

2005

Competitive Assessment of the Charlotte Region

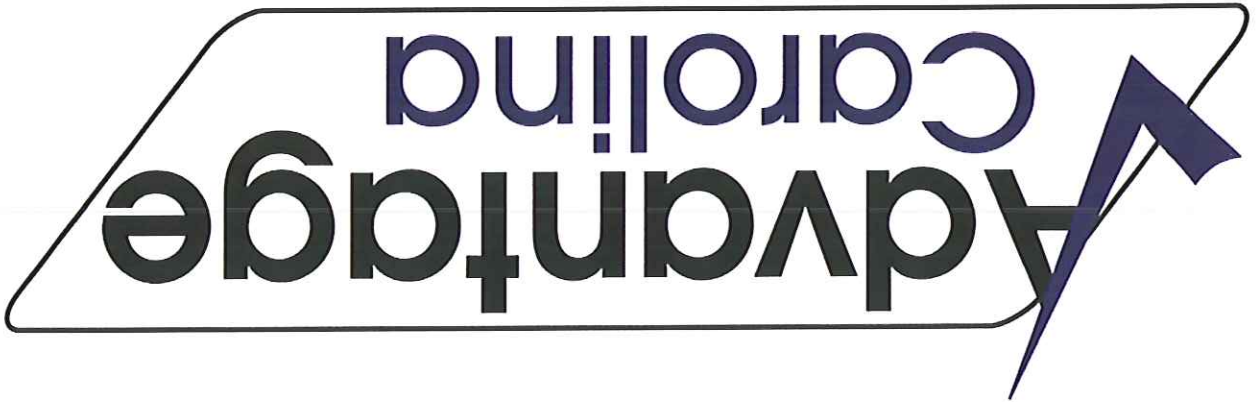


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Introduction

Introduction

As the nation's economy sends mixed signals as it works to pull itself out of the recent economic downturn, communities are trying to locate and make the most of their strongest economic attributes to ensure speedy recoveries and sustainable economic successes in the future. Communities across the nation are grappling with the following key issues that characterize current economic realities:

- More workers have been added to the payroll (1.3 million jobs were created since January);
- However, wages have not kept pace (wages rose 2.2 percent in May since last year, but inflation rose 3.1 percent);
- A structural realignment brought about by the national downturn and globalization of manufacturing and certain service industries; and
- The negative effect of worldwide terrorism.

The volume of corporate site selection projects has also diminished (by over 50 percent from 2000 to 2003)¹, forcing communities to increasingly look from within for future economic growth opportunities.

Advantage Carolina contracted with *Market Street Services*, a national economic and workforce consulting firm headquartered in Atlanta, Georgia, to gain a better understanding of where the Charlotte region is today, and to move Advantage Carolina towards its goals.

As the second stage of *Market Street's* work for Advantage Carolina, this *Competitive Assessment* provides a thorough analysis of the Charlotte area's competitiveness for new and existing businesses. By investigating key indicators in the areas of Education and Workforce Development, Infrastructure, Business Costs, and Quality of Life, *Market Street* created an assessment of how the Charlotte region compares to three peer metropolitan areas.

The results of this analysis are built on *Market Street's* completion of the *Regional Economic Profile*. The project next proceeds to the remaining stages, as outlined below:

I. *Regional Economic Profile.* A realistic analysis of current and recent trends that affect the Charlotte region's ability to thrive and compete in today's economy. The Profile will focus on changes in the area's economy in the recent past but will also "paint a picture" of current economic and demographic trends in the Region.

II. *Competitive Assessment.* An assessment of the Charlotte region's competitiveness for new and existing businesses. Selected data that pertains to the Region's strengths, challenges, and opportunities will be presented as it relates to three agreed upon principal competitor metro areas.

¹ Source: Whittaker Associates and Conway Data, 2003.

III. Target Business Analysis. Identifies primary business sectors that have the highest probability of sustained success for the future of the Region's economy. The *Target Business Analysis* examines national trends and will build upon the work of the *Regional Economic Profile* and *Competitive Assessment*.

In this *Competitive Assessment*, after establishment of the methodology used to compile the report, the **Key Findings** section will outline key statistics from the analysis as well as major themes that the overall data revealed. Next, the **Regional Scorecard** will offer a snapshot summary of the Region's performance. Following are the four main components of the *Competitive Assessment: Education and Workforce Development, Infrastructure, Business Costs, and Quality of Life*. Throughout the analysis, the Region will be benchmarked—on certain key indicators—to three comparison metro areas.

Methodology

Methodology

The *Competitive Assessment* provides an extensive understanding about the Charlotte region's competitive position compared to three peer metropolitan areas. To maintain consistency with the *Regional Economic Profile*, the *Competitive Assessment* uses the same geographical area to define the Charlotte "Region." The Region covers the same geographical area as the Charlotte Regional Partnership (CRP) area and includes all of the counties that are presently a part of the Charlotte-Gastonia-Salisbury Combined Statistical Area (CSA), with the addition of the following three counties that are not part of the CSA: Alexander, North Carolina; Catawba, North Carolina; and Chesterfield, South Carolina. *Market Street* feels that the addition of these three counties (which are a part of the Charlotte Regional Partnership Region) to the analysis accurately reflects a sizeable portion of the Region's overall population and economic growth.

"CRP Region":

Charlotte Regional Partnership Region

County	State
Alexander	NC
Anson	NC
Cabarrus	NC
Catawba	NC
Cleveland	NC
Gaston	NC
Iredell	NC
Lincoln	NC
Mecklenburg	NC
Rowan	NC
Stanly	NC
Union	NC
Chester	SC
Chesterfield	SC
Lancaster	SC
York	SC

Not in CSA



Source: Charlotte Regional Partnership

In order to gain an accurate perspective on how the Charlotte region is performing relative to other similar communities in the nation, three comparison communities are analyzed. These are the same peer metropolitan areas that were used for key comparisons in the *Regional Economic Profile*. **Richmond-Petersburg, Virginia; Nashville-Davidson-Murfreesboro, Tennessee; and Tampa-St. Petersburg-Clearwater, Florida** are chosen based on characteristics that they share with the Charlotte region. *Market Street* recommends comparison metropolitan areas based on relative characteristics that they share with the Charlotte region. Representative comparison factors include:

- Regional population of at least a million people (as of 2002);
- North-south/east-west access via an Interstate highway;
- Presence of at least one local university and close proximity to a major research university (@ 100 miles);
- Comparable population growth since 1990;
- Comparable Real Per Capita Income (RPCI);
- Comparable Real Average Annual Wage (RAW);
- Presence of an international airport; and
- Similar economic structure.

It is not *Market Street's* intention to suggest that the Charlotte region needs to replicate the characteristics of these places; rather the comparisons will help to inform the analysis of the Region's relative performance. *Market Street* also solicited input (on a limited basis) from key leaders and developed the comparison communities based on the input received and collective experience. As observed by Advantage Carolina, the benchmarking of the current economic climate in the Charlotte region against comparable areas with similar conditions will allow Advantage Carolina to better gauge and adapt its ongoing community and business development program.

In the compilation of statistics for the purpose of this analysis, national data sources were used when possible. Data were obtained from a number of various sources, including the Bureau of Transportation Statistics, the Small Business Administration, the Charlotte Regional Partnership, *Forbes Magazine*, *U.S. News and World Report*, the Milliken Institute, the American Automobile Association, and the U.S. Environmental Protection Agency.

Key Findings

Key Findings

This *Competitive Assessment* provides a picture of where the Charlotte region stands relative to peer metro areas.

Education and Workforce Development

- ✓ As discussed in the *Regional Economic Profile*, the CRP Region has a higher high school dropout rate and lower educational attainment. Also, the Region's SAT scores lag behind the national average.
- ✓ In the CRP Region, 78.1 percent of elementary schools, 64.4 percent of middle schools, and only 13.5 percent of high schools had at least 80 percent of students testing at or above grade level for the 2002-2003 school year. The numbers are comparable to North Carolina's numbers for elementary and middle schools, but a greater proportion of the State's high schools (18.4 percent) achieved at least 80 percent of students testing at or above grade level.
- ✓ While very few schools in the Region are designated as Low Performing, it is a concern that only 13.5 percent of high schools in the Region are designated as Schools of Excellence or Schools of Distinction. This is equal to the proportion of Priority Schools needing attention.
- ✓ While there is debate over the appropriateness of the federal guidelines of the No Child Left Behind Act, a high percentage of the Region's middle and high schools (76.9 and 70.4 percent, respectively) did not meet the Adequate Yearly Progress performance standards.
- ✓ The CRP Region had a greater proportion of teachers with advanced degrees and a slightly smaller proportion of fully licensed teachers compared to North Carolina.
- ✓ A fairly high proportion (14.2 percent) of grade school children in Mecklenburg County were enrolled in private school in 2000. The proportion for the CRP Region was lower, at 9.2 percent. Nashville and Tampa had slightly lower proportions of children in private school than Mecklenburg County. There are a number of private schools in the Charlotte area that appear to provide quality education to those who can afford to attend.
- ✓ There are 38 higher education institutions in the CRP Region with a total enrollment of about 88,000. Tampa has a much larger number of college students, but the CRP Region's enrollment is larger than that of Nashville and Richmond.
- ✓ The two schools with the largest enrollment in the Region are University of North Carolina at Charlotte (UNCC) and Central Piedmont Community College. UNCC is the Region's primary research institution.

✓ UNCC has improved its research expenditures and has steadily increased enrollment. It remains a university with regional draw, where master's degrees are far more prevalent than Ph.D. programs. UNCC has a long way to go to become as competitive as the major universities in the peer metro areas for its graduate and research programs and for its caliber of students.

✓ There are ten community and technical colleges in the CRP Region, including two in South Carolina, with a total enrollment of about 43,000, or half of all higher education enrollment in the Region. Central Piedmont Community College in Charlotte is the largest one in the Region, with enrollment of about 16,000.

✓ Although the most community and technical college degrees awarded were in the general one of associate of arts, there were also a significant number of degrees in nursing and business administration. Some of those with associate degrees in arts and business administration may be planning to transfer to a four-year college.

✓ The types of certificate and diploma programs in the community and technical colleges that produced the most completion awards are related to production (welding, machining), health care, education, and law enforcement. For the most part, these graduates should be able to find employment in their areas of study.

✓ The Charlotte metro area's gross product per one dollar of salary was consistently higher than that for Nashville, Richmond, and Tampa from 1999 to 2002. Charlotte workers produced \$1.58 of output for every \$1 salary input.

Infrastructure

✓ In terms of overall regional access to an interstate highway, the Region has a greater average distance to an interstate highway than the comparison regions. However, this is to be expected because the Region contains a much larger area and includes a few rural counties.

✓ For the 2004-2005-program year, CRP Region counties are to receive approximately 16 percent, or just over an estimated \$110 million of the \$700 million allocated for highway improvements under the "North Carolina Moving Ahead!" initiative.

✓ In Bert Sperling's study on "Driving in Metro Areas," Charlotte scored the worst among the peer metros in terms of being "easiest to navigate." However, Charlotte did perform better than other Southeastern metros, such as Atlanta, Jacksonville, and Charleston (respectively).

✓ Of the 447 total available sites in the North Carolina portion of the Region, 78 (17 percent) are served by rail. By comparison, approximately 22 percent of available sites in the State are rail served, and about 15 percent of the available industrial/flex buildings in the State are rail served. Of the 404-industrial/flex available buildings in the North Carolina part of the Region, 64 (16 percent) are served by rail.

- ✓ The Port of Wilmington (operated by the North Carolina State Ports Authority) is the nearest deepwater seaport to the Region. For 2003, the Port of Wilmington ranked in the top half of U.S. ports for container traffic.
- ✓ Five, or 41.7 percent, of the counties in the Region have greater than 84 percent of households with access to high-speed Internet service, and three counties (25.0 percent) have between 50 percent and 65 percent of its households with high-speed Internet service. In contrast, only 27 percent of North Carolina's counties have a percentage of households greater than 84 percent, and approximately 18 percent of counties in the State have households between 50 percent and 65 percent.
- ✓ The Charlotte airport ranked 21st nationwide in total passengers and 35th in cargo in 2003. Non-stop service is available to 16 destinations, 23 of which are international. The total number of passengers has risen significantly since 1997, except for an anomaly in 1999 and the effect of September 11, 2001. Total employment at the airport (airline and airport) is about 15,000.
- ✓ US Airways has a hub at the Charlotte airport and is Charlotte's sixth largest private employer, with 5,743 employees. Its 482 total daily departures represent 92.2 percent of the total daily departures at the Charlotte airport. This is an extremely heavy dependence on one carrier, and can be risky should US Airways' financial trouble worsen, causing it to cut back or cease its operations.
- ✓ The closing of the American Airlines hub at the Nashville International Airport starting in late 1994 can serve as a scenario for what might happen if US Airways were to close its hub in Charlotte. It took the Nashville Airport until 1998 (five years) to reach 1993 passenger levels and until 1997 (three years) to reach 1994 passenger levels. Also, the average daily departures from the Nashville Airport did not reach 1993 levels until 2003 (10 years), and did not reach 1994 levels until 1999 (five years).
- ✓ Although Richmond and Tampa have a higher concentration of employment (higher location quotient) in the finance and insurance sector, the Region's per capita bank deposits is significantly higher than that of Richmond, Tampa, and Nashville. This reflects the attractiveness to consumers of banking in the Charlotte region.
- ✓ Charlotte's small businesses have been taking advantage of SBA loan programs. SBA 7(a) loan activity was higher in the CRP Region than in Nashville and Richmond, but lower than that in Tampa. The number and amount of loans awarded to the CRP Region under the SBA 504 loan program is higher than what was awarded to Tampa, but Tampa's awards have been increasing since 2001, while the amount and number of loans awarded to the CRP Region have decreased each year since 2000. The CRP Region may be facing more competition for these awards due to greater awareness of the 504 program.

✓ There was one venture capital deal in the Charlotte metro area in 2nd quarter 2004, the most recent quarter for which complete data are available. By comparison, the Durham metro area saw six venture capital deals in the 2nd quarter, and the Raleigh metro area saw three. Nashville was able to secure two deals in health care services and business products and services, although the total investment is less than that of Charlotte. Richmond did not have any venture capital investments, and Tampa saw one small one.

Business Costs

✓ According to the Charlotte Regional Partnership, there are 537 available buildings in the CRP Region with a total of 38.7 million square feet of space. Many of these buildings are industrial/flex buildings, but there are also office buildings included in the Partnership's database. Mecklenburg, Cabarrus, and Gaston are the counties with the largest amount of available square footage.

✓ According to the Charlotte Regional Partnership, there are 556 available sites with a total of 46,000 acres. Three of the sites are certified by the North Carolina Certified Sites Program and are located in Catawba, Lincoln, and Gaston Counties.

✓ Charlotte's vacancy rate for industrial and warehouse space was 10.8 percent at the end of 2003, higher than Nashville and Tampa, both of which have significantly more square footage of industrial space than Charlotte. Net absorption was negative in 2003 for the three cities, while Richmond had a notable positive absorption of 374,011 square feet. Sales prices, lease rates, and construction costs are cheaper in Nashville, Richmond, and Tampa than in Charlotte for larger (greater than 60,000 square feet) industrial buildings.

✓ Charlotte's overall Class A office vacancy rate of 12.4 percent is comparable to that of Nashville and lower than Richmond and Tampa. Charlotte saw the greatest Class A net absorption compared to its peer metro areas. Most of the absorption occurred outside of the central business district (CBD) even though the amount of office space in the CBD is about equal to that outside of the CBD. Charlotte's weighted average rental rates were higher than that of Nashville and Richmond for Class A and Class B office space, inside and outside of the central business district.

✓ Costs for industrial power were lower in the CRP Region in 2002 than the peer metro areas of Tampa, Nashville, and Richmond. The Region's industrial power costs are also lower than that of North Carolina and remained fairly steady between 2000 and 2002.

✓ The weighted average cost of commercial power in the CRP Region was \$0.064 per kilowatt hour, a small increase since 2000. Tampa and Nashville had slightly higher costs, while Richmond had slightly lower costs than the Region. The Region's commercial power costs are lower than the average for North Carolina. However, power costs are generally lower in Tennessee and Virginia than in North Carolina.

✓ Nationwide, the average price for gas was \$1.859 per gallon on August 16, 2004. Regular unleaded gas in North Carolina was more expensive than gas in Tennessee and

✓ Virginia and only slightly less expensive than gas in Florida. At the metro area level, the price of gas in Charlotte (\$1.780 per gallon on August 16) was lower than gas in Nashville but more expensive than gas in Richmond and Tampa.

✓ Based on the most recent data available (April 2004), natural gas prices for industrial use was \$6.57 per thousand cubic feet in North Carolina, more expensive than Tennessee, Virginia, and the nation. The cost of industrial natural gas in North Carolina has remained higher than the national average since 1998. Natural gas prices in North Carolina have closely matched those of Tennessee but have been lower than that in Florida and higher than the cost of natural gas in Virginia.

✓ Union membership is low in North Carolina compared to Tennessee, Florida, and Virginia, and membership is low in Charlotte compared to Nashville and Richmond. All four states are right-to-work states.

✓ Individual income tax rates are higher in North Carolina than they are in Virginia. Florida has no income tax, and Tennessee taxes only dividends and interest income. North Carolina's corporate income tax rates are also higher than the three comparison states. However, the combined state and local sales tax in Nashville is higher than that in the CRP Region.

✓ The range of property tax rates in the CRP Region is comparable to that of Richmond and to Nashville, although at \$2.81, Davidson County (in Nashville) has a higher effective property tax rate than Charlotte residents. Tampa's property tax rates are fairly high in order to compensate for the lack of an income tax.

✓ The Region's proportions of minority and female owned firms trailed that of Nashville, Richmond, and Tampa by significant margins, with the only exception being that Nashville had a smaller proportion of minority owned firms. North Carolina and South Carolina also had larger proportions of minority and female owned firms than the CRP Region.

Quality of Life

✓ The overall cost of living (COL) in the core city of Charlotte is lower than the national average and also lower than both Richmond and Tampa. Nashville's COL is very close to that of Charlotte. The city of Charlotte has a surprisingly high health care cost index (111.6), higher than the national average and all of the comparison cities.

✓ The CRP Region's death rate is comparable to Nashville and slightly lower than that of Richmond and North Carolina. Tampa has higher death rates, partly because its population is older.

✓ Charlotte has fewer physicians and fewer hospital beds per 100,000 residents than Nashville, Richmond, Tampa, and the U.S. average. Charlotte has the same number of teaching hospitals as Nashville and Richmond.

✓ The Charlotte metropolitan area was ranked 101 out of 317 metro areas in the Milken Institute's "2003 Health Pole Index". Boston was the top ranked city, while Tampa, Nashville, and Richmond were ranked 19th, 47th, and 69th, respectively, all ahead of Charlotte.

✓ None of the hospitals in the CRP Region have broken into the top rankings. Many, but not all, of the top hospitals are teaching hospitals associated with universities' medical schools, which UNC Charlotte lacks.

✓ The *Places Rated Almanac* ranked 354 metro areas on their supply of recreation assets, including amusement parks, aquariums, sports, restaurants, and recreation areas. Tampa scored highly, because of its abundance of water-related activities, as well as golf and professional sports. Charlotte ranked 67th, coming in just behind Nashville but well ahead of Richmond. Charlotte ranked highly compared to its peer metro areas in the arts – the number of arts museums and their attendance, as well as the number of various types of theatrical and musical performances.

✓ The Environmental Protection Agency (EPA) has designated the Charlotte metropolitan area as a non-attainment area for 8-hour ozone, which is a major contributor to smog. In its annual *State of the Air* report for 2004, the American Lung Association ranked Charlotte as the 14th out of 25 metro areas having the worst ozone air pollution.

