Kenneth Elzinga

Present Position

Professor of Economics, University of Virginia (1974-Present)

Previous Appointments

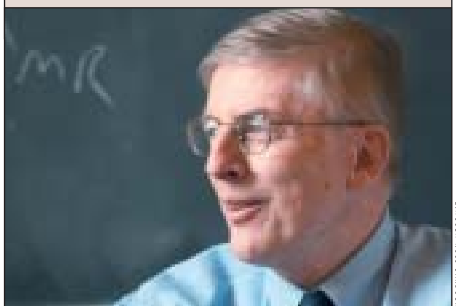
Associate Professor of Economics, University of Virginia (1971-1974); Assistant Professor of Economics, University of Virginia (1967-1971); Fellow in Law and Economics, University of Chicago (1974); Special Economic Advisor, Antitrust Division, Department of Justice (1970-1971)

Education

B.A., Kalamazoo College (1963); M.A., Michigan State University (1966); Ph.D., Michigan State University (1967)

Selected Publications

Co-author of three mystery novels: *Murder at the Margin* (1978), *The Fatal Equilibrium* (1985), and *A Deadly Indifference* (1995). Author or co-author of numerous scholarly articles in such publications as the *American Economic Review, Journal of Law & Economics, Supreme Court Economic Review*, and *Public Choice.*



LINCOLN ROSS BARBOUR

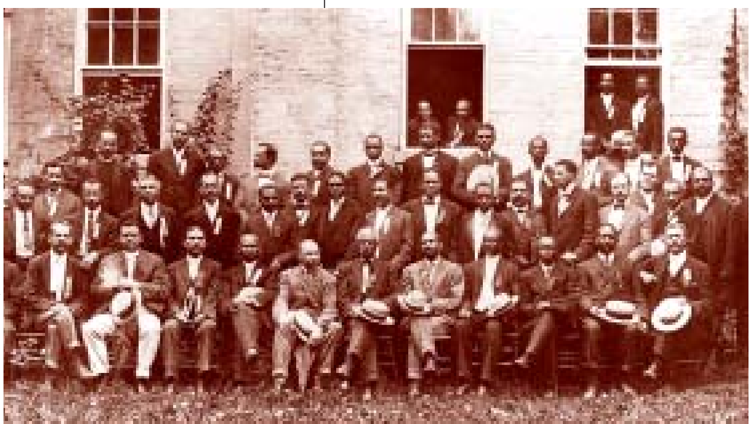
Knowledge = Power

Historically black colleges and universities have helped African Americans tap into the potential of higher learning

BY CHARLES GERENA

Before the U.S. Supreme Court opened new doors to learning in 1954 with its historic ruling in *Brown v. Board of Education of Topeka, Kan.*, historically black colleges and universities (HBCUs) played a major role in bringing African Americans the education they sought.

"When black children had no other source of elementary or high school education, the early black 'colleges' ... taught them," noted a 1971 report by the Carnegie Commission on Higher Education. "When elementary and high schools for Negroes became available, these colleges provided them with teachers." When young blacks were barred from most predominantly white colleges, HBCUs "provided all but a very small portion of the higher education available to them." Even a decade after the Brown decision, they enrolled half of the nation's black college students.



HISTORIC PHOTO COLLECTION, HARPERS FERRY NHP

Delegates to the Second Niagara Conference pose in front of Anthony Hall on the Storer College campus in Harpers Ferry in 1906. The Niagara Movement was a precursor to the NAACP. Storer College was West Virginia's first HBCU when it opened in 1867.

Today, HBCUs serve 14 percent of African Americans pursuing a college degree, although the 105 schools comprise just 3 percent of the nation's higher education system. Most of these schools are in the South, with one-third operating in the Fifth District. They continue to offer tangible and intangible benefits to blacks as they try to broaden their missions and enrollments in order to survive.

A Quest for Knowledge

In the antebellum South, access to higher education was limited. Only the privileged class among whites could afford to attend college, an experience they considered an essential part of a person's intellectual development.

In contrast, many working-class Southerners didn't pursue higher education. "From an economic view, there may not have been as strong a push," surmises Jessica Gordon Nembhard, an economist and assistant professor of African-American studies at the University of Maryland-College Park. "There was such a strong demand for farm labor that there wasn't as big a place for educated people." While teachers and other professionals required post-secondary schooling, farmers, textile mill workers, tradesmen, and merchants could learn from experience or through apprenticeships.

As for blacks, they received training to be more productive and handle new tasks as slaves on plantations. Only the favored few obtained any formal schooling, much less a college education. "Most Southern whites declared blacks did not have the mental capacity to be educated, yet feared literacy would encourage escape or revolt," wrote the authors of a 2000 National Park Service essay on desegregation in public education. "Southern colonies grew increasingly restrictive toward teaching slaves to read or write and giving books or pamphlets to a slave."

Despite the continued threat of legal sanctions and physical harm, slaves sought to advance and elevate themselves through education. Among those with permissive owners, some gained enough knowledge and skills to take on more responsibilities and be hired out. A few even won their freedom and developed their own businesses.

How did antebellum slaves satisfy their quest for knowledge? Aside from altruistic masters, such as the Baltimore mistress who first introduced Frederick Douglass to reading, there were few options. Quakers and other missionaries opened elementary and secondary schools for blacks in the South. Colleges above the Mason-Dixon Line — as well as institutions of higher learning in England and Scotland — accepted some black students. Only a few colleges in Pennsylvania and Ohio catered to blacks before the Civil War.

Then four years of war between the North and South put an end to slavery in 1865 and blew the gasket of the agricultural engine that had driven the Southern economy. For the next dozen years of Reconstruction, blacks had to rebuild their lives alongside the whites who had oppressed them. Education was an important tool in that process.

"Coming out of slavery, African Americans equated education with power [because] whites who were educated had power," notes Valinda Littlefield, assistant professor of history and African-American studies at the University of South Carolina. They also saw education as a means of maintaining their freedom.

Thousands of blacks took advantage of new learning opportunities during Reconstruction. Between 1865 and 1870, the federal Bureau of Refugees, Freedmen, and Abandoned Lands spent about half of its $11 million congressional appropriations on helping existing schools for blacks and building new ones. Blacks themselves, though destitute in many cases, also invested in schools.

Blazing a New Trail

Still, education was not equally available to all blacks in the South. While private schools operated throughout the region, about half of them were in Virginia, North Carolina, and Louisiana, according to Henry Allen Bullock's book, *A History of Negro Education in the South*.

