

Economic Development in North Carolina: Moving toward Innovation

Jesse L. White Jr.



North Carolina's economy appears to be undergoing a sea change. In fact, the ship of state seems to have lost its economic moorings. But is this actually the case? This article examines the state's changing economy

The author is director of the newly established Office of Economic and Business Development at UNC at Chapel Hill and an adjunct professor in the School of Government. He is a former executive director of the Southern Growth Policies Board and a former chair of the Appalachian Regional Commission. Contact him at jwhite@unc.edu.

and lays out a framework for thinking about economic development policy. It describes traditional economic development policies and their achievements. Then it surveys innovative policies and programs of the past decade. It concludes with a framework for integrating traditional and innovative policies into a matrix for planning and action.

North Carolina's Changing Economy

To many, the pillars of the North Carolina economy seem to be crumbling. Almost daily, the newspapers report

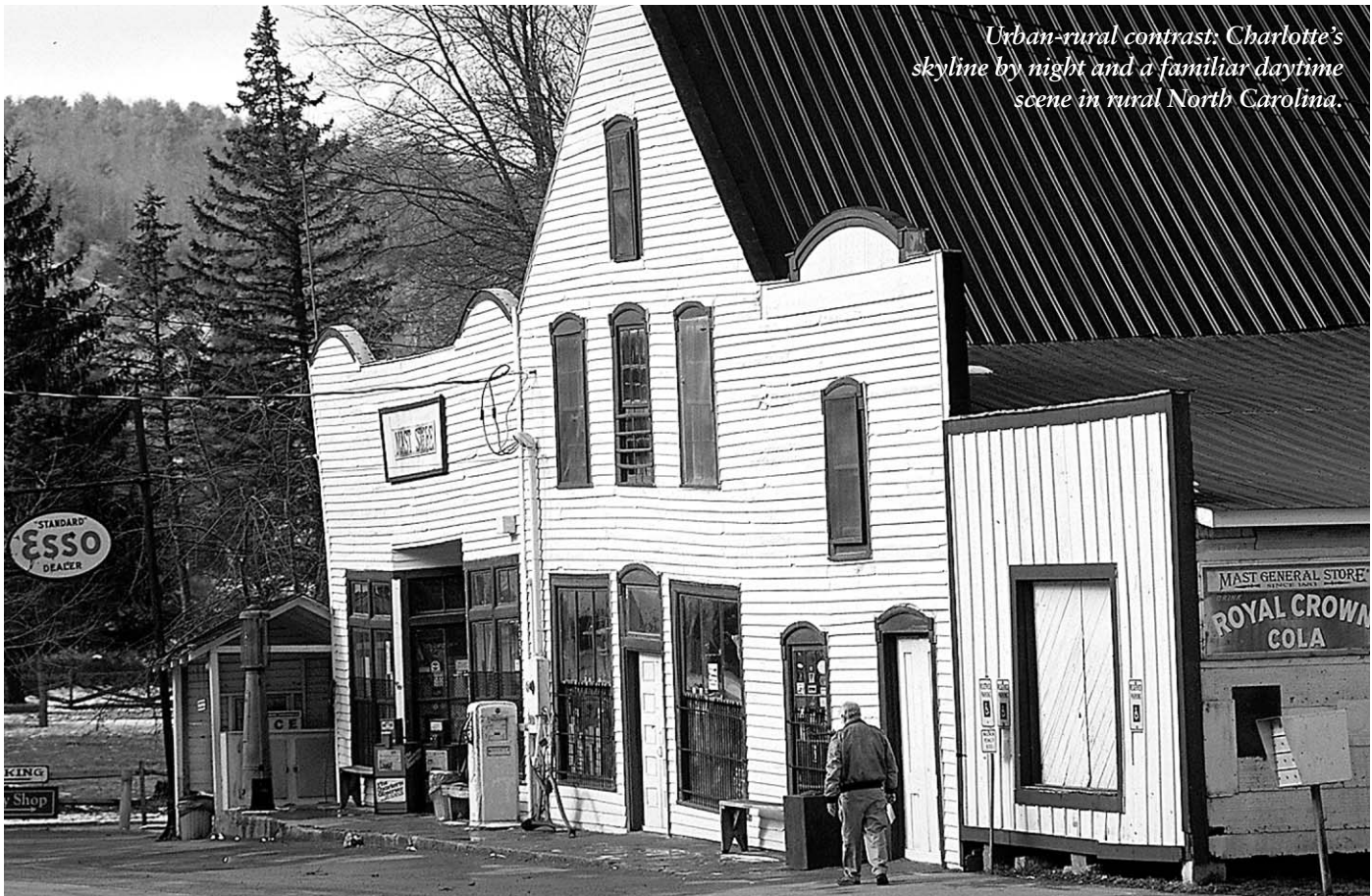
plant closings in the state's big three: textiles, furniture, and tobacco. Indeed, the job losses in these sectors have been substantial and painful to the people and communities affected. Alarms are being sounded about the need for a new model of economic development for the state, including major incentives for industrial recruitment. However, the tale of North Carolina's economy is more complex than today's headlines make it appear.

North Carolina participated in, and in some cases led, the boom of the Sunbelt. It also shared in the shadows.¹ In the two decades leading up to the new

millennium, the state's population grew by about 30 percent, and the number of jobs increased by almost 60 percent, outpacing both the national and the southern rate of growth. By the late 1990s, North Carolina's per capita income was more than 91 percent of the national average and one of the highest in the South. Much of this growth was driven, not by the traditional pillars of the economy, but by the technology-intensive growth in the Research Triangle Park and by banking

particularly tobacco products, joined the textile and apparel industries, but the manufacturing jobs paid low wages and were overwhelmingly nonunion. In fact, by the early 1960s, North Carolina was among the states with the highest percentages of their workforces in manufacturing, and among the states with the lowest average manufacturing wages. Even today the state ranks in the top three in the percentage of its nonfarm workforce in manufacturing.³

was losing about 1,000 jobs per month in these sectors. Between 1978 and 1997, the state lost about 32 percent of its textile manufacturing jobs and 40 percent of its apparel jobs. From 1997 through 2001, the losses were a further 30 percent and 39 percent respectively. From 2000 to 2003, employment in textiles and apparel fell by another one-third. The state lost more than 80,000 textile jobs alone in the past decade. In the last few years, the same industrial



Urban-rural contrast: Charlotte's skyline by night and a familiar daytime scene in rural North Carolina.