✓ The CRP Region has more potentially environmentally hazardous facilities than Nashville and Richmond by quite a large margin. Tampa has more Superfund sites and significantly more facilities that discharge into rivers, but the CRP Region has more facilities that release air pollutants and that have hazardous waste.

✓ In the 2000 election, 58 percent of the CRP Region's registered voters actually voted. This is on par with results from North Carolina, but South Carolina and the nation had higher participation rates.

✓ The number of non-profit 501(c)(3) organizations in the CRP Region that were registered with the IRS decreased by nearly 40 percent between 2000 and April 2004. North Carolina and South Carolina also saw decreases, although they were not quite as dramatic. The downturn in the economy during this period may have contributed to the ability of non-profit organizations to remain operational.

✓ In his study of the "Creative Class," Richard Florida ranked Charlotte 42nd out of 268 metropolitan areas for its Creativity Index, behind Tampa but ahead of Richmond and Nashville. For the 49 metro areas that had a population of more than one million, Charlotte ranked 28th for its Creativity Index. Charlotte does not rank particularly highly in any of the sub-categories (creative class, high tech, innovation, and diversity); its ranking for innovation (patents per capita) is rather low. However, Tampa, Richmond, and Nashville also have similarly poor rankings.

Regional Scorecard



Regional Scorecard

The tables on the next pages provide a snapshot summary of the Charlotte region's performance in a number of areas. The performance score can be interpreted as follows:

- + **Comparative Advantage** – The Region is doing well relative to its peer metropolitan areas, and efforts should be made to sustain its performance.
- ✓ **Average Performance** – The Region is doing well in some areas but there is potential for improvement in other areas.
- **Comparative Disadvantage** – The Region is not doing well in this area relative to its peer metropolitan areas. Efforts for improvement are needed.

REGIONAL SCORECARD: COMPETITIVE ASSESSMENT

Category	Highlights	Performance
Education and Workforce Development	<ul style="list-style-type: none"> ▪ Only 13.5 percent of high schools in the Region are designated as Schools of Excellence or Schools of Distinction. ▪ A high percentage of the Region's middle and high schools (76.9 and 70.4 percent, respectively) did not meet the Adequate Yearly Progress performance standards. ▪ UNCC has a long way to go to become as competitive as the major universities in the peer metro areas for its graduate & research programs and for its caliber of students. ▪ The degrees and certificates awarded at the community & technical colleges in the Region appear to be aligned with occupations that are in demand. ▪ The Charlotte metro area's gross product per one dollar of salary was consistently higher than that for Nashville, Richmond, and Tampa from 1999 to 2002. 	—
Infrastructure	<ul style="list-style-type: none"> ▪ 78 (17 percent) of the total available sites in the North Carolina portion of the Region are served by rail, a much larger proportion than the state average. ▪ 41.7 percent of the counties in the Region have greater than 84 percent of households with access to high-speed Internet service, compared to just 27 percent for all counties in North Carolina. ▪ The Charlotte airport ranked 21st nationwide in total passengers and 35th in cargo in 2003 and serves 116 non-stop destinations, including 23 international destinations. ▪ US Airways' 482 total daily departures represent 92.2 percent of the total daily departures at the Charlotte airport, a risky dependence should the airline's financial troubles cause it to cut back on operations. ▪ The Region's per capita bank deposits is significantly higher than that of Richmond, Tampa, and Nashville, and small businesses in the Region have taken advantage of SBA loan programs. ▪ There was one venture capital deal in the Charlotte metro area in 2nd quarter 2004, the same number as Tampa but noticeably lower than the number of deals in the Raleigh-Durham area. 	✓
Business Costs	<ul style="list-style-type: none"> ▪ The Region has 38.7 million sq. feet of available space in existing buildings and 46,000 acres of available sites. ▪ Sales prices, lease rates, and construction costs are cheaper in Nashville, Richmond, and Tampa than in Charlotte for larger industrial buildings. Charlotte's office lease rates were higher than that of Nashville and Richmond. ▪ Costs for industrial power were lower in the CRP Region in 2002 than the peer metro areas of Tampa, Nashville, and Richmond. The Region's industrial power costs are also lower than that of North Carolina. ▪ Union membership is low in North Carolina compared to Tennessee, Florida, and Virginia, and membership is low in Charlotte compared to Nashville and Richmond. ▪ North Carolina's corporate income tax rates are higher than the three comparison states. However, the combined state and local sales tax in Nashville is higher than that in the CRP Region. 	+

REGIONAL SCORECARD: COMPETITIVE ASSESSMENT

Category	Highlights	Performance
Quality of Life	<ul style="list-style-type: none"> ▪ The overall cost of living (COL) in the core city of Charlotte is lower than the national average and also lower than both Richmond and Tampa. Nashville's COL is very close to that of Charlotte. ▪ The Charlotte metropolitan area was ranked 101 out of 317 metro areas in the Milken Institute's "2003 Health Pole Index", behind Nashville, Richmond, and Tampa. ▪ Charlotte received average rankings for recreational assets and high rankings for its arts assets, compared to the peer metro areas. ▪ Charlotte has been designated as a non-attainment area for 8-hour ozone. The American Lung Association ranked Charlotte as the 14th out of 25 metro areas having the worst ozone air pollution. ▪ The CRP Region has more potentially environmentally hazardous facilities than Nashville and Richmond by quite a large margin. ▪ Charlotte was ranked 42nd out of 268 metropolitan areas for its Creativity Index, behind Tampa but ahead of Richmond and Nashville. 	✓

Education and Workforce Development



Education and Workforce Development

The U.S. economy is continuing to shift from one based on production and manufacturing to one based on innovation and technology. The workforce must keep its skills updated and communities need to prepare its youth for to be able to compete in the knowledge economy. This section of the *Competitive Assessment* analyzes the capacity of the CRP Region to provide a skilled workforce for today's competitive economy.

Education

As discussed in the *Regional Economic Profile*, SAT scores have improved in the CRP Region but still lag behind the national average. Per pupil expenditures matched that of North Carolina but were lower than that of South Carolina. Also, high school dropout rates have decreased since 1999, but they are still higher than the comparison metro areas of Nashville, Richmond, and Tampa. This part of the "Education and Workforce Development" section further analyzes the quality of K-12 education in the Region and looks at the quality and opportunities offered in higher education.

K-12 Education

North Carolina categorizes its public schools based on the percentage of students performing at their grade level and achieving their expected learning. Across the board, in the CRP Region, Mecklenburg County, and North Carolina, performance decreased as students moved into middle and high school. In the CRP Region, 78.1 percent of elementary schools, 64.4 percent of middle schools, and 13.5 percent of high schools had at least 80 percent of students testing at or above grade level for the 2002-2003 school year. The numbers are comparable to North Carolina's numbers for elementary and middle schools, but a greater proportion of the State's high schools (18.4 percent) achieved at least 80 percent of students testing at or above grade level. While very few schools in the Region are designated as Low Performing, it is a concern that only 13.5 percent of high schools in the Region are designated as Schools of Excellence or Schools of Distinction. This is equal to the proportion of Priority Schools needing attention.

Public School Performance 2002-2003

High School	Elementary			Middle			High School		
	CRP Region	Mecklenburg County	North Carolina	CRP Region	Mecklenburg County	North Carolina	CRP Region	Mecklenburg County	North Carolina
Schools of Excellence ¹	29.1%	23.3%	29.8%	20.0%	16.0%	17.9%	1.4%	0.0%	1.1%
Schools of Distinction ²	48.9%	38.9%	48.0%	44.4%	28.0%	45.1%	12.2%	5.3%	17.2%
Schools of Progress ³	19.8%	32.2%	20.1%	25.6%	40.0%	21.8%	64.9%	36.8%	54.2%
No Recognition ⁴	0.7%	2.2%	1.1%	8.9%	12.0%	14.1%	6.8%	10.5%	9.0%
Priority Schools ⁵	1.4%	3.3%	1.1%	1.1%	4.0%	1.1%	13.5%	42.1%	16.7%
Low Performing ⁶	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	5.3%	1.7%
Schools Not Meeting AYP ⁷	40.6%	50.0%	37.0%	76.9%	77.8%	80.6%	70.4%	81.0%	73.4%

Source: North Carolina Department of Public Instruction, "The ABCs of Public Education", 2002-2003.
 *CRP Region data do not include South Carolina counties, because they do not use the same performance measurements.
 1. At least 90% of students at grade level and students made expected growth or more. Growth is defined as the expected amount of learning for the school year.
 2. 80 to 89% of students at grade level and students made expected growth or more.
 3. 60 to 79% of students at grade level and students made expected growth or more.
 4. 60 to 100% of students at grade level, but students did not make expected growth.
 5. 50 to 59% of students at grade level; or less than 50% of students at grade level but students made expected growth.
 6. Less than 50% of students at grade level and students did not make expected growth.
 7. Schools not meeting Adequate Yearly Progress is based on the federal guidelines set by the No Child Left Behind Act of 2001.

Schools in Mecklenburg County did not perform as well as the Region overall. The County had a smaller proportion of Schools of Excellence and Schools of Distinction at the elementary, middle, and high school levels. No high school was a School of Excellence and only one was a School of Distinction. One high school in Mecklenburg County was designated as Low Performing, and over 40 percent of their high schools were Priority Schools requiring additional attention. However, *Forbes Magazine* ranked the Charlotte-Mecklenburg School System seventh out of the top eight school systems in large cities.²

And while there is debate over the appropriateness of the federal guidelines of the No Child Left Behind Act, a high percentage of the Region's middle and high schools (76.9 and 70.4 percent, respectively) did not meet the Adequate Yearly Progress performance standards.

The qualifications of teachers are also important indicators of the quality of a school system. The CRP Region had a greater proportion of teachers with advanced degrees and a slightly smaller proportion of fully licensed teachers compared to North Carolina. Mecklenburg County's teacher turnover rate was somewhat higher than that of the overall Region. The County had a lower proportion of teachers with advanced degrees and a lower proportion of fully licensed teachers compared to the Region.

² Source: Schiffrin, Betty, "The Best Education In The Biggest Cities", *Forbes Magazine*, February 13, 2004.

Public School Teacher Qualifications, 2003

CRP Region	Mecklenburg County	North Carolina	South Carolina
Turnover Rate	14.4%	14.7%	10.5%
Teachers with Advanced Degrees	31.3%	28.3%	47.8%
Fully Licensed Teachers	82.6%	79.6%	N/A

Source: North Carolina Department of Public Instruction, South Carolina Department of Education

*Advanced degrees are ones above the bachelor level.

*South Carolina's turnover rates are 3-year averages.

*Teacher licensing is different in South Carolina and not comparable to licensing in North Carolina. Thus the percent of fully licensed teachers in the CRP Region does not include South Carolina county districts.

A fairly high proportion (14.2 percent) of grade school children in Mecklenburg County were enrolled in private school in 2000. The proportion for the CRP Region was lower, at 9.2 percent. Nashville and Tampa had slightly lower proportions of children in private school than Mecklenburg County. Increased enrollment in private school could be an indication of lack of confidence in the public school system, but it could also be a matter of an abundant supply of private schools or relatively affordable tuition costs.

Percent of K-12 Children in Private School	1990	2000
CRP Region	5.6%	9.2%
Mecklenburg County	10.5%	14.2%
CRP w/o Mecklenburg	3.7%	6.9%
United States	9.8%	10.7%
North Carolina	5.1%	8.0%
South Carolina	6.7%	9.6%
Nashville	11.8%	13.8%
Richmond	7.0%	8.9%
Tampa	11.0%	12.5%

Source: U.S. Census Bureau

There are a number of private schools in the Charlotte area that appear to provide quality education to those who can afford to attend. For example:

⇒ 58 percent of the graduating class of the Charlotte Country Day School attend colleges outside of North Carolina, compared to 7.0 percent of the CRP Region's public school graduates.³ A number of Charlotte Country Day School graduates have attended top tier colleges and universities.

⇒ The Charlotte Latin School has been named a Blue Ribbon School of Excellence by the U.S. Department of Education three times. The average SAT score for the graduation class of 2003 was 1254, compared to an average score of 999 for public schools in the CRP Region.⁴

³ Source: Charlotte Country Day School, North Carolina Department of Public Instruction
⁴ Source: Charlotte Latin School

⇒ For the 2002-2003 school year, 23.7 percent of Advanced Placement (AP) tests taken by Providence Day School students received the highest score (five), and 36.9 percent of the tests received the second highest score (four). In 2003, the SAT scores of the third quintile of the graduating class (total class size of 105) range from 1020 to 1530.⁵

Colleges and Universities

Although quantity is not an indication of quality in an education system, there are a significant number of institutions and students in the CRP Region's higher education system. There are 38 higher education institutions in the CRP Region with a total enrollment of about 88,000. Tampa has a much larger number of college students, but the CRP Region's enrollment is larger than that of Nashville and Richmond.

Higher Education Institutions, Fall 2002

	CRP Region	Nashville	Richmond	Tampa
Institutions	38	32	21	34
Enrollment	88,171	54,002	60,276	120,719

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) College On-Line (COOL).

The two schools with the largest enrollment in the Region are University of North Carolina at Charlotte (UNCC) and Central Piedmont Community College. UNCC is the Region's primary research institution. The other schools in the region are small private colleges and specialized institutions, such as the Art Institute of Charlotte and the Cabarrus College of Health Sciences. A few of the smaller colleges are highlighted below:

- ⇒ Davidson College was seventh in the *U.S. News and World Report's* 2005 ranking of top liberal arts colleges in the nation. The middle range of its 2004 incoming freshman class had SAT scores of 1300 to 1440.⁶ Students can enroll in language arts programs and liberal arts majors, including sociology, political science, and history. Davidson also offers a few majors in the math and sciences (math, biology, chemistry, and physics). It is a small school, with total enrollment of about 1,600.
- ⇒ Formerly an all-women's college, Queens University now has undergraduate programs in the liberal arts, as well as a graduate business school and an evening program. The university ranked 26th in the *U.S. News and World Report's* 2005 ranking of Regional (Southern) Universities with master's programs (tied with UNC Charlotte) and has a total enrollment of about 1,700.
- ⇒ Johnson C. Smith University ranked 34th in *U.S. News and World Report's* 2005 ranking of Southern Comprehensive Colleges. It is a historically black university with programs in the College of Arts and Sciences and in the College of Professional Studies. Its enrollment is about 1,500.
- ⇒ Johnson and Wales University has established a new campus in Charlotte and will see its first class of students in September 2004. The school offers programs in business,

⁵ Source: Providence Day School

⁶ Source: Davidson College. http://www2.davidson.edu/admission/apply_icprofile.asp. Accessed August 16, 2004.

hospitality, and culinary arts – in three colleges and 51 degree programs. It expects about 1,000 students to enroll in the first year.⁷ In addition, there are ten technical and community colleges in the CRP Region.

University of North Carolina at Charlotte

With a total enrollment of nearly 20,000, the University of North Carolina at Charlotte (UNCC) is the largest university in the Region. There were 15,694 undergraduates and 3,911 graduate students in Fall 2003. The table below compares the statistics of UNCC with those of the leading universities in Nashville, Richmond (two schools), and Tampa.

UNC Charlotte Compared to Other Universities 2003

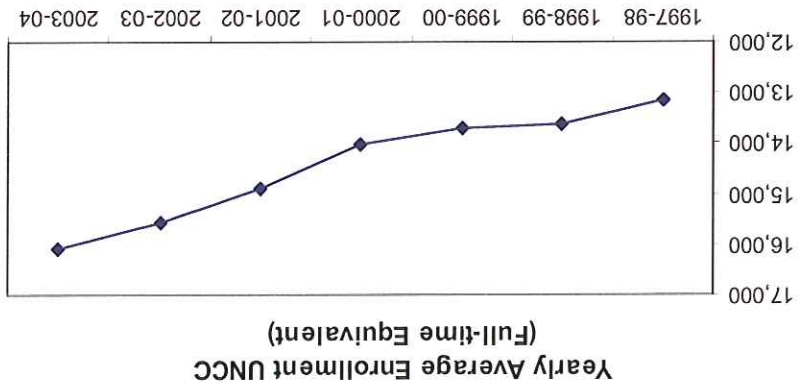
University of Virginia Commonwealth (VCU)	University of Richmond (UofR)	Vanderbilt University	UNC Charlotte (UNCC)
1st Tier (1 st) of Southern Universities (Master's)	1st Tier (18 th) of National Universities	1st Tier (26 th) of Southern Universities (Master's)	3 rd Tier (127 th to 191 st) of National Universities
26,770	11,092	19,605	41,392
74%	40.2%	71.7%	61.8%
960-1160	1250-1430	1069	1084
21% African American; 9% Asian; 3% Hispanic; 0.7% Native American; 1% international	7% African American; 6% Asian; 4% Hispanic; 0.2% Native American; 2% international	16% African American; 5% Asian; 2% Hispanic; 0.5% Native American; 2% international	13% African American; 6% Asian; 11% Hispanic; 0.5% Native American; 1% international
84%	86%	9%	5%
25.1%	4.6%	73.9%	50.3%
0	189	20	146

Source: National Opinion Research Center (NORC) "Doctorate Recipients from United States Universities: Summary Report 2003," Thomson Peterson's, University of North Carolina at Charlotte, University of Richmond, University of South Florida, U.S. News and World Report "America's Best Colleges 2005", Vanderbilt University, Virginia Commonwealth University.
 *Vanderbilt's number of doctorates does not include M.D. graduates.
 †The University of Richmond does not have any Ph.D. programs, but it does have a law school. Its high proportion of business school graduates prevents it from being considered a liberal arts school.

⁷ Source: McCracken, Lee, "College Town Cometh," *Charlotte Ventures*, Second Quarter 2004, p. 39.

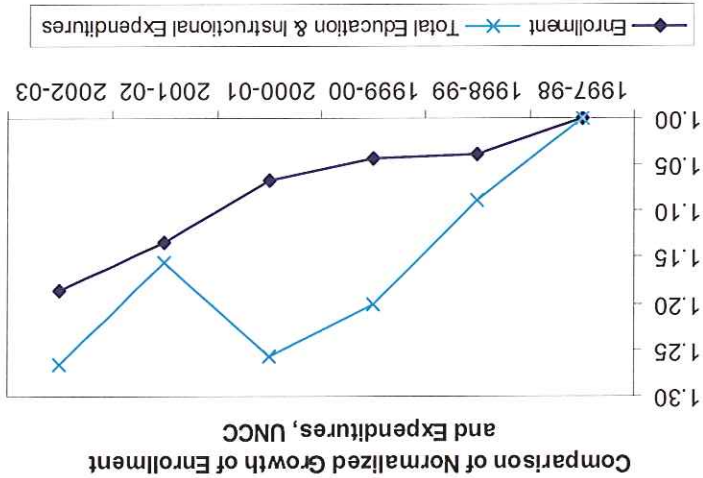
Based on the table above and additional data collected, the following observations can be made of UNCC:

- ⇒ UNCC is ranked 26th in the *U.S. News and World Report's* 2004 list of the top regional universities in the South with master's programs. It did not make the list of top national universities because of its fledgling doctoral program.
- ⇒ The school is not very selective. Out of 8,478 applicants who applied for the entering freshman class of 2003, 6,085, or 72 percent, were accepted. This is comparable to VCU and USF, but much higher than both Vanderbilt and UoR, where the acceptance rate is about 40 percent.
- ⇒ The average SAT score of the Fall 2003 incoming freshman class was 1069, comparable to VCU and USF, but considerably lower than Vanderbilt and UoR.
- ⇒ UNCC's draw of students is primarily regional. In Fall 2003, 88.0 percent of enrolled undergraduate and graduate students were from North Carolina. Over 7,000 students (36.7 percent of all students) were from Mecklenburg County, and the only other county where over 1,000 students had come from was nearby Cabarrus County. Both VCU and USF are similar to UNCC in the proportion of students from out-of-state, but UoR and Vanderbilt have a more national draw of students.
- ⇒ The racial composition of the student body mirrors that of the CRP Region. VCU and USF are similar to UNCC in racial composition, but Vanderbilt and UoR have larger proportions of white students.
- ⇒ The faculty at UNCC is less diverse than the student body; 84.7 percent of the faculty was white, and the largest minority group was Asians (7.8 percent of faculty).
- ⇒ 3.7 percent of the UNCC students are international students.
- ⇒ In Fall 2003, 22.3 percent of undergraduates and 73.9 percent of graduates were part-time rather than full-time students. The fact that most graduate students are part-time indicates that UNCC does not have a large population of students dedicated to years of research that would be expected of a major research university. Only 9.0 percent of graduate students were in the doctorate programs, and a majority (67.0 percent) was in the master's degree programs.
- ⇒ Enrollment has grown steadily, by a total of 22.6 percent since 1997-1998.