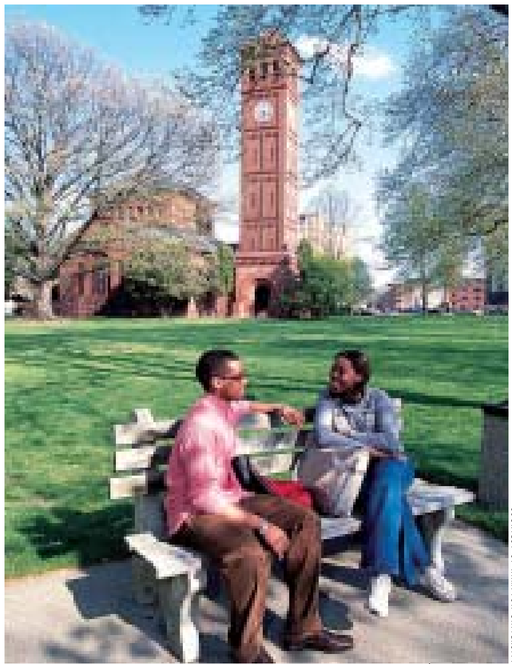
Meanwhile, states didn't fund public education until Reconstruction, then Jim Crow laws and the Supreme Court's "separate but equal" ruling in 1896 forced blacks into separate schools. Unfortunately, black schools were hardly equal, receiving less funding and resources than white schools.

HBCUs filled the gap. Most were private schools founded by churches, mutual aid societies and businesspeople from the South's black communities, as well as by missionaries and wealthy benefactors from the North. They served as central institutions for the black community's educational needs in the same way that race-specific business districts formed to meet its economic needs.

The earliest HBCUs were colleges in name only. A few schools taught Latin, music and other liberal arts, says Littlefield, but most provided basic instruction on reading, writing, and arithmetic to prepare blacks for college-level studies. "The educational foundation wasn't there yet," she explains.

As students caught up, many HBCUs began offering training for occupations that were open to blacks and had strong employment demand. Bennett College in Greensboro, N.C., Coppin State University in Baltimore, Md., and others started out as "normal schools" that trained teachers, mostly female students. Hampton University in Virginia and other HBCUs emphasized agriculture and industrial arts such as mechanical engineering because educators like General S.C. Armstrong, Hampton's founder, believed that these fields of study were best suited for blacks.

"[Armstrong] presented industrial education as the character-building force capable of elevating Negroes to a level of acceptance by the South and the nation," wrote Bullock in his 1967 book. "Not only would [such training] render Negroes self-supporting ... but they would make them valuable, thereby giving the South a labor force of great potential wealth."



COURTESY OF HAMPTON UNIVERSITY

Starting with an industrial arts focus, Hampton University has broadened its curriculum into fields ranging from chemistry to sport management.

While Booker T. Washington and other leaders inside and outside of the African-American community wanted to emphasize practical training for blacks, some felt that wasn't enough. Several HBCUs — including Howard University in Washington, D.C., and Shaw University in Raleigh, N.C. — broke racial stereotypes to teach law and medicine because blacks couldn't obtain these professional services within the white community.

Other schools like Johnson C. Smith University in Charlotte, N.C., stressed liberal arts over vocational or professional training. Their mission was to prepare students for leadership roles within the black community.

W.E.B. DuBois was a leading advocate of HBCUs developing what he called the "Talented Tenth." These were the "best of the race," the select group of blacks who needed to be developed in order to lead the African-American community. Still, "the nation decided that vocational education for African-Americans was in the best interest of the nation [and] a lot of money went

Important Dates in Black Higher Education

1823 **Alexander Twilight** became the first known African American to graduate from college.

1837 **The Institute for Colored Youth** opened in Philadelphia. The school evolved into Cheyney University, the nation's first historically black college and university (HBCU).

1862 **The federal Morrill Act** funded state-run land grant colleges to expand access to higher education. None of these colleges opened in the South until the former states of the Confederacy rejoined the Union.

1865 **The American Baptist Home Mission Society** established the predecessor to Virginia Union University and Shaw University in Raleigh. These institutions were among the first HBCUs in the South.

1867 **Howard University** opened in Washington, D.C., with four students. With funding from the federal Freedmen's Bureau and other sources, Howard expanded rapidly.

1890 **The second Morrill Act** prohibited federal funding to states for land grant colleges if they made distinctions of race in admissions, unless there were separate schools for blacks. As a result, southern states opened several land grant colleges for blacks, including North Carolina A&T, South Carolina State, and Virginia State.

1896 **The Supreme Court's ruling** in *Plessy v. Ferguson* upheld "separate but equal" institutions for blacks and whites.

1954 **The Supreme Court's ruling** on *Brown v. Board of Education of Topeka, Kan.* struck down the "separate but equal" doctrine.

to schools that had vocational programs," says John Fleming, a historian and vice president of museums at the Cincinnati Museum Center.

These differences in curricula illustrate a tension that exists in higher education in general. Should colleges prepare students for specific careers, or make them better thinkers? In the black community, this tension fueled debates over the purpose of HBCUs well into the 20th century.

New Paths Forged

With the *Brown v. Board of Education* decision 50 years ago, the dismantling of the legal framework for segregation began. However, that process took time and didn't immediately eliminate the need for separate institutions for blacks.

"A lot of people think that in 1954 segregation was all over; everybody could go everywhere. That wasn't the case," describes Jill Constantine, senior economist at Mathematica Policy Research in Princeton, N.J., who has studied HBCUs. "There are some public higher education institutions, particularly in the South, that did not admit a black student until the late '60s."

For many of today's black students, an HBCU is still the first choice because their parents and grandparents attended one. "People shouldn't think of all of these barriers as being 100 years in the past," stresses Constantine. "This is the first generation that hasn't faced profound, structural barriers."

Still, now that new paths are open to blacks, are separate institutions of higher learning necessary? HBCU boosters argue that these schools still provide tangible benefits to black students which they cannot find elsewhere.

By lowering the bar for admissions and providing financial assistance and remedial training, HBCUs enable students to attend college that otherwise wouldn't have sufficient money or academic credentials. That's why research has shown that "black students with lower test scores from poorer high schools are more likely to attend black colleges," says Constantine.

HBCUs also provide a supportive environment that fosters camaraderie and a sense of common purpose. This encourages students to be more involved in campus activities and take leadership roles. In Jessica Nembhard's opinion, students are more marketable as a result.

"In this day and age, a lot depends on 'soft skills' like leadership and initiative," notes the University of Maryland professor. "Even if you don't have the same credentials as somebody coming from Harvard, you might have built up enough self-confidence, leadership skills, and networking ability that would show in [a job] interview."

The supportive environment of HBCUs also supposedly helps black students persist in their studies. Several studies have shown that black students who attend these schools are more likely to finish their four years of studies and get a bachelor's degree than those who attend predominantly white colleges.

Of course, other factors could explain this phenomenon. Constantine's research found that a high percentage of black students who forego an HBCU choose a two-year college, where they are less likely to continue to a four-year institution for a bachelor's degree. Most HBCUs are four-year institutions.

Her study also demonstrated that graduates of HBCUs earn higher wages. However, it is difficult to determine how much these schools contribute to the wage equation. For example, black students who decide to attend HBCUs may share certain traits that make them more productive but are independent of their college experiences.

The supportive environment at HBCUs has intangible value as well. On the HBCU Network web site for alumni of black colleges, the feedback page has numerous postings from graduates talking about having a special connection to their school, sharing in tradition, and belonging to a family.