PHOTOS BY NORTH CAROLINA DIVISION OF TOURISM, FILM AND SPORTS DEVELOPMENT

and other services sectors in Charlotte. The state also has been plagued, however, by persistent and growing differentials between urban and rural areas and among its various regions.²

North Carolina made the transition from an agrarian state to a manufacturing state long before most of the South. The transition was fueled in part by the migration of the textile industry from New England to the Carolinas and by the happy absence in North Carolina of a power structure of plantation owners, which stifled economic change in other southern states. Manufacturing of furniture and other nondurable goods,

In the 1960s and the 1970s, however, a long decline in manufacturing employment began in North Carolina. It occurred as a result of technology and the globalization of production, the latter an emerging phenomenon that severely weakened the cost-sensitive manufacturing base of the South. The media and the public tend to focus on the *current* loss of jobs in the textile and apparel industries. However, as far back as the 1970s and 1980s, North Carolina

Alarms are being sounded about the need for a new model of economic development for the state, including major incentives for industrial recruitment.

restructuring began to affect the furniture industry, in which manufacturing employment fell by one-quarter.⁴

Likewise, employment and wages from farming have plummeted in North Carolina. In 1950 there were

about 300,000 farms in the state, and agriculture employed more than 25 percent of the workforce. Today the number of farms has fallen to about 50,000, employing about 2 percent of the workforce. Tobacco farming, once a



Table 1. **Agriculture in North Carolina, 2001**

Total agricultural receipts	\$8,061,862,000
Total crop receipts	\$3,086,554,000
Total livestock receipts	\$4,644,078,000
Hog receipts	\$1,709,794,000
Broiler chicken receipts	\$1,681,040,000
Tobacco receipts	\$685,799,000
Greenhouse receipts	\$986,637,000
Total farms 1987	59,284
Total farms 1997	49,406

Source: Data from North Carolina Rural Economic Dev. Ctr., *Agriculture in North Carolina* [data sheet], available at www.ncruralcenter.org/databank/datasheet.asp?topic=Agriculture (last updated Sept. 15, 2003).

Table 2. **Employment Sectors with the Greatest Job Gains and Losses, 1978–1997**

	N.C. Employment Change, 1978–97	Percent Change, N.C.	N.C. Employment, 1997	Percent of All N.C. Jobs, 1997
Sectors with Greatest Job Growth				
Business services	223,457	400.3	279,281	6.1
State and local government	186,132	55.7	520,481	11.3
Health services	171,877	196.0	259,565	5.6
Eating and drinking establishments	146,962	156.4	240,953	5.2
Food stores	56,383	90.9	118,407	2.6
Social services	47,899	212.6	70,430	1.5
Amusement services	36,188	213.7	53,120	1.2
Personal services	32,809	67.4	81,523	1.8
Industrial machinery manufacturing	30,895	77.6	70,718	1.5
Trucking and warehousing	27,394	53.2	78,885	1.7
Sectors with Job Loss				
Textile manufacturing	– 80,711	– 31.5	175,839	3.8
Apparel manufacturing	– 34,874	– 39.9	52,538	1.1
Tobacco products manufacturing	– 9,504	– 35.9	16,972	0.4
Furniture and fixtures manufacturing	– 6,111	– 7.3	77,346	1.7

Source: Adapted from *STATE OF THE SOUTH 2000*, at 95 (Chapel Hill, N.C.: MDC, Inc., Sept. 2000).

staple of income and employment in rural and small-town North Carolina, also has been in steep decline. In the United States, the number of tobacco farms was cut in half from 1978 to 1997. For the most recent year in North Carolina, receipts from tobacco trailed receipts from hogs, chickens, and even greenhouses (see Table 1).⁵

Like the rest of the United States, North Carolina began making the transition to a service-based economy in the last quarter of the century. (For data on the employment sectors with the greatest job gains and losses during this period, see Table 2.) Again, the state was ahead of much of the South, particularly

in developing its powerful banking sector. Almost 70 percent of North Carolina's workforce is currently employed in the services sector broadly defined, and that sector has created 70,000 new jobs in the state since 2000. However, much of that sector pays low wages. In travel and tourism, the 80,000 people working in hotels and lodging and in amusement and recreation had average weekly wages of \$308 and \$447 respectively in 2001. In the same year, the almost 700,000 people working in retail made average weekly wages of \$346. At the other end of the services spectrum, some 263,000 health care workers earned average

weekly wages of almost \$700. For those in high-tech services, the wages were much higher.⁶

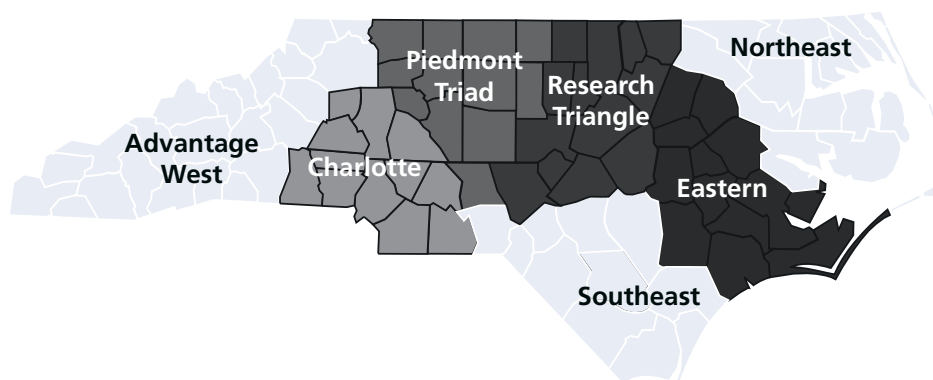
The same wage differential holds for high-tech manufacturing employment, which has grown impressively over the past two decades (although the absolute number of jobs still is smaller than that in traditional industries). The 19,000 workers in the pharmaceutical industry made average weekly wages of more than \$1,300 in 2001, and the 58,000 workers in electronics and electrical equipment manufacturing made average weekly wages of more than \$900. By contrast, the 123,000 workers in textiles made average weekly wages

Table 3. **Per Capita Income in North Carolina, by Region, 2000**

Region	Per Capita Income	Percent of Statewide Per Capita Income
Research Triangle	\$30,400	113
Charlotte	29,900	111
Piedmont Triad	27,600	102
Statewide	26,900	100
Advantage West	23,900	89
Eastern	23,600	88
Southeast	22,600	84
Northeast	21,700	81

Source: Data from Frank Maley, *Looking for Work*, BUSINESS NORTH CAROLINA, Feb. 2003, at 1, available at www.businessnc.com/archives/2003/02.

