arts, recreation and cultural life

economy

education

environment

government and citizen participation

health

housing

public safety


social well-being

transportation

UNC Charlotte
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# Charlotte Regional Indicators Project 2007

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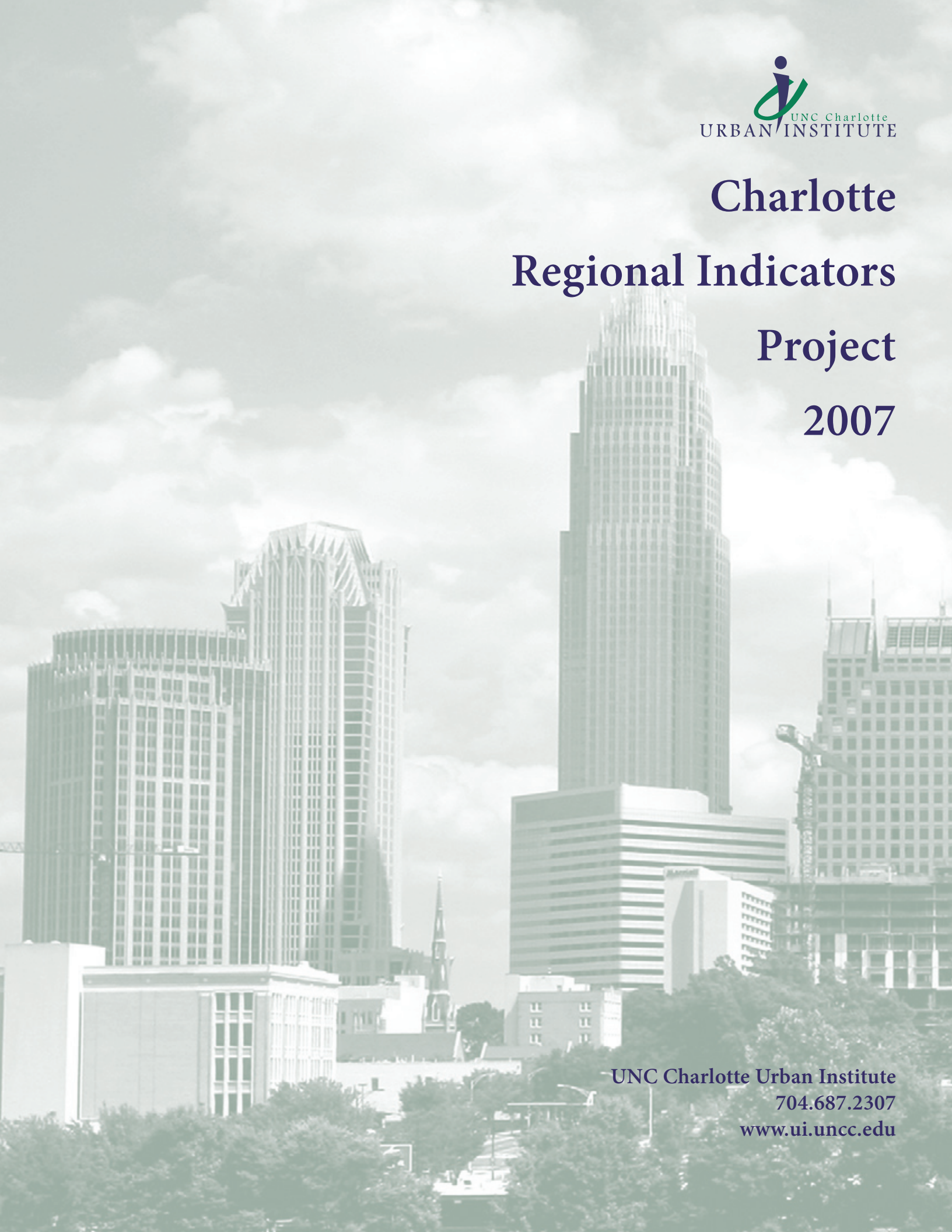

UNC Charlotte
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# Charlotte Regional Indicators Project 2007

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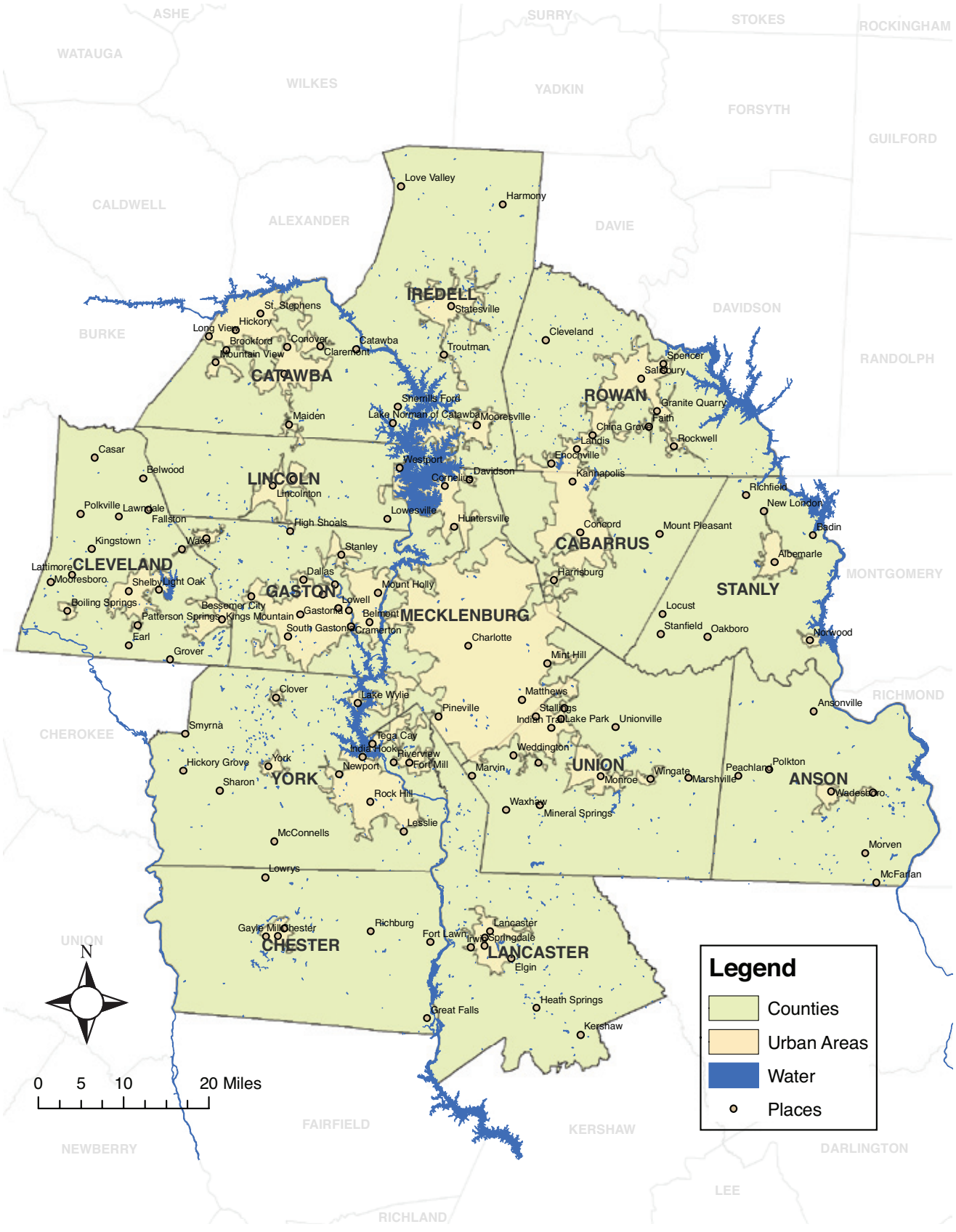
## Map of the Region



## A Letter from the Director

Jeff Michael, Director
UNC Charlotte Urban Institute

The UNC Charlotte Urban Institute is pleased to present this inaugural report of the Charlotte Regional Indicators Project. This report is the culmination of over a year's work on the part of the Institute's staff, the UNC Charlotte Center for Applied GIS, and over 100 volunteers from throughout the region.

The seeds for a Regional Indicators Project were sown in 2004, when the UNC Charlotte Urban Institute conducted a "listening tour" of community leaders as part of its 35th Anniversary celebration. We asked leaders a simple question: what should the Institute do to continue serving the public policy needs of the greater Charlotte region? More than any other response, we heard that people wanted, indeed expected, the Institute to be a reliable and objective source of information to assist the region's residents and leaders in addressing the many public policy challenges facing this rapidly growing region.

Responding to this call, our staff set about exploring ways to build the Institute's capacity to deliver such information on a consistent basis. Fortunately, a foundation had already been laid by several earlier attempts to establish a benchmarking initiative for the Charlotte region. In 1997 and again in 1998, the former Central Carolinas Choices published "Focus on the Region: Benchmarking and Annual Assessment of the Greater Charlotte Region." Central Carolinas Choices' successor organization, Voices & Choices, conducted another benchmarking study resulting in the "2004 State of the Region" report, which focused more narrowly on the environment. Unfortunately, Voices & Choices eventually dissolved as an organization, and the State of the Region report was discontinued.

While the organizations behind these earlier reports were unable to sustain their operations, the public reception to their research was positive. With this in mind, we extended our review of benchmarking initiatives nationally, paying particular attention to several regional models, including the widely respected Boston Indicators Project, for lessons on how to sustain success. What impressed us the most about these successful initiatives was not only the breadth and depth of their research, but their power to transform the way in which public policy decisions are being addressed in their respective communities. And central to their ability to do that was their embrace of technology, and in particular their use of the Internet to "democratize" access to their data.

Informed by these local precedents and national models, the Institute launched the Charlotte Regional Indicators Project in early 2007. This report is the first tangible result of our work. With nearly 40 years of experience in applied public policy research, the Institute is well-positioned to provide a permanent home for the research essential to sustaining a successful benchmarking initiative for the Charlotte region. We are also committed to using the latest in technology to ensure that the data is accessible to a broad cross-section of the region's residents. This use of the Internet is one of the things that distinguishes this effort from previous benchmarking initiatives in the Charlotte region, and one that we think will solidify its ongoing relevance to both policymakers and residents. It is our hope that over time the Charlotte Regional Indicators Project will grow to the point that it truly engages the entire region, providing the general public, business and government leaders, and other organizations with the information they need to effect positive change in the region's quality of life.