In the turbulent years when blacks frequently faced violence and racism, HBCUs became safe havens to learn and develop. "For a while, you were isolated from some of the worst stereotyping and discrimination," says Nembhard. "You had the entire community of black scholars who wanted to make sure that you succeeded, whereas in the white universities you didn't necessarily have that same mission and commitment."

A year later, the court ordered that states desegregate public schools with "all deliberate speed." However, they could ask for more time if necessary.

1955 **Storer College**, the first HBCU to open in West Virginia, closed after losing its funding.

1958 **Virginia Tech** graduated Charlie Yates, reportedly the first African American to earn a bachelor's degree from a white land-grant university in the former Confederacy.

1962 **James Meredith** became the first black student to attend the University of Mississippi, despite the school's legal maneuverings. Resistance to his admission peaked during a violent riot in September 1962.

1965 **The Higher Education Act** provided aid for HBCUs to improve their academic programs and facilities. The act was amended in 1998 and is pending reauthorization this year.

1981 **The University of North Carolina** reached an agreement with a federal district court to boost white enrollment at its non-white campuses, increase black enrollment at its white campuses, and devote more funding to its five HBCUs.

1985 **The U.S. Department of Education's Office for Civil Rights** and the Maryland Higher Education Commission reached an agreement to foster equal opportunity in the state's higher education system.

1992 **The Supreme Court's ruling** on *United States v. Fordice* found that Mississippi failed to desegregate its state university system, despite efforts to remove discriminatory practices.

Are these historical advantages enough? Higher education is a tough business. Colleges and universities are always under pressure to expand and modernize to compete for students. This has forced tuition upward, especially as private colleges have seen their endowments drop in value and public colleges have lost state funding.

These challenges can be difficult for HBCUs to handle. Black colleges are usually reluctant to increase tuition because it would reduce access; yet they tend to bear heavier costs for student aid, student services, and remedial instruction compared to predominantly white colleges. "For the HBCUs that are already more on the margins, they go down for the count" during difficult financial times, notes Constantine. However, few HBCUs close down because they are used to operating under tight financial circumstances. They also receive federal aid – $223 million in fiscal year 2004 alone.

HBCUs also have the unique problem of trying to hold on to their no-longer-exclusive clientele. Most blacks still live in the South where many HBCUs operate, but that concentration diminished over the last century as millions of blacks migrated to the Northeast and Midwest looking for new opportunities. Among the region's remaining blacks, the best-prepared high school graduates are wooed by predominantly white colleges looking to increase their diversity.

Black colleges have been recruiting students of all races to combat declining enrollment. This isn't always easy to do, given that whites and Hispanics don't always feel welcome at these schools and may perceive them as inferior.

One success story is West Virginia State College, which was founded in 1891 when the federal government threatened to remove its funding for West Virginia University unless it admitted blacks or created a separate land grant school for them (see 1890 Morrill Act in timeline). The college voluntarily desegregated in 1954, enrolling nearly 400 white students and making diversity one of its defining traits. Today, the school bills itself as a center for black culture, even though 4,000 of its 4,800 students in fall 2001 were white.

Besides becoming more diverse, HBCUs must compete with community colleges that offer a similar hand-up to the world of higher education. An Aug. 28, 2003, article in *Black Issues in Higher Education* noted that changes in state higher education systems have shifted remedial education to the community colleges. This has led some HBCUs to drop their open-admissions status and be more selective. Others like Norfolk State University have partnered with community colleges to allow students to transfer from two-year programs to four-year programs.

What else can HBCUs do? John Fleming believes they can find new ways to fulfill their traditional mission of meeting societal needs. For example, HBCUs could help supply teachers for urban school systems that have failed to educate black students adequately. "There are problems facing the black community that can be addressed by HBCUs if they refocus their missions," he adds.

Black colleges cannot afford to be static. They must evolve and venture into new territory in order to distinguish themselves in the competitive higher education market. Not all schools may be willing or able to do this, though, especially those that view their mission as sacrosanct. **RF**

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Visit **www.rich.frb.org/pubs/regionfocus** for links to relevant Web sites.

District Economic

BY ROBERT LACY

An upswing in payroll employment numbers in the first quarter of 2004 was just the tonic for a District economy suffering from a touch of "jobless expansion" anxiety. Output of goods and services continued to increase at a solid pace, but stiff price hikes for key commodities rattled the District's manufacturing and commercial construction sectors.

Did You Know. . .

Loudoun County, Va., less than an hour's drive from Washington, D.C., is blessed with beautiful scenery and rich equine and hunting traditions. It's a great place to visit and, for an increasing number of people, to live. The population there increased by 30.7 percent from April 2000 to July 1, 2003, making it the fastest-growing county in the nation. Six other counties in the sprawling Washington metropolitan area were also among the top 100 fastest growing in the United States during that period.

The Fifth District economy expanded at a somewhat quicker pace in the first quarter of 2004, boosted by stronger manufacturing activity and a pickup in employment. Growth in the broad services sector was brisk and the housing and retail sectors showed solid gains. But prices of some raw materials—steel, oil, natural gas, and lumber in particular—surged, raising production costs for manufacturers and construction costs for commercial builders.

Manufacturing Shows Strong Gains

Despite higher costs, the Fifth District's manufacturing sector posted impressive gains in the first quarter. Our contacts tell us that shipments and new orders rose at the strongest pace in several years.

There were even scattered reports of a pickup in the textiles industry. A manager at a North Carolina textiles firm reported in February that shipments, new orders, and capacity utilization were all higher, adding, "Business has improved each month for the last six months."

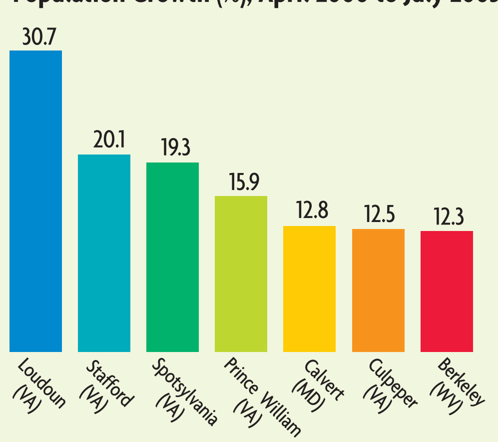
Manufacturing job losses have slowed or ended in most District states, though North Carolina remained a troubled area.

Labor Markets Coming Around

First-quarter payroll employment in the Fifth District was 0.7 percent higher than a year ago. Employment growth was particularly strong in Virginia, up 1.9 percent year over year. North Carolina managed slight growth in total employment during the quarter, despite continued losses in manufacturing jobs.

The District's unemployment rate continues to trend lower. At 4.9 percent in the first quarter, the Fifth District's rate remained well below the U.S. rate of 5.6 percent. Unemployment rates in Virginia and Maryland were at or below 4.0 percent in March, and North Carolina's rate dropped to 5.2 percent, its best showing in three years.