Figure 1. **North Carolina Department of Commerce Regional Partnerships**



Source: From North Carolina Dep't of Commerce, Business Recruitment, available at www.investnc.com/helping/partner.asp (last visited Mar. 29, 2004).

of \$541, and the 30,000 workers in the apparel industry made \$442.⁷

The recent recession hit hard. North Carolina's per capita income figure slipped from a high of almost 92 percent of the national average to about 90 percent in 2003. The unemployment rate doubled, from 3.1 percent in December 1998 to 6.7 percent at the end of 2002 and 6.1 percent at the end of 2003. The change in the relative position of the state was breathtaking. In 1999, North Carolina ranked thirty-eighth in unemployment (first being the least desirable ranking), but last year it was in the top ten (it has since improved to twenty-first). Retail sales have experienced their largest

decline in a decade, and even high-tech manufacturing employment declined between 1999 and 2001.⁸

North Carolina has made several major transitions in its economic base—from farming to manufacturing to services. One constant, however, has been the persistence of wage and income differentials and regional disparities. Along with most of the South, the state has experienced the “metropolitanization” of its economy. From 1978 to 1997, the state's metropolitan areas added 1.3 million jobs, while the nonmetropolitan areas added just 330,000. So, although about 67 percent of the people lived in metropolitan areas, those areas

produced 80 percent of the job growth. Likewise, during the last decade, urban areas increased almost 26 percent in population, compared with 18 percent for rural areas.⁹

As well as a general urban-rural disparity, there are large regional differences. For example, per capita income ranges from \$30,400 in the Research Triangle Park (RTP) to \$21,700 in the northeast. (For a breakdown of per capita income by regional partnership areas, see Table 3. For a map identifying the various areas, see Figure 1.)

Clearly the tale of North Carolina's economy is not a simple one. Tens of thousands of jobs have been lost in many traditional sectors of the economy, while tens of thousands have been created in emerging sectors. If one word could describe the state's economy during the past two decades, it would be “churning.” Although job loss often is the media story, the quieter story of job creation frequently remains untold. But therein lies the future of the North Carolina economy.

Economic Development Policies

“Economic development” is the intersection of public policy and private commerce for the purpose of creating jobs, businesses, prosperity, and wealth. The study of that intersection is “political economy,” a term once widely used in political science and now making a comeback.

Both the nation and the states have implemented numerous economic development policies. Important federal ones have been the land-grant college system, subsidies to build the trans-continental railroads, the interstate highway system, rural electrification, military and space research and development, small business programs, regional commissions like the Tennessee Valley Authority and the Appalachian Regional Commission (ARC), and investments in all levels of public education. Although these programs often are not explicitly characterized as economic development policies, they have profoundly affected the evolution of the American economy. State policies have included the establishment of state departments of agriculture, state

road systems, public education, community college systems, and programs for recruitment of branch plants of manufacturing firms.

North Carolina has embraced many of these policies throughout its history. Although much is heard today about technology transfer—as though it were some new phenomenon—one of the most successful models in history is more than a century old: the land-grant colleges and the cooperative extension service. Under the land-grant college system, North Carolina State University was established in 1887, and North Carolina A&T in 1891. This system benefited North Carolina mightily and helped it become a state of small, successful farmers. The state created its own Department of Agriculture in 1944.

To support both the manufacturing and the farming economy, for many years the state also has built roads and highways to get goods from farm and factory to market. In fact, as early as the 1920s, at the time of the creation of the North Carolina Highway Commission, North Carolina was known as the “Good Roads State.” Today the state ranks second in the nation in terms of total highway miles under state control and maintenance.¹⁰

North Carolina also has invested handsomely in postsecondary education for decades. Today it ranks sixth in the nation in expenditures on universities, colleges, and community colleges. The sixteen campuses of The University of North Carolina and the fifty-eight public community colleges represent tremendous economic development assets.¹¹

The state has supported the traditional pillars of its economy through other policies. It has kept cigarette taxes among the lowest in the country to support tobacco farmers and cigarette manufacturers. It also has enacted right-to-work legislation and other policies that support low-wage, nonunion manufacturing in textiles, apparel, and furniture.

North Carolina was slow to embrace the southern mania for incentive-based industrial recruitment. Beginning in Mississippi in 1937, the policy was simple and successful: to recruit the branch plants of labor-intensive, cost-sensitive manufacturing firms into communities on the basis of low-wage

and nonunion labor, low taxes, and subsidies and incentives. These policies spread across the region and did, in fact, industrialize the rural and small-town South. However, in branch plants controlled from outside, the fate of workers and communities was left in the hands of corporations often domiciled far away. These branch-plant economies—while providing jobs—actually created little wealth in the communities in which they operated.

North Carolina did not adopt this strategy until the passage of the William S. Lee Quality Jobs and Business Expansion Act in 1996, although local incentives had been granted for some time and were held to be constitutional in the *Maready* decision that same year.¹² In December 2003 a special session of the General Assembly enacted the Job Growth and Infrastructure Act, authorizing about \$230 million in incentives to Merck & Co. and R. J. Reynolds to create an estimated 1,200 new jobs in the already successful areas of the RTP and the Piedmont Triad. This was an unprecedented and controversial action.

Although North Carolina has a large number of workers in branch plants, it also has many workers in plants of home-grown companies in tobacco, furniture, and textiles. In this sense North Carolina is different from many other southern states. These home-grown plants, however, are subject to the same pressures of technology and globalization as branch plants are.

One economic development policy in which North Carolina was ahead of much of the rest of the South was the creation of innovative institutions to promote technology. The most notable example was the creation of RTP in 1958. This was followed by the creation of the North Carolina Board of Science and Technology in 1963, the Microelectronics Center of North Carolina in 1980, and the North Carolina Biotechnology Center in 1981. In RTP alone, more than 130 companies and organizations employ 45,000 workers, whose

average salary is \$56,000. The total payroll in RTP is \$2.7 billion.¹³

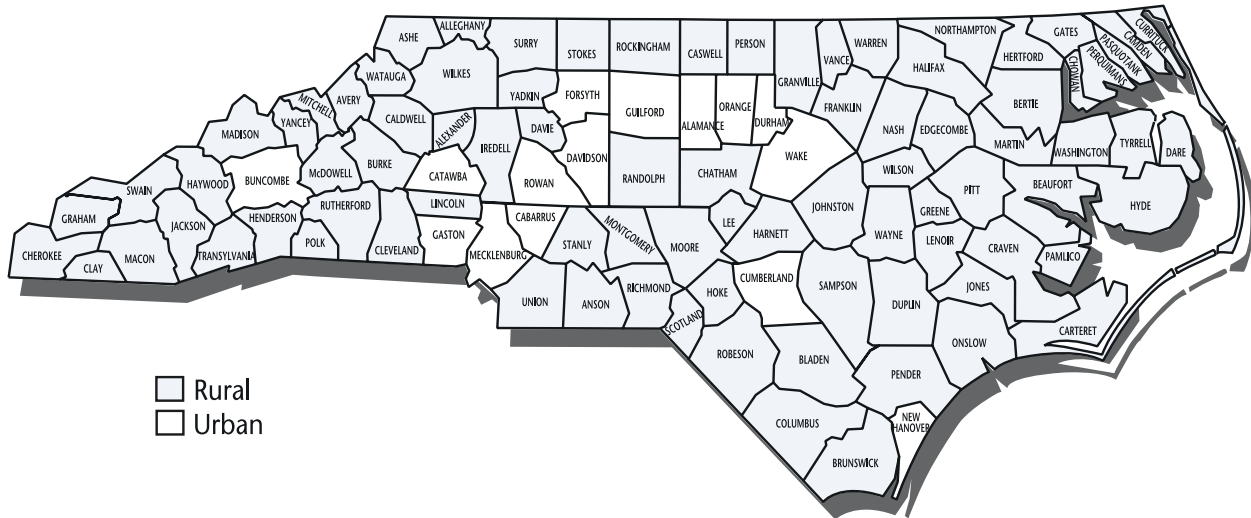
Other important state policies have been in financial services and rural development. For decades North Carolina was unique in the South in allowing statewide banking, which helped North Carolina banks grow and strengthen while restrictive banking laws in other southern states kept their banks small and isolated. Working through the Southern Growth Policies Board, this state was a leader in the 1980s in the interstate banking movement, first creating a protected regional market for a limited period and then embracing national interstate banking. As a result, North Carolina is one of the major banking centers of the United States. Two of the state's banks—Bank of America (newly merged with Fleet First Boston) and Wachovia—are among the five largest in the United States, employing approximately 100,000 and 87,000 workers and holding assets worth \$736 billion and \$401 billion, respectively.¹⁴