Source: University of North Carolina at Charlotte

⇒ Growing enrollment has been accompanied with increased expenditures on education and instruction. In fact, expenditures have outpaced growth in enrollment.



Source: University of North Carolina at Charlotte

⇒ Based on data gathered by the National Science Foundation, UNCC ranked 273rd out of 617 colleges and universities in 2002 for the total research and development expenditures (federal, industry, and other types of financing), coming in well behind Vanderbilt, USF, and VCU. And although UNCC's R&D spending grew 31.5 percent between 1998 and 2002, this is smaller than the spending growth for all of the comparison universities.

**Total Research & Development Expenditures (in \$1,000),
Ranked by 2002 Expenditures of 617 Colleges and Universities**

Change 1998- 2002	2002	2001	2000	1999	1998	Ranking 2002	
54.1%	\$208,305	\$186,504	\$171,926	\$149,675	\$135,214	60	Vanderbilt U.
89.7%	\$197,894	\$171,550	\$145,397	\$123,961	\$104,325	62	U. South FL
36.1%	\$109,619	\$99,180	\$88,220	\$79,785	\$80,538	102	VA Commonwealth U.
31.5%	\$8,773	\$7,905	\$7,790	\$9,041	\$6,669	273	UNC Charlotte
72.6%	\$1,786	\$1,271	\$1,178	\$1,099	\$1,035	406	U. Richmond

Source: National Science Foundation Division of Science Resources Statistics. *Academic Research and Development Expenditures: Fiscal Year 2002*. July 2004. Table B-32.

⇒ Of the 1,774 students who transferred from other institutions in Fall 2003, 49.1 percent came from community colleges within North Carolina. The community college with the most number of transfer students to UNCC was Central Piedmont, with 396 transfers.

⇒ Nearly half of the graduating undergraduates of 2003-2004 finished with a Bachelor of Arts. Business administration and Bachelor of Science were the only other undergraduate programs with a large number of graduates.

**Top Ten Bachelors Degrees by Number of Awards
UNCC 2003-2004**

Pct of Total Awards	Number of Awards	
45.4%	1,261	Bachelor of Arts
21.5%	598	Bach. of Science in Business Admin.
14.6%	407	Bachelor of Science
5.1%	142	Bachelor of Science in Nursing
3.1%	85	Bach. of Science in Engin. Tech.
2.1%	58	Bach. of Science in Mechanical Engin.
1.8%	49	Bach. of Science in Civil Engin.
1.6%	44	Bach. of Science in Computer Engin.
1.5%	42	Bach. of Science in Electrical Engin.
1.1%	31	Bachelor of Fine Arts
1.1%	31	Bach. of Science in Social Work

Source: University of North Carolina at Charlotte

⇒ A master's of science and a master's of education were the most numerous graduate degrees awarded by UNCC. The computer science and the information technology programs produced the most number of graduates with the master's of science.

Top Five Master's Degrees by Number of Awards
UNCC 2003-2004

Pct of Total Awards	Number of Awards	
22.3%	189	Master of Science
15.9%	135	Master of Education
11.7%	99	Master of Business Admin.
7.1%	60	Master of Science in Nursing
4.7%	40	Master of School Administration

Source: University of North Carolina at Charlotte

⇒ UNCC's Ph.D. program is fairly young and still developing. It was established in October of 1993. Only 20 research doctorate degrees were awarded in 2003; eight were in mechanical engineering. By contrast, Vanderbilt awarded 189 research doctorate degrees in 2003 (Ph.Ds), and it has a smaller student body.

⇒ UNCC has 11 doctoral programs. About half of the programs are in education and the liberal arts. The other half are in science and engineering, most of which are applied sciences. The only program considered to be a basic science is biology. Basic research is important for the fundamental understanding of the sciences, but applied research has received more attention in terms of federal funding.

UNCC Doctoral Programs

<ul style="list-style-type: none"> ▪ Mechanical Engineering Computer Integrated Manufacturing Materials Engineering Precision Engineering with research in Physics 	▪ Applied Mathematics
	▪ Biology
	▪ Counseling
	▪ Curriculum and Instruction
<ul style="list-style-type: none"> ▪ Electrical Engineering Computer Engineering Microelectronics Optoelectronics with research in Physics 	▪ Educational Leadership
	▪ Information Technology
	▪ Optical Science and Engineering
	▪ Public Policy
	▪ Special Education

Source: University of North Carolina at Charlotte

⇒ However, UNCC is making investments to improve its research capabilities. A \$92 million state bond referendum will help fund three new technology centers: the Science and Technology Building, the Engineering Research Building, and the Applied Optics Physics Building. Also, the Charlotte Research Institute was formed at UNCC to bring together private firms and academic research to promote economic development and commercialization of technology innovation. The Charlotte Research Institute is focused on three major research areas: e-business, precision metrology (related to nanotechnology devices), and optoelectronics. Other research areas include microelectronics, biotechnology, environmental studies, motorsports and automotive engineering, and transportation policy studies.⁸

⁸ Source: Charlotte Research Institute, University of North Carolina at Charlotte. "Annual Report 2002-2003."

In summary, UNCC has improved its research expenditures and has steadily increased enrollment. It remains a university with regional draw, where master's degrees are far more prevalent than Ph.D. programs. UNCC has a long way to go to become as the major universities in the peer metro areas for its graduate and research programs and for its caliber of students.

Community and Technical Colleges

There are ten community and technical colleges in the CRP Region, including two in South Carolina, with a total enrollment of about 43,000, or half of all higher education enrollment in the Region.⁹ Central Piedmont Community College in Charlotte is the largest one in the Region, with enrollment of about 16,000 in Fall 2002.¹⁰

Accessibility is very important for taking advantage of higher education opportunities. According to *University Business*, over 80 percent of students attend college less than 100 miles away from their home, making location increasingly important.¹¹ As shown in the following map, community and technical colleges are located throughout the Region, such that most residents in the region are within a 20-mile radius of a community college.

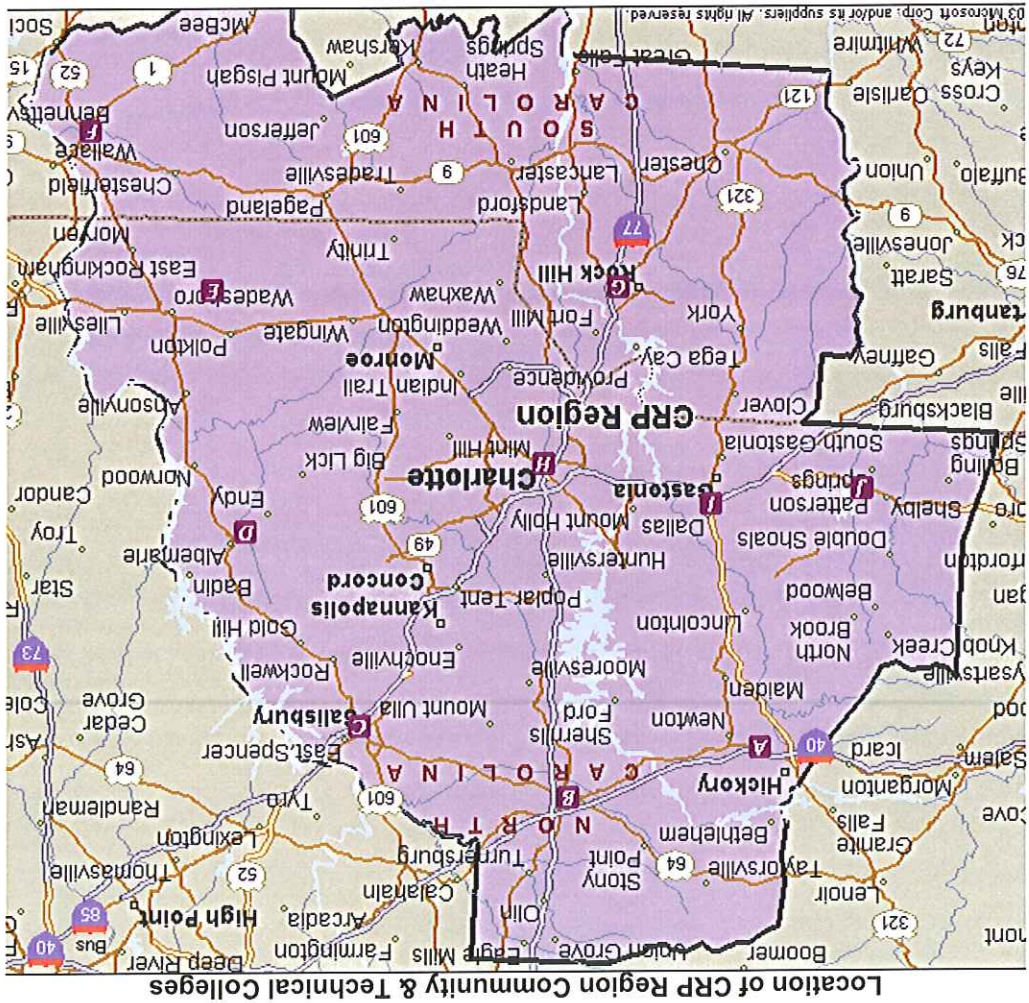
⁹ Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS)

College On-Line (COOL).

¹⁰ The IPEDS COOL enrollment count only includes students who are registered for credit in curriculum programs (getting college credit in degree and certificate programs). The enrollment number does not include "non-

curriculum" programs: corporate and continuing education programs, or adult basic skills programs. Registered students in curriculum and non-curriculum programs totaled about 56,000 for 2002-2003. CPCC estimates that it serves 70,000 people each year. This includes students as well as those who use the college for other activities, such as renting out a conference room, attending a theater production, or taking a cooking class. (Source: Paul Farris, CPCC)

¹¹ www.universitybusiness.com



Map Legend

Map Key	Name	City
A	Catawba Valley Community College	Hickory, NC
B	Mitchell Community College	Statesville, NC
C	Rowan-Cabarrus Community College	Salisbury, NC
D	Stanly Community College	Albemarle, NC
E	South Piedmont Community College	Folkton, NC
F	Northeastern Technical College	Cheraw, SC
G	York Technical College	Rock Hill, SC
H	Central Piedmont Community College	Charlotte, NC
I	Gaston College	Dallas, NC
J	Cleveland Community College	Shelby, NC

The next table shows the most numerous associate degrees awarded. Although the most degrees were in the general one of associate of arts, there were also a significant number of degrees in nursing and business administration. Some of those with associate degrees in arts and business administration may be planning to transfer to a four-year college. Education and health services, manufacturing, and professional and business services were the three major industry sectors with the largest employment in the CRP Region in the 4th quarter 2003. Graduates of associates in arts

and business administration may be able to find employment in education or professional and business services without continuing to further education, particularly with the largest sub-sector in business services being administrative and support services. Those with degrees in nursing can go on to work in the growing health care sector.

**Top 20 Associate Degrees by Number of Awards
CRP Region 2002-2003**

Pct of Total Awards	Number of Awards	
21.5%	365	Associate in Arts
11.2%	190	Associate in Nursing
7.7%	131	Business Administration
5.4%	92	Information Systems
4.4%	74	Accounting
3.6%	61	Criminal Justice Technology
3.4%	57	Early Childhood Associate
3.4%	57	Computer Engineering Technology
3.2%	55	Dental Hygiene
2.7%	46	Computer Programming
2.6%	45	Office Systems Technology
2.4%	40	Electronics Engineering Technology
2.2%	38	Associate in Science
1.8%	31	Medical Office Administration
1.6%	28	Radiography
1.4%	23	Paralegal Technology
1.2%	21	Advertising and Graphic Design
1.2%	21	Human Services Technology
1.2%	20	Machining Technology
1.1%	19	Mechanical Engineering Technology

Source: North Carolina Community College System, South Carolina Technical College System

Community and technical colleges also offer programs that require less than two years to complete. Both North and South Carolina offer diploma and certificate programs. Both are intended as entry-level employment training. Diploma programs require one full year to finish, while certificate programs last only one semester.¹² The air conditioning, heating, and refrigeration program was most popular in 2002-2003. Looking at the top programs in the next table, the types of programs that produce the most completion awards are related to production (welding, machining), health care, education, and law enforcement. For the most part, these graduates should be able to find employment in their areas of study. Education and Health Services is the largest sector of employment in the CRP Region and may employ graduates of the diploma and certificate programs.

¹² Source: North Carolina Community College System.

Top Ten Awards for Diploma and Certificate Programs by Number of Awards
CRP Region 2002-2003

Program	Number of Awards	Pct of Total Awards
Air Condit., Heat, & Refrig. Technology	236	12.0%
Basic Law Enforcement Training	136	6.9%
Early Childhood Associate	125	6.4%
Medical Assisting	91	4.6%
Welding Technology	90	4.6%
Information Systems	85	4.3%
Medical Office Administration	79	4.0%
Practical Nursing	77	3.9%
Electrical/Electronics Technology	74	3.8%
Machining Technology	71	3.6%

Source: North Carolina Community College System, South Carolina Technical College System

Workforce

The *Regional Economic Profile* analyzed a number of characteristics of the workforce in the CRP Region. They can be summarized as follows:

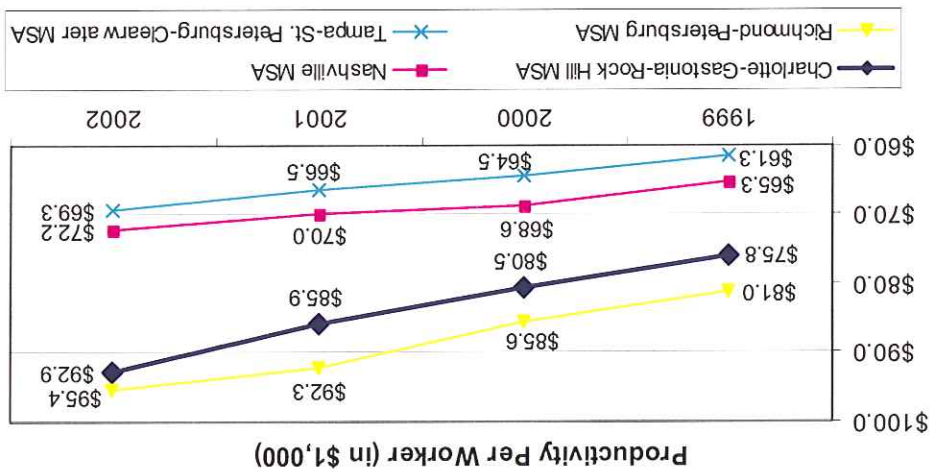
- ⇒ Since 2000, the CRP Region's unemployment has spiked far more significantly than the comparison metro areas of Nashville, Richmond, and Tampa. This was due to unemployment in the Region outside of Mecklenburg, which hit a high of 8.2 in 2003. Unemployment rates have decreased in the first months of 2004. In April, unemployment was 6.1 percent for the Region, 4.5 percent for Mecklenburg County, and 7.0 percent for the Region outside of Mecklenburg.
- ⇒ The CRP Region's labor force participation rate (LFPR) was 81.6 percent in 2000, significantly higher than the national average. The rate was also strong compared to Nashville and Tampa, but Tampa's LFPR was higher in 2000.
- ⇒ In terms of commuting patterns, the CRP Region truly acts as a region. Nearly all (96.8 percent in 2000) of the Region's residents work within the Region, and most (72.9 percent) work within their county of residence. More than half of those working outside of their county of residence work in Mecklenburg County.
- ⇒ The Region is lagging in educational attainment. All three peer metro areas had higher proportions of those with high school diplomas and those with graduate or professional degrees, and only Tampa had a slightly lower proportion of those with bachelor degrees. Nearly half (46.4 percent) of the Region's 2002 high school graduates planned to attend a four-year college, and about a quarter (27.6 percent) planned to enroll in a technical college degree program. These are higher than rates for South Carolina but lower than rates for North Carolina. Most of the Region's high school graduates plan to attend college within their state.
- ⇒ Office and administrative support occupations made up the largest proportion of jobs in the CRP Region and Mecklenburg County in May 2003. The U.S. Bureau of Labor Statistics (BLS) projects these occupations to grow nationally by 6.8 percent between

2002 and 2012, compared to 14.8 percent for all occupations.¹³ Production occupations made up the second largest proportion for the overall Region and the largest for the area outside of Mecklenburg. These jobs include machine operators, assembly lines, and other types of factory or manufacturing work. BLS expects production jobs to have the slowest rate of growth among the major occupational groups, 3.2 percent between 2002 and 2012.

This part of the "Education and Workforce Development" section further analyzes additional characteristics of the labor force to understand the competitive position of the CRP Region.

Productivity Per Worker

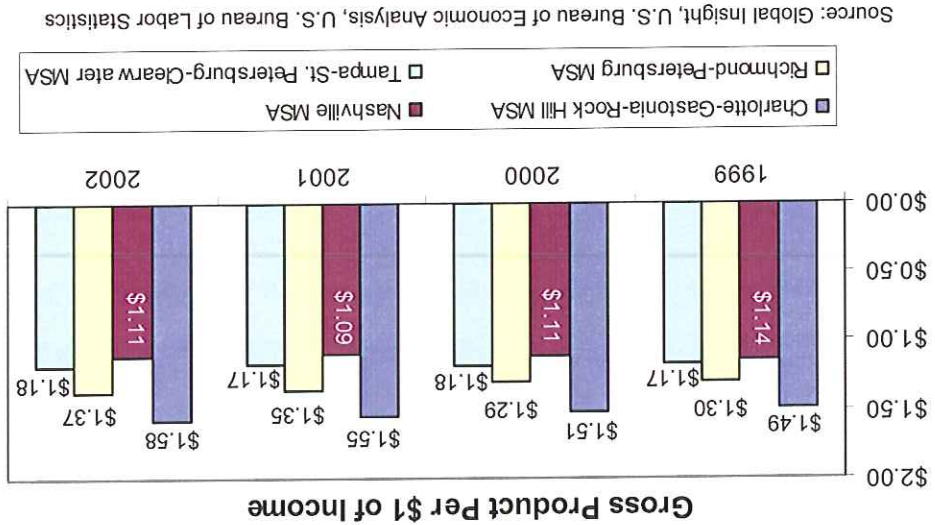
Productivity per worker measures the value of goods and services produced, divided by the number of employees used to produce them. Charlotte's productivity per worker has increased steadily from 1999 to 2002, keeping well ahead of Nashville and Tampa. Richmond has had higher productivity rates than Charlotte, although the gap narrowed in 2002.



Source: Global Insight, U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

In order to see the true competitive advantage, one must look at productivity compared to the total personal income of area residents. As this following graph depicts, the CRP Region produces more per one dollar of income than Richmond and the other competing MSAs.