Population Growth (%), April 2000 to July 2003



Housing Hot

Declining mortgage interest rates throughout much of the first quarter fueled strong growth in the District's housing markets. Home buying activity was reported to be frenzied in some areas as mortgage rates slipped below 5.5 percent. Multiple offers on houses for sale were commonplace, and home prices rose rapidly in many markets. New construction was very active; the number of residential building permits issued during the quarter was 16 percent higher than a year earlier.

Raw Materials Prices Rising

Expanding output in the District was accompanied by substantially higher prices for raw materials in the first quarter. Price hikes in excess of 30 percent for steel and lumber roiled the manufacturing and construction industries. Strong demand for materials destined for rebuilding efforts in Iraq and Afghanistan and rapid economic expansion in China were among the reasons cited for the surge in prices.

"Surcharges from steel suppliers have thrown us for a loop, causing us to increase our prices," reported a machinery manufacturer in North Carolina, expressing a concern typical of those coping with escalating raw materials prices. Suppliers in a few instances invoked "force majeure" clauses in contracts because they couldn't secure the steel needed to manufacture products.

Lumberyards reported substantially higher lumber and plywood prices and a host of District businesses experienced rising oil and natural gas costs.

Developments

Nonfarm Employment
First Quarter 2004

	Employment (Thousands)	% Change (Year Ago)
DC	670	0.5
MD	2,492	0.7
NC	3,807	0.1
SC	1,824	0.5
VA	3,556	1.9
WV	723	-0.7
5th District	13,071	0.7
US	130,367	0.2

Unemployment Rate
Percent

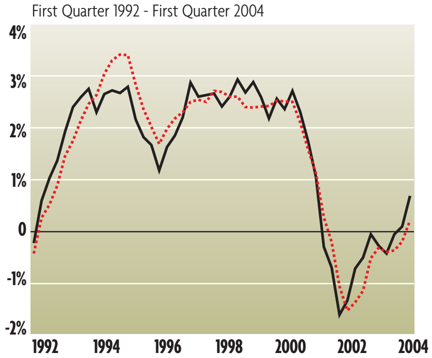
	1st Qtr. 2004	1st Qtr. 2003
DC	6.5	6.8
MD	4.1	4.5
NC	5.7	6.4
SC	6.4	6.5
VA	3.5	4.1
WV	5.4	6.3
5th District	4.9	5.4
US	5.6	5.8

Personal Income
Fourth Quarter 2003

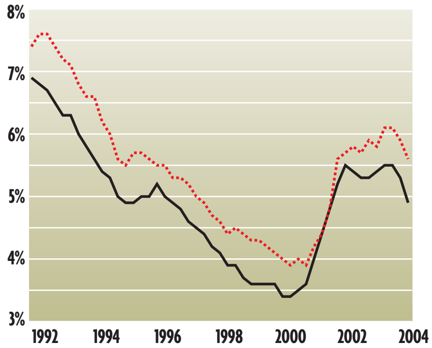
	Income ($ billions)	% Change (Year Ago)
DC	27.6	2.9
MD	209.2	4.8
NC	241.5	4.1
SC	110.2	4.4
VA	253.1	5.2
WV	44.7	3.4
5th District	886.3	4.5
US	9,362.3	4.3

Fifth District   United States

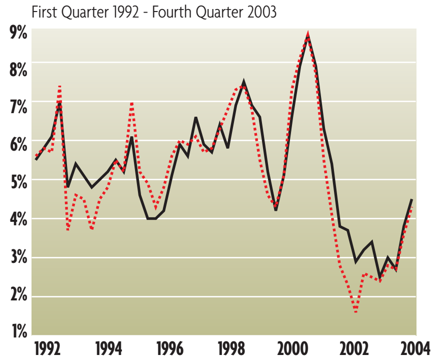
Nonfarm Employment
Change From Prior Year
First Quarter 1992 - First Quarter 2004



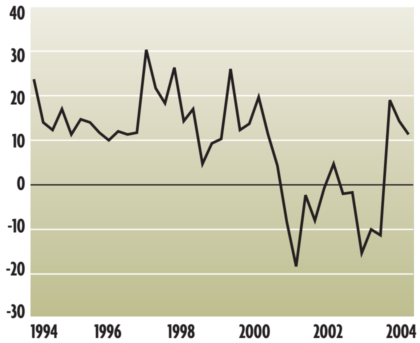
Unemployment Rate
First Quarter 1992 - First Quarter 2004



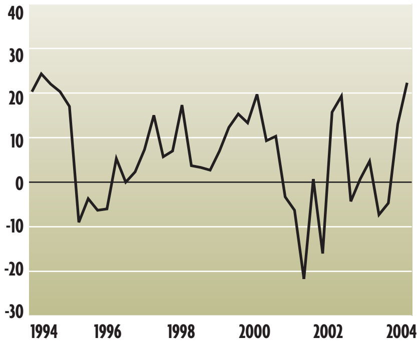
Personal Income
Change From Prior Year
First Quarter 1992 - Fourth Quarter 2003



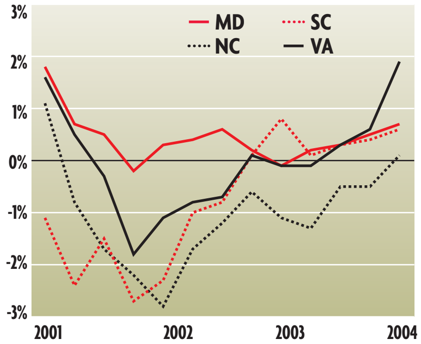
FRB—Richmond Services Revenues Index
First Quarter 1994 - First Quarter 2004



FRB—Richmond Manufacturing Shipments Index
First Quarter 1994 - First Quarter 2004



Nonfarm Employment
Change From Prior Year
First Quarter 2001 - First Quarter 2004



NOTES:
1) All data series are seasonally adjusted.
2) FRB-Richmond survey indexes are diffusion indexes. Positive numbers represent expansion, negative numbers contraction.
3) State nonfarm employment estimates are based on surveys of establishments. These employment figures differ from those used to calculate state unemployment rates.

SOURCES:
Income: Bureau of Economic Analysis, U.S. Department of Commerce, http://www.bea.doc.gov
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

For more information, contact Robert Lacy at 804-697-8703 or e-mail Robert.Lacy@rich.frb.org.

DISTRICT OF COLUMBIA

BY ANDREA HOLLAND

Despite the rapid appreciation of District of Columbia home prices in the last several years, the housing stock remains relatively affordable and home sales continue to soar.

As shown in the chart, the house price affordability index for the Washington, DC MSA broadly tracked the national and districtwide indexes from 1996 to 2000. Since the onset of the 2001 recession, however, the index has inched lower, indicating that housing has become somewhat less affordable for Washington, DC MSA residents earning the average salary.