In closing, I would like to thank the many individuals and organizations whose early support of the Charlotte Regional Indicators Project made this initial report possible (see the full list of sponsoring organizations and individuals elsewhere in this report). In particular, the Z. Smith Reynolds Foundation and the Open Space Protection Collaborative (with funds from the John S. and James L. Knight Foundation) provided the project's first major research funding. The Charlotte Mecklenburg Community Foundation, an affiliate of The Foundation For The Carolinas, made possible the publication of this inaugural report and the Indicators Project website. We are also indebted to more than 100 individuals, both external and internal to the university, who gave countless hours to making this report possible.

I hope you find the report useful and look forward to working with you to maintain and enhance the region's quality of life.

*Jeff Michael, Director*
*UNC Charlotte Urban Institute*

# Introduction to the Regional Indicators Project

### The Charlotte Regional Indicators Project

The quality of life or well-being of a community is measured by many social, economic, and environmental factors. In the Charlotte region, it has become increasingly evident that these factors can only be effectively measured and addressed by crossing political boundaries and looking at the entire geographic area or region. Successful regional approaches to maintaining and enhancing the region's quality of life require tracking and assessing trends over time.

The Charlotte Regional Indicators Project is intended to do just that. It will provide critical benchmarks measured over time and compared to state and/or national data, for the 14-county, 2-state region: Anson, Cabarrus, Catawba, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly and Union counties in North Carolina; and, Chester, Lancaster and York counties in South Carolina. The Indicators Project will provide objective, reliable, and relevant data that measure the region's annual progress on a wide range of indicators that impact the region's quality of life.

The Indicators Project focuses on ten theme areas: Arts, Recreation, and Cultural Life; the Economy; Education; the Environment; Government and Citizen Participation; Health; Housing; Public Safety; Social Well-Being; and Transportation. Individually, the ten theme areas represent critical components of the region's quality of life. Collectively, the ten theme areas provide a holistic framework that allows the region to better understand the inter-relationships among them.

The Indicators Project builds upon the work of several earlier attempts to establish a benchmarking initiative for the Charlotte region, and has also drawn heavily upon the experiences of similar efforts in other areas across the country, such as the Boston Indicators Project and Sustainable Seattle. These successful initiatives are impressive not only for the breadth and depth of their research, but for their power to transform the way in which public policy decisions are being addressed in their respective communities. Central to their ability to do that is their embrace of technology and in particular, their use of the Internet to "democratize" access to the data. This use of the Internet is one of the things that distinguishes the Indicators Project from previous benchmarking initiatives in the Charlotte region, and one that we think will solidify its ongoing relevance to both policymakers and residents.

The Institute recognizes that as in other cities, this initial study is only a starting point. Indeed, for the Indicators Project to remain relevant, the indicators must be continually updated and improved, and the Project's website further enhanced to make it more interactive. An advisory board comprised of regional community leaders will provide future direction for the Indicators Project. The advisory board will be responsible for continually reviewing and refining the focus and content of the Indicators Project. Additionally, the advisory board will champion use of the report among community and business leaders, elected officials, and the public.

The Indicators Project is intended to grow with each annual report, truly engaging the entire region and providing the general public, business and government leaders, and other organizations with the information they need to effect positive change in the region's quality of life. Your feedback is welcomed and encouraged in this process.

### The Inaugural Indicators Report

The Inaugural Charlotte Regional Indicators Project report is comprised of a letter from Institute director Jeff Michael, this Introduction giving an overview of the Project, a perspective essay by former Institute director Bill McCoy, a chapter on each of the Indicator Project's ten quality of life theme areas covering a total of 54 indicators, and a chapter on general demographics for the region. Each indicator is illustrated with maps and graphs.

## Introduction to the Regional Indicators Project (continued)

The UNC Charlotte Urban Institute provided staff and research support for the Indicators Project and compiling of the report. The Institute staff was responsible for facilitating theme area task force meetings, collecting and refining data, and compiling indicator measures. Theme area task forces were comprised of experts and leaders in the region knowledgeable about specific quality of life factors. The task forces guided the selection and review of indicators included in the indicators report. Working with Institute staff, each task force identified a set of prioritized indicators for research and inclusion in the initial report. The task forces will be asked to reconvene to recommend refinements or additions to theme areas as subsequent reports are released.

It is important to note that this inaugural effort is shaped by certain constraints, notably a purposeful decision to start modestly and add or enhance indicators over time as data availability and research capacity permit. This dictated that this first set of indicators had to be not only objective, reliable and relevant, they also had to be cost-effective to compile and likely to remain so in the future. This placed a premium on indicators for which federally- or state-mandated and collected data is readily available over indicators for which local governments or other multiple organizations are the only sources of data or for which primary data collection would be required. In many cases, the Indicator Project's research process has identified indicators that would be preferable to those currently available, but for which there is currently no reliable, cost-effective source of data. This lack of appropriate data for assessing regional challenges is itself a challenge that the region needs to address.

While the indicators in the report can be used to identify or analyze problems or progress, the Indicator Project's true impact will be realized in the region's responses to the challenges the indicators highlight. These responses must be created through the active dialogue and collaboration of stakeholders throughout the 14 counties. Available through published reports and a website, the indicators report is meant to be used by a broad range of stakeholders, including research and planning professionals, local governments, community organizations, and the public. The measures are intended to inform the development of innovative solutions and public policy initiatives to address the challenges facing the region in the 21st century.

### Acknowledgements

The Indicators Project and the first annual report were made possible through funding from UNC Charlotte, the Z. Smith Reynolds Foundation, the Open Space Protection Collaborative (with funds from the John S. and James L. Knight Foundation), and the Charlotte Mecklenburg Community Foundation, an affiliate of the Foundation For The Carolinas. The Project is also indebted to more than 100 individuals, both external and internal to the university, who gave countless hours to making this report possible.

*Note that all demographic and indicator statistics in the report are for the 14-county region unless otherwise noted. Note also that some indicators are based on county-level data that is itself a ratio and for which the actual number of cases or appropriate weighting values are not available to create a true regional average; thus the regional indicator is based on an un-weighted average of the county ratios, and is noted as such in the full report.*

## Dr. Bill McCoy's Perspective

*Dr. Bill McCoy served as director of the UNC Charlotte Urban Institute from 1985 to 2001. He is also an emeritus professor of political science at UNC Charlotte. With nearly 40 years of experience working in economic development in the Charlotte region, Dr. McCoy offers interesting and valuable insight related to this initial Charlotte Regional Indicators Report.*

### Recasting Destiny

Since 1960, the population of the Charlotte region has more than doubled. As a result, Charlotte and the region have recast their potential destiny.

No longer competing with Greensboro, Winston-Salem and Raleigh or aspiring to be like Atlanta, Charlotte is viewed as a national city and is regularly compared with rapidly growing urban areas throughout the United States. Such comparisons often occur with Sun Belt locales, where most of the new growth cities are located.

We still measure ourselves against Atlanta but in a different way. Atlanta's problems with traffic, education and other negative outcomes from rapid growth are what we want to avoid. We want to be the new Atlanta that works.

### From Whence We've Come

That's a far cry from where we've come. In 1960, Charlotte was a relatively small, blue-collar city in a region where the economy was dominated by agricultural activities, textile manufacturing and furniture making. These industries attracted distribution and financial services that eventually would become more important than the traditional economic drivers.

The distribution network necessary to bring raw materials to the region's manufacturing plants and to move final products to the point of sale continued to grow and expand even as manufacturing activity eventually slowed beginning in the 1970s. Today distribution is still one of the most vigorous and important parts of the region's economy.

During those expansion years of manufacturing, money to finance the growth came from a plethora of banks that had sprung up in the region, mainly in Charlotte when the city became a national center for textile production in the early 1900s. The financial institutions have flourished since that time, leading to the current situation of having two of the largest banks in the United States, Bank of America and Wachovia, headquartered in Charlotte.

### Benefits, Challenges of Growth

Today, for Charlotte to become "the new Atlanta that works," residents, employers, civic leaders, governments and other organizations within the region need to work together to help shape the region's remarkable growth. While growth has brought the region an array of remarkable opportunities, it has also presented formidable challenges.

The positive impacts feature flourishing employment opportunities, a dramatic rise in household income and a high rate of home ownership. Growth also has attracted amenities to our region that only a few may have imagined 50 years ago: arts and cultural offerings, a proliferation of upscale and ethnic restaurants, recreational and professional sports teams, NASCAR growth, museums, youth activities and much more.

At the same time, rapid growth has resulted in the region struggling to handle overcrowded schools, traffic congestion, crime and a loss of sense of place. It will take a huge financial commitment to address these problems. Securing such a commitment presents a challenge against a political backdrop where increasing the property tax rate, or any other tax for that matter, makes politicians worry about their political future.

This report's demographic overview and 10 indicator theme areas represent a promising initial overview of the quality of life in our 14-county region. In subsequent reports, the report's authors hope to expand the data to provide even more useful indicators. Limited availability of data and other constraints inhibited the inclusion of many valuable topics in this inaugural report.

A more in-depth analysis of many areas would be possible through the addition of attitudinal and opinion data, supplementing the hard census or secondary data on which many of the indicators are based. I hope one day to see a regional attitudinal and opinion survey infuse this report with additional layers of meaning. For example, our region has seen slowly declining crime rates so far this decade, with fluctuations in types of crimes in the fastest-growing counties. Yet, local television news emphasizes crime reporting so much that people may feel more unsafe than in the past, even though the data suggest no increase in the likelihood of being a victim.

### Education

Enrollment Surges, SATs Competitive, Graduation Rates Mixed

To me, the topic in this year's report that offered the most compelling information was Education. This region has not seen anything in the past that would compare with the growth rate of its pre-kindergarten-through-12$^{th}$ grade population over the last 20 years, particularly in high-growth counties.

## Dr. Bill McCoy's Perspective (continued)

Thirty years ago, Mecklenburg County probably averaged adding less than one new school a year, and some of those were replacements. Now, the Charlotte-Mecklenburg Schools need to open a high school, a middle school and three elementary schools annually just to keep up. Other high-growth counties are experiencing the same thing. The Cabarrus County Schools opened four new schools at the start of the 2007-08 school year.