¹³ U.S. Bureau of Labor Statistics, "Tomorrow's Jobs", <http://www.bls.gov/oco/oco2003.htm>. Accessed July 8, 2004.



Infrastructure

Infrastructure

In today's global networked economy, infrastructure not only includes physical resources such as utilities and transportation, but also the educational system and workforce capacity (examined in the previous section). An available workforce that is skilled and trained to meet the demands of new technologies and processes continues to be the single most critical issue in economic development today.

"Employers of choice" and educated workers require favorable proximity to infrastructure, and look to it as a differentiator across the landscape of potential locations to live and work. Not every area or rural community is going to have certain components of key infrastructure, thus optimal proximity to these assets promotes regional cooperation. Companies and people are increasingly less confined to political boundaries.

This section will assess and analyze the traditional types of infrastructure required for economic development, including transportation (sea, air, and land) and certain indicators for utilities and services. Foreign trade zones are also mentioned.

Transportation

Road Transportation

Accessibility to highways is extremely important for industry (to transport goods/services to markets), tourism (to get people to destinations and have them spend money along the way), and for workers to commute to jobs within a reasonable amount of time. In addition, many distributors and manufacturers require a location that is within 10 to 15 miles of an interstate or a limited access four-lane highway. As telecommunications and a more demand driven distribution network have decentralized some distribution and manufacturing operations, a highway network that moves goods, services, and people efficiently is still very essential.

Average Distance to Nearest Interstate Highway, 2004: CRP Region and Comparison Metros

Area Name	Average Distance (miles) to Nearest Interstate Highway*	Nearest Interstate Highways**
North Carolina	20.1	
CRP Region	10.9	I-20, I-277, I-40, I-73, I-77, I-85
Tennessee	13.6	
Nashville	8.5	I-24, I-40, I-65
Virginia	12.8	
Richmond	7.2	I-195, I-295, I-64, I-85, I-95
Florida	12.6	
Tampa	6.5	I-4, I-275, I-75
Continental United States	24.0	

* Average of distance from county centers to nearest Interstate Highway
 ** Nearest to county centers
 Calculated using ESRI's ArcView GIS and data from U.S. Census Bureau.

As shown in the previous table, in terms of overall regional access to an interstate highway, the Region has a greater average distance to an interstate highway than the comparison regions. However, this is to be expected because the Region contains a much larger area and includes a few rural counties.¹⁴ It is interesting to note that the CRP Region also has a smaller average distance (about half) than that for North Carolina, as do the other three comparison metros relative to their respective states. This is because the four states include large portions of non-urbanized areas. All of the regions have major north-south interstates running through them as well.

Road Improvements

In February 2003, Governor Michael Easley announced the "North Carolina Moving Ahead!" initiative, which will make additional transportation funding available for highway maintenance, modernization, and public transportation over the next two years. Specifically, the initiative is being funded to resurface rough roads, widen narrow lanes and shoulders, improve congested intersections, replace deficient bridges, and fund a variety of safety and traffic flow improvements.

Also within the initiative, the public transportation system is to be upgraded with an emphasis on regional rail, replacing outdated bus equipment, and bicycle and pedestrian improvements. "North Carolina Moving Ahead!" is estimated to create nearly 30,000 jobs and have a \$4 billion impact on the State's economy.¹⁵ The General Assembly approved the legislation this past August and the Governor signed House Bill 48 into law shortly thereafter.

¹⁴ The CRP Region includes 16 counties and covers about 7,000 square miles. In comparison, the Nashville metro area includes 13 counties and about 4,300 square miles; the Tampa area covers 4 counties and about 2,300 square miles; and the Richmond area includes 16 counties, 4 cities, and about 5,800 square miles.
¹⁵ Source: North Carolina Citizens for Transportation Alternatives.

Currently, the Highway Trust Fund (funded by proceeds from a 1996 State bond authorization) requires cash expenditures for highway expansion. "Moving Ahead" will allow the North Carolina Department of Transportation (NC DOT) to sell \$700 million in bonds to three target areas: (1) highway maintenance, (2) highway modernization, and (3) public transportation, increasing the budgets of those areas 45 percent, 25 percent, and 25 percent, respectively. The program is subject to an equity formula, which requires that rural and urban areas get their fair shares.

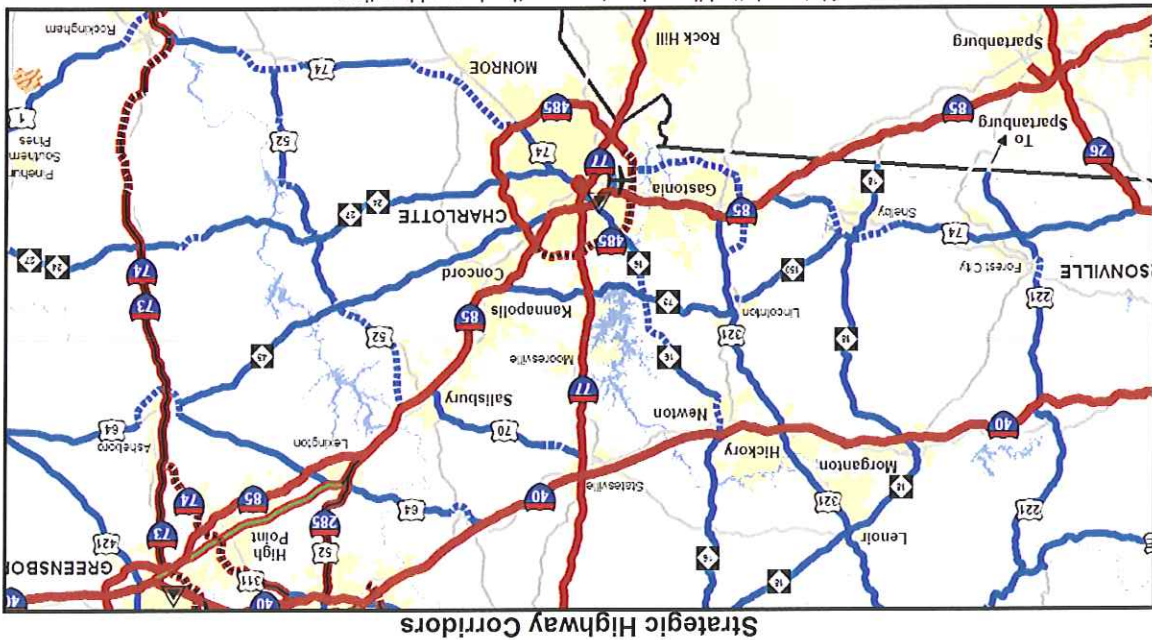
For the 2004-2005-program year, CRP Region counties are to receive approximately 16 percent, or just over an estimated \$110 million of the \$700 million allocated.¹⁶

Another Statewide initiative for the improvement of mobility in the Region is called the Strategic Highway Corridors (SHC) concept. The SHC is the first major implementation step to be advanced under the update of North Carolina's Long-Range Multi-modal Statewide Transportation Plan, started in Fall 2000.

The concept provides an opportunity for NCDOT and its stakeholders to consider long-term vision, consistency in decision-making, land use partnerships, overarching design, and operational changes on key routes across the state. As illustrated by the next map, key routes proposed under the SHC concept include the expansion of the I-485 loop and other State highways in the Region. The North Carolina Board of Transportation is anticipated to adopt the Strategic Highway Corridors concept in September 2004.¹⁷

¹⁶ Source: *North Carolina Moving Ahead!* Project List. The project list is subject to funding, availability of right-of-way, or environmental issues. It is noted that projects may be added or deleted.

¹⁷ Source: <http://www.ncdot.org/planning/statewide/SHC/>



Driving in the Region

“Driving in Metro Areas,” a new national study by author-researcher Bert Sperling (commissioned by car rental company Avis and electronics giant Motorola) rates metro areas based on factors such as street layout; sprawl; rain and snow days; getting to the airport from downtown; obstacles such as rivers, lakes and bridges; and congestion data calculated by the Texas Transportation Institute.¹⁸

Metro areas are rated on a 100-point scale, assigning the highest scores to those that are hardest to navigate. It is interesting to note that, according to this study, Charlotte scored the worst among the peer metros in terms of being “easiest to navigate.” Richmond, Virginia had the lowest score of the peer metros, faring better than Nashville, Tennessee and Tampa, Florida

¹⁸ http://www.usatoday.com/money/biztravel/2004-08-02-navigate_x.htm USA Today. 8/2/04.

(respectively). However, Charlotte did perform better than other Southeastern metros, such as Atlanta, Jacksonville, and Charleston (respectively).

Driving in U.S. Metro Areas

Rank	City or Area	Final Score
1	Boston	86.9
2	Washington DC-MD-VA	75.7
3	San Francisco-Oakland CA	71.9
4	Baltimore MD	71.3
5	New York NY-Northeastern NJ	70.5
6	Ft. Lauderdale-Hollywood-Pompano Bch FL	65.4
7	Los Angeles CA	65.2
10	Norfolk-Newport News-Virginia Beach VA	61.6
11	Charleston SC	61.2
14	Jacksonville FL	58.4
17	Atlanta GA	57.1
22	Minneapolis-St. Paul MN	54.9
23	Charlotte NC	53.5
24	Indianapolis IN	51.5
25	Honolulu HI	51.1
31	Tampa-St Petersburg-Clearwater FL	49.8
32	Dallas-Fort Worth TX	49.5
34	Memphis TN-AR-MS	48.7
39	W Palm Bch-Boca Raton-DeLray Bch FL	46.9
41	Nashville TN	45.8
42	Birmingham AL	45.3
44	Richmond VA	43.3
45	St. Louis MO-IL	43.3
75	Bakersfield CA	9.2

Source: Sperling, Bert. "Driving in Metro Areas." Metro areas are rated on a 100-point scale, assigning the highest scores to those that are hardest to navigate.

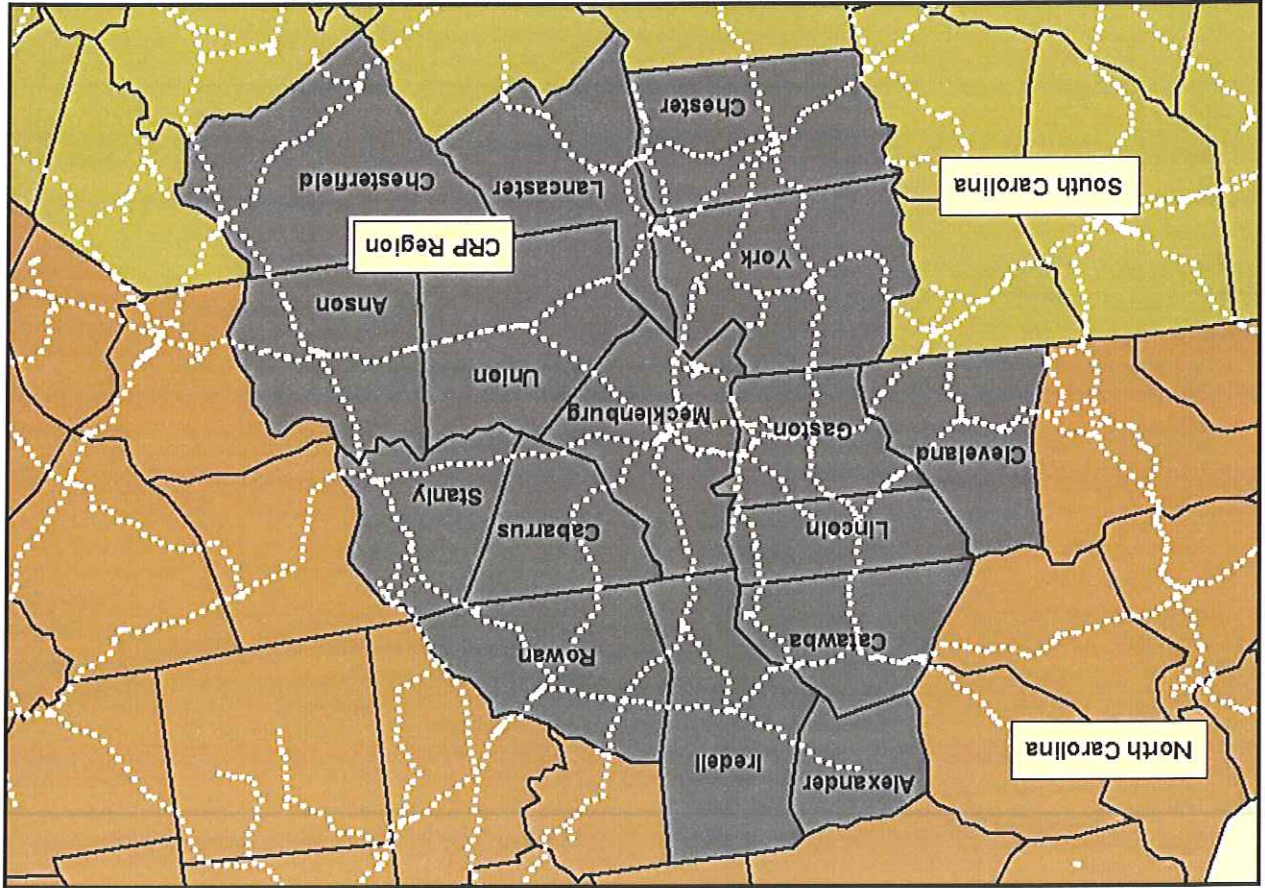
Rail Transportation

As depicted by the next map, freight rail is present throughout most of the Region. Norfolk Southern and CSX Transportation are the main freight rail suppliers. Short line rail providers include: Aberdeen, Carolina, & Western Railway; Alexander Railway; Caldwell County Railway; and Lancaster & Chester Railway. While it is important for areas to have rail service intersect its borders, rail served sites with the appropriate infrastructure (i.e. natural gas, telecommunications, taxes, workforce, etc.) are looked upon as most important.

In addition, many companies who invest in a community with a rail served site often do so for resale and expansion potential, should they choose to grow or exit the site. It is interesting to note that of the 447 total available sites in the North Carolina portion of the Region, 78 (17

percent) are served by rail.¹⁹ By comparison, approximately 22 percent of available sites in the State are rail served, and about 15 percent of the available industrial/flex buildings in the State are rail served. Of the 404-industrial/flex available buildings in the North Carolina part of the Region, 64 (16 percent) are served by rail.

Freight Rail Service: CRP Region

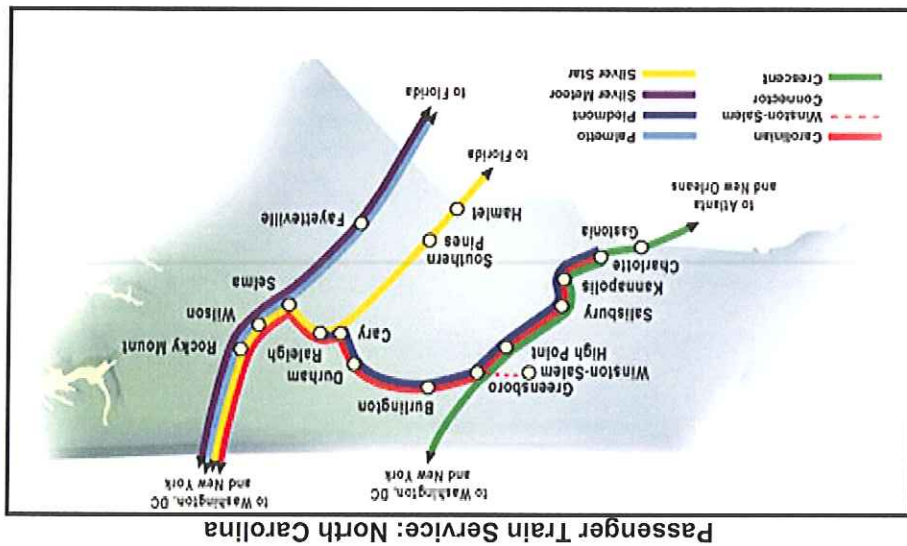


Source: Federal Railroad Administration and Bureau of Transportation Statistics

The next map shows current passenger train service and routes in North Carolina. Passenger rail service in the Region via Amtrak operates from Gastonia (Gaston County); Charlotte (Mecklenburg County); Kannapolis (Cabarrus County); and Salisbury (Rowan County). The Charlotte station offers a ticket office, baggage assistance, and handicap access. All stations offer free short- and long-term parking.²⁰

¹⁹ Source: North Carolina Department of Commerce

²⁰ Source: U.S. Department of Transportation, Bureau of Transportation Statistics.



Foreign Trade Zones

Having the presence of a Foreign Trade Zone (FTZ) can mean lower inventory costs; deferred, reduced, and/or eliminated U.S. Customs duties; distribution savings; and the possibility of preferential duty rates. FTZ 57 is located in Charlotte and is operated by Piedmont Distribution Center.²¹

The Port of Wilmington (operated by the North Carolina State Ports Authority) is the nearest deepwater seaport to the Region. It does have foreign trade zone accessibility (number 66). The Port of Wilmington offers a berth that exceeds 35 feet in depth, rail access, foreign trade zones, and roll-on/roll-off (ro-ro) capabilities. The Port of Wilmington has an inter-modal facility as well. For 2003, the Port of Wilmington ranked in the top half of U.S. ports for container traffic.²² The top five imports coming thru the Port for 2003 were chemicals, forest products, grains, general merchandise, and metal products. The top five exports being shipped out of the Port for 2003 were wood pulp, general merchandise, forest products, military, and food products.²³

Air Transportation

The Charlotte-Douglas International Airport is an important part of the transportation network and accessibility of the Charlotte region. Seven domestic carriers, two international carriers, and seven regional carriers serve the airport, which averaged 523 daily departures in March 2004.²⁴ Non-stop service is available to 116 destinations, 23 of which are international. This is particularly attractive to business travelers who need to be able to reach their destinations in the

²¹ Source: Charlotte Regional Partnership.

²² Source: American Association of Port Authorities (2003). Ports are ranked by "Twenty-Foot Equivalent Units" (TEU), a standard linear measurement used in quantifying container traffic flows. Figures used for the rankings represent total loaded and empty containers, moving in both domestic and foreign trade.

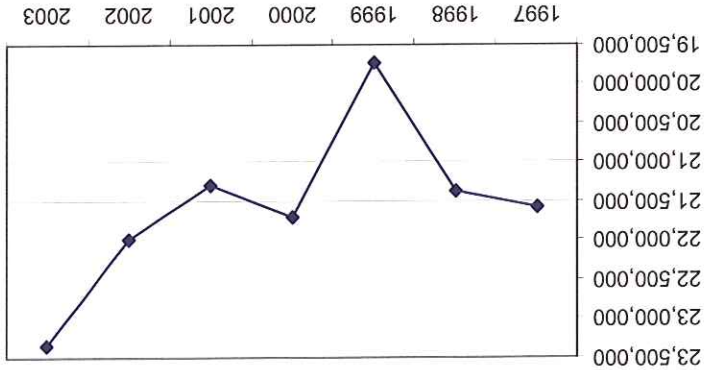
²³ Source: American Association of Port Authorities (2003).

²⁴ Source: Charlotte Douglas International Airport. "Airport Fast Facts," July 2004.