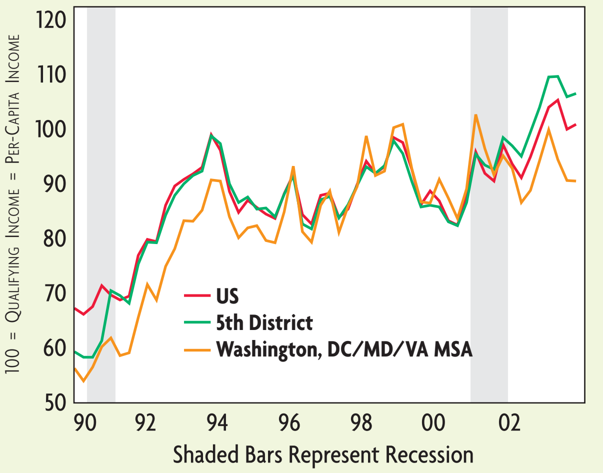
Housing affordability is influenced by a number of economic fundamentals, such as home price appreciation, interest rates, and personal income growth. The dip in affordability in the Washington, DC MSA in recent years is a result of above-average appreciation in house prices and a sharp decline in personal income, which combined, outweighed the effect of a favorable interest rate environment.

Looking first at home price appreciation, annual growth in the Washington, DC MSA has been roughly double the national rate each year since 2001. Over the 12-month period ending in March of this year, average house prices rose 14.3 percent, the fourth fastest growth rate nationally.

Turning next to personal income, the District of Columbia recorded the steepest drop in income growth among Fifth District jurisdictions during the last recession, pushing home ownership out of reach for some residents. The latest data show that personal income began to rebound in early 2003, however, positive growth has yet to increase affordability.

The modest decline in affordability in recent years hasn't kept prospective buyers at home. In the first quarter of 2004, sales of existing housing units hit 16,400, slightly below the fourth-quarter level, but well above year-ago levels. Adding to the positive news, new building permit authorizations also rose, nearly doubling from their fourth-quarter level.

Housing Affordability Index



NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

	1st Qtr 2004	Percent Change at Annual Rate From 4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	669.8	3.2	0.5
Manufacturing, NSA	2.5	-14.7	-5.1
Professional/Business Services	143.8	5.0	2.5
Government	230.4	-0.7	-0.7
Civilian Labor Force	304.6	5.0	0.6

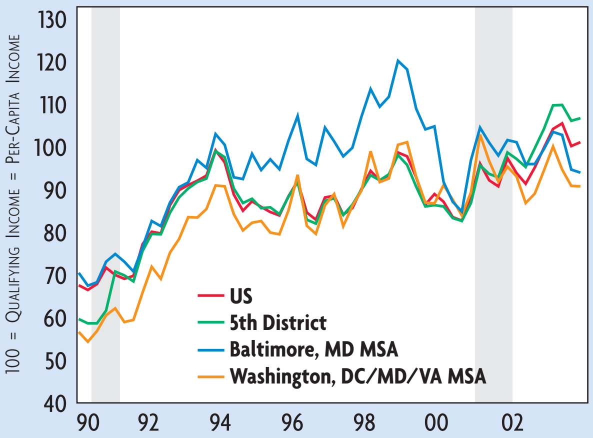
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	6.5	7.0	6.8
Building Permits, NSA	153	87	619
Home Sales	16.4	16.7	14.3

NOTES:
Nonfarm Employment, thousands of jobs, seasonally adjusted (SA); Bureau of Labor Statistics (BLS)/Haver Analytics
Manufacturing, thousands of jobs, not seasonally adjusted (NSA); 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
Building Permits, number of permits, NSA; U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

MARYLAND

BY ANDREA HOLLAND

Housing Affordability Index



Shaded Bars Represent Recession

NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

		Percent Change at Annual Rate From	
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	2,491.7	0.8	0.7
Manufacturing	144.7	-0.6	-4.1
Professional/Business Services	361.4	1.4	0.2
Government	460.3	0.5	-0.3
Civilian Labor Force	2,940.9	4.6	1.4

	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	4.1	4.5	4.5
Building Permits, NSA	5,876	6,878	5,931
Home Sales	141.9	139.3	130.7

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
Building Permits, number of permits, not seasonally adjusted (NSA); U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

In the first quarter, Maryland ranked sixth nationwide in terms of the fastest home price appreciation rate over the last 12 months. Even so, home sales continue to set records in the state, due in part to the continued affordability of the housing stock.

As depicted in the chart, the house price affordability index for the Baltimore MSA has edged lower since the onset of the recession in early 2001, indicating that housing affordability has declined slightly. By comparison, homes nationally and districtwide have become more affordable.

Housing affordability is influenced by a number of measures of economic activity, such as home price appreciation, interest rates, and personal income growth. Despite historically low interest rates — which decrease the cost of buying a home — sluggish personal income growth during the last recession and the sharp spike in home prices have caused housing affordability in the Baltimore MSA to decline in recent years.

On the price front, annual home appreciation in Maryland has run at a double-digit pace since 2002. In the first quarter of 2004, Maryland home prices were 12.9 percent above a year ago.

Turning to personal income, annual growth has been less than 3 percent each year since 2001— not enough to offset the run-up in home prices. But recent income data suggests improvement. In the fourth quarter of 2003, Maryland posted the second fastest personal income growth rate in the Fifth District — 3.2 percent compared to the same time last year.

The modest decline in affordability has not squelched the demand for Maryland homes. Sales of existing housing units reached 141,900 in the first quarter of 2004, surpassing the level posted in the last quarter of 2003 as well as the year-ago level. First-quarter building permit authorizations were not as positive, however; they registered a modest loss from a year ago.

NORTH CAROLINA

BY ANDREA HOLLAND

Compared to other Fifth District states, home price appreciation in North Carolina has been relatively slow. As a result, housing has become increasingly affordable and the residential real estate market continues to thrive.

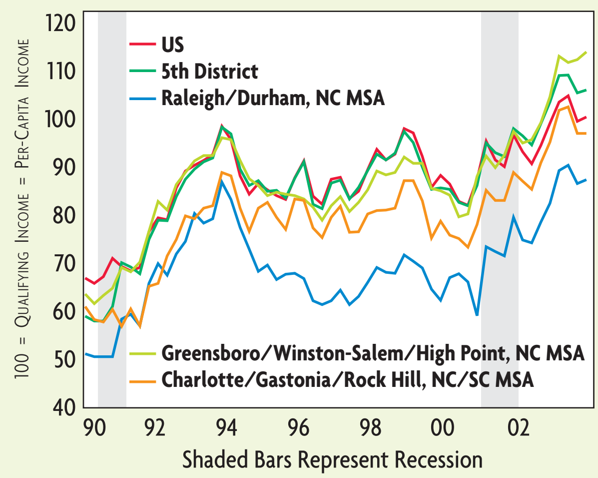
Although the level of housing affordability varies greatly by MSAs across North Carolina, the affordability index has trended higher in all MSAs since the onset of the recession in early 2001. As shown in the chart, the Greensboro/Winston-Salem/High Point MSA boasts the most affordable housing, followed closely by the Charlotte/Gastonia/Rock Hill MSA. The Raleigh/Durham MSA is the outlier, with housing affordability significantly less than the Fifth District or national average.