An encouraging education indicator is SAT scores. The regional average as well as the averages of most school systems in the region cluster around the national average. The area of concern with this indicator is the lower SAT scores among rural and poor populations when compared with their peers. By this one well-known measure, people can see that most students educated here are on par with their peers nationally. This is important if our young people, and ultimately our region, are going to compete effectively on a U.S. and global basis.

Another positive indicator is the percentage of high school graduates who "intend" to continue their education past the high school level. In recent years, more than 80 percent planned to attend a community college, technical school or four-year institution of higher education. Historically, that percentage was much lower when young people were depended on to work in mills and on farms. One caveat, though: This indicator is one of "intentions," and the reality of how many go on to higher education is somewhat less.

A troubling measure of our school-age population is the high school graduation rate. This has been a long-term negative for the Charlotte region. Nine of the 21 school districts still have only 60-70% graduating from high school within four years. The variation ranges from 60 percent who graduate in that time frame in Anson County to 89 percent in Fort Mill. In Charlotte-Mecklenburg, the region's largest school system, about three-quarters graduate within four years. Historically, we have had difficulty in finding a measure of "dropouts" on which there is agreement. One will see other measures of "dropouts" or "graduation rates" that differ from these.

On the brighter side, the educational level of the working, adult population has increased in recent years. The region's percentage of working adults age 25 or older with a bachelor's degree or higher rose six percentage points from 1990 through 2000 (17.2 to 23.2 percent). This moved the region close to the national average of 24.4 percent in 2000. I attribute much of this increase in educational standing to people migrating to the region for professional jobs.

### Transportation

Airport Passenger Traffic Grows, Travel Times Within Region Increase

Transportation was another strong topic in this year's report. The continued growth of passenger traffic at Charlotte/Douglas International Airport is one of the region's biggest success stories. In future reports, I would like to see the economic impact of the airport quantified. It would also be useful to address the activity of smaller airports in the region, which have grown greatly in recent years.

With highway travel, the percentage of workers (age 16 or older) driving to work alone has remained steady over the last decade. The figure of slightly more than 80 percent is close to the national percentage and not likely to change much over time.

Travel times within the region have increased dramatically since 1990, whether it be work commutes or travel in general at peak times. The average annual travel delay per peak traveler nearly doubled from 1995 through 2005, rising from 23 person-hours of delay in 1995 to 45 person-hours of delay in 2005. Delays experienced during peak travel times (6 a.m. to 9 a.m. and 4 p.m. to 7 p.m.) accompany urban sprawl.

New transportation options, such as light rail or high-occupancy lanes on highways, may affect travel time to some degree. Even more significant, though, are land-use and lifestyle decisions that result in more people living in dense urban environments and using public transportation.

### Health

Income Level Affects Measures, Minority Infant Mortality Rate High

In looking at the health of the Charlotte region, this year's report focuses on three types of death rates — suicide, infant mortality and overall mortality — as well as rates of birth and sexually transmitted disease. Suicide rates tend to be a weak indicator because they don't change much over time and aren't readily correlated with mental health treatment. The data show that higher rates occur in poorer counties than in richer counties, and that difference may be the result of economic conditions.

Economic conditions definitely play a key role in the infant mortality rate. Again, higher rates generally occur in poorer counties and lower rates occur in richer counties. Historically, the region has had a high infant mortality rate because of low wages, lack of health insurance and poor educational levels. Education and money would go a long way toward solving this problem.

A racial reality with infant mortality also needs to be addressed. The average county infant mortality rate for minorities was nearly double that of the overall county rate and more than double that of the white rate. The

## Dr. Bill McCoy's Perspective (continued)

minority average was 17.7 deaths per 1,000 births in 2004, compared with a 9.3 overall average. The average county white infant mortality rate was 6.5 deaths per 1,000 births.

Another indicator tied to race is the overall mortality rate. Heart disease and cancer are believed to be linked to race, but this year's report does not explore that connection.

Historically, the Charlotte region has had high heart disease rates because of low educational levels, strenuous manufacturing work, smoking, poor diets and other unhealthy activities. Even though some of these conditions have improved, and employment in textile plants has declined precipitously in recent years, the region still exceeded the heart disease rates for both North and South Carolina in 2004. The region's overall mortality rate and cancer mortality rate also surpassed both states. Clearly, these health issues need to be studied further.

Another vital health indicator in this year's report is the rate of sexually transmitted diseases (STDs). While regional rates for gonorrhea and chlamydia are lower than those for both North and South Carolina, many counties within the region either surpassed the state rates or otherwise had high rates for both diseases. Five counties within the region had high rates for both: Anson, Chester, Cleveland, Gaston and Mecklenburg. Poor economic conditions, low education levels and the drug culture tend to be factors with the population contracting STDs.

In future reports on health, additional indicators should focus on health-related expenditures, insurance coverage and racial variations in life expectancy. A regional survey on health would be valuable in examining access to health care, incidence of disease and other health issues.

**Government and Citizen Participation**
Charitable Giving Shows Consolidated Approach, Mecklenburg Focus

The Government and Citizen Participation category captures data about charitable giving and voter turnout. The focus on contributions to public and private foundations that filed the federal tax Form 990 (more than $25,000 in income), however, may omit much of the charitable giving in the community. Ferreting out such information is a worthy goal.

The indicators suggest a significant centralization within the region related to charitable giving. Large institutions, such as the United Way of Central Carolinas, the Charlotte-Mecklenburg Arts & Science Council, The Foundation For The Carolinas and the Duke Endowment, are critically important to charitable contributions in our region. While some of these institutions have a regional or even broader scope, they are based in Charlotte.

The lack of giving in the surrounding counties reflects how recently these counties were poor — and some still are — and had nothing to give or no habit of giving beyond what they contributed to their church and family.

Voter turnout is an excellent indicator of citizen engagement in the life of the community. The data suggest that over the brief period measured about two-thirds of registered voters participated by voting in presidential election years. An average of about 40 percent voted in non-presidential elections. If more data were uniformly available for primaries and off-year local elections, we would find even lower percentages exercising their right to vote.

Many contextual variables color the picture of voter turnout. These numbers are based on registered voters, and some counties make more effort to register voters than others. Some counties also are more vigorous about taking non-voters off the registered list. All this being said, the high voter turnout in Chester County may mean the citizenry is more engaged than other counties or it may relate to these contextual variables or other factors.

In the future, the authors may want to add other indicators that show how people are engaged in the political process, such as through making campaign contributions, working on campaigns, writing letters to the editor and being a member of a political action committee.

**Arts, Recreation and Cultural Life**
Printed Library Resources Keep Pace with Population Growth

With Arts, Recreation and Cultural Life, the information on funding of public libraries within the region is encouraging. We are holding our own in the face of population increases when it comes to printed materials, staff and facilities. Adequate per capita government spending on libraries is fairly constant in the counties of the region, and reflects a major shift from where the region was prior to the 1970s.

Prior to the 1970s, the region was made up largely of blue-collar working people, most of whom prized work, not education. Libraries became more important in the 1960s and 1970s as the region realized education was linked to economic development and as more professionals began moving to the area.

To further understand the important role of libraries, I think we should look at access to libraries, perhaps by identifying the number of branches and their locations in relation to the population. I would also like to see an indicator that addresses electronic holdings and/or resources in libraries.

## Dr. Bill McCoy's Perspective (continued)

I'd also like to see a broader indicator to quantify money spent on the arts. Money from state and federal government sources, as noted in this year's report, represents only a percentage of total funding. We need to take into account local sources and grant funding.

It would also be useful to know how much land in the region, and in the counties, is actually set aside for active and passive recreation, including greenways, bicycle paths and other open space. In addition, a public opinion survey would help gauge how people feel about the arts, cultural and recreational opportunities that we have in the region.

### The Economy

Per Capita Income Rises, Unemployment Drops from 2003

In reviewing data on the region's economy, I was pleased to see that per capita income rose greatly from 1990 through 2005. But I believe an even better measure is household income, which is included in our indicators. Per capita figures inherently include large groups of people who generally don't work, those under 16 and those 65 or older. Including them in the mix brings down the per capita average. The increase in household income over the last 20 to 25 years has been dramatic The Charlotte region is significantly wealthier than it was several decades ago, as evidenced by the arrival and growth of upscale retailers, particularly in Charlotte.

Unemployment rates in the region peaked in 2003 at 6.8 percent and declined to 5.1 in 2006. This indicates that the region has rallied from the economic downturn following the 9/11 terrorist attacks and from the closing of many textile plants, including Pillowtex in Cabarrus County. Manufacturing in general continues to decline as a regional employer; though, it still leads among types of employment, at 15.2 percent of all jobs. And the manufacturing sector that remains is transitioning from a labor intensive, low tech industry to a capital intensive, high tech industry.

Service jobs continue to rise but are occurring most in urban and urbanizing areas of the region. These jobs vary tremendously in wages, ranging from minimum-wage retail positions to high-paid professional jobs. Our ability to understand this growth in the service sector would benefit from breaking out the low-income service jobs from the higher paying ones.

Data on distribution and wholesale jobs in the region should also be analyzed. Charlotte has long been a transportation and distribution hub serving both regional and national clients. Is this sector growing, holding its own or declining? It would also be informative to study business and industry in the region based on the employee size of the company. Large employers tend to have a significant economic impact on the region.

Coupling data on annual payrolls with growth in industry segments would also give us a better idea of our economic strengths and weaknesses related to jobs.

### Environment

Legislation Curbs Negative Impacts, Unhealthy Air Days Decline

With the environment, the indicators in this year's report suggest that the human impact on our air, water and land is varied. The area where we've seen improvement is air quality, which has resulted from the Clean Air Act and complementary actions taken by local and state officials. This result challenges the claim that legislation can't improve environmental conditions.

Within the Metropolitan Statistical Area (MSA), which encompasses many but not all of the counties in the Charlotte region, the percentage of unhealthy air days has declined over the past decade. However, the MSA is still in "Non-Attainment" of the Clean Air Act, partly because the Environmental Protection Agency's criteria have stiffened in recent years. Regardless of the slight improvement in air quality, our air is still not as healthy as it needs to be.

As the region continues to grow, sustained attention on local and state levels will be necessary. Furthermore, because of the global nature of some environmental problems, action at national and international levels will be needed as well. The international Kyoto Protocol, which limits greenhouse gases, is a good example of how global efforts may assist in improving air quality in this country.