One economic development policy in which North Carolina was ahead of much of the rest of the South was the creation of innovative institutions to promote technology.

In 1987, recognizing the growing differentials between the burgeoning metropolitan economy of North Carolina and the languishing or declining rural and small-town economies, the state created the North Carolina Rural Economic Development Center (hereafter the Rural Center), prob-

ably the premier such institution in the nation. Its mission is to be an advocate for and funder of the rural counties of the state, drawing its impressive budget from state appropriations, foundations, and the private sector. The Rural Center has a large array of programs, including research and development, water and sewer services targeted at rural areas, microenterprise, access to capital, a leadership institute, an agricultural advancement consortium, a Rural Internet Access Authority, and rural entrepreneurship. A staff of nearly 40 professionals manages an operating budget of almost \$7 million dollars, which includes about \$3 million in grants. The Rural Center has additional grants and

Figure 2. **North Carolina Rural and Urban Counties, 2002**



Source: From North Carolina Rural Economic Dev. Ctr., Rural County Map, available at www.ncruralcenter.org/databank/rural_county_map.asp (last updated Jan. 2, 2002). Reprinted by permission.

Note: A rural county is one with a density of fewer than 200 people per square mile based on the 1990 U.S. Census [N.C. GENERAL STATUTE 143B-437.41].

awards amounting to almost \$80 million, pursuant to the state's Clean Water Bond Fund. (These funds include those of the Rural Internet Access Authority.)¹⁵ (For a map of the state's rural counties, see Figure 2.)

Obviously the intersection between public policy and private commerce—

economic development—has had enormous impacts on North Carolina's economy. Although at times overwhelmed by national and global trends, economic development policies still are crucial to the future of the state and its communities. The question today is the same as it always has been: what is the best

model of economic development for North Carolina?

Traditional Approaches to Economic Development

From an economic development perspective, there are three traditional ways to create jobs, companies, and wealth: (1) recruiting plants or other facilities of companies domiciled outside the state; (2) strengthening and expanding existing businesses and industries; and (3) promoting entrepreneurship, or creation of new, home-grown businesses. These are sometimes referred to as the three legs of the economic development stool.

Most southern states have invested an overwhelming proportion of their economic development resources in industrial recruitment. In fact, industrial recruitment is the central mission of almost all state departments of commerce or economic development. In North Carolina, state-funded incentives for economic development investments have amounted to more than \$200 million



HARRY LYNCH/NEWS & OBSERVER

North Carolina's Research Triangle has experienced phenomenal growth in the last forty-six years, spurred by developments in biotechnology. Left, a production operator for a Raleigh-based company making medical adhesives pumps a product into a flask.

Project Development Financing

In November 2004, North Carolinians will vote on a constitutional amendment allowing cities and counties to use a new tool for financing debt, called "project development financing." This tool permits a county or a city, without voter approval, to borrow money to construct public improvements intended to attract private investment, and thereby to increase the tax value of property in the vicinity of the improvements. That increase provides the principal security for repayment of the borrowed money.

The county or the city begins the process by establishing a "project financing district," which includes the properties expected to increase in value because of the public investment. Cities may establish such a district in redevelopment areas as defined by the urban redevelopment statutes. Cities and counties may establish such a district in an area that is either (1) blighted, (2) appropriate for rehabilitation or conservation activities, or (3) appropriate for economic development. A county may establish such a district only in unincorporated areas.

A School of Government faculty member, David M. Lawrence, provides an extended explanation of project development financing online at www.sog.unc.edu/popgov/.

since 1996, when the William S. Lee Act was passed. In December 2003 the Job Growth and Infrastructure Act added \$230 million to that figure, targeted at just two companies.

This emphasis on recruitment shows in employment statistics. About one-third of Americans employed in branch plants are in the South.¹⁶ In North Carolina, by the mid 1990s, almost 20 percent of private-sector employment was in firms owned by outside interests. According to the Rural Center, in 2002 almost 110,000 firms with fewer than 100 employees together employed about 2 million workers, while nearly 5,700 firms with 100 or more employees employed about 1.7 million workers. In other words, the 110,000 small firms em-

ployed close to the same number of people as the 5,700 large firms did.¹⁷ Branch plants tend to be larger than home-grown businesses, so the figure for firms employing 100 or more employees is a proxy for branch-plant employment.¹⁸

In the past two decades, almost all southern states have enacted programs aimed at strengthening existing industry. North Carolina extends its tax incentives to existing businesses that create new jobs in distressed parts of the state. Other states have embraced this move. Also, the Department of Commerce has established a Business and Industry ServiCenter to help businesses succeed and grow. This service is

an innovative partnership among the Department of Commerce, the Small Business and Technology Development Centers, the North Carolina Community College System, and the North Carolina Industrial Extension Service.¹⁹

Despite these initiatives, however, only a small fraction of the state's resources is spent on existing industry programs. The Rural Center estimates that North Carolina spends only one dollar on strengthening existing businesses for every six dollars it spends on recruitment, despite the fact that existing businesses account for about 60 percent of all new job creation and investment.²⁰ The gigantic expenditure of funds on industrial recruitment often is a source of bitterness to existing business.

In terms of creation of small businesses, many southern states support revolving loan funds, loan guarantees, technical assistance, and business incubators. North Carolina has provided funding to the Rural Center for its \$1.7 million program of capital access. In addition, the Rural Center launched a \$2.9 million Institute for Rural Entrepreneurship in fall 2003 with a ten-part program to be funded, in part, by state appropriations. (For more information

about the institute, see the sidebar on page 32.) The state also has allocated more than \$1 million of its ARC funds for entrepreneurship programs at the Advantage West regional partnership and the North Carolina Department of Commerce. Further, the state funds seventeen Small Business and Technology Development Centers across North Carolina to assist small business start-ups and expansions.²¹

Although the state has made efforts to support existing industry and creation of small businesses, like the rest of the South, it overwhelmingly allocates energy and resources to the recruitment

leg of the economic development stool. However, the South and North Carolina also have moved beyond these traditional approaches and developed innovative policies, programs, and practices as the old economy has begun to fade and the new economy has come to be understood.