<http://www.flycdia.com/facts%207.2004.pdf>. Accessed August 13, 2004.

shortest amount of time. The Charlotte airport ranked 21st nationwide in total passengers and 35th in cargo in 2003.²⁵ The total number of passengers has risen significantly since 1997, except for an anomaly in 1999 and the effect of September 11, 2001. Total employment at the airport (airline and airport) is about 15,000.²⁶

Charlotte Airport: Total Passengers Annually



Source: Bureau of Transportation Statistics. T-100 Segment database.²⁷

US Airways has a hub at the Charlotte airport and is Charlotte's sixth largest private employer, with 5,743 employees.²⁸ The carrier has 253 daily departures, in addition to 229 daily departures on its regional carrier, US Airways Express. In other words, its 482 total daily departures represent 92.2 percent of the total daily departures at the Charlotte airport. This is an extremely heavy dependence on one carrier, and can be risky should US Airways' financial trouble worsen, causing it to cut back or cease its operations. A number of the major domestic airlines are struggling with rising fuel costs and wages, faced with competition from younger and more flexible low-cost carriers. US Airways filed for Chapter 11 bankruptcy in 2002 and was able to restructure and emerge in March 2003. However, it is facing financial problems again, and Chairman David Bronner has said that if the airline does not achieve the wage concessions it is negotiating, it may be forced to file Chapter 11 by mid-September.²⁹ Of the seven major network

²⁵ Source: Airports Council International – North America, "2003 North American Traffic Report." <http://www.act-na.org/asp/traffic.asp?page=90>. Accessed August 13, 2004.

²⁶ Source: Charlotte Douglas International Airport, "Airport Fast Facts." July 2004.

²⁷ <http://www.flycdia.com/facts%207.2004.pdf>. Accessed August 13, 2004.

²⁸ The T-100 Segment database provides the number of passengers on each non-stop segment of a flight, which means that each segment of a connecting flight is included. Thus the number of passengers reported from this database includes connecting passengers who are double-counted, once upon arriving in Charlotte and once again when departing on the connecting flight. This is the same measure used by the Airports Council International and by

²⁹ Source: US Airways, "Charlotte Fact Sheet." July 2004.

<http://www.usairways.com/about/corporate/profile/factsheets/cfl.htm>. Accessed August 13, 2004.

²⁹ Source: DeLollis, Barbara. "US Airways coaxes unions with profits." *USA TODAY*, August 9, 2004. http://www.usatoday.com/travel/news/2004-08-09-usair_x.htm. Accessed August 13, 2004.

carriers, US Airways had the highest domestic unit revenue every quarter in 2003 and in the first quarter of 2004, but it also had the highest per unit domestic operating expenses.³⁰

The following table shows passenger load factors, or the percent of seats that were filled, on US Airways flights originating from and terminating in the Charlotte airport in 2003. The routes with the lowest load factors are shown. The airline's overall load factor for 2nd quarter 2004 was 77.4 percent, the highest for any quarter in the company's history.³¹ Flights with low load factors have a negative impact on the airline's profitability. The flights shown in the table below have load factors of less than 60 percent. The flights with the lowest load factors are mostly those with less than one flight per day (365 total departures), indicating a new or discontinued route. There are a number of flights on the list that are more frequently flown and thus have even more impact on the airline's profitability. These flights include Atlanta to Charlotte, Washington to Charlotte, Charlotte to Wilmington, Charlotte to Washington, and Charlotte to Atlanta. US Airways faces more competition in Atlanta and Washington, as these cities are hubs for other airlines, including Delta, Airtran, and United.

US Airways Passenger Load Factors 2003 – Fifteen Lowest Flights Out of Charlotte Airport

Originating City	Load Factor	Departures Performed	Destination City	Load Factor	Departures Performed
Portland, ME	7.9%	1	Augusta, GA	32.9%	10
Antigua, Antigua and Barbuda	11.7%	1	Birmingham, AL	36.2%	117
La Romana, Dominican Republic	29.7%	3	Memphis, TN	37.8%	118
St. Louis, MO	36.8%	115	St. Louis, MO	39.0%	114
Eagle, CO	37.1%	2	Louisville, KY	41.6%	10
Memphis, TN	37.4%	118	Cleveland, OH	53.0%	492
Birmingham, AL	39.3%	118	Wilmington, NC	53.2%	1,424
St. Kitts, St. Kitts and Nevis	39.7%	3	Washington, DC	53.6%	1,605
Augusta, GA	41.0%	10	Atlanta, GA	53.9%	1,776
Toronto, Canada	51.1%	356	Milwaukee, WI	54.2%	456
Cleveland, OH	52.9%	490	Detroit, MI	54.5%	1,036
Atlanta, GA	52.9%	1,748	Nashville, TN	57.0%	1,414
Mexico City, Mexico	54.2%	67	Toronto, Canada	57.5%	358
Washington, DC	55.1%	1,598	Indianapolis, IN	58.2%	1,733

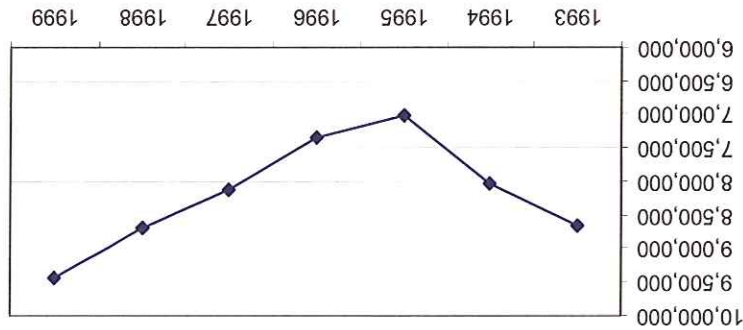
Source: Bureau of Transportation Statistics, T-100 Segment database.

The closing of the American Airlines hub at the Nashville International Airport in the mid-1990s can serve as a scenario for what might happen if US Airways were to close its hub in Charlotte. American Airlines announced that it would be phasing out its Nashville hub in October of 1994 and began cutting flights in late 1994.³² As shown in the following chart, it took the Nashville

³⁰ Source: Bureau of Transportation Statistics. "Table 6. Airline Domestic Unit Revenue (Cents Per Mile)." And "Table 10. Airline Domestic Unit Costs (Cents Per Mile)." June 14, 2004.
³¹ Source: US Airways Group Reports Second Quarter Results." July 27, 2004.
http://www.usair.com/about/press/nw_04_0727.htm. Accessed August 17, 2004.
³² Source: Russel, Keith. "Traffic still rising at Nashville airport." *Nashville Business Chronicle*. September 18, 1998.

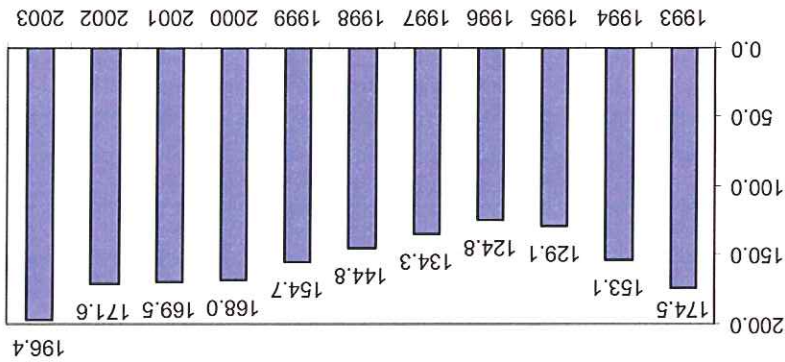
Airport until 1998 (five years) to reach 1993 passenger levels and until 1997 (three years) to reach 1994 passenger levels. Also, the average daily departures from the Nashville Airport did not reach 1993 levels until 2003 (10 years), and did not reach 1994 levels until 1999 (five years). The Nashville Airport was fortunate in that Southwest Airlines and other low-cost carriers began flying into Nashville. It is uncertain how quickly Charlotte might recover from the potential loss of the US Airways hub, but it is sure not to be immediate.

Nashville Airport: Total Passengers Annually



Source: Bureau of Transportation Statistics. T-100 Segment database.³³

Nashville Airport: Average Daily Departures



Source: Bureau of Transportation Statistics. T-100 Segment database.

³³ The T-100 Segment database provides the number of passengers on each non-stop segment of a flight, which means that each segment of a connecting flight is included. Thus the number of passengers reported from this database includes connecting passengers who are double-counted, once upon arriving in Charlotte and once again when departing on the connecting flight. This is the same measure used by the Airports Council International and by the Charlotte Douglas International Airport to track airport traffic.

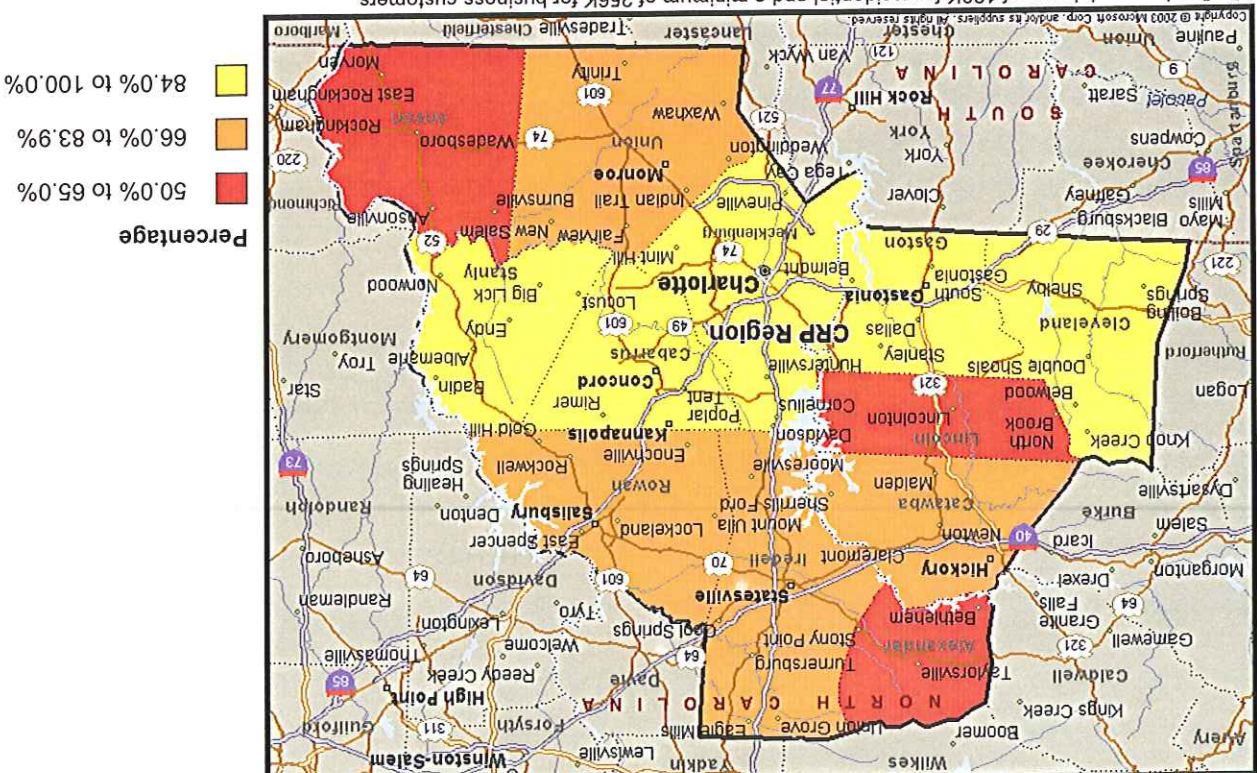
High Speed Internet Service

A measure of growing importance in today's economy is gauging a community's "e-readiness." North Carolina has recently taken significant steps to help ensure Internet access to its rural communities. The North Carolina Rural Internet Access Authority (RIAA), created in 2000, achieved its first goal of providing high-speed Internet access (128K for residential and 256K for business) at competitive prices to all of North Carolina within three years. RIAA also provides funds for Internet readiness to the 85 rural counties in North Carolina.

The next map shows the percentage of households in the Region with access to high speed Internet service. Counties that have less than half of households with access to high-speed are defined by the RIAA as those with the greatest connectivity challenge. A positive is that the Region does not have any of those. Five, or 41.7 percent, of the counties in the Region have greater than 84 percent of households with access to high-speed Internet service, and three counties (25.0 percent) have between 50 percent and 65 percent of its households with high-speed Internet service. In contrast, only 27 percent of North Carolina's counties have a percentage of households greater than 84 percent, and approximately 18 percent of counties in the State have households between 50 percent and 65 percent. In addition, according to the 2002 "New Economy Index" put forth by the *Progressive Policy Institute*, the State has the lowest percentage of adults on-line (47.2 percent) versus Florida (52.0 percent), Virginia (58.5 percent), and Tennessee (52.5 percent).³⁴

³⁴ www.neweconomyindex.org

Households with Access to High Speed Internet Service*



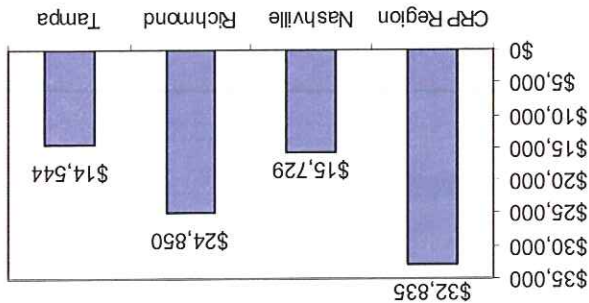
Access to Capital

The resources available to finance a new business or expand an existing one are critical to business owners. Entrepreneurs and business owners use a number of different financing methods, depending on the size of their venture and the nature of their relationships with financiers. A small, home-based business may start with personal savings and money borrowed from friends and family, while larger and more established businesses may seek more formalized methods of financing, such as venture capital or even an initial public offering.

Bank Deposits

Bank deposits give an indication of the level of assets within a community that are held in savings and deposit institutions. These assets are one possible source of financing business activities. As discussed in the *Regional Economic Profile*, the CRP Region and Mecklenburg County in particular have extraordinarily high per capita bank deposits. The following chart compares per capita bank deposits of the CRP Region to those of the peer metro areas. Although Richmond and Tampa have a higher concentration of employment (higher location quotient) in the finance and insurance sector, the Region's per capita bank deposits is significantly higher than that of Richmond, Tampa, and Nashville. This reflects the attractiveness to consumers of banking in the Charlotte region.

Per Capita Bank Deposits 2003



Source: Federal Deposit Insurance Corporation

SBA Loan Activity

The most recognized small business loan is the 7(a) program offered by the U.S. Small Business Administration (SBA). These loans are made by commercial lending institutions and guaranteed by the SBA for the purpose of financing small business activities. The next table shows the 7(a) program loan activity from 2000 to 2003. Over this four year period, the program awarded a total of 888 loans and \$212.2 million to businesses in the CRP Region. Although the number of loans awarded annually increased each year for the CRP Region, the total loan amount dropped noticeably in 2003. However, the same trend occurred for the peer metro areas and may be indicative of total overall funding levels available from the federal government. 7(a) loan activity was higher in the CRP Region than in Nashville and Richmond, but lower than that in Tampa.

SBA Loan Activity – 7(a) Program

	2000		2001		2002		2003	
	Number of Loans	Total Loan Amount	Number of Loans	Total Loan Amount	Number of Loans	Total Loan Amount	Number of Loans	Total Loan Amount
CRP Region	197	\$51,797,475	190	\$53,417,222	209	\$57,083,734	292	\$49,903,240
Nashville	122	\$30,456,551	107	\$27,410,525	140	\$29,676,609	202	\$34,910,650
Richmond	89	\$24,876,770	96	\$35,310,700	105	\$37,767,805	128	\$29,215,313
Tampa	240	\$79,205,555	274	\$82,635,167	357	\$114,459,442	550	\$84,482,930

Source: U.S. Small Business Administration

The other main SBA loan program is the 504 program, also known as the Certified Development Company Program. These loans are only for “brick and mortar” financing – for real estate or machinery and equipment, and are provided through certified development companies (non-profit development organizations established for economic development purposes). For the 2000 to 2003 period (see next table), the CRP Region received a total of 197 loans and \$83.5 million in financing. This is higher than the total amount and number of loans awarded to Tampa, but Tampa’s awards have been increasing since 2001, while the amount and number of loans awarded to the CRP Region have decreased each year since 2000. The Region surpasses Nashville and Richmond in 504 loan financing, but Nashville’s total loans and funding amounts

have increased since 2000. The CRP Region may be facing more competition for these awards due to greater awareness of the 504 program.

SBA Loan Activity – 504 Program

2003		2002		2001		2000	
Total Loan Amount	Number of Loans	Total Loan Amount	Number of Loans	Total Loan Amount	Number of Loans	Total Loan Amount	Number of Loans
\$15,516,000	42	\$20,207,000	44	\$23,269,000	53	\$24,537,600	58
\$16,057,000	28	\$6,199,000	17	\$10,936,000	20	\$5,029,000	7
\$4,578,000	6	\$4,528,000	12	\$7,120,000	15	\$4,346,000	9
\$22,771,000	58	\$14,254,000	34	\$11,084,000	27	\$18,419,000	48

Source: U.S. Small Business Administration

Venture Capital

The form of financing used for some high growth firms is venture capital. A financing firm makes investments in start-up or expanding firms in exchange for an equity position. Banks and commercial lenders are generally not able to accept this form of risk. Data obtained from Pricewaterhouse Coopers show that there was one venture capital deal in the Charlotte metro area in 2nd quarter 2004, the most recent quarter for which complete data are available.³⁵ \$55 million was invested in the Hospital Partners of America for expansion of its orthopedic and neurosurgical hospitals. Although this is an unusually large amount for one deal, it is only one investment and may be unlikely to repeat itself. By comparison, the Durham metro area saw six venture capital deals in the 2nd quarter, and the Raleigh metro area saw three.

Venture Capital Investment Activity – North Carolina, 2nd Quarter 2004

Metro Area	Number of Deals	Total Investment	Industries
Durham	6	\$12.8	Software, Telecommunications, Biotechnology, Medical Devices & Equipment
Raleigh	3	\$10.5	Telecommunications, Biotechnology
Charlotte	1	\$55.0	Health Care Services
Greensboro	1	\$3.5	IT Services

Source: PricewaterhouseCoopers "MoneyTree Survey"

The following table compares venture capital activity in the Charlotte metro area with that of its peer metro areas. Nashville was able to secure two deals in health care services and business products and services, although the total investment is less than that of Charlotte. Richmond did not have any venture capital investments, and Tampa saw one small one. This venture capital data is for one quarter and may not be representative of activity over the entire year.

³⁵ No detailed historical data are available publicly from Pricewaterhouse Coopers.