Housing affordability is influenced by a number of economic factors, such as home price appreciation, mortgage interest rates, and personal income growth. In North Carolina, affordability has increased since the last recession due to favorable interest rates and sluggish house price acceleration, which has offset a steep decline in personal income growth. The disparity in the Raleigh/Durham MSA stems in part from the high-tech sector, which spurred the development of high-end housing stock but also contributed to a sharp drop in income growth, when that sector stumbled following high growth in the late 1990s.

Housing price appreciation in North Carolina ranked 44th nationally in 2003 — the slowest rate in the Fifth District. In the first quarter, home prices in the state were only 3.9 percent above a year ago and 0.8 percent above the previous quarter. Looking next at personal income growth, North Carolina was the only state in the District to post two consecutive quarters of contraction during the 2001 recession. But growth has firmed of late — personal income expanded 2.5 percent in the fourth quarter, marking the strongest annual growth rate since early 2001.

Sluggish income growth, however, proved not enough to decrease the demand for new homes. As shown in the table, sales of existing housing units rose to 282,000 in the first quarter of 2004, slightly below the number sold in the last quarter of 2003 but well above the number recorded a year before. First-quarter building permit data — often used as a gauge for future demand — were also bright, surpassing levels recorded during the first quarter of 2003.

Housing Affordability Index



NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

		Percent Change at Annual Rate From	
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	3,807.0	0.0	0.1
Manufacturing	587.1	-1.8	-5.2
Professional/Business Services	423.8	-0.7	1.4
Government	649.4	-2.4	1.8
Civilian Labor Force	4,198.2	-5.4	0.3

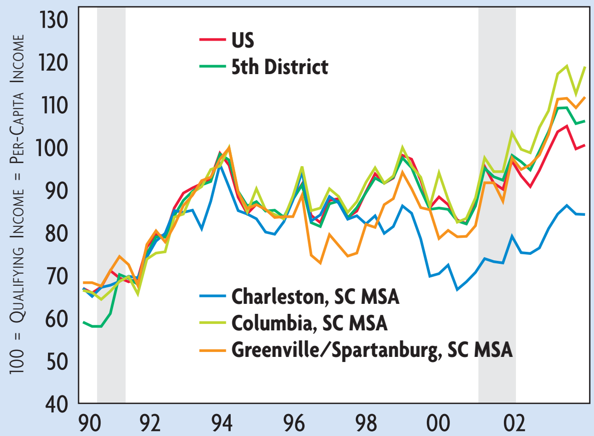
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	5.7	6.3	6.4
Building Permits, NSA	22,329	19,448	17,122
Home Sales	282.0	299.1	255.2

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
Building Permits, number of permits, not seasonally adjusted (NSA); U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

SOUTH CAROLINA

BY ANDREA HOLLAND

Housing Affordability Index



Shaded Bars Represent Recession

NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

	1st Qtr 2004	Percent Change at Annual Rate From 4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	1,823.7	2.3	0.5
Manufacturing, NSA	270.1	-5.5	-4.0
Professional/Business Services, NSA	184.1	-8.4	0.4
Government	331.0	-1.2	1.2
Civilian Labor Force	2,042.9	5.5	3.0

	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	6.4	6.9	6.5
Building Permits, NSA	9,474	8,212	8,439
Home Sales	152.3	152.9	130.6

NOTES:
Nonfarm Employment, thousands of jobs, seasonally adjusted (SA); Bureau of Labor Statistics (BLS)/Haver Analytics
Manufacturing, thousands of jobs, not seasonally adjusted (NSA); BLS/Haver Analytics
Professional/Business Services, thousands of jobs, NSA; 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
Building Permits, number of permits, NSA; U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

Modest home price appreciation in South Carolina in recent years has promoted affordable housing for the average resident and led to higher home sales in the state.

With the exception of the Charleston MSA, housing is more affordable in South Carolina MSAs than in the Fifth District or nation. As shown in the chart, the Columbia MSA lays claim to the most affordable housing in the state, followed closely by the Greenville/Spartanburg MSA. Also depicted in the chart, housing has become increasingly affordable in South Carolina since the onset of the recession in early 2001.

Housing affordability is influenced by a number of economic fundamentals, including home price appreciation, interest rates, and personal income growth. In South Carolina, declines in interest rates coupled with modest increases in house prices since the 2001 recession has countered a sharp decline in personal income growth and resulted in an increase in housing affordability.

The pace of house price appreciation in South Carolina has been measured — ranking only 37th nationally in 2003. In this year's first quarter, home prices in South Carolina were 4.0 percent higher from a year ago and 0.8 percent above the level recorded at year-end 2003.

Switching gears, income growth has finally begun to recover from the loss of high-paying factory jobs during the last recession. In the fourth quarter, personal income grew 2.8 percent over the year, the best performance since late 2000.

With lower interest rates offsetting sluggish income growth in recent years, home sales in South Carolina have generally been strong. Sales of existing housing units hit 152,300 in the first quarter of 2004, slightly below the number sold in the last quarter of 2003 but well above the number recorded at the same time last year. Suggesting strong activity going forward, first-quarter building permits were also positive, exceeding the number of authorizations recorded in the first quarter of 2003.

VIRGINIA

BY ANDREA HOLLAND

Over the last 12 months, home prices in Virginia have risen at the 11th fastest rate nationwide. Still, home sales continue to set records, largely because the Old Dominion boasts some of the most affordable housing in the Fifth District.

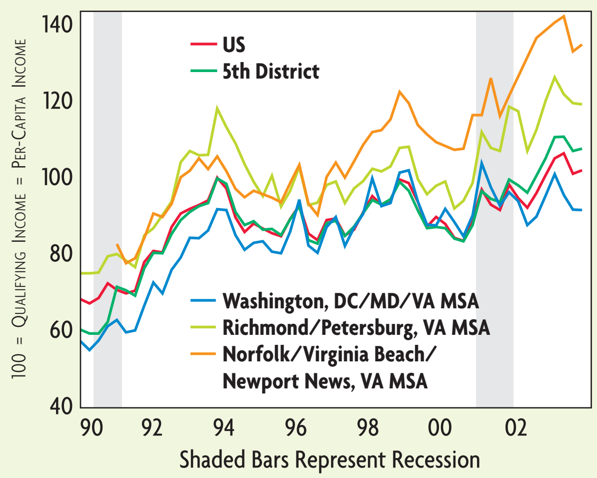
As depicted in the chart, housing in the Richmond/Petersburg MSA and Norfolk/Virginia Beach/Newport News MSA is significantly more affordable than average housing in the nation, the Fifth District, and the nearby Washington, DC MSA. Tracking the national and districtwide trend, both affordability indexes have been steadily rising since early 2000, indicating that housing has become increasingly affordable for the average resident since the beginning of the last recession.