### Housing

High Rate of Home Ownership, Apartment Construction Expected

Housing data in the Charlotte region indicate a high rate of home ownership. Nearly 70 percent of the homes in the region are owner-occupied. The for-sale market in the region has cooled in 2007 as credit has tightened because of troubled loans and their impact on financial markets. But as of mid-fall, home prices in the region have remained steady. It is important to continue watching how tighter credit affects the market, especially among first-time buyers with limited resources, many of whom also have poor credit.

I expect to see a rise in apartment construction in the near future. Tighter credit has dampened the condo and townhome market, and the average apartment vacancy rate for six of the region's counties is below 10 percent (6.52 in early 2007). It will be interesting

## Dr. Bill McCoy's Perspective (continued)

to see how apartment construction affects rents, which are relatively low. The average county rent within the region in early 2007 was about $630.

It will also be interesting to see if the boost in apartment construction results in an over-built market in apartments. The region's historic pattern is a cycle of over-building apartments about every 10 years or so, followed by a three or four-year building hiatus while the over-built supply is consumed.

The concern about building relates mainly to Mecklenburg County, where most of region's apartments are located. Counties in the region gaining population are most likely to need additional housing. Yet, residents in suburban and suburbanizing counties historically have fought apartment construction. The county with the highest rate of owner-occupied housing is Union, at 80.5 percent.

The mobile home component of the market — sometimes called manufactured housing — remained steady in the region from 1990 to 2000 at about 12 percent of the housing stock. This percentage of the market will decline as land prices continue to rise. However, in the more rural and poorer counties, mobile homes will make up a significant part of the existing housing stock as well as new housing starts for the foreseeable future.

### Public Safety

Crime Rates Steady, Workplace Safety Benefits from Laws

Public Safety indicators in this report yielded positive results. There's been a negligible increase in calls to 911, a change that can be attributed to population growth. Crime rates have declined since the start of the decade in 2000, with fluctuations in types of crime in the fastest-growing areas.

Workplace safety continues to be good, drawing strength from federal workplace safety mandates enacted in the 1930s with the New Deal and in the 1960s with the creation of the Occupational Safety and Health Administration, best known as "OSHA." Additional federal legislation in the 1960s improved the conditions of textile mills, where hearing loss and brown lung disease were common.

If companies follow state and federal workplace laws, then workplace safety should remain good. The biggest workplace safety problems generally come from employers who don't observe the law, such as occurred with the chicken-plant fire in Hamlet, N.C., which killed 25 people in 1991.

### Social Well-Being

Nearly Half of 65 or Older Residents Need Help, Teen Parenting Drops

The Social Well-Being indicators yielded valuable insights

The elderly-care indicator showed how widespread the need is in our region for assistance among people 65 or over with at least one of the Activities of Daily Living (ADL). Such activities include eating, dressing, bathing, transfers (the ability to get in and out of a bed or chair), ambulation and communications. The data show that nearly half of that age group in the region needs such help. Furthermore, those 85 or older are the fastest-growing sub-set of this group, percentage-wise, and generally have the greatest number of health issues.

These data are also important in light of the strong preference of those 65 or older to "age in place" in their homes, rather than to move to specialized facilities or institutions. It will be significant over time to break out needs by type and severity of ADL, which vary in how critical they are to the individual's well-being.

The biggest victory in the social well-being data is the downward trend in teen births through 2003. All racial groups are experiencing the decline, and all counties in the region but Iredell saw a decline from 2000 through 2003. The decline correlates with increasing economic prosperity in the region. The counties with the highest teen birth rates, Chester and Cleveland, are also among the most economically challenged. Contraception and abstinence education have also played roles in the declining teen birth rate. Of concern is the increase detected from 2003 to 2005 among the region's North Carolina counties (the only counties for which 2004 and 2005 data is currently available.) It's too early to tell whether this is just a "bump in the road" or a signal that new strategies are needed to address teen pregnancies, but it's a trend worth watching closely.

The percentage of individuals living in poverty is a good measure of social well-being. The study showed an increase from 10.9 percent to 13.6 percent when comparing 2000 to 2005. The 2005 figure of nearly 14 percent is in keeping with the long-term trend related to poverty. Regardless of the government policies and programs or community attention focused on the problem to date, the percentage in poverty stays around 15 percent. If this 15 percent could somehow escape poverty, obtain a good education and take advantage of economic opportunities, many issues of social well-being in our region would be eliminated or greatly improved. We'd have a drop in crime, fewer people in jail or homeless, a further decline in teen pregnancy and, in general, a reduced demand on public resources.

I've mentioned more than once the value of conducting an attitudinal and opinion survey with regional residents on variety of topics. Several ideas related

## Dr. Bill McCoy's Perspective (continued)

to social well-being deserve survey consideration. Looking at "trust levels" related to government, among races and in other respects could be illuminating.

### Final Thoughts

The ten theme areas explored in this first-ever Charlotte Regional Indicators Report mark an exciting beginning. The indicators, or metrics, that comprise each topic serve as benchmarks that will allow us to study the successes and failures of our region over time.

Expansion and refinement of this effort will not be easy. Either data are not uniformly kept from state or state, or county to county, or are not available at all. Some data haven't been collected since the 2000 census. As noted previously, some issues are best explored by surveying a representative sample of the adult population — which is planned for the near future.

As we progress through iterations of this Indicators Project in the future, we can expect to further strengthen the indicators by finding new measures, refining existing ones or developing new data sources. In the meantime, this report is a great and valuable start. The effort to launch this project has been sterling.

## Results Overview

The Charlotte Regional Indicators Project measures 54 indicators in ten theme areas: Arts, Recreation and Cultural Life; Economy; Education; Environment; Government and Citizen Participation; Health; Housing; Public Safety; Social Well-Being; and Transportation. Overall, the indicators show the Charlotte region is performing well, but there are challenges to be addressed. Two key observations emerge from the inaugural indicators report: one, population growth in the region is driving a great deal of change; and two, while there are many shared features, many significant differences across the region's counties remain.

Many of the challenges facing the region are the product of a rapidly growing population. As of 2005, the 14-county, two-state region was home to 2.2 million people. The region's population increased by at least 15 percent during every decade from 1960 to 1990. In the 1990s, population increased by 26 percent, and the region added another 200,000 people from 2000 to 2005. Most of this population growth comes from those migrating to the Charlotte region from other parts of the country. The region has also experienced an increase in racial diversity. The region's population will continue to grow – the region is expected to be home to some 3.3 million people by 2030.

Arts and cultural activities in the region appear to be faring well. Per capita grants expenditures on arts and cultural activities have risen. In the face of dramatic population growth, the region's libraries have maintained funding levels, but per capita library print holdings have fallen. The number of students graduating with a degree in the arts has risen, suggesting a promising future for the region's arts and cultural offerings.

The region's economy continues to perform well. The region's workforce has steadily grown, while the unemployment rate in 2006 was lower than that for any year since 2000. The manufacturing industry remains the largest employer in the region, but its dominance has diminished as industries like health care and financial services have increased employment in recent years. Despite population growth, the total number of businesses in the region remained fairly steady from 2000 to 2005, but Mecklenburg County – while still home to the largest percentage of the region's businesses – has lost some of this share in recent years. The average annual wage for the region increased from 2000 to 2005, as did per capita income, which is higher in this region than in either North Carolina or South Carolina as a whole. Median household income has risen in most counties, but most counties in the region also had a lower median household income than their respective state. Closer analysis of economic figures reveals significant differences within the region. Overall labor force figures are strong, but some counties are struggling with unemployment. Similarly, some industries are growing and paying higher wages, while other industries' wage levels have not risen (and in some cases even fallen). Along the same lines, the per capita income and median household income figures together suggest that the region's economic growth has not been distributed evenly.

Education figures also demonstrate the effects of population growth and indicate disparities across the region. For instance, public school enrollment has grown substantially in some school districts, while parts of the region have seen declines in enrollment. The region's newcomers seem to be highly educated, as the region's percentage of college graduates has risen. Nevertheless, of all counties, only Mecklenburg County exceeds the national percentage of workers with a college education. The region's SAT scores have remained relatively constant, at just below the national average. Graduation rates vary widely between school districts, as do students' reported plans for higher education. Per pupil expenditures have risen slightly, but still remain below the national average. In the area of capital expenditures, there are large differences between districts, as those experiencing more enrollment growth spend more.

The region's environment has also been affected by population growth. While growth has had an undeniable impact on the region, for some indicators the region has experienced a reduction in the average impact per person. The Air Quality Index has recorded fewer unhealthy days over the last decade. Average water consumption per person, too, has declined – an important trend in light of the recent drought, yet with population growth even more conservation will be required. In contrast, the average amount of solid waste discarded per person has risen in the region. The region's population growth has been accompanied by an increase in the amount of land converted from natural or agricultural uses to development. Nevertheless, preliminary data from a UNC Charlotte study show an encouraging trend: the amount of developed land per person has fallen slightly in Mecklenburg and Union counties, even as it has increased slightly in Cabarrus County. (Data for the region's remaining counties is anticipated in early Spring of 2008.)

Measures of government and citizen participation focused on voter participation and charitable activity in the region. Voter turnout in the region was consistent with levels for North Carolina as a whole, but lower than turnout rates in South Carolina. As expected, turnout was higher in years including a presidential election. The region's number of public charities rose from 2004 to 2007, but the number of such organizations reporting income of $25,000 or more fell during that

## Results Overview (continued)

time period. The number of private foundations in the region fell sharply from 2004 to 2007. Per capita giving to both public charities and private foundations remained relatively stable from 2001 to 2004, although per capita giving to public charities was lower in the region than in North Carolina (and a littler higher than in South Carolina) as a whole and per capita giving to private foundations was higher than in North Carolina or South Carolina.

Data regarding the health of the region's population reveal some troubling disparities within the region. The region's birth rate is stable at a level just above the state averages. The infant mortality rate for the region is slightly higher than that for North Carolina. But the minority infant mortality rate is much higher than the infant mortality rate for the white population. The overall mortality rate for the region is higher than the mortality rates of either North Carolina or South Carolina, but the mortality rates associated with heart disease and cancer have both declined in recent years. The region's suicide rate is higher than either state's rate, and within the region there are large variations in the suicide rate across counties. The rates of incidence for the sexually transmitted diseases gonorrhea and chlamydia have risen in recent years, but the STD rates in the region are lower than the rates for either state.