Innovations

The South began to experience the turmoil of fundamental economic change in the 1980s, and from this distress came policy innovation. The

revolutions in communications and transportation technology produced a profound globalization of the economy. That, in turn, doomed the South's economic base of labor-intensive, low-cost manufacturing. The region now was competing with cost structures in the Third World. As noted earlier, the inexorable loss of manufacturing jobs began. A path-breaking report of the Southern Growth Policies Board in 1985, entitled *After the Factories*, documented for the first time this industrial restructuring of the rural and small-town South.²²

In response to this challenge, out of the Southern Growth Policies Board—and the remarkable group of southern

The South began to experience the turmoil of fundamental economic change in the 1980s, and from this distress came policy innovation. The revolutions in communications and transportation technology produced a profound globalization of the economy. That, in turn, doomed the South's economic base of labor-intensive, low-cost manufacturing.

Figure 3. **Technology-Intensive Employment as a Percent of Total Employment**

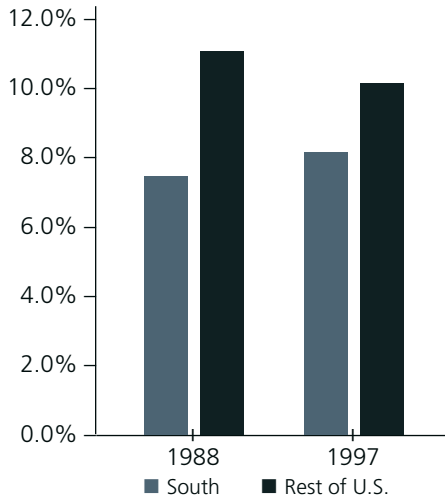
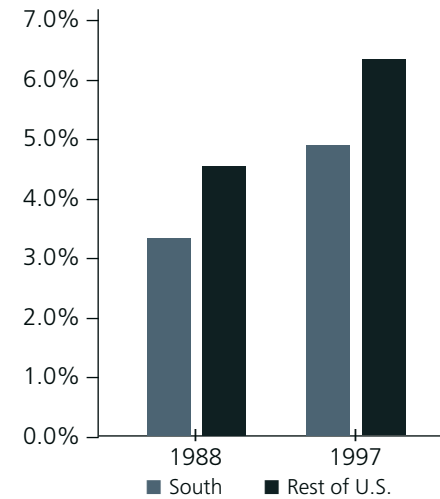


Figure 4. **Number of Technology-Intensive Firms as a Percent of All Firms**



Source: From *Invented Here: Transforming the Southern Economy* 15 (Research Triangle Park, N.C.: Southern Growth Policies Bd., June 2001). Reprinted by permission.

governors whom it served—came a ferment of policy innovation. It was captured first and perhaps most dramatically in the report of the 1986 Commission on the Future of the South, entitled *Halfway Home and a Long Way to Go*. Given the charge of producing an economic development plan for the South, the commission set forth ten path-breaking objectives. The report broke

through the stovepipes of state and local government programs and policies, integrating education, training, technology, higher education, leadership development, civic capacity, global competitiveness, and entrepreneurship into a new matrix of economic development.²³

Other think tanks were undertaking similar innovative work in the 1980s: MDC, Inc. (of Chapel Hill), the State

Policy Program and the Rural Economic Policy Program (both of the Aspen Institute, headquartered in Washington, D.C.), the Corporation for Enterprise Development (located in Washington, D.C., and Durham, N.C.), the National Governors Association, the Council of State Policy Agencies, and the Southern Growth Policies Board's Southern Technology Council. In the 1990s a vigorous focus on rural development emerged through the Rural Local Initiatives Support Corporation, the Rural Policy Research Institute, the Center for the Study of Rural America at the Kansas City Federal Reserve Bank, the Northwest Area Foundation, and the ARC.²⁴

These innovations were reflected in state policies and programs across the South and throughout the nation. The following sections describe seven key elements of this new approach to economic development.

1. Linking Human Resource Development to Economic Development

Perhaps the single most important development was that southern states began to link quality education to economic development. Although southern states had invested well in postsecondary education for decades, they were at the bottom of the heap in expenditures on elementary and secondary education. An economy based on row-crop agriculture, low-skill manufacturing, and extractive industries did not require a highly educated or skilled workforce. In the new knowledge-based, globally competitive economy of the 1980s, the weakness of the labor force became an albatross on the South's back.

As southern policy makers embraced this understanding, a remarkable wave of education reform and funding began. The education reform movement that began in Mississippi in 1982 swept across the South, often promoted by southern governors on the basis of economic development. North Carolina funded early childhood education and development through Smart Start. Also, in sal-

Manufacturing associates work in a cell-culture room at Biogen Idec, a firm that produces therapies for cancer and vaccines for hepatitis B.



JOHN L. WHITE / NEWS & OBSERVER

aries for elementary and secondary school teachers, it moved from forty-third in 1996 to twenty-third in 1999. Further, as noted earlier, the state now ranks sixth in the nation in expenditures on postsecondary education.²⁵

2. Building Institutions to Promote Technology Development and Deployment

Beginning with the influential report of the Southern Technology Council in 1989, entitled *Turning to Technology*, southern states began to create institutions formally to promote the diffusion of technology and innovation for purposes of economic development.²⁶ Examples include the Alabama Technology Network, in which companies increased their sales by \$28 million; the Georgia Research Alliance, which over a decade invested more than \$275 million in an infrastructure for innovation; and the Kentucky Innovation Act, which allocated more than \$50 million in technology initiatives and created a Kentucky Innovation Commission.²⁷

The leadership role that North Carolina exerted is noted earlier in the creation of RTP, the Microelectronics Center of North Carolina, the Biotechnology Center, and the Board of Science and Technology.