Housing affordability is influenced by a number of economic factors, such as home price appreciation, interest rates, and personal income growth. Since the recession began in 2001, home prices have risen markedly across most Virginia MSAs, but low interest rates tended to contain the cost of buying a home and personal income declined modestly compared to other Fifth District states. As a result, affordability has increased, enabling more residents to become homebuyers.

As noted above, homes prices have accelerated rapidly in Virginia. First-quarter home prices were 10.1 percent higher than the level recorded a year ago and 1.7 percent above the price in the fourth quarter of 2003. Recent income growth has also advanced at a healthy clip, however, making up for some of the rise in prices. In the fourth quarter of 2003, Virginia posted the fastest personal income growth rate in the Fifth District — 3.6 percent compared to 12 months earlier.

Increased affordability has led to solid growth in Virginia's residential real estate market. Sales of existing housing units reached 173,900 in the first quarter of 2004, slightly under the level posted in the last quarter of 2003, but well above the level recorded at the same time last year. First-quarter building permit authorization data were also bright, with growth jumping 12.4 percent from the same time last year.

Housing Affordability Index



NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

		Percent Change at Annual Rate From	
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	3,556.2	4.5	1.9
Manufacturing	295.7	-1.7	-5.8
Professional/Business Services	568.1	9.5	4.4
Government	644.1	1.5	1.4
Civilian Labor Force	3,833.7	5.2	2.0

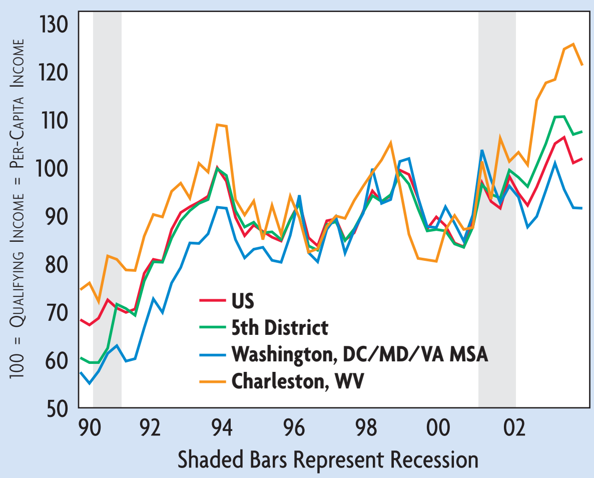
	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	3.5	3.9	4.1
Building Permits, NSA	14,931	14,069	13,278
Home Sales	173.9	185.7	165.4

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
Building Permits, number of permits, NSA; U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

WEST VIRGINIA

BY ANDREA HOLLAND

Housing Affordability Index



NOTE: MSA=Metropolitan Statistical Area

SOURCE: National Association of Realtors, Bureau of Economic Analysis, and author's calculations

	1st Qtr 2004	Percent Change at Annual Rate From 4th Qtr 2003	1st Qtr 2003
Nonfarm Employment	722.9	0.4	-0.7
Manufacturing	64.4	3.0	-1.8
Professional/Business Services	56.8	3.6	-0.1
Government	142.0	3.5	-0.5
Civilian Labor Force	796.7	8.7	0.6

	1st Qtr 2004	4th Qtr 2003	1st Qtr 2003
Unemployment Rate	5.4	5.7	6.3
Building Permits, NSA	1,255	1,126	860
Home Sales	31.8	34.4	28.0

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
Building Permits, number of permits, not seasonally adjusted (NSA); U.S. Census Bureau/Haver Analytics
Home Sales, thousands of units, SA; National Association of Realtors®

Sluggish population growth in West Virginia has kept housing demand from overheating in recent years and led to a more modest acceleration in home prices than recorded nationally. With prices largely in check, the state's housing remains relatively affordable and home sales have advanced at a balanced pace.

As shown in the chart, the Charleston MSA affordability index has trended higher since the beginning of the 2001 recession, suggesting that homeownership has become more feasible for the average resident. Housing is more affordable in the Charleston MSA, on average, than in the Fifth District or the nation.

Housing affordability is influenced by a number of measures of economic activity, including home price appreciation, mortgage interest rates, and personal income growth. In West Virginia, modest increases in house prices and lower interest rates offset a steep decline in personal income growth during the 2001 recession. The combination of these measures boosted affordability and increased homeownership.

Looking first at home price growth, price appreciation in West Virginia over the last 12 months ranked 31st nationally. In the first quarter of this year, home prices were 4.8 percent above a year ago and 0.6 percent above the level recorded in the last quarter of 2003.

Turning to personal income, the state is only recently beginning to recover from the loss of high-paying goods-producing jobs during the 2001 recession. West Virginia posted the second weakest growth rate districtwide in the fourth quarter; personal income advanced only 1.9 percent over the year.

Despite sluggish income growth, existing home sales hit 31,800 in early 2004, slightly below the number sold in the fourth quarter of 2003, but well above the level recorded at the same time last year. Adding to the good news, first-quarter building permit data forged ahead — authorizations were nearly double the number recorded in the first quarter of 2003.

For more information regarding state summaries, call 804-697-8273 or e-mail Andrea.Holland@rich.frb.org.

Hey, A Little Service Here?

BY CHARLES GERENA

Aggravated with late repair people, rude cashiers, and unhelpful help-desk operators? Economists would argue that the market is emphasizing what consumers value the most these days: low prices and convenience instead of courteous, attentive service. Yet, there seems to be an unmet demand for the latter. What's going on?

Retailers like Wal-Mart and Home Depot have made billions of dollars offering inexpensive goods and a broad selection under one roof, even though one can wander around these massive stores and never find someone to answer a question. Web sites offer a variety of goods and services along with information about each option, but they don't necessarily provide guidance on navigating the whole mess or a means to follow up.

In fact, some e-commerce firms like Amazon.com are notorious for being difficult to contact by telephone with a problem or a complex question that isn't covered in their Web site's FAQ. Even when virtual companies and their bricks-and-mortar counterparts have a customer service line, people get angry when they have to navigate an automated response system instead of talking to a human being.

"Some firms have been able to carve out niches for themselves by making customer satisfaction a top priority."

In general, economic forces have driven companies to reduce labor costs and improve efficiency using technology. In addition, firms have given their customers more to do for themselves, partly because they like the increased autonomy. The trend probably started with self-service gas stations and ATM machines. Now, travelers use the Internet to make their own arrangements, while shoppers scan and bag their own groceries at special express checkouts.

For manufacturers, the substitution of automation for employees has been largely invisible to customers. For service providers, however, automation has resulted in fewer workers with less time to provide the amount of individual attention that consumers want. This leaves many people unsatisfied.

So what? According to the National Quality Research Center at the University of Michigan, customers who are satisfied with a company's product or service are more likely to be repeat buyers and are less sensitive to price increases. Dissatisfied customers are more reluctant to buy again until the company reduces prices. No surprises there.

But the problem seems to be a communications gap between companies and their customers. Research suggests that as the distance between certain producers and users increases, there are fewer face-to-face interactions when information on markets can be exchanged.