Trends in the region's housing supply and markets also reflect population growth. From 2000 to 2005, the number of housing units in the region increased at a rate faster than population growth. The mix of housing did not change much from 1990 to 2000 – single-family homes predominate, followed by multifamily housing and then mobile homes. The region's home ownership rate is in line with state figures and remained stable from 1990 to 2000. New home construction in the region varied a little from 2000 to 2006, but there were significant differences across the counties. The average cost of new construction increased every year from 2000 to 2006. Home sales in the region increased from 2005 to 2006, but per capita closings were down in the first quarter of 2007 (as compared to the first quarter of 2006). The average sales price rose from 2005 to 2006, but once again, there were large disparities between the counties of the region. Apartment vacancy rates rose from 2000 to 2002, but fell from then until 2006. The average rental rate has risen and fallen since 2000, but is most recently on an upward trend.

Indicators of the region's public safety show some positive trends. The average crime index for counties in the region has fallen since 2000. The number of people involved in motor vehicle accidents decreased, as did the number of investigated workplace fatalities in the region. Many of the region's educational institutions offer degrees related to public safety. And all counties have engaged in some degree of emergency planning. The data also show that the number of 911 calls per person increased slightly from 2005 to 2006. The number of people involved in fatal motor vehicle accidents also increased.

The social well-being theme area consists of indicators used to understand the status of some of the most vulnerable members of the region's population. The region's individual, family and child poverty rates all increased during the time period studied. The child poverty rate increased faster for the region than for either North Carolina or South Carolina. The percentage of substantiated reports of child abuse varied across counties. The teenage birth rate declined in the region from 2000 to 2003, but increased in the North Carolina counties from 2003 to 2005 (figures for South Carolina from 2003 to 2005 were unavailable). Another challenge for the region identified in the report is providing care for the significant percentage of people 65 or older who need assistance with daily activities.

The measures of the region's major modes of transportation show mixed results. The percentage of workers commuting 25 minutes or more has increased sharply since 1990, but decreased slightly from 2000 to 2005. Congestion has worsened, with the average annual delay per peak traveler nearly doubled from 1995 to 2005. Despite the increased congestion, the percentage of workers commuting alone remained steady from 2000 to 2005. With regard to airline travel, the number of enplanements and deplanements at Charlotte-Douglas International Airport has risen substantially since 2000.

The data contained in the Charlotte Regional Indicators Report offer great insight into the region's successes and challenges. Its findings are neither uniformly good nor all bad. Rather, the Report paints a complex portrait of the region, highlighting both exciting opportunities and troubling trends and providing plenty of information for further discussion and action.

## Demographics

### Population Growth Dominates Demographics Story in Charlotte Region

Home to more than 2.2 million people in 2005, the Charlotte region consists of 14 counties in North and South Carolina. The counties are Anson, Cabarrus, Catawba, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly and Union in North Carolina, and Chester, Lancaster and York in South Carolina.

Of those 2.2 million people, nearly 800,000 live in the core urban county of Mecklenburg and the highest growth counties are suburban ring counties.

The region is characterized by population growth that has continued since 1960. The population has risen by nearly 200,000 people every decade since the 1960s, with the figure increasing to 400,000 in the 1990s. This trend has continued into the current decade, with the region adding approximately 200,000 people from 2000 to 2005.

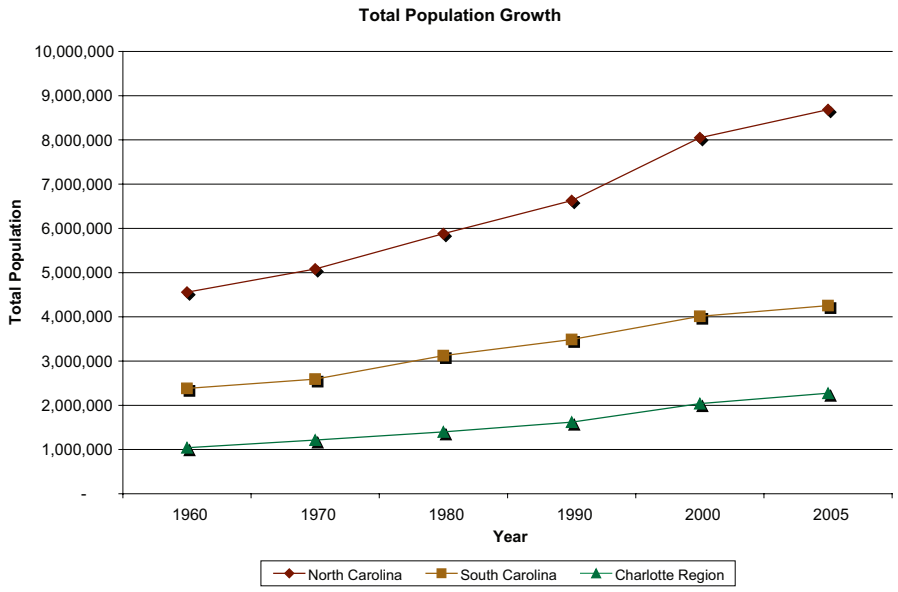
It's also important to examine this population growth in terms of percent change over time. The region's number of residents grew by 15 percent or more in each decade from the 1960s to 1990 and nearly 26 percent during the 1990s. The number has grown by 11.5 percent from in the first half of the current decade (from 2000 through 2005.) Except for the 1970s, the region has increased in population at a faster rate than North and South Carolina, as well as the United States.

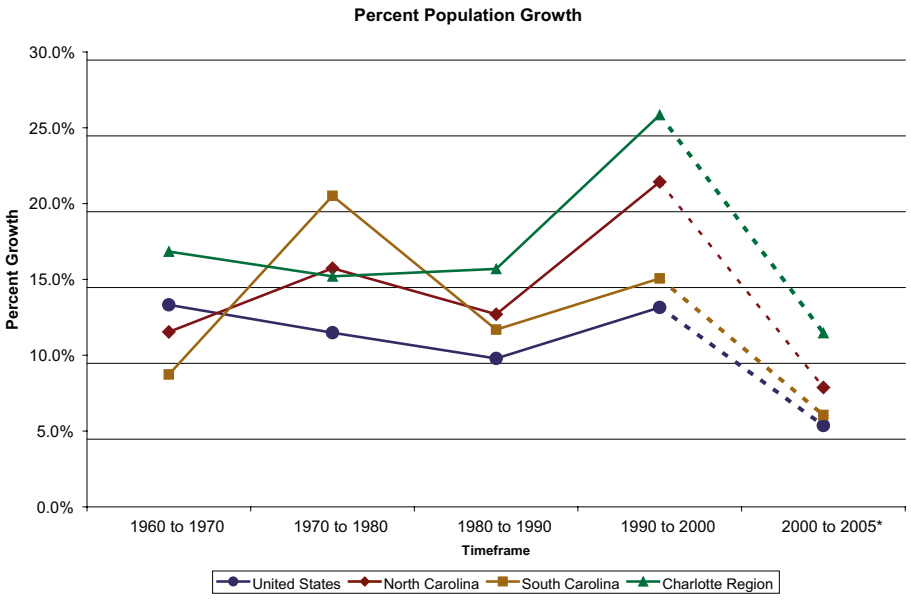
The Charlotte region's growth is consistent with other fast-growing regions. An increasing number of young professionals continue to move to the area for employment or to take advantage of the region's economic prosperity.

Most of the population growth can be attributed to migration rather than birth rates. Of the more than 200,000 boost in population from 2000 to 2005, nearly 68 percent came from migration. Migration from within the United States accounted for 49 percent of the total population change, while international immigration accounted for 19 percent.

Similarly from 1990 to 1999, of the more than 300,000 increase in population, the population change attributable to migration was over 67 percent, but a much larger component of that change was from domestic migration – 62 percent. International immigration has increased from 5 percent of the total population change from 1990 to 1999 to 19 percent from 2000 to 2005. The Charlotte region is clearly a destination for people from around the country and, increasingly, from around the world.

The rise in population has increased the diversity of the region. While the majority of the population continues to