Venture Capital Investment Activity – Peer Metro Areas, 2nd Quarter 2004

Metro Area	Number of Deals	Total Investment	Industries
Charlotte	1	\$55.0	Health Care Services
Nashville	2	\$18.2	Health Care Services, Business Products & Services
Richmond	0	\$0.0	
Tampa	1	\$1.375	Consumer Products and Services

Source: PricewaterhouseCoopers "MoneyTree Survey"

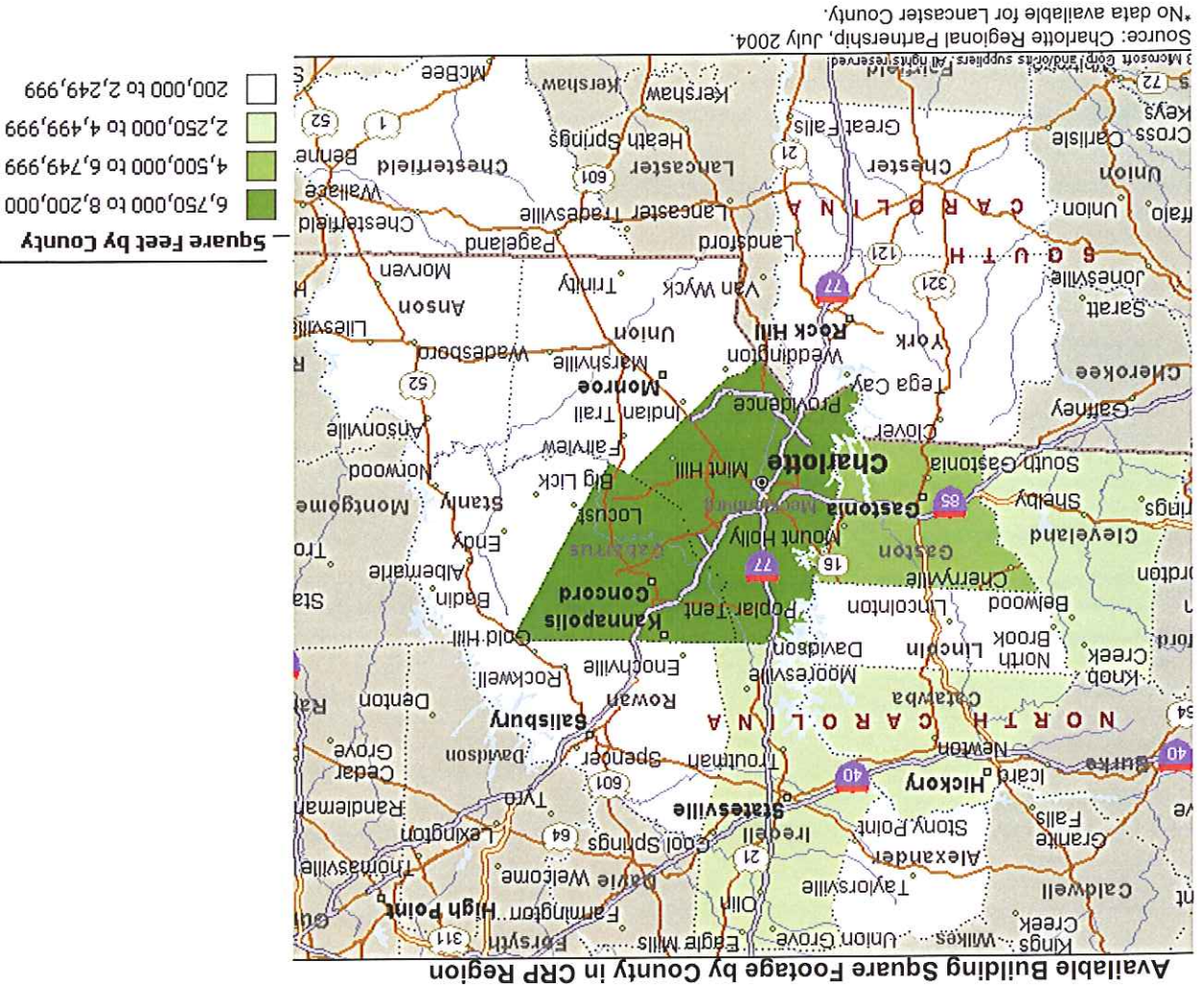
Business Costs

Business Costs

Taxes, utility costs, labor costs, and real estate prices are the major expenses in operating most businesses and can have an impact on a company's decision to expand or relocate. This section of the *Competitive Assessment* evaluates the Region's competitiveness with its peer metro areas in terms of the cost of doing business.

Buildings and Sites

According to the Charlotte Regional Partnership, there are 537 available buildings in the CRP Region with a total of 38.7 million square feet of space. Many of these buildings are industrial/flex buildings, but there are also office buildings included in the Partnership's database. As shown in the following map, Mecklenburg, Cabarrus, and Gaston are the counties with the largest amount of available square footage.



The following table shows the lease and sales prices of available buildings in the CRP Region. Prices vary quite widely based on the type of use, location, and amenities.

Available Buildings in CRP Region

County	Square Feet	Lease Price (per sq. ft. annually)	Sales Price
Alexander County	276,049	\$1.25 - \$2.00	\$350K - \$1.8M
Anson County	485,242	\$1.10 - \$3.25	\$250K - \$650K
Cabarrus County	8,100,318	\$1.50 - \$18.75	\$49.5K - \$4M
Catawba County	3,150,064	\$1.00 - \$14.00	\$195K - \$7.95M
Chester County	394,339	\$1.10	\$185K - \$1.26M
Chesterfield County	477,562	\$1.50	\$175K - \$2.2M
Cleveland County	2,768,784	\$2.00 - \$8.00	\$175K - \$4.0M
Gaston County	5,079,935	\$1.00 - \$12.00	\$180K - \$9M
Iredell County	3,607,696	\$1.05 - \$28.00	\$175K - \$17.5M
Lincoln County	635,097	\$1.00 - \$6.00	\$125K - \$625K
Mecklenburg County	7,686,075	\$1.75 - \$6.00	\$395K - \$9.5M
Rowan County	2,166,825	\$1.50 - \$4.50	\$200K - \$5.75M
Stanly County	739,393	\$0.50 - \$3.00	\$265K - \$2.5M
Union County	1,133,813	\$1.95 - \$10.00	\$347K - \$4.3M
York County	2,043,436	\$1.00 - \$10.00	\$250K - \$2.7M
CRP Region Total	38,744,628		

Source: Charlotte Regional Partnership, July 2004.
*No data available for Lancaster County.

The availability of vacant land is also important to attracting relocating or expanding businesses seeking to build its own facilities. According to the Charlotte Regional Partnership, there are 556 available sites with a total of 46,000 acres. Prices vary quite widely based on location and infrastructure. Three of the sites are certified by the North Carolina Certified Sites Program. Certification speeds the site location process by already having environmental studies, site development plans and cost estimates, utility service information, and commitment from the local government to support development of the site. There are 49 of such sites in North Carolina. Catawba, Lincoln, and Gaston Counties each have one certified site.

Available Sites in CRP Region

County	Acres	Sales Price Per Acre
Alexander County	417	\$10,500 - \$400,000
Cabarrus County	3,812	\$900 - \$769,000
Catawba County	2,430	\$12,000 - \$500,000
Chester County	10,366	\$3,000 - \$500,000
Chesterfield County	3,247	\$2,000 - \$10,000
Cleveland County	2,314	\$2,880 - \$35,000
Gaston County	2,677	\$10,000 - \$135,000
Iredell County	5,517	\$6,500 - \$650,000
Lincoln County	1,453	\$10,000 - \$400,000
Mecklenburg County	2,182	\$35,000 - \$218,000
Rowan County	2,579	\$2,500 - \$110,000
Stanly County	1,394	\$6,000 - \$700,000
Union County	1,280	\$10,000 - \$139,500
York County	6,519	\$5,300 - \$100,000
CRP Region Total	46,186	

Source: Charlotte Regional Partnership, July 2004.
*No data available for Lancaster and Anson Counties.

Charlotte's vacancy rate for industrial and warehouse space was 10.8 percent at the end of 2003, higher than Nashville and Tampa, both of which have significantly more square footage of industrial space than Charlotte. Net absorption was negative in 2003 for the three cities, while Richmond had a notable positive absorption of 374,011 square feet.³⁶

Industrial/Warehouse Market Survey 2003

	Charlotte	Nashville	Richmond	Tampa
Total square footage	97,274,314	173,417,633	68,838,786	130,663,454
Pct suburban	69.5%	72.0%	69.1%	100.0%
Vacancy rate	10.8%	8.7%	14.6%	7.8%
Net absorption (sq ft)	-1,602,986	-1,620,177	374,011	-574,131

Source: Society of Industrial and Office Realtors, Industrial Survey 2004.

Sales prices, lease rates, and construction costs are cheaper in Nashville, Richmond, and Tampa than in Charlotte for larger (greater than 60,000 square feet) industrial buildings.

According to the Society of Industrial and Office Realtors, Charlotte's vacancy rate for Class A office space at the end of 2003 was considerably higher outside of the central business district (7.68 percent versus 17.05 percent). Charlotte's overall Class A vacancy rate of 12.4 percent is comparable to that of Nashville and lower than Richmond and Tampa. Charlotte saw the greatest Class A net absorption compared to its peer metro areas. Most of the absorption occurred outside

³⁶ In 2003, the central city area of Richmond saw negative net absorption of 1.3 million square feet, but this was countered by positive net absorption of 1.7 million square feet in the suburban areas.

of the central business district (CBD) even though the amount of office space in the CBD is about equal to that outside of the CBD.

Vacancies for Class B office space were higher than for Class A. Nashville and Richmond had higher vacancy rates than Charlotte for Class B space. The good news is that net absorption was positive, while Nashville, Richmond, and Tampa saw negative net absorption.

Office Market Survey 2003

	Charlotte	Nashville	Richmond	Tampa
Class A Office Space				
Total square footage	20,535,076	14,968,575	15,654,859	17,936,608
Vacancy rate	12.4%	12.5%	14.8%	19.9%
Net absorption	499,025	126,180	296,704	-397,094
Class B Office Space				
Total square footage	13,039,586	11,113,694	8,063,669	24,675,873
Vacancy rate	16.8%	20.9%	25.8%	15.4%
Net absorption	155,749	-56,830	-223,651	-15,134

Source: Society of Industrial and Office Realtors, Office Survey 2004.

Charlotte's weighted average rental rates were higher than that of Nashville and Richmond for Class A and Class B office space, inside and outside of the central business district.

Office Rental Rates 2003

	Charlotte	Nashville	Richmond	Tampa
Class A in CBD	\$22.00	\$18.84	\$17.56	\$19.46
Class A outside of CBD	\$20.00	\$18.19	\$17.09	\$20.15
Class B in CBD	\$18.50	\$14.81	\$13.82	\$16.14
Class B outside of CBD	\$15.00	\$14.95	\$15.15	\$17.41

Source: Society of Industrial and Office Realtors, Office Survey 2004.
*CBD = Central business district

Energy Costs

Industrial and Commercial Power

Energy cost, availability and reliability, particularly in peak times, are major considerations for traditional manufacturing companies. However, they are also crucial issues for healthcare and technology firms that rely on consistent, affordable power. The cost and availability of energy is an issue in many site selection decisions, and most power companies recognize this and have their own team of economic development professionals to assist in business recruitment and expansion.

As shown in the following table, costs for industrial power were lower in the CRP Region in 2002 than the peer metro areas of Tampa, Nashville, and Richmond. The Region's industrial power costs are also lower than that of North Carolina and remained fairly steady between 2000 and 2002. The average industrial power costs in North Carolina are lower than that for Florida and Tennessee.

Weighted Average Cost of Industrial Power, 2000-2002
Cents Per Kilowatt Hour (kWh)**

Area Name	2000	2001	2002
CRP Region	0.044	0.046	0.045
North Carolina	0.046	0.048	0.048
Tampa, Florida	0.048	0.058	0.053
Florida	0.053	0.060	0.055
Nashville, Tennessee	0.045	0.045	0.046
Tennessee	0.045	0.045	0.066
Richmond, Virginia	0.045	0.051	0.050
Virginia	0.040	0.041	0.041

Source: U.S. Department of Energy, Energy Information Administration.
 Note: Cost is calculated by weighing kWh rates for the respective utilities by number of customers, then totaled at the regional, metro, and state levels. South Carolina counties were factored into the rates for the CRP Region, however, data at the state-level was included for North Carolina only since the majority of Region's counties lie within North Carolina.
 ** Cents per kilowatt-hour (kWh) is calculated by dividing revenue (thousand dollars) by sales (megawatt-hours).

Commercial power tends to be more expensive than industrial power. The weighted average cost of commercial power in the CRP Region was \$0.064 per kilowatt hour, a small increase since 2000. Tampa and Nashville had slightly higher costs, while Richmond had slightly lower costs than the Region. The Region's commercial power costs are lower than the average for North Carolina. However, power costs are generally lower in Tennessee and Virginia than in North Carolina.

Weighted Average Cost of Commercial Power, 2000-2002
Cents Per Kilowatt Hour (kWh)**

Area Name	2000	2001	2002
CRP Region	0.062	0.063	0.064
North Carolina	0.065	0.066	0.067
Tampa, Florida	0.063	0.073	0.067
Florida	0.064	0.072	0.067
Nashville, Tennessee	0.064	0.065	0.067
Tennessee	0.065	0.065	0.046
Richmond, Virginia	0.058	0.060	0.061
Virginia	0.057	0.059	0.059

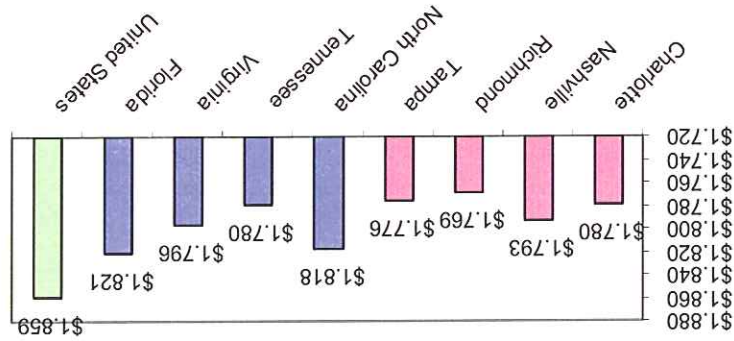
Source: U.S. Department of Energy, Energy Information Administration.
 Note: Cost is calculated by weighing kWh rates for the respective utilities by number of customers, then totaled at the regional, metro, and state levels. South Carolina counties were factored into the rates for the CRP Region, however, data at the state-level was included for North Carolina only since the majority of Region's counties lie within North Carolina.
 ** Cents per kilowatt-hour (kWh) is calculated by dividing revenue (thousand dollars) by sales (megawatt-hours).

Gasoline Prices

Higher prices for crude oil have pushed up gasoline prices over the last year. Nationwide, the average price for gas was \$1.859 per gallon on August 16, 2004. Regular unleaded gas in North Carolina was more expensive than gas in Tennessee and Virginia and only slightly less

expensive than gas in Florida. At the metro area level, the price of gas in Charlotte (\$1.780 per gallon on August 16) was lower than gas in Nashville but more expensive than gas in Richmond and Tampa.

**Average Prices for Regular Unleaded Gasoline:
Metro Areas, States, Nation (on 08/16/2004)**



Source: American Automobile Association, "Daily Fuel Gauge Report", <http://www.fuelgauge.com>. Accessed August 16, 2004.

**Average Prices for Regular Unleaded Gasoline:
Current and Historical**

	8/16/2004	1 mo. ago	1 yr. ago
North Carolina	\$1.818	\$1.855	\$1.509
Charlotte	\$1.780	\$1.844	\$1.482
Tennessee	\$1.780	\$1.821	\$1.490
Nashville	\$1.793	\$1.838	\$1.501
Virginia	\$1.796	\$1.830	\$1.484
Richmond	\$1.769	\$1.808	\$1.473
Florida	\$1.821	\$1.936	\$1.574
Tampa	\$1.776	\$1.883	\$1.527
United States	\$1.859	\$1.917	\$1.587

Source: American Automobile Association, "Daily Fuel Gauge Report", <http://www.fuelgauge.com>. Accessed August 16, 2004.

Natural Gas Prices

Based on the most recent data available (April 2004), natural gas prices for industrial use was \$6.57 per thousand cubic feet in North Carolina, more expensive than Tennessee, Virginia, and the nation.

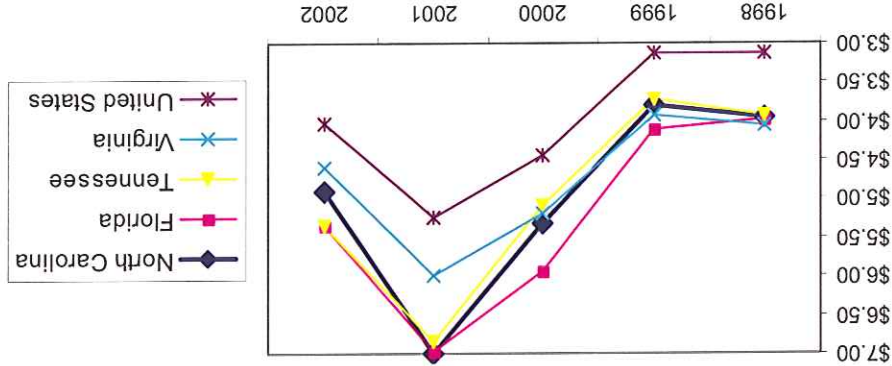
Average Price of Industrial Natural Gas
Dollars per Thousand Cubic Feet

April 2004	North Carolina	\$6.57
	Florida	\$8.51
	Tennessee	\$5.82
	Virginia	\$5.43
	United States	\$5.93

Source: U.S. Department of Energy, Energy Information Administration.

Natural gas prices can reflect annual changes in weather, seasonal pricing, storage variability, and supply and demand, and thus it is also helpful to look at annual averages historically. As indicated by the next chart, the cost of industrial natural gas in North Carolina has remained higher than the national average since 1998. Record cold temperatures and supply shortages caused natural gas prices to skyrocket across the nation in 2001.³⁷ Natural gas prices in North Carolina have closely matched those of Tennessee but have been lower than that in Florida and higher than the cost of natural gas in Virginia.

Average Price of Industrial Natural Gas (Dollars per
Thousand Cubic Feet)



Source: U.S. Department of Energy, Energy Information Administration.

Labor Climate

As discussed in the *Regional Economic Profile*, average annual wages are high in Mecklenburg County, but average wages in the overall CRP Region are lower than that of Richmond, Atlanta, and Raleigh-Durham. However, the Region's wages are higher than that of Jacksonville, Nashville, and Tampa.

In almost every industry, except mining, manufacturing, information, and public administration, wages in the Region are higher than in the United States. Mecklenburg County's wages tend to

³⁷ Source: "U.S. natural gas prices remain sky-high for second month." January 19, 2001. <http://www.cnn.com/2001/US/01/19/natural.gas.voest/>. Accessed August 16, 2004.

pull up the average wages of the entire Region. In the three largest industry sectors, manufacturing and professional and business services wages are higher than overall average wages, while education and health services wages are lower than the average wage for the Region. Leisure and hospitality was the industry with the lowest wages by far (\$18,337 in 4th quarter 2003), but retail trade (\$24,019) and personal and other services (\$24,498) also paid fairly low wages. The industries with the highest wages are utilities (\$61,030), financial activities (\$57,464), and information (\$51,918).

The occupations that pay the highest average wages in the CRP Region are in the professional, scientific, or technical fields: management, computers, mathematics, legal, business and financial operations, and life, physical, and social sciences.

For some employers, unionization is an important factor in business location decisions. The "right-to-work" state laws secure the right of employees to decide for themselves whether or not to join or financially support a union. However, employees who work in the railway or airline industries are not protected by a right-to-work law, and employees who work on a federal enclave may not be. Some industries want to bring their union with them if they relocate; others want to be in a right-to-work state. Some workers seek union protection and representation, especially in times of economic uncertainty, while others may be indifferent.

Union membership as a percentage of all wage and salary workers for the United States in 1983 was 20.1 percent versus 13.3 percent in 2002.³⁸ The table below shows 2002 union membership in the Charlotte, Nashville, Richmond, and Tampa metropolitan areas, as well as union membership in their corresponding states. All four states have right-to-work laws. Union membership is low in North Carolina compared to the other three states and membership is low in Charlotte compared to Nashville and Richmond.

Union Membership 2002

State		Metro Area	
North Carolina	3.4%	Charlotte	5.8%
Tennessee	9.1%	Nashville	6.2%
Virginia	6.0%	Richmond	7.2%
Florida	5.8%	Tampa	5.4%

Source: Hirsch & Macpherson 2003.

Taxes

Companies and site selection consultants often focus on local and state taxes as reasons to select or eliminate a particular site. While this section will describe the various tax rates in North Carolina in comparison to the states of the CRP Region's peer metro areas, it is important to note that very low tax rates can sometimes indicate a possible unwillingness to tax in order to make targeted investments in education, healthcare, and infrastructure.

³⁸ Source: Hirsch, Barry T. and Macpherson, David A. *Union Membership and Earnings Data Book: Compilations from the Current Population Survey*. 2003 edition. The Bureau of National Affairs, Inc., Washington, DC.