Payoff from these investments can be seen in the growth of technology-intensive employment and firms (see

Figures 3 and 4, page 9). From 1989 to 1997, technology-intensive employment as a percentage of total employment grew by 34.3 percent in the South, from 1.46 million jobs to 1.96 million. In the same period, the number of technology-intensive firms grew from 45,000 to almost 77,000. On both measures the South outpaced the nation. In North Carolina the growth of technology-intensive employment was 7.9 percent, roughly the southern average but lower than the national average of more than 10 percent. Technology-intensive firms increased by 4.5 percent, below the southern average of 5 percent and the national average of more than 6 percent.²⁸

3. Creating Multijurisdictional Institutions to Work on Regional Economic Development

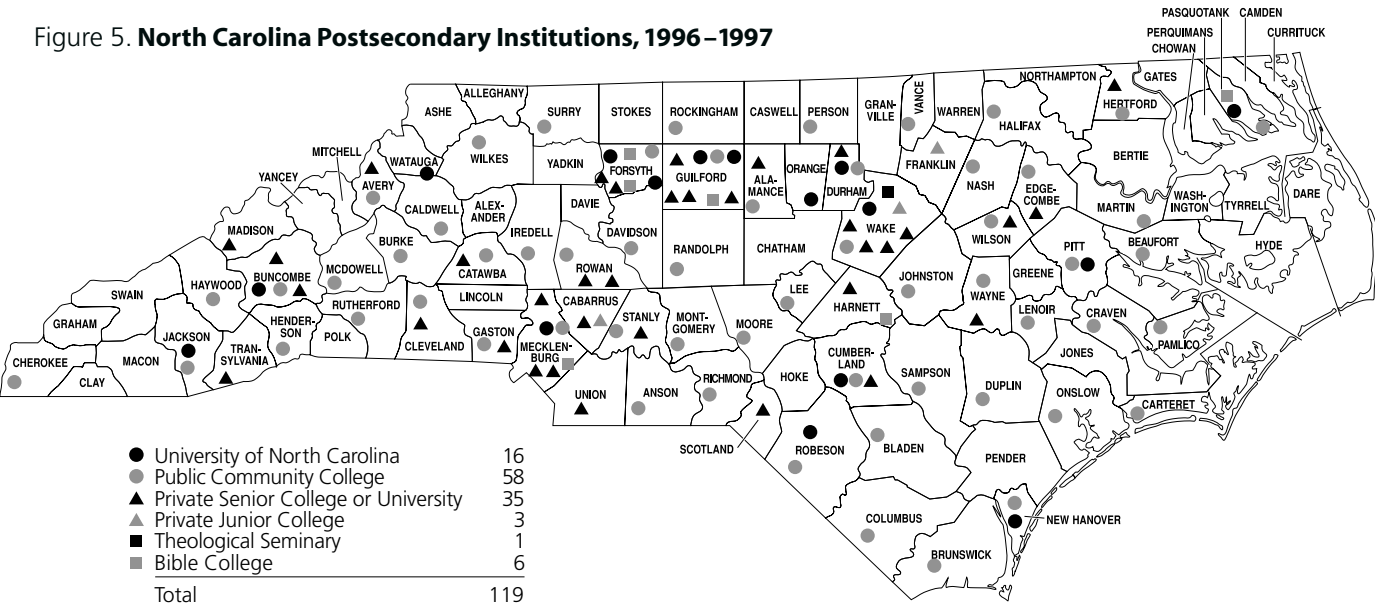
As awareness grew that economies do not function according to artificial political boundaries, states and localities began to create institutions for multi-jurisdictional planning and action. Some of these were federally created regional planning districts formed under the Economic Development Administration and the ARC in 1965. Others issued from state legislative actions. Still others resulted from cities and counties crafting their own instrumentalities. Examples include the Tennessee Resources Valley in the Knoxville–Oak

Ridge area, a sixteen-county economic development agency; the Regional Leadership Council of Louisville, Kentucky, and southern Illinois, serving an interstate region of twenty-three counties; the Greater Richmond Partnership of Richmond, Virginia; and the Indianapolis Regional Economic Development Partnership.²⁹ North Carolina created seven regional partnerships for economic development under the umbrella of the Department of Commerce (see Figure 1), in addition to its seventeen existing regional councils of governments.³⁰

4. Linking Community Development and Civic Capacity to Economic Development

As the South moved from a hierarchical industrial structure to a “flatter” services-sector economy, weaknesses in leadership and civic infrastructure became an impediment to growth and development. Again, the linkage was first established in *Halfway Home and A Long Way to Go*, which had as one of its ten objectives, “Develop Pragmatic Leaders with a Global Vision.”³¹ This focus on building leadership that is both broad and deep in communities has grown enormously in the past two decades. In fact, the Move the Mountain Leadership Center estimates that leadership development is already a \$1 billion industry in the United States.³² All this

Figure 5. North Carolina Postsecondary Institutions, 1996–1997



Source: Adapted from NORTH CAROLINA ATLAS: PORTRAIT FOR A NEW CENTURY 362 (Douglas M. Orr Jr. & Alfred W. Stuart eds., Chapel Hill: University of N.C. Press, 2000).

work and energy in building civic capacity led the Southern Growth Policies Board to create its Council on the Southern Community, dedicated to the promotion of model programs in capacity building in southern communities.³³

There are literally hundreds of leadership development programs across the South and dozens in North Carolina, although many of them do not reach the neediest areas or serve the disadvantaged. Some, like Leadership North Carolina, are quite expensive, charging \$2,500 for tuition. Since 1989 the Rural Center has run a leadership program expressly for economic development that costs only \$495 and accepts thirty applicants per year. Regional universities, like Western Carolina University, also run programs.³⁴

The linkage between leadership and civic capacity and community development is explored in another article in this issue, by Anita R. Brown-Graham and Susan Austin (see page 14).

5. Working with Communities and Companies on Global-Competitiveness Strategies

Perhaps the most important impact of technology on the southern economy has been the rapid globalization of it. The percentage of the U.S. gross domestic product accounted for by international trade soared from about 13 percent in 1970 to more than 30 percent today. The globalization of the production process and the adoption of free trade agreements have together destroyed tens of thousands of old jobs and generated tens of thousands of new ones, creating in the process massive dislocations of the underskilled workforce of the South in general and North Carolina in particular.³⁵ Further, the South still is an underachiever in export sales. As Carol Conway points out in her article in this issue (see page 35), if southern businesses exported at the national average, the South would have more than 380,000 additional jobs. North Carolina would have about 56,000 of those.

Southern states have adopted programs to help their communities and businesses become more globally competitive. Most have an international component to their economic development departments, but it frequently is focused on industrial recruitment. The



trade-promotion functions often are small and underfunded. World Trade Centers and programs at some universities work with businesses and communities, and North Carolina has just launched a new World Trade Center on the Centennial Campus of North Carolina State University. The effort is a partnership of the Community College System and the university's Office of Extension and Engagement.³⁶

6. Developing Programs to Enhance Entrepreneurship

Regional organizations and states began to develop more explicit and sophisticated programs to promote entrepreneurship, realizing that new and small businesses create almost all the new jobs. In North Carolina, for example, according to Rural Center estimates, firms with more than 100 employees lost 42,000 jobs between 1998 and 2002, while firms with 50 or fewer employees created almost 27,000 new jobs. Further, the latter firms generated \$14.5 billion in wages annually and provided 614,000 jobs.³⁷

Entrepreneurship programs vary widely from state to state. North Carolina is cited as a "model for entrepreneurial infrastructure" in having the

Southern states have supported the creation of small businesses, like the one above, and the strengthening of existing businesses but not to the extent that they have promoted industrial recruitment.