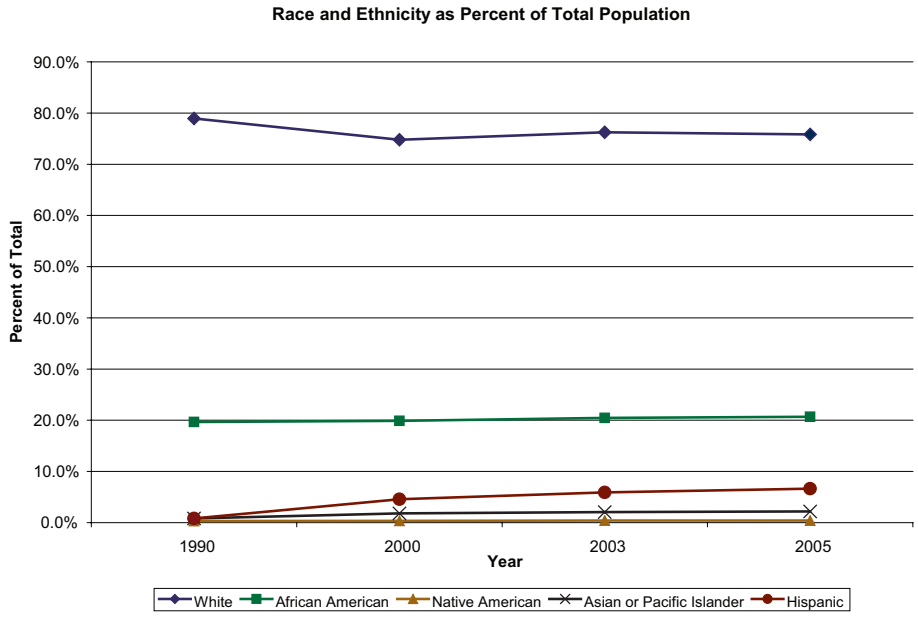



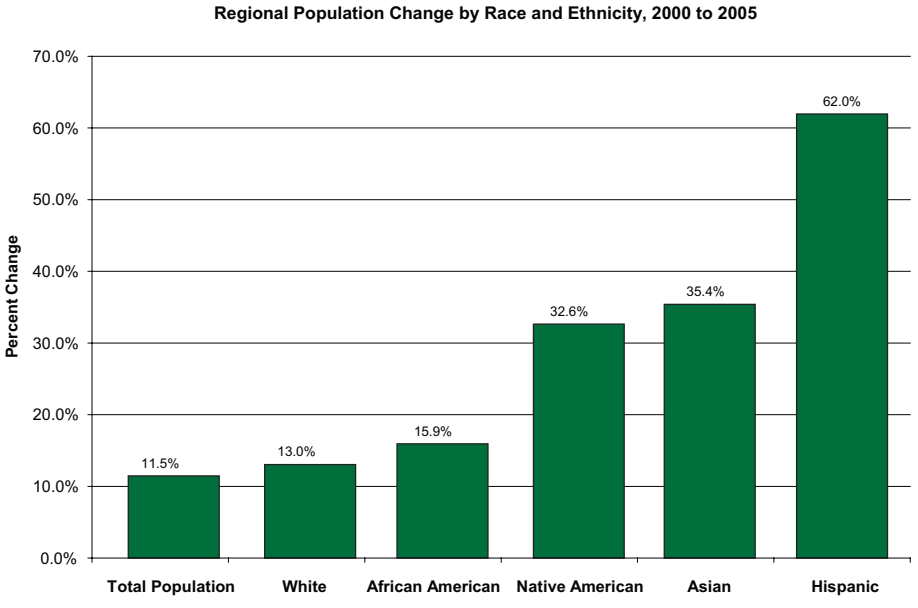

** Last time period represents five years*

## Demographics (continued)

be white, the region has experienced a steady increase in minority populations. Latino population growth is without a doubt the fastest-growing population segment in the Charlotte region. From 2000 through 2005, the Latino population expanded by an astonishing 62 percent, from 93,274 to 151,067. But, the percentage of Latinos within the population is still small, at 6.6 percent in 2005.

The Charlotte region's racial and ethnic composition has become more diverse since 1990. Representing over 75 percent of the population in 2005, whites are the largest group. But that 75 percent represents a decrease from 79 percent in 1990. African Americans have remained at around 20 percent of the population since 1990, with a slight increase since that time.




Native Americans continue to represent less than one percent of the population. Asian and Pacific Islanders comprised slightly more than two percent of the population in 2005, up from less than one percent in 1990. Latinos have shown the greatest increase in the last 15 years, growing from less than one percent of the population in 1990 to 6.6 percent in 2005.

The region's age distribution is consistent with the national trend of an aging population, and is similar in composition with other growing regions. The region has a healthy and vibrant middle-age population, which is driving both population and economic growth.

The increased workforce is associated with an increase in the number of children. The correlation exists because the majority of those who migrate to the region are people in their prime child-bearing years who already have children or are planning to have them. The needs of an aging population must also be taken into consideration as a large portion of the population nears retirement age.

The portion of the populace nearing retirement, ages 45 to 64, has consistently increased since 1990. The middle-age population, ages 25 to 44, has remained fairly constant since 1990. The dependent populations, ages 24 and under and 65 and over, have also remained fairly constant since 1990.

Based on county population projections from the two states' demographers, the population growth of the region is projected to maintain pace with past increases — with a projected population of over 3.3 million in 2030 and nearly 1.3 million of those people residing in Mecklenburg County.

The population is projected to increase by nearly 400,000 people from 2000 to 2010, and, according to 2005 population

## Demographics (continued)

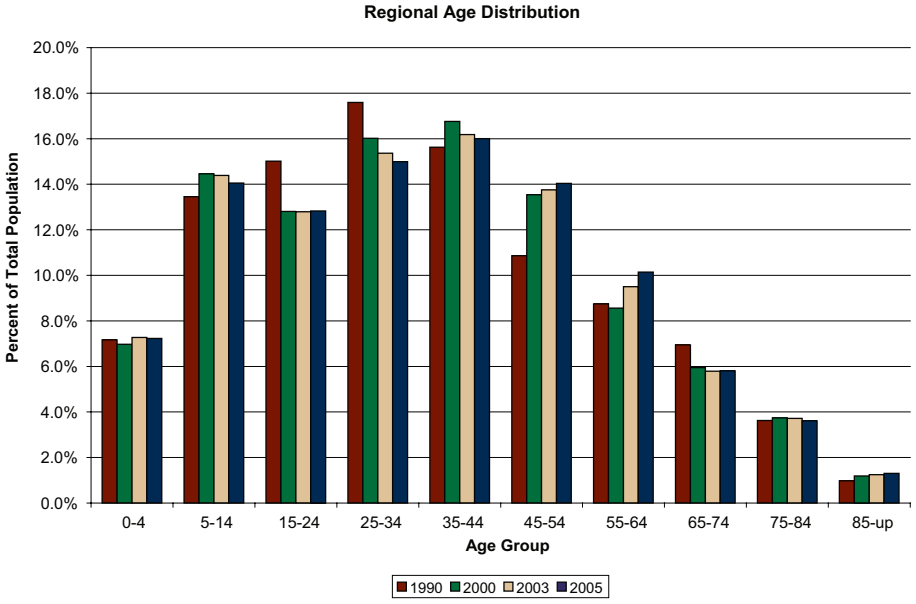
estimates from the U.S. Census, the region is on pace with that projection, having added more than 200,000 people from 2000 through 2005. Also, the region is projected to continue this growth by adding 400,000 people in each of the next two decades.

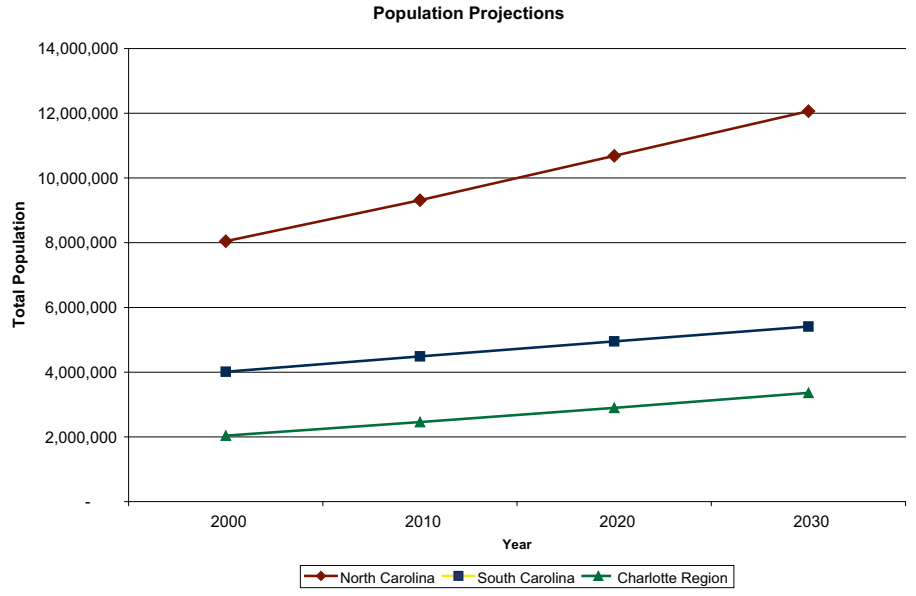
Projections call for the region to gain inhabitants at a greater rate than North and South Carolina as well as the United States. The highest projected growth counties are the core county of Mecklenburg as well as Union, Cabarrus, Iredell, Lincoln, Lancaster and York.

Continued population growth of the Charlotte region has provided opportunities for established residents and newcomers alike. Rising population has been associated with ongoing economic growth and prosperity, and the corporate and business community is flourishing.

The challenge for the region lies in managing this growth in a manner that not only maintains but improves the quality of life for residents. The region must directly meet these challenges to provide adequate public services that meet the economic, social and environmental requirements necessary for a healthy community.

Planning and management of projected growth are necessary to maintain a desirable quality of life.



# Arts, Recreation and Cultural Life

## Overview

### Scope

This year's study focuses on the investment in arts and cultural institutions by state and federal governments, local government investment in public libraries and the number of arts, music and theater graduates from institutions of higher education in the region.

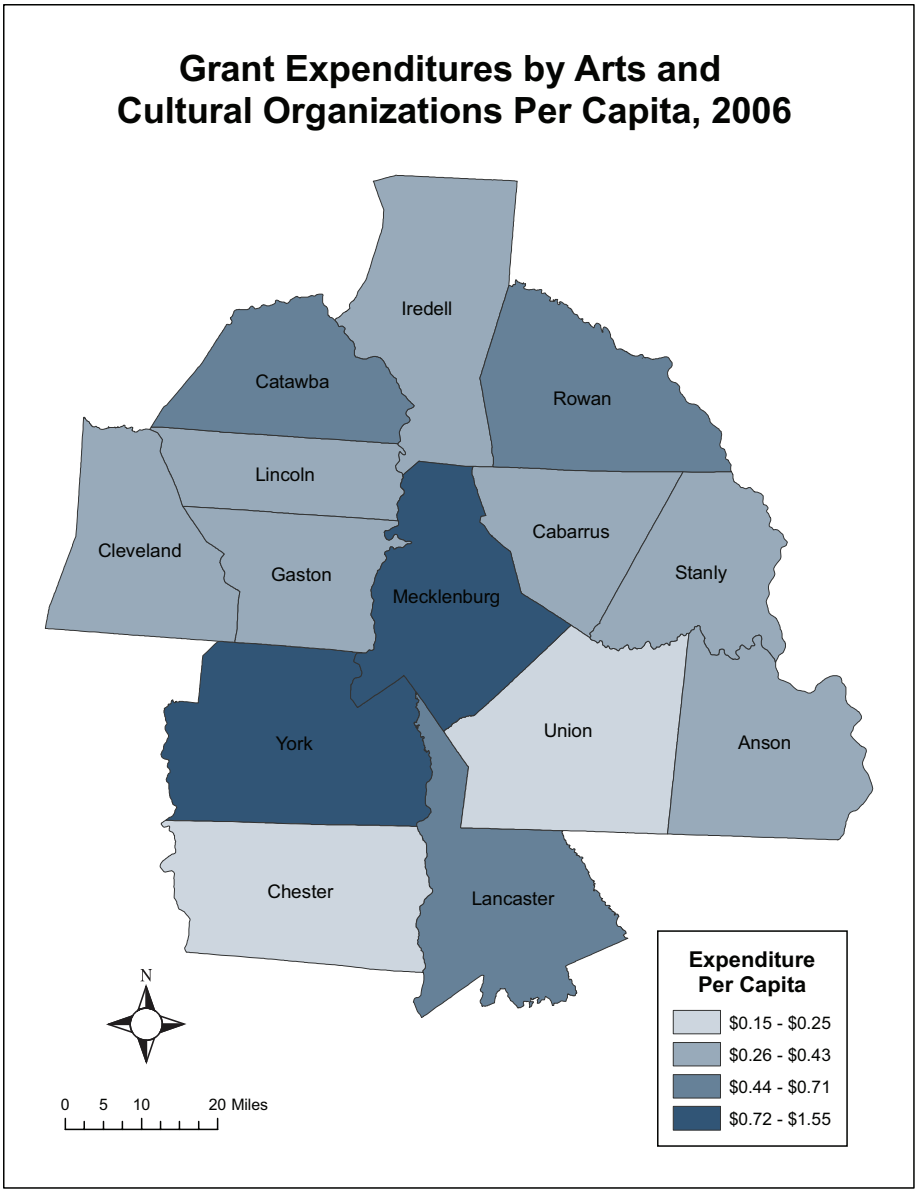
In future years, the authors plan to include indicators related to recreation as well as to sporting events, city festivals and major cultural events. For a broader look at future considerations, see the "Missing and Future Indicators" section in this report.