Individual income tax rates are higher in North Carolina than they are in Virginia. Florida has no income tax, and Tennessee taxes only dividends and interest income. North Carolina's corporate income tax rates are also higher than the three comparison states. However, Tennessee and Florida have higher sales tax rates.

State Tax Rates 2004

	North Carolina	Tennessee	Virginia	Florida
Individual Income Tax	6.0-8.25%	Dividends and Interest Income Only	2.0-5.75%	None
Corporate Income Tax	6.9%	6.5%	6.0%	5.5%
Sales & Use Tax	4.5%	7.0% (6% on food)	4.5%	6.0%
Sales Tax Exemptions	Groceries & prescription drugs	Prescription drugs	Prescription and OTC drugs	Groceries, prescription and OTC drugs

Source: Federation of Tax Administrators, http://www.taxadmin.org/ta/rate/tax_stru.html. Rates as of January 2004. *Virginia's non-food sales tax will increase to 5.0% on September 1, 2004.

In addition to the state sales tax, many local jurisdictions have their own sales taxes to pay for local improvements. Most counties in North Carolina have chosen to levy the maximum of 2.5 percent additional sales tax, and Mecklenburg County is allowed to levy a higher sales tax of 3.0 percent. These local rates are higher than Nashville, Richmond, and Tampa. With state and local sales taxes combined, Richmond has the lowest rates while Nashville has the highest rates.

Local Tax Rates 2003

	CRP Region	Nashville	Richmond	Tampa
Local Sales Tax	2.5-3.0%	1.75-2.75%	Included in state rate	0.0-1.0%
Property Tax (per \$100 assessed value)	\$0.435-0.776	\$1.99-4.69 (Effective rate: \$0.50-2.81)	\$0.5-1.41	\$1.77077-2.85081
Property Tax Assessment	Assessed at 100% of value	Assessed at 25% for residential, 30% for business, 40% for personal property, and 40% for commercial and industrial property	Assessed at 100% of value	Assessed at 100% of value

Source: Charlotte Regional Partnership, Tennessee Comptroller of the Treasury, Virginia Department of Taxation, Herando County, Hillsborough County, Pasco County, and Pinellas County, Florida.
*Tax rates for Richmond are from 2002 data.
*Numbers for CRP Region are for North Carolina only. Property tax rates for Chester, Chesterfield, Lancaster, and York Counties range from \$0.665 to \$1.142. South Carolina assesses property at 10.5% of value for commercial property and 4.0% of value for residential property.
*The City of Charlotte levies property tax at \$0.42 per \$100 of assessed value, on top of Mecklenburg County's property taxes.
*Full-time Florida residents receive a property tax exemption on the first \$25,000 of their home values, as part of the Homestead Tax Exemption.

Property taxes for the North Carolina counties in the CRP Region range from \$0.435 to \$0.776 per \$100 of assessed value. This does not include an additional \$0.42 per \$100 of assessed value for City of Charlotte residents. Thus Charlotte residents pay a total of \$1.1767 per \$100 value of real estate.

**Property Tax Rates by County 2003
Per \$100 Assessed Value**

Alexander, NC	\$0.465
Anson, NC	\$0.776
Catawba, NC	\$0.480
Cabarrus, NC	\$0.560
Cleveland, NC	\$0.620
Gaston, NC	\$0.893
Iredell, NC	\$0.435
Mecklenburg, NC	\$0.736
Rowan, NC	\$0.630
Stanly, NC	\$0.668
Union, NC	\$0.530
Chester, SC	\$1.142
Chesterfield, SC	\$0.665
Lancaster, SC	\$0.670
York, SC	\$0.885

Source: Charlotte Regional Partnership, South Carolina Department of Revenue

* South Carolina assesses property at 10.5% of value for commercial property and 4.0% of value for residential property.

*The City of Charlotte levies property tax at \$0.42 per \$100 of assessed value, on top of Mecklenburg County's property taxes.

The range of property tax rates in the CRP Region is comparable to that of Richmond and to Nashville, although at \$2.81, Davidson County (in Nashville) has a higher effective property tax rate than Charlotte residents. Tampa's property tax rates are fairly high in order to compensate for the lack of an income tax.

Business Development Incentives

Every state offers some type of incentive to attract and retain jobs in the area. North Carolina has a plethora of programs that are recognized as outdated by the economic development and site selection community. The State has also made some progress in developing creative incentive programs to meet the needs of companies that want to bring jobs to the State, but are not in "heavy industry." One of these is the North Carolina Economic Stimulus and Job Creation Act, which features job development investment grants and refocuses the state's William S. Lee Act tax credits to make the program more helpful and cost-effective to less prosperous counties. Some changes to the Lee Act include altered rates and increased thresholds for machinery and equipment tax credits; deletion of the extra wage test for the worker-training credit, as well as the elimination of the wage test in less thriving counties and retention of the current wage test for more prosperous counties.

North Carolina is one of only two states that have failed to adopt local option project development financing. The tool would be used as a self-financing mechanism to build public facilities that help attract jobs and development and increase property values. Over the summer of 2003, the North Carolina General Assembly passed legislation to establish local option financing. It will be put before voters in a referendum in November of 2004.

North Carolina voters have turned down similar referendums in 1982 and 1993, but the economic conditions demand immediate solutions to increase the State's competitiveness in this area. Property taxes will not be raised, and financing options are needed if a municipality or county decides to invest in infrastructure that will make a piece of property more attractive for various types of economic development.⁴⁰ The difference in taxed improvements can be used to pay off the bonds. Another creative tool, the *Multi-jurisdictional Revenue Sharing Bill*, was passed in 2003. The Act authorizes local governments to enter into inter-local agreements that detail the shares of respective tax revenues from new development. Now more than ever, it is about sharing resources; projects do not stay within borders, nor do workers. It makes sense.

Another step forward, moving away from industrial-specific incentives that were designed for industries that are leaving the U.S. in droves, is the *Job Development Investment Grant* program (passed October 2002). The program is non-traditional for North Carolina, in that it is run by a five-member committee, and projects are plugged into a model used to determine if the new jobs will generate more in tax revenue to the State than the incentives provided to the company. The grant does not get paid unless the company meets specific job-creation benchmarks each year. If two years in a row are missed, the grant is rescinded. If goals are met, the company can get up to 75 percent of the amount withheld from new employees for state income taxes. In urban counties, 25 percent of any grant award is transferred to a special state fund designed to provide infrastructure grants to disadvantaged and rural counties. The State caps cumulative annual grant amounts for this program at \$10 million.

Small Business and Entrepreneurship

Small business and entrepreneurship is important not only for economic growth, but also for self-sufficiency. As discussed in the *Regional Economic Profile*, the importance of small business is highlighted by the fact that 51.0 percent of the CRP Region's businesses that employed at least one person in 2001 had fewer than five employees, and only 3.1 percent of the Region's businesses employed more than 100 people. Also, according to the Bureau of Economic Analysis, non-farm proprietorships represented 13.7 percent of the CRP Region's total employment in 2002.

Business ownership can provide the path to wealth accumulation and self-sufficiency and is thus important for the empowerment of women and minorities. In 1997, 9.4 percent of firms in the CRP Region were owned by minorities and 23.3 percent were owned by women.⁴¹ The Region's proportions of minority and female owned firms trailed that of Nashville, Richmond, and Tampa

⁴⁰ Source: *North Carolina Magazine*, November 2003.

⁴¹ 1997 is the most recent year available for the Economic Census. The data from the 2002 Economic Census has not yet been released.

by significant margins, with the only exception being that Nashville had a smaller proportion of minority owned firms. North Carolina and South Carolina also had larger proportions of minority and female owned firms than the CRP Region.

Female and Minority Owned Firms 1997

	Percent of Firms Owned by Minorities	Percent of Firms Owned by Females	Average Number of Employees - All Firms	Average Number of Employees - Minority Owned Firms	Average Number of Employees - Female Owned Firms
CRP Region	9.4%	23.3%	5.9	1.4	1.7
Mecklenburg County	13.5%	23.8%	7.4	1.4	2.2
CRP w/o Mecklenburg	6.6%	22.9%	5.0	1.3	1.4
North Carolina	10.8%	24.5%	5.4	1.2	1.6
South Carolina	11.8%	24.7%	5.5	1.1	1.6
Nashville	7.6%	25.2%	5.4	1.2	1.4
Richmond	16.1%	26.1%	6.6	1.3	1.1
Tampa	14.4%	26.8%	5.2	1.7	1.1

Source: U.S. Census Bureau
*Number of minority firms and their employees were not available for Alexander and Lincoln Counties.

The table above also shows that minority and female owned firms tend to be smaller. The average number of employees in a minority or female owned firm was one to two, compared to an average of five to seven employees for all firms.

Quality of Life

Quality of Life

Quality of life is a somewhat nebulous term that has different meanings for everyone. In this *Competitive Assessment*, it is defined as both the overall “desirability” of an area and the ability of the community to provide for the health, safety, and welfare for its citizens.

Local Wealth

As discussed in the *Regional Economic Profile*, the poverty rate in the CRP Region was 9.8 percent in 2000, comparable to Nashville and Richmond and slightly lower than Tampa. Poverty is not spread evenly throughout the Region. The poverty rate in Mecklenburg County is lower than the Region outside of Mecklenburg. Chesterfield, Anson, and Chester Counties have the highest poverty rates in the Region and are on the Carl Vinson Institute’s list of Southeastern⁴² counties in persistent poverty.

Mecklenburg’s per capita income (PCI) carries the rest of the Region. The County’s PCI was \$38,556 in 2002, while the Region’s PCI was \$29,931. The gap in PCI between Mecklenburg and the overall Region has increased since 1990. Nashville and Richmond had higher PCI than the CRP Region, and Tampa’s PCI was just below that of the Region.

Cost of Living

Median home values are relatively low in the CRP Region when compared to the national average, as well as Nashville and Richmond. However, the Region’s median home value increased at a faster rate since 1990 than Nashville, Richmond, and Tampa.

A cost of living (COL) index provides more information about how expensive it is to live in an area, because it considers not only home values, but also the cost of groceries, utilities, transportation, health care, and miscellaneous goods and services. The COL can affect relocation decisions and a household’s standard of living when moving to a new city. National data sources are helpful for evaluating and comparing the cost of living relative to the national average, typically represented by the index value of 100. ACCRA, a national community and economic development research organization, publishes quarterly cost of living indices for metropolitan communities across the nation. While the data provide some indication about the cost of living differences between the three regions, they do not provide a direct comparison of actual costs in metro areas.

The table below provides COL indices for two cities in the CRP Region compared to cities in the Nashville, Richmond, and Tampa metro areas. The overall COL in the core city of Charlotte is lower than the national average and also lower than both Richmond and Tampa. Nashville’s COL is very close to that of Charlotte. The city of Charlotte has a surprisingly high health care cost index (111.6), higher than the national average and all of the comparison cities. However,

2004.

⁴² University of Georgia, Carl Vinson Institute. <http://www.cviog.uga.edu/poverty/counties.pdf>. Accessed June 29,

because health care represents only 4.0 percent of the total index, the overall COL was not largely affected.

Cost of Living Index Comparison, Total and Components, 1st Quarter 2004

Metro Area Name	Index Cities	Total	Grocery	Housing	Utilities	Transportation	Care	Misc.
Charlotte-Gastonia-Concord	Charlotte, NC	94.8	97.6	87.9	86.4	95.8	111.6	99.8
	Gastonia, NC	91.6	97.2	82.6	91.5	91.6	103.7	95.9
Nashville-Davidson-Murfreesboro	Murfreesboro-Smyrna, TN	92.4	100.3	85.5	77.1	98.8	97.8	97
	Nashville-Franklin, TN	94.7	102.3	83.2	91.3	99.5	93	101.5
Richmond	Richmond, VA	101.6	109.9	97.1	105.3	99.9	85.9	103.6
Tampa-St. Petersburg-Clearwater	St. Petersburg-Clearwater, FL	90.6	94.7	84.6	98.7	101.9	81.1	90.2
	Tampa, FL	99.3	93.8	103.8	93.4	105.2	103.1	97.2

Source: ACCRA, May 2004.

*100 = National Average

*Percentage each category contributes to the overall cost of living: Total (100%), Grocery (13%), Housing (30%), Utilities (9%), Transportation (9%), Health Care (4%), and Miscellaneous Goods & Services (35%).

As with many suburban cities, the Gastonia is cheaper than the core city of Charlotte. Gastonia's overall COL is fairly close to suburban cities in the comparison metros, Murfreesboro-Smyrna and St. Petersburg-Clearwater.

Health Care

High or increasing death rates should raise concern about the health of an area's residents, and further analysis should be done to investigate contributing factors. The CRP Region's death rate is comparable to Nashville and slightly lower than that of Richmond and North Carolina. Tampa has higher death rates, partly because its population is older. Conversely, death rates in Mecklenburg County are lower than that for the overall Region, partly due to the fact that residents of the County tend to be younger.

Deaths per 1,000 Population	2002	1998-2002 Average
CRP Region	8.0	8.1
Mecklenburg County	6.3	6.4
North Carolina	8.6	8.7
Nashville	8.2	8.1
Richmond	8.6	8.7
Tampa	11.2	10.9

Source: Florida Department of Health (Office of Vital Statistics), North Carolina State Center for Health Statistics, Tennessee Department of Health (Office of Health Statistics), Virginia Center for Health Statistics.
*Death rates for Nashville, Richmond, and Tampa are 2000-2002 averages rather than 1998-2002.

The quality and accessibility of health care in a metro area contributes to the quality of life of residents. As shown in the following table, Charlotte has fewer physicians and fewer hospital beds per 100,000 residents than Nashville, Richmond, Tampa, and the U.S. average. This could help explain the higher health care cost index in ACCRA's cost of living comparisons. Charlotte has the about the same number of teaching hospitals as Nashville and Richmond. Teaching hospitals are accredited to train physicians and are associated with higher quality health care and greater breadth of services.

Health Care Accessibility

Metropolitan Area	Physicians Per 100K Population 2003	Hospital Beds Per 100K Population 2001	No. of Teaching Hospitals 2001
Charlotte	203.3	281.1	5
Nashville	322.5	452.5	5
Richmond	318.2	598.6	4
Tampa	255.3	417.6	10
United States	261.1	432.2	4

Source: Sperling and Sander, *Cities Ranked and Rated*, 2001.

There are 37 hospitals in the CRP Region with a total capacity of 7,556 beds. Twelve of these hospitals are located in Mecklenburg County and hold 34.6 percent of the Region's total number of beds. In addition, the Presbyterian Hospital Huntersville is scheduled to open in late 2004 in Mecklenburg County.

Hospitals in CRP Region 2004

Type	Facilities	Beds
Psychiatric	4	232
Rehabilitation	2	153
Short Term	31	7,171
Total	37	7,556

Source: U.S. Health Resources & Services Administration

The Charlotte metropolitan area was ranked 101 out of 317 metro areas in the Milken Institute's "2003 Health Pole Index". The index ranks cities based on their concentration of health care employment relative to the national average. Boston was the top ranked city, while Tampa, Nashville, and Richmond were ranked 19th, 47th, and 69th, respectively, all ahead of Charlotte. Out of 13 sub-sectors in the health care industry, Nashville and Tampa were each ranked in the top 20 metros for four sub-sectors, and Richmond was in the top 20 metros for one sub-sector.⁴³ Charlotte did not make the list for any of the sub-sectors.

⁴³ Nashville was in the top 20 metros for: Medical Services & Health Insurance, Offices of Other Health Care Practitioners, Medical & Dental Laboratories, and Health & Allied Services. Richmond was in the top 20 metros for: Medical Services & Health Insurance, Tampa was in the top 20 metros for: Offices of Doctors, Offices of Other Health Care Practitioners, Hospitals, Medical & Dental Laboratories, and Health & Allied Services. Source: DeVoi and Koopp, "America's Health Care Economy". Milken Institute. August 2003.

Health Pole Index Rankings 2003
(based on concentration of employment)

Rank	Metropolitan Area
1	Boston
2	New York
3	Philadelphia
4	Chicago
5	Los Angeles
6	Washington
7	Detroit
8	Nassau (NY)
9	Newark (NJ)
10	Minneapolis-St. Paul
19	Tampa
47	Nashville
69	Richmond
101	Charlotte

Source: Milken Institute

U.S. News and World Report ranks the best hospitals across the country in a number of specialty areas.⁴⁴ While the Vanderbilt University Medical Center, UNC Chapel Hill Hospitals, and the Duke University Medical Center make the top listings in a number of different specialty areas, none of the hospitals in the CRP Region have broken into the top rankings. Many, but not all, of the top hospitals are teaching hospitals associated with universities' medical schools, which UNC Charlotte lacks.

Recreation and Culture

Mecklenburg County is home to more than 175 parks and facilities on 13,500 acres of land.⁴⁵ Facilities include 20 recreation centers and five public golf courses. In addition, there are five state parks in the CRP Region for residents to enjoy recreational activities, including boating, fishing, hiking, picnicking, and swimming. Lake Norman is North Carolina's largest man-made lake and is located to Charlotte's north.

⁴⁴ Source: "Best Hospitals 2004". *U.S. News and World Report*.

⁴⁵ <http://www.usnews.com/usnews/health/hospital/tophosp.htm>. Accessed July 22, 2004.

Source: Mecklenburg County Park and Recreation Department.

<http://www.co.mecklenburg.nc.us/Departments/Park+and+Rec/About+MCPR/home.htm>. Accessed July 21, 2004.

CRP Region State Parks

State Parks	Location	Activities
Andrew Jackson State Park	Lancaster, SC	Boating, fishing, overnight facilities, trails
Crowders Mountain State Park	Kings Mountain, NC	Camping, education and events, hiking, picnicking, rock climbing, water sports
Lake Norman State Park	Troutman, NC	Boating, camping, community building, education and events, fishing, hiking, mountain biking, picnicking, swimming
Landford Canal State Park	Catawba, SC	Boating, fishing, trails
Morrow Mountain State Park	Albemarle, NC	Boating, education and events, exhibit hall and historic site, fishing, overnight facilities, picnicking, swimming, trails

Source: North Carolina Division of Parks and Recreation, South Carolina Department of Parks, Recreation & Tourism

Although the Hornets NBA basketball team moved out of Charlotte, the city was able to secure the Bobcats, the new NBA expansion team scheduled to start play in 2004. The new team is accompanied by a brand new Charlotte Arena being built in the Center City area of Charlotte. Unlike the former stadium, this one is in the core urban area and within walking distance of restaurants, shops, and two transit terminals.⁴⁶ Charlotte has other strong professional sports options, primarily the relatively new Carolina Panthers football team and the Lowe's Motor Speedway, which supports an active NASCAR racing circuit. The Charlotte Knights AAA baseball team, the Charlotte Checkers AA hockey team, the Charlotte Sting women's basketball team, the Carolina Cobras arena football team, and the Charlotte Eagles soccer team add to the professional sports assets. Charlotte also hosts a number of professional sports events, including the Wachovia Championship (golf) and the Continental Tire Bowl (football). Tampa has more major-league sports teams (baseball, football, and hockey), but it is also a larger city.

The *Places Rated Almanac* ranked 354 metro areas on their supply of recreation assets, including amusement parks, aquariums, sports, restaurants, and recreation areas. Tampa scored highly, because of its abundance of water-related activities, as well as golf and professional sports. Charlotte ranked 67th, coming in just behind Nashville but well ahead of Richmond.

Arts and Recreation Rankings

(Out of 354 Metro Areas, 1 = Highest)

Arts Ranking	Recreation Ranking	Charlotte	Nashville	Richmond	Tampa
42	67	66	91	81	119

Source: Savageau, *Places Rated Almanac*, 2000, p.505-508.