university-based Small Business and Technology Development Centers, the community college-based Small Business Development Centers, the programs of the Rural Center, a robust Rural Entrepreneurship through Action Learning program in public schools, and the Self Help Credit Union, which served as the model for the federal Community Development Financial Institutions program.³⁸

The most ambitious regional program is the ARC's Entrepreneurship Initiative, now in its sixth year. The program has invested about \$31 million of federal resources and leveraged another \$45 million to help create an infrastructure for entrepreneurship throughout Appalachia. The initiative already has helped create 1,200 new businesses and more than 5,000 jobs. Most of the results of the investments are yet to be realized. ARC funds helped establish the Blue Ridge Entrepreneurial Council in western North Carolina. During its first

year, it created a Blue Ridge Angel Investor Network, which raised more than \$500,000 for one growing company. It also hosted two conferences, one on building entrepreneurial communities and another on venture capital and entrepreneurship. Further, the council plans to raise \$5 million for an angel investment fund.³⁹

7. Deploying the Assets of Postsecondary Education

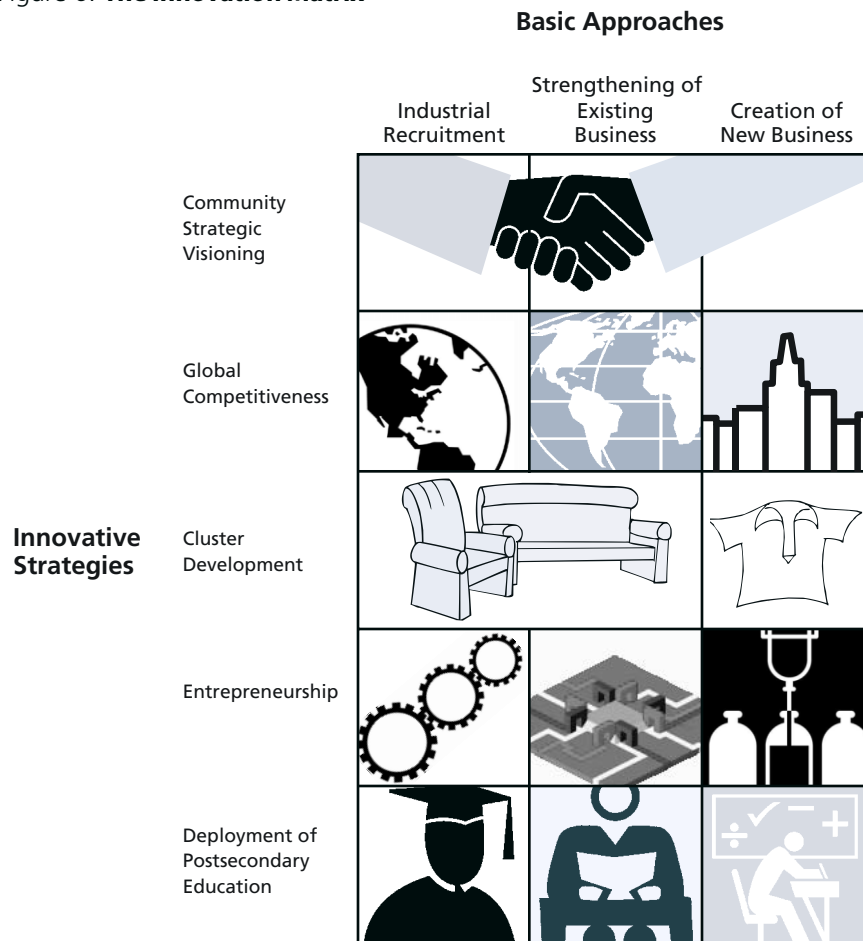
Another innovation was an explicit effort to link postsecondary education to economic development. Higher education already had proven the value of this connection through the land-grant college system and cooperative extension. Now it began to address the broader range of development challenges in the knowledge-based and technology-driven economy of the twenty-first century. North Carolina was a pioneer in deploying the strengths of its community colleges to train workers in manufacturing skills and technologies. (These efforts are described in the article in this issue by Cynthia Liston, Trent Williams, and Stuart Rosenfeld—see page 23.) Beyond training, Catawba Community College has worked with an industry cluster, through the Hosiery Technology Center, to make regional businesses more competitive. The center often is cited as a model.⁴⁰ (For

more about the cluster strategy and its use in Catawba County, see the article in this issue by Jonathan Q. Morgan, on page 43.)

Connecting research universities to the development needs of states and regions led the Southern Growth Policies Board to publish *Innovation U:*

New University Roles in a Knowledge Economy in 2002. This book outlines the many potential roles for higher education in state and regional economic development. North Carolina State University is one of twelve universities cited as a model for its work in industry research partnerships, technology trans-

Figure 6. **The Innovation Matrix**



fer, industrial extension and technical assistance, and other programs.⁴¹

The infrastructure of higher education is extensive in the South and especially so in North Carolina. There is an institution of higher education in all but twenty counties in North Carolina. In most cases they can serve as a locus of action in areas that often suffer from weak institutional capacity. (For a map showing the extent of postsecondary education institutions across North Carolina, see Figure 5, page 10).

The Innovation Matrix

It is a paradox that most explicit economic development funding goes to the traditional approaches, especially industrial recruitment, even though the

innovative practices and policies hold great promise for the future. As North Carolina ponders a new set of economic development policies and programs, the question arises: how can traditional approaches and innovative practices be married for the broadest and most effective development of this complex state and its churning economy?

One way is by employing a matrix approach to economic development. Across the top of the matrix are the traditional approaches to economic development, and down the side are innovative strategies (see Figure 6).

The innovative strategies listed down the left side are community visioning, global competitiveness, cluster development, entrepreneurship, and deployment of postsecondary education—the subjects of the other articles in this issue. Other innovative practices could be included—tourism and retirement strategies, telecommunication-based strategies, and regional cooperation, for example. In fact, any community

It is a paradox that most explicit economic development funding goes to the traditional approaches, especially industrial recruitment, even though the innovative practices and policies hold great promise for the future.

that is undertaking strategic planning and community visioning can tailor the matrix to its vision and strengths and weaknesses.

The strength of the matrix is that using innovative strategies can enrich any of the traditional approaches to economic development. For example, industrial recruitment often can be more effective if it results from community visioning or is tied to existing business clusters. Likewise, the existing industry base often can be strengthened by deploying the assets of postsecondary education institutions in a regional context, relying on existing or emerging clusters. Also, business development strategies can be more effective if tied to technology or to explicit entrepreneurship programs.

Conclusion

The churning economy of North Carolina is filled with good news and bad. The economy's pillars are under enormous international stress, with no signs of abatement. On the other hand, emerging sectors are strong and are creating thousands of jobs, in part as a result of the state's farsighted policies and investments in technology and postsecondary education. However, at the state level, the portfolio of programs needs rethinking and rebalancing among the three legs of the economic development stool.