### Regional Context

Historically, arts, recreation and cultural life have played an important role in the lives of regional residents, even if public funding of such activities has varied greatly from town to town and county to county.

While the urban center of the region, Charlotte-Mecklenburg, has developed the largest cadre of institutions over time, many small towns and rural areas have deep cultural roots that continue to affect life in the region. Examples include the making of pottery and furniture in the Catawba Valley, the importance of bluegrass and other traditional music in many regional locales, and the popularity of community baseball and softball leagues going back 100 years.

The region is home to the oldest art museum in the state. The Mint Museum of Art in Charlotte opened to the public during the Great Depression, on October 22, 1936. Theatre Charlotte is celebrating its 80th anniversary with the 2007-08 season, and the Charlotte Symphony is recognizing its 75th anniversary in 2007.




*See page 20 for additional information on this indicator*

Given the longevity of such organizations, it's not surprising that Charlotte-Mecklenburg emerged over the last 30 years as the arts and cultural hub for the region. While many counties struggle to underwrite arts activities, Charlotte-Mecklenburg has the highest per capita giving to a united fund drive in the United States. It also has the highest per capita public investment in arts and culture in North Carolina. Currently, Charlotte-Mecklenburg is investing more than $300 million in public funding of capital projects for arts and culture.

But notable activities are occurring outside the urban core as well. The Hickory Museum of Art is the second-oldest art museum in the state, founded in 1943. It preceded the North Carolina Museum of Art, which opened in 1946. Shelby is trying to leverage heritage and culture as a major economic development tool. The Daniel Stowe Botanical Garden in

## Overview (continued)

Gaston County is becoming known as one of the finest botanical gardens in the Southeast. Unity Place, also in Gaston County, houses one of the county's oldest African-American religious communities and is a hub for arts throughout the county.

Salisbury, long a supporter of historic preservation and the arts, is developing a new cultural action plan, while Hickory's Catawba Science Center has a new planetarium and aquarium.

Among sporting events, many college and high school teams have fan followings that date back to the first half of the 20th century. Pro sports are a newer phenomenon in the region, with two major stock-car races each year in Concord, short-track races there and in Hickory and NFL football and NBA basketball teams based in Charlotte.

Charlotte will also be home to the NASCAR Hall of Fame (currently under construction) and annually hosts a stop on the men's pro golf tour.

The expansion of arts, recreation and cultural activities has paralleled the growth of the region. Many new residents, especially over the last 20 years, have come from areas rich in such pursuits. They expect a diversity of high-quality offerings close to where they live. Organizations have responded to this impetus — as well as to the interests of many longtime residents — by providing more plays, concerts, performances, exhibits, games, tournaments, etc. than the region has ever offered.

### Summary of Indicator Results

On the three areas examined, the region is faring well.

The region saw a rise in per capita expenditures (from state and federal grants) on arts and cultural activities from 2005 to 2006. The strength of this regional indicator shows that state and federal governments recognize the importance of cultural offerings to a healthy and vibrant region.

With investments in public libraries, the study found that the region is holding its own in the face of population increases. Not only is per capita spending on printed library materials keeping pace with growth, but so is spending on facilities and staff. These investments help ensure that regional residents who otherwise would not have access to literature, arts, reference works and periodicals can obtain such materials.

In looking at graduates in art, music and theater from regional institutions of higher education, the study found an increase in numbers each year from 2002 through 2005. Beyond reflecting a growing demand for these degrees, the upward trend adds to the cultural life of the region.
Many of these graduates will stay in the area, giving the region more people who appreciate and understand the importance of the arts. The graduates also provide the region with more talent and growth potential for arts and cultural institutions.

### Missing and Future Indicators

A lack of good data sources precluded information in this year's report on parks and recreation, recreation acreage per capita and private investment (per capita) in parks and recreation, arts and culture and libraries.

Data were also unavailable for tracking attendance and other aspects of major cultural events, city festivals and celebrations and sporting events.

Figures for the number of federal and state historic preservation tax-credit projects and dollar amounts available to such projects were not available on a yearly basis for this report, but may be available in the future.

In future reports, the authors want to add an indicator addressing local governments' funding of the arts and culture, recreation and historic preservation. The authors would also like to measure electronic holdings of the region's libraries.

*See page 134 for Arts, Recreation, and Cultural Life indicator data sources*

## Grants Expenditures

### What's Measured

This report examines state and federal appropriations awarded to arts and cultural organizations in the region through the North Carolina Arts Council and the South Carolina Arts Commission, which are the sources for this indicator's data. These numbers represent grant expenditures (that is, grant dollars spent and not grant dollars awarded) by arts and cultural organizations. Some private funds may be included in the amounts, but the numbers do not represent significant private funds or other sources of funding not awarded by the arts councils.

Grants from counties and municipalities are not included. The inclusion of such funds can greatly change grant expenditures because some counties and municipalities don't fund the arts while others do in a significant way.

Per capita numbers were calculated using the U.S. Census Bureau's annual population estimates.

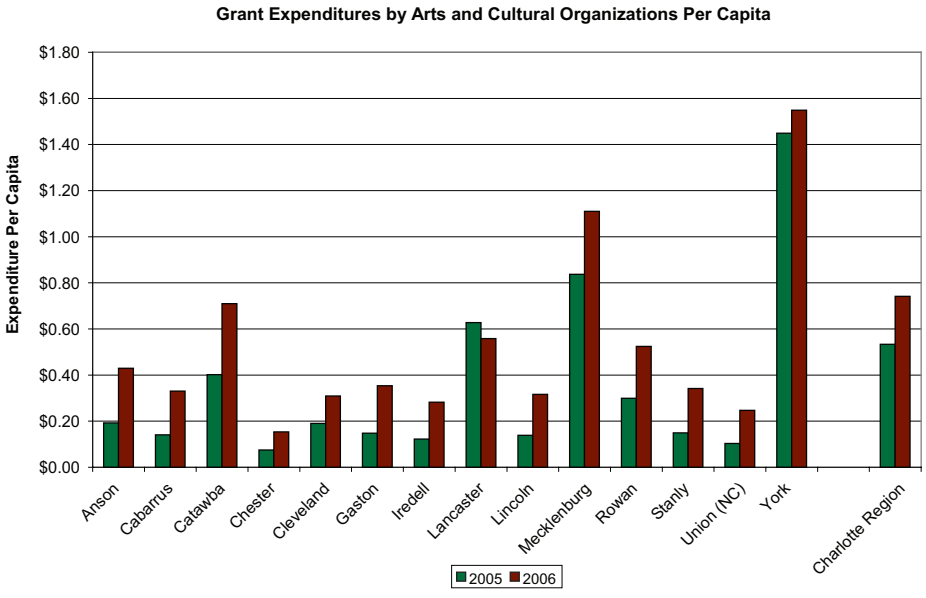
### Why It's Measured

Grant expenditures by arts and cultural organizations from state and federal appropriations indicate government support of these institutions. Using per capita numbers allows observers to see if government funding is maintained as the population increases and to recognize variances among counties.

Arts and cultural organizations provide the public with access to cultural resources. Government support for these organizations offers much-needed funding for services that many people view as an asset to the region, in terms of entertainment, tourism and economic development.

### Indicator Results

Grant expenditures per capita increased for the Charlotte region from $0.53 in 2005 to $0.74 in 2006, with total grant expenditures rising from $1,212,023 to $1,738,924 during the period. York County posted the highest grant expenditures per capita, at $1.45 in 2005 and $1.55 in 2006. Chester County had the lowest grants per capita, at $0.08 in 2005 and $0.15 in 2006.




A portion of the increases in the region's North Carolina counties between 2005 and 2006 can be attributed to an increased appropriation from the state for the state's Grassroots Arts Program, which allocates funds to all 100 counties using a per capita based formula.

### Evaluation

With the exception of Lancaster County, all counties in the region increased their per capita spending from 2005 to 2006. The Charlotte region's increase in grant expenditures shows state and federal governments' recognition of the importance of the arts and their willingness to continue funding arts and cultural organizations.

With more funding, arts and cultural organizations can continue to grow and provide residents with cultural offerings that many consider essential to a healthy and vibrant region.

### Connections

Arts and cultural organizations connect with many facets of the region, including economic development, cultural appreciation and quality of life. Many arts and cultural organizations attract local residents as well as visitors. Visitors view the region as a destination and take advantage of other regional opportunities offered as well.

## Library Holdings

### What's Measured

The study looks at public library print holdings and print serial subscriptions and does not include electronic documents. The Library Research Center is the source for the data, through the Public Library Survey by the National Center for Education Statistics.

Per capita numbers were calculated using the U.S. Census Bureau's annual population estimates. Anson County is not included because it is a member of the Sandhill Regional Library System, which covers five counties. Lincoln and Gaston counties are reported together because they have a combined Gaston-Lincoln Regional Library. Per capita numbers use the combined population of Gaston and Lincoln counties.

### Why It's Measured

The number of public library print holdings serves as a measure of library service. Using per capita numbers allows observers to see if libraries are expanding to keep pace with population increases.