The field of customer relationship management or CRM arose to deal with this gap in market intelligence, but the industry's software and systems haven't always lived up to their promise. Many firms still don't respond to complaints or detect service problems in a timely manner. Scott Broetzmann, a customer service consultant based in Alexandria, Va., places part of the blame on well-intentioned companies that execute their CRM efforts poorly.

In addition, employees may not receive sufficient training in addressing customer needs or relaying problems to key decisionmakers. Even with training, they may lack the motivation to care about customers because they work at a low-wage, high-turnover business like a convenience store.

Broetzmann thinks companies aren't doing enough to find out what's happening on the frontlines. "Many organizations base their judgments of what constitutes good customer care on intuition as opposed to research and facts," he explains. "It's hard to build the right plan, let alone execute it, when you are guessing about what people want and what's most important."

Claes Fornell, director of the National Quality Research Center, acknowledges that automation can create a communications gap between companies and their customers. But he believes that the effect is only temporary in many cases.

Regardless, there are opportunities for entrepreneurs willing to listen and be responsive to consumers. Some firms have been able to carve out niches for themselves by making customer satisfaction a top priority. Ukrop's Super Markets, a 28-store chain based in Richmond, Va., has built a reputation for service and quality that enables it to hold its own against lower-priced competitors. Community banks have opened throughout the Fifth District to serve homebuyers and local businesses that feel underserved after mega-mergers. Some companies have become nationwide successes by stressing customer service, including hotelier Marriott International headquartered in Washington, D.C.

The trade-off with "customer-intensive" companies, however, is that they often face greater labor costs and lack the economies of scale that benefit high-volume businesses. That usually translates into higher prices.

But some consumers may feel they have traded away too much customer service for other things, so they'll be willing to cough up more. In general, we need to make our preferences known to sellers in the marketplace, not just recount horror stories through message boards and talk at the water cooler. **RF**

NextIssue

The Creative Class

Economist Richard Florida argues that to prosper cities need to attract members of "the creative class." These people, Florida says, "do a wide variety of work in a wide variety of industries — from technology to entertainment, journalism to finance, high-end manufacturing to the arts. They do not consciously think of themselves as a class. Yet they share a common ethos that values creativity, individuality, difference, and merit." A number of cities have picked up on this concept, including several in the Fifth District. Is Florida onto something? Just what should cities do to thrive in the 21st century?

Living Wage Laws

Across the country, roughly 90 communities have passed "living wage" laws. The measures typically require companies that do business with city or county governments to pay their workers more than the federal minimum wage of $5.15 an hour. The exact amount varies from place to place. The basic idea is that the wage should be sufficient to support a family of four at a level above the federal poverty line. How have living wage laws affected employers — and the working-class families they were designed to help?

The Economics of Obesity

According to some estimates, roughly 60 million American adults are obese — and that number appears to be on the rise. The problem is particularly acute among certain minority groups, especially blacks and Hispanics. Economists have offered a number of theories of why so many Americans are overweight — and have cautioned about the potential costs that obesity may impose on society. We'll review what economists have been saying, and see if there is a reasonable solution to America's obesity problem.

A Conversation with Al Broaddus and Tom Humphrey

Economists Al Broaddus and Tom Humphrey joined the Richmond Fed's research department within one week of each other in 1970 — and they will leave together also. Broaddus, who rose through the ranks to become the Bank's director of research and then its president, will retire on August 1, while Humphrey, an expert in the history of economic thought who has edited the Bank's *Economic Quarterly* for many years, will depart at the end of the year. They will discuss the changes they have seen over the last 34 years and consider what the future may hold for them as well as the Bank.

Economic History

The sometimes painful story of unionization and labor unrest in West Virginia's coal industry.

Jargon Alert

Whoever coined the phrase "time is money" knew something about opportunity cost. Find out why.

Research Spotlight

A growing field called "behavioral economics" has challenged some of the premises of mainstream economic theory. But how far can behavioral economists take their critique?

The Fall 2004 RegionFocus will be published in October.

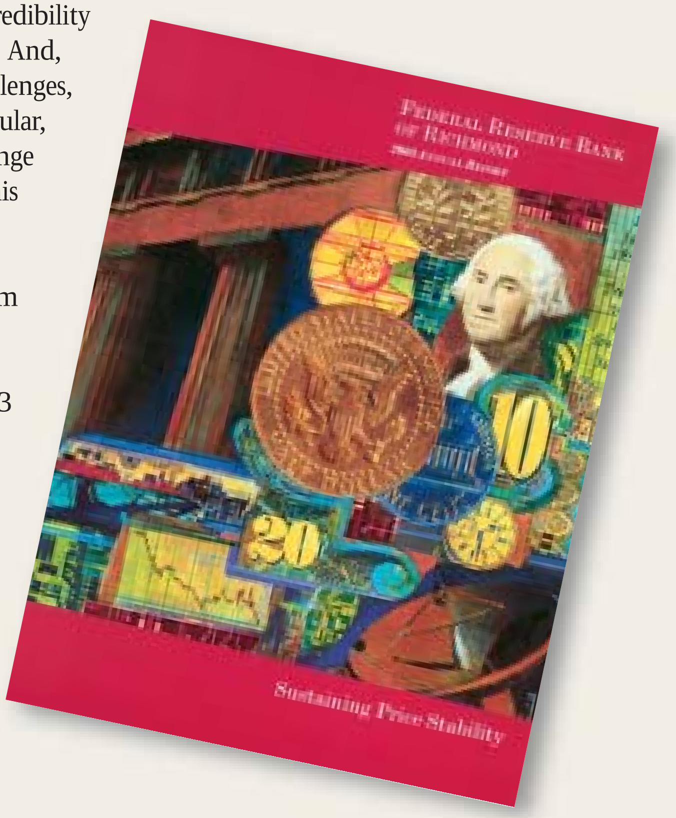
Articles will also be available online at **www.rich.frb.org/pubs/regionfocus.**

To receive an e-mail notice when each new issue of RegionFocus can be viewed online, please contact rich.regionfocus@rich.frb.org.

Sustaining Price Stability

After decades of trying, the Federal Reserve has finally achieved price stability. The question now is how best to sustain it.

In the Federal Reserve Bank of Richmond's *2003 Annual Report* feature article, "Sustaining Price Stability," the Bank president and a senior policy advisor make recommendations based on an analytical framework for understanding inflation and deflation. They contend that open and effective communication is critical to a central bank's credibility and thus its ability to maintain the price level. And, as one recommendation for meeting these challenges, they suggest that the Federal Reserve, in particular, commit to holding inflation within a target range of 1 percent to 2 percent and communicate this policy stance to the public.



The *Annual Report* also includes a message from the president and first vice president, in which they discuss the national and Fifth District economies, and an overview of the Bank's 2003 financial activity.

The Bank's *2003 Annual Report* is available free of charge by contacting:

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Federal Reserve Bank of Richmond
P.O. Box 27622
Richmond, VA 23261
Phone: 804-697-8109
Email: Research.Publications@rich.frb.org

Or by accessing the Bank's Web site at
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