In thinking about new directions and new policies for North Carolina, policy makers would be well advised to combine the traditional approaches to economic development with the innovations that this state helped launch and is continuing to develop. By using the innovations matrix, the state and its communities can move a long way toward true global competitiveness in the twenty-first century.

Notes

1. See SHADOWS IN THE SUNBELT: DEVELOPING THE RURAL SOUTH IN AN ERA OF ECONOMIC CHANGE (Chapel Hill, N.C.: MDC, Inc., May 1986).

2. See STATE OF THE SOUTH 2000 (Chapel Hill, N.C.: MDC, Inc., Sept. 2000).

3. Alfred W. Stuart, *Manufacturing*, in NORTH CAROLINA ATLAS: PORTRAIT FOR A

NEW CENTURY 177 (Douglas M. Orr Jr. & Alfred W. Stuart eds., Chapel Hill: University of N.C. Press, 2000).

4. NORTH CAROLINA RURAL ECONOMIC DEVELOPMENT CENTER (hereafter Rural Center), OCCASIONAL PAPERS (Raleigh: Rural Center, 2003); 2 NORTH CAROLINA RURAL ECONOMY (published by the Rural Center) no. 4, at 1 (2003).

5. *Introduction*, in Orr & Stuart, NORTH CAROLINA ATLAS, at 1, 3; Rural Center database, available at www.ncruralcenter.org; TOBACCO AT A CROSSROADS, Report of a Presidential Commission 14 (Washington, D.C.: U.S. Dep't of Agric., May 14, 2001).

6. See BUSINESS NORTH CAROLINA, Feb. 2003, at 1, available at www.businessnc.com/archives/2003/02; STATE OF THE SOUTH 2000.

7. BUSINESS NORTH CAROLINA, Feb. 2003, at 1; STATE OF THE SOUTH 2000.

8. See BUSINESS NORTH CAROLINA, Feb. 2003, at 1; STATE OF THE SOUTH 2000; Bureau of Labor Statistics.

9. STATE OF THE SOUTH 2000.

10. See NC 20/20, at 162 (Raleigh: North Carolina Progress Bd., Dec. 2001).

11. *Id.* at 60.

12. See DAVID M. LAWRENCE, ECONOMIC DEVELOPMENT LAW FOR NORTH CAROLINA LOCAL GOVERNMENT ch. 1 (Chapel Hill: Institute of Gov't, U. of N.C. at Chapel Hill, 2000).

13. See Research Triangle Park website, at www.rtp.org.

14. Bank of America and Wachovia Bank websites, at www.bankofamerica.com, www.wachovia.com.

15. Rural Center website, at www.ncruralcenter.org.

16. AMY GLASMEIER ET AL., BRANCH PLANTS AND RURAL DEVELOPMENT IN THE AGE OF GLOBALIZATION 12-13 (Washington, D.C.: Aspen Inst., 1995).

17. RURAL CENTER, NORTH CAROLINA BUSINESS DATA SOURCEBOOK 210-11 (Raleigh, N.C.: Rural Center, Oct. 2003).

18. DAVID TOMASKOVIC-DEWEY & JACQUELINE JOHNSON, SOUTHERN RURAL ECONOMIC DEVELOPMENT: THE BRANCH PLANT/LOCAL FIRM DEVELOPMENT OPTIONS 2, 7 (Raleigh: North Carolina State Univ., June 1996).

19. North Carolina Dep't of Commerce website, at www.nccommerce.com.

20. RURAL CENTER, INSTITUTE FOR RURAL ENTREPRENEURSHIP, Occasional Paper (Raleigh, N.C.: Rural Center, 2003).

21. See Rural Center and Small Business and Technology Development Centers websites, at www.ncruralcenter.org, www.sbtcdc.org. A map locating the Small Business and Technology Development Centers is available on the latter website.

22. See STUART ROSENFELD ET AL., AFTER THE FACTORIES: CHANGING EMPLOYMENT PATTERNS IN THE RURAL SOUTH (Research Triangle Park, N.C.: Southern Growth Policies Bd., 1985).

23. See HALFWAY HOME AND A LONG WAY TO GO, Report of the 1986 Commission on the Future of the South (Research Triangle Park, N.C.: Southern Growth Policies Bd., 1986).

24. See the organizations' websites, at www.mdcinc.org, www.aspeninstitute.org, www.cfed.org, www.nga.org, www.southern.org, www.ruralisc.org, www.rupri.org, www.kc.frb.org/RuralCenter, www.nwaf.org, www.arc.gov. The Council of State Policy Agencies no longer exists.

25. See *Quality Education for All*, in NC 20/20, at 59.

26. SOUTHERN GROWTH POLICIES BOARD, TURNING TO TECHNOLOGY (Research Triangle Park, N.C.: the Board, 1989).

27. See SOUTHERN GROWTH POLICIES BOARD, INVENTED HERE: TRANSFORMING THE SOUTHERN ECONOMY (Research Triangle Park, N.C.: the Board, June 2001).

28. *Id.* at 15, 60.

29. See the organizations' websites, at www.trv.org; www.greaterlouisville.com/city/gl_spanning.asp; www.grpva.com; www.iredp.com.

30. See North Carolina Dep't of Commerce website, at www.nccommerce.com.

31. HALFWAY HOME AND A LONG WAY TO GO.

32. See SOUTHERN GROWTH POLICIES BOARD, REINVENTING THE WHEEL (Research Triangle Park, N.C.: the Board, 2003).

33. *Id.*; Southern Growth Policies Bd. and Appalachian Regional Comm'n websites, at www.southern.org, www.arc.gov.

34. SOUTHERN GROWTH POLICIES Bd., REINVENTING THE WHEEL; Southern Growth Policies Bd., Appalachian Regional Comm'n, and Rural Center websites, at www.southern.org, www.arc.gov, www.ncruralcenter.org.

35. *Evaluating International Trade in the South*, 4 SOUTHERN GROWTH (published by Southern Growth Policies Bd.) no. 1 (1997).

36. North Carolina World Trade Org. website, at www.ncwta.org.

37. RURAL CENTER, PRESS RELEASE (Raleigh, N.C.: the Center, Oct. 23, 2003).

38. Brian Dabson, *Supporting Rural Entrepreneurship*, in EXPLORING POLICY OPTIONS FOR A NEW RURAL AMERICA 35 (Kansas City, Mo.: Center for the Study of Rural America, Federal Reserve Bank of Kansas City, Sept. 2001).

39. See Appalachian Regional Comm'n and Blue Ridge Entrepreneurial Council websites, at www.arc.gov, www.ncmtns.biz.

40. See INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL, ECONOMIC DEVELOPMENT NOW (Washington, D.C.: the Council, July 2002).

41. LOU G. TORNATZKY ET AL., INNOVATION U: NEW UNIVERSITY ROLES IN A KNOWLEDGE ECONOMY (Research Triangle Park, N.C.: Southern Growth Policies Bd., 2002).