When ranking metro areas on the arts, the *Places Rated Almanac* considers the number of arts museums and their attendance, as well as the number of various types of theatrical and musical performances. Charlotte ranked highly compared to its peer metro areas. The Blumenthal Performing Arts Center anchors the city's arts activities.

⁴⁶ Source: National Basketball Association. http://www.nba.com/bobcats/charlotte_arena_quick_facts.html. Accessed July 21, 2004.

Climate

Charlotte's pleasant climate may be one factor that has attracted new residents to the Region. Charlotte, Nashville, Richmond, and Tampa are all in the Southeastern United States and thus enjoy similar mild climates. Tampa, being farthest south, is the warmest of the cities, while Richmond is the northernmost and coolest.

Climate Comparison 2003

	Charlotte	Nashville	Richmond	Tampa	U.S. Avg
Temperature					
January low (°F)	32.1	29.0	27.6	50.1	26.4
July high (°F)	88.3	90.2	88.2	90.4	86.7
Annual days:					
90° or above	31	37	41	81	38
32° or below	71	75	85	4	88
0° or below	0	1	0	0	6
Precipitation					
Annual inches	43	46	43	49	36
Annual days	111	119	113	107	111
Days					
Rain more than 0.5 inches	28	32	27	28	23
Snow more than 1.5 inches	2	3	3	0	6
Comfort					
July relative humidity	69%	71%	72%	74%	69%
Days mostly sunny	214	210	210	238	212
Days with thunderstorms	42	55	37	88	39

Source: Sperling and Sander, *Cities Ranked and Rated*, 2001.

Environment

The Environmental Protection Agency (EPA) has designated the Charlotte metropolitan area as a non-attainment area for 8-hour ozone, which is a major contributor to smog. This means that ten counties in the Region (Alexander, Cabarrus, Catawba, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Union, and York) have not met EPA's air quality standards for average ozone levels over an eight hour period. Charlotte has been rated as moderate non-attainment, along with 30 cities that include Richmond, Dallas, and Washington, D.C. While this has not become a major problem so far, the Region must be careful in managing its growth patterns so that ozone levels do not get worse. More severe levels of non-attainment can result in increased health problems and lower quality of living, as well as federal transportation funds being withheld.

In its annual *State of the Air* report for 2004, the American Lung Association ranked Charlotte as the 14th out of 25 metro areas having the worst ozone air pollution.⁴⁷ Los Angeles received the worst ranking. Atlanta, Raleigh-Durham, and Greensboro-Winston-Salem-High Point were on

⁴⁷ Source: American Lung Association. <http://www.lungusa.org/site/pp.asp?c=dvLUK900E&b=50752> Accessed July 27, 2004.

the list for the number of days with bad ozone levels, but Charlotte's number days with high ozone levels was worse. Rowan County was the 20th out of the 25 counties with the worst ozone air pollution. No other counties in the CRP Region made this list.

Vehicle emissions contribute to increased ozone levels. With the sprawling pattern of land use and development in the Charlotte region, automobiles are often the only option for transportation. The population density of the Charlotte urbanized area decreased by 7.0 percent between 1990 and 2000⁴⁸, meaning that land is being consumed at a faster rate than population growth. Sprawling land use patterns can affect quality of life by increasing traffic congestion and smog.

The EPA has warned that Catawba County may make the list of counties with dangerously high levels of fine particle pollutants, which can come from power plant emissions, diesel exhaust, wood burning, and other sources.⁴⁹ It will formally publish the list of violators in November 2004. If violators fail to reduce fine particle pollutants, the counties could be subject to industry restrictions and ineligibility for transportation funds, both of which affect economic development.

EPA Envirofacts Comparison 2004

Facilities that produce and release air pollutants	Facilities reported hazardous waste activities	Potential hazardous waste sites that are part of Superfund that exist	Facilities issued permits to discharge into rivers
CRP Region	2,326	690	3,272
Nashville	676	255	2,853
Richmond	1,426	223	2,437
Tampa	817	255	4,223
			2,401

Source: U.S. Environmental Protection Agency

The table above summarizes activities recorded by the EPA that could have an affect on air, water, and land quality. The CRP Region has more potentially environmentally hazardous facilities than Nashville and Richmond by quite a large margin. Tampa has more Superfund sites and significantly more facilities that discharge into rivers, but the CRP Region has more facilities that release air pollutants and that have hazardous waste. There is potential for these facilities to have an impact on the environment and result in decreases in the standard of living of the Region.

⁴⁸ Source: Hartgen, David T., "Highways and Sprawl in North Carolina." John Locke Foundation. September 24, 2003, p. 28.
⁴⁹ Source: Henderson, Bruce, "EPA sniffs air in 8 counties", *The Charlotte Observer*. June 30, 2004.

Civic Participation

Voting is an important form of civic participation. Voter turnout is typically higher during presidential election years. In the 2000 election, 58 percent of the CRP Region's registered voters actually voted. This is on par with results from North Carolina, but South Carolina and the nation had higher participation rates.

**Voter Turnout 2000
As Percent of Registered Voters**

Area	Turnout
CRP Region	58%
North Carolina	57%
South Carolina	63%
United States	68%

Source: Federal Election Commission, North Carolina State Board of Elections, South Carolina Election Commission

Volunteer activities and charitable donations are another important form of civic participation. The number of non-profit 501(c)(3) organizations in the CRP Region that were registered with the IRS decreased by nearly 40 percent between 2000 and April 2004. North Carolina and South Carolina also saw decreases, although they were not quite as dramatic. The downturn in the economy during this period may have contributed to the ability of non-profit organizations to remain operational.

Number of Registered Non-Profit Organizations

Number of Non-Profit Organizations from 2000 to Apr. 2004	Change
CRP Region	-38.8%
North Carolina	-25.3%
South Carolina	-28.3%

Source: National Center for Charitable Statistics

The National Center for Charitable Statistics compiled data from the IRS on the itemized deductions that were recorded as charitable contributions on personal income tax returns. Nearly 30 percent of all filed returns in the CRP Region itemized a charitable contribution in 1997. Although this is a higher proportion than in North Carolina and South Carolina, it represents only 2.4 percent of the total adjusted gross income (AGI) of all filed returns and 3.6 percent of the total AGI of all itemized returns. The CRP Region, like both North and South Carolina, reports giving a very small proportion of its income to charitable causes.

Charitable Giving Reported on Personal Tax Returns 1997

Number of Itemized Contributions as Pct of All Contributions	Itemized Contributions as Pct of Total AGI of Returns	Contributions as Pct of Total AGI of All Returns	Reported Contributions (\$1,000)	Contributions as Pct of Total AGI of Returns
29.7%	3.6%	2.4%	\$876,932	2.4%
26.6%	3.7%	2.3%	\$2,918,118	2.3%
24.5%	4.0%	2.4%	\$1,346,863	2.4%

Source: National Center for Charitable Statistics
*AGI = Adjusted Gross Income

Crime Rates

As discussed in the *Regional Economic Profile*, crime rates have been considerably higher in Mecklenburg County than in the overall Region, despite dropping considerably between 1997 and 2002. The Charlotte metro area received low rankings for crime, but so did Nashville and Tampa.

The Creative Class

The *Regional Economic Profile* analyzed age and racial diversity in the CRP Region. The median age in the Region is comparable to the United States, North Carolina, and South Carolina. Residents of Mecklenburg County are generally younger than those in the Region outside of the County. Between 1990 and 2000, the growth of the Region's population age 45 to 54 far surpassed the overall population growth rate, but growth in the 18 to 24 and 25 to 34 age groups lagged behind the overall population growth rate. The Region outside of Mecklenburg lost 3.0 percent of its age 18 to 24 population.

The CRP Region is also racially diverse, with 27.3 percent minorities in 2000. Although the Region has seen tremendous growth in its Hispanic and Asian population, African-Americans make up the largest minority group. The Region's racial composition is similar to that of Nashville, but diversity is not spread evenly throughout the counties in the Region.

Related to youth and diversity is the group of people that professor and author Richard Florida calls the "Creative Class." According to Florida, the Creative Class will drive the 21st century economy. These are the people who use their minds to create new processes and products. The Creative Class includes scientists, engineers, artists, actors, architects, researchers, and analysts. They also include those who work in knowledge-intensive industries such as finance, law, health care, business management, and the high-tech sectors. While it is debatable whether the Creative Class is the only group who drive the economy, it is reasonable to believe that today's knowledge economy is heavily dependent on the human capital behind it.

The Creative Class is attracted to cities with the 3 T's: Technology, Talent, and Tolerance; Florida argues that these are key parts of economic development. Thus he developed a Creativity Index of metropolitan areas based on four factors: the Creative Class share of the workforce, innovation (measured as patents per capita), high-tech industry (using the Milken Institute's

Tech Pole Index), and diversity (using the Gay Index). The table below shows Florida's rankings of the metro areas with the highest Creativity Index.

**Richard Florida's Creativity Index Rankings
Top Ten Metro Areas, Charlotte, and Peer Metros**

Metro Area	Overall Rank	Creative Class Rank	High Tech Rank	Innovation Rank	Diversity Rank
San Francisco	1	12	1	5	1
Austin	2	7	13	6	23
San Diego	3	30	14	13	4
Boston	3	6	2	12	41
Seattle	5	20	3	34	11
Raleigh-Durham	6	5	16	8	52
Houston	7	22	19	39	16
Albuquerque	8	26	9	62	14
Washington-Baltimore	9	4	5	85	18
New York	10	25	15	54	20
Tampa	38	76	42	128	26
Charlotte	42	69	46	124	51
Richmond	66	56	67	144	97
Nashville	67	79	70	171	45

Source: Florida, Richard. *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community, and Everyday Life*. New York: Basic Books, 2000. p. 246-247, 344.
*Rankings are based on 268 metropolitan areas.

Richard Florida ranked Charlotte 42nd out of 268 metropolitan areas for its Creativity Index, behind Tampa but ahead of Richmond and Nashville. For the 49 metro areas that had a population of more than one million, Charlotte ranked 28th for its Creativity Index. Charlotte does not rank particularly highly in any of the sub-categories (creative class, high tech, innovation, and diversity); its ranking for innovation (patents per capita) is rather low. However, Tampa, Richmond, and Nashville also have similarly poor rankings.

There are a few other rankings of cities based on their appeal to young professionals and minorities, key components of the Creative Class. *Forbes Magazine's* 2004 rankings of the best cities for single people are based on a number of factors, including the non-married population, nightlife, culture, cost of living alone, job growth, and "coolness." At the top of the list were Denver, Washington, Austin, Atlanta, and Boston. Charlotte was ranked 36th out of 40 cities, behind Tampa (25th) and Nashville (29th). Richmond was not one of the ranked cities. While not a particularly scientific study, the *Forbes* rankings give an indication of the attractiveness of certain metro areas to young professionals.

Black Enterprise Magazine conducted a survey to find out what readers thought were the best cities for African Americans. Their 2004 rankings put Charlotte 6th out of ten cities, behind Nashville (4th), Atlanta, Washington, D.C., and Dallas were at the top of the list. "The 'Queen City' appears again on the top 10 as one of the few cities without an African American mayor. The metropolitan area earned high marks for cost of living,

diversity, and economic growth. Respondents were satisfied with the quality of healthcare, even though Charlotte's number of physicians per capita is the lowest among the top 10 and well below the national average. Charlotte residents were disappointed with the dearth of black-owned businesses, with African Americans owning only 6.2% of the areas businesses. But residents have high hopes that BET founder Robert L. Johnson's ownership of the Charlotte Bobcats NBA basketball franchise will influence other African American entrepreneurs."⁵⁰

Other Rankings

This section of the *Competitive Assessment* summarizes metro area rankings from a number of different sources. While methodologies of these ranking systems vary, they give an indication of where Charlotte stands relative to other cities.

⇒ *Forbes Magazine's* 2004 "Best Places for Business" ranked 150 cities on the cost of doing business, job growth, and educational attainment. The top cities were Madison (Wisconsin), Raleigh-Durham, Austin, Washington, D.C., and Atlanta. Charlotte was ranked 27th, behind Richmond (10th), but ahead of Nashville (31st) and Tampa (102nd).⁵¹

⇒ *Inc. Magazine's* 2004 "Top 25 Cities for Doing Business in America" does not include Charlotte. The basis for the rankings was job growth and industry diversity. The top cities were Atlanta, Riverside-San Bernardino, Las Vegas, San Antonio, and West Palm Beach. Tampa was ranked 14th, and Richmond was ranked 17th.⁵²

⇒ *Entrepreneur Magazine* ranks the "Best Cities for Entrepreneurs" based on entrepreneurial activity, small business growth, job growth, and risk. Minneapolis, Washington, D.C., Atlanta, Fort Lauderdale, and Salt Lake City topped the list. Charlotte came in 9th out of 61 metro areas, ahead of Tampa (25th) and Nashville (45th).⁵³

⇒ *Business 2.0* named the "Top 20 Boom Towns in America," or cities that have the capacity to generate high-wage jobs based on occupational growth rates, educational attainment rates, and median salaries. The top cities were Raleigh-Durham, San Jose, Washington, D.C., Austin, and Atlanta. Charlotte was ranked 19th. Nashville, Tampa, and Richmond did not make the list.⁵⁴

⇒ The Progressive Policy Institute developed the New Economy Index, which looks at the proportion of knowledge-based jobs in a metro area, exports, entrepreneurship and high growth firms, technology usage, and innovation capacity. The premise is that these are the factors that drive the new economy. San Francisco, Austin, Seattle, Raleigh-Durham,

⁵⁰ Source: Brown, Carolyn M. and Padgett, David A. "What's Your Favorite U.S. City?" *Black Enterprise Magazine*, June 28, 2004. <http://www.blackenterprise.com/Exclusives/EKOpen.asp?id=793>. Accessed July 27, 2004.

⁵¹ May 7, 2004.

⁵² March 2004.

⁵³ October 2003.

⁵⁴ March 2004.

and San Diego had the highest index scores. Charlotte was ranked 30th out of 50 metro areas, ahead of Nashville (32nd) and Tampa (43rd).⁵⁵

⇒ The Milken Institute published its 2003 report on the “Best Performing Cities,” which ranks 296 metro areas on wage and salary growth, job growth, and high-tech output. The top cities were Fayetteville (Arkansas), Las Vegas, Fort Myers (Florida), West Palm Beach, and San Diego. Charlotte came in 46th, better than the 86th ranking it received the previous year. Tampa was ranked 27th, Nashville was 53rd, and Richmond was 106th.⁵⁶

⇒ The Beacon Hill Institute published its 2003 “Metro Area and State Competitiveness Report,” which ranked 50 cities on their long-term competitiveness. Competitiveness is based on factors that include infrastructure, fiscal policy, technology, human resources, domestic competition, and environmental policy. Seattle, San Francisco, Minneapolis, Boston, and Denver made the top of the list. Charlotte was ranked 12th, ahead of Richmond (16th), Tampa (36th), and Nashville (37th). Charlotte received high scores for government and fiscal policy, finance and cost, and openness,⁵⁷ but it received relatively low scores on security, infrastructure, and human resources.

⇒ *Expansion Magazine* surveyed site selection consultants to find out which cities were the most attractive ones for relocation and expansions.⁵⁸ Charlotte ranked 30th out of the top 50 cities. Atlanta, Nashville, Jacksonville, Kansas City, and Memphis were the first five cities on the list. Richmond was 12th and Tampa was 26th, both ahead of Charlotte.

⇒ Americans for the Arts conducted an analysis on the number of arts-related businesses and organizations in metropolitan areas, which gives some indication of the level of cultural activity occurring in an area. Santa Fe, New Mexico had by far the highest number of arts businesses per 1,000 residents (6.29).⁵⁹ Other top cities include Bellingham (Washington), Austin, Santa Barbara (California), and Seattle. Out of 276 metro areas, Charlotte ranked 85th with 1.91 art businesses per 1,000 residents. Nashville (22nd) ranked ahead of Charlotte, but Richmond (146th) and Tampa (96th) did not have as many arts businesses per 1,000 residents as Charlotte.

Charlotte had received some relatively high rankings for a number of the lists, appearing ahead of Nashville, Richmond, and Tampa on some occasions. However, Charlotte does not appear at the top of these lists, whereas Atlanta, Washington, D.C., Austin, Raleigh-Durham, and San Francisco appeared at the top on more than one list.

⁵⁵ April 2001.

⁵⁶ June 25, 2003.

⁵⁷ December 2003.

⁵⁸ “America’s Hottest Cities,” January 3, 2004.

⁵⁹ Released in 2004 using 2004 Dun & Bradstreet business data and 2000 population data.

http://www.artsusa.org/aboutus/creativeindustries_correction.asp.

Conclusion

Conclusion

As the Charlotte region charts its course during changing economic times, the findings of this analysis present several opportunities and challenges facing the Region today.

- ⇒ 70.4 percent public high schools in the CRP Region do not meet federal guidelines of Adequate Yearly Progress, and only 13.5 percent of the Region's high schools are designated as Schools of Excellence or Schools of Distinction. Combined with SAT scores that are lower than the national average and high school dropout rates that are higher than the peer metro areas, this raises concern about the preparation of the Region's youth for competition in the knowledge-based workforce. While private schools provide opportunities for quality education to those who can afford to attend, this represents only 9.2 percent of the Region's grade school children. Key leaders in the Region recognize the need for academic improvement in public schools, but change can take years to bring about results.

- ⇒ The Charlotte region lacks a research university that can compete with top universities in other major cities. The lack of an established research center can make it difficult to attract firms that rely on intellectual talent for making technological and innovative advancements. UNCC has recently started filling that role; its Ph.D. program was established in 1993 and produced 20 graduates in 2003. The university is focusing on e-business, precision metrology, and optoelectronics as its main research areas. However, it is far behind established universities that produce hundreds of Ph.D. graduates each year, particularly in science and technology fields.

- ⇒ The Region has solid physical infrastructure: a high proportion of available sites with access to rail, investment in its highway system, a busy airport, and good access to high-speed Internet service. The airport's heavy reliance on the US Airways hub for 92.2 percent of its daily departures is of concern, because the airline announced that it may have to file for bankruptcy a second time if it does not get the wage concessions it is seeking. With the closing of the American Airlines hub in Nashville as an example, it can take years to recover from the loss of a hub. The Charlotte airport may be able to speed recovery from such a loss if it can attract low-cost carriers to operate in Charlotte.

- ⇒ The Region is competitive in its business costs. Some costs are higher than for the peer metro areas, such as office and industrial lease rates, natural gas prices, and income taxes, but other costs are lower in the Region, such as power costs, sales tax, and property taxes. Also, the Region's low union membership and its availability of buildings and sites make the area more attractive to businesses seeking to expand or relocate.

- ⇒ The relatively low cost of living, good climate, and decent recreation and arts opportunities in the Charlotte region have attracted new residents to the area. The quality of life in the Region is quite good but needs to be maintained as the population continues to grow. Pollution and environmental issues are becoming problematic and are not likely

to subsidize unless major changes to land use and transportation patterns occur. The Region's health care assets do not rank as highly as the peer metro areas, and this may become a more important factor as the Baby Boom generation ages. The Region could also work to improve its attractiveness to young, "creative" professionals.

The Charlotte region's main comparative advantage is its business costs, which are competitive with the peer metro areas and lower than many bigger cities. The Region has good infrastructure and quality of life, but the reliance of the airport on US Airways and environmental issues prevent it from outperforming its peers. The Region's main comparative disadvantage is in the area of education, where performance of its public grade schools lags behind its peers and UNCC has not yet become a major research university.

As mentioned previously, this *Competitive Assessment* is the second piece of research for the process to update Advantage Carolina's Strategic Plan. The project proceeds to the development of the *Target Business Analysis*, building upon the analysis contained in this *Competitive Assessment* and the *Regional Economic Profile* from the initial stage of research.