Focusing on print holdings and excluding electronic resources was intentional. It was an effort to highlight the importance of printed materials, given that exposure to printed materials is waning as electronic media gain in popularity.

### Indicator Results

The Charlotte region's public libraries maintained an average of 1.8 holdings per capita in 2003 and 2004, following a slight drop from 1.9 holdings per capita in 2002. Most counties have increased total print holdings, but population increases in the region have kept the per capita number consistent.

The Charlotte region lags behind the state per capita numbers of 1.9 holdings in North Carolina and 2.1 holdings in South Carolina. Per capita holdings by county ranged from a high of 2.7 in Chester County to a low of 1.3 in Union County.

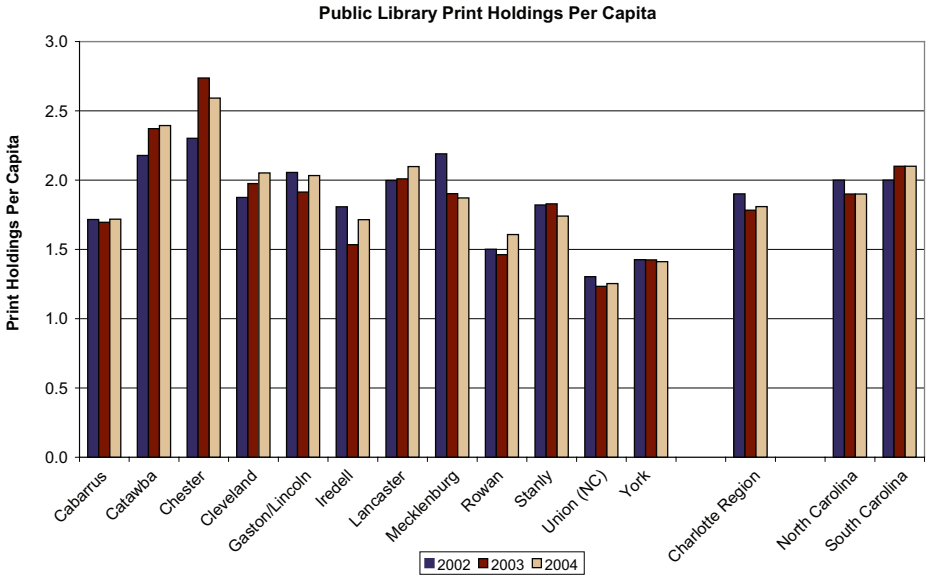
### Evaluation

With its print holdings, the Charlotte region is keeping pace with population increases. Maintaining this service has become increasingly difficult not only with population increases but with the growth of electronic media as well.

From a cultural and civic standpoint, libraries need to maintain this level of service so that residents continue to have access to literature, arts, reference works and periodicals. Although the amount and breadth of content of electronic media are ever increasing, the printed word remains one of the most influential artistic and cultural outlets.

### Connections

Public library print holdings have broad implications — from access to information to the appreciation of past, present and future printed material. Public libraries provide much of the population with access to information that they would otherwise be unable to obtain, particularly material in print form. The significance of written material is sometimes lost in an electronic age, underscoring the importance of maintaining a collection of printed material that is accessible to the region.



## Library Funding

### What's Measured

The report gauges government funding for public libraries as reported by the North Carolina Department of State Treasurer and the South Carolina State Budget and Control Board. Funding includes financial details associated with salaries and wages, construction, purchase of materials and other direct costs. This indicator includes public libraries operated by counties or cities and excludes libraries at state universities or colleges.

Per capita numbers were calculated using the U.S. Census Bureau's annual population estimates. South Carolina no longer collects detailed library funding information from its counties, meaning that results for 2006 were not available.

### Why It's Measured

Government funding for libraries per capita provides a measure of government support of libraries. The use of per capita figures spotlights how governments are responding to population increases and shows the varied nature of funding across counties.

Libraries are a means of disseminating information to all residents of the region. In some instances, libraries are the only resource available for literature, periodicals, computer access and reference material. Continued funding is essential to maintaining a service many residents rely on.

### Indicator Results

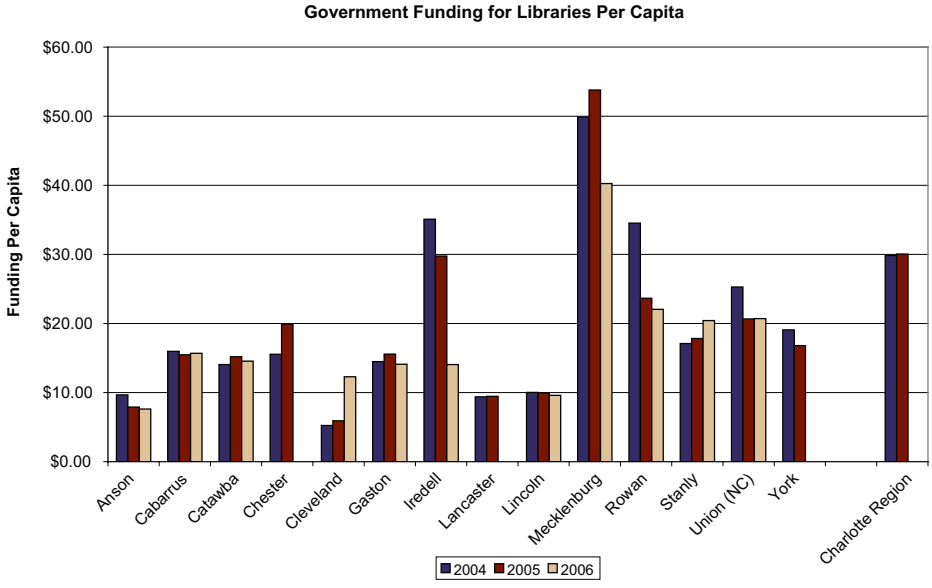
Funding for libraries in the Charlotte region as a whole has remained steady at $29.83 per capita in 2004 and $30.04 per capita in 2005. At the county level, funding has varied since 2004, with Anson, Iredell, Mecklenburg, Rowan and York counties showing a decrease. Chester, Cleveland and Stanly counties have shown an increase. Cabarrus, Catawba, Gaston, Lancaster, Lincoln and Union have remained steady.

### Evaluation

Maintaining funding for libraries is essential to providing an important service to regional residents. Library funding has remained in step with population increases. Steep increases in funding by some counties may be attributed to construction of new facilities, demonstrating a willingness to upgrade or expand buildings. Such expansion and improvement of facilities as well as increases in funding allow the region to continue offering a valuable resource.

### Connections

Government funding for libraries can be associated with many aspects of a region's quality of life. Libraries disseminate information to people from all walks of life and, for some people, are the only source for this information. A library's ability to provide such information is essential to educating and exposing residents to material they would otherwise not have the ability to obtain. Libraries also serve as a meeting place for people to engage in conversation about the library's many offerings as well as to interact socially.



## Arts Graduates

### What We Measure

The study targeted the annual number of undergraduate and graduate degree completions in the arts, music and theater from all institutions of higher education in the region, including private and public universities, technical and community colleges and other colleges. The National Center for Education Statistics provided the data.

### Why We Measure It

Increasing the number of degree completions in the arts, music and theater provides opportunities to broaden the cultural vitality of the region. Also, as the number of graduates increases, art, music and theater appreciation throughout the region increases, providing the region a solid foundation for continued cultural growth and understanding.

### Indicator Results

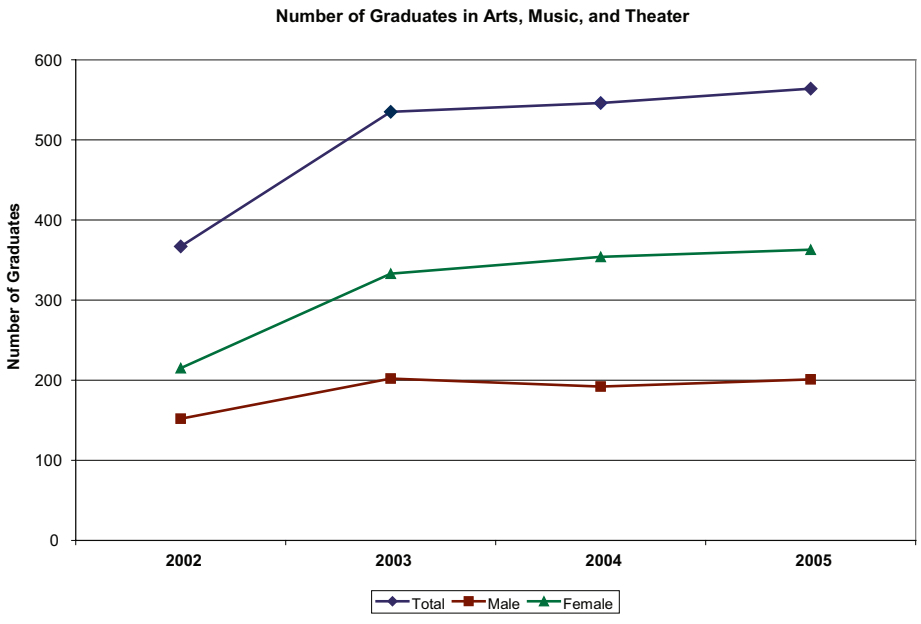
The number of graduates in these fields has increased in the Charlotte region between 2002 and 2005, from 367 to 564. The rise holds for both female and males students: female graduates increased from 215 to 363 and male graduates grew from 152 to 201 in that same time period. There was, however, a slight decrease in male graduates between 2003 and 2004 (from 202 graduates to 192).

### Evaluation

The Charlotte region's increase in arts, music and theater graduates reflects the growth of arts instruction at regional higher-education institutions, as well as a growing demand for arts degrees and programs. The higher number of degree completions also adds greater depth to the cultural life of the region, giving more residents a greater appreciation and understanding of the arts.

### Connections

Increases in arts, music, and theater graduates offer much to the region in terms of entertainment, tourism and cultural appreciation. These graduates increase the supply of talented artists who can contribute to the region's arts and cultural groups. This increased supply of artists tends to spur more outlets of artistic expression.



# Economy

## Overview

### Scope

Activities related to the production and distribution of goods and services in a particular geographic area constitute its "economy." The economy of the Charlotte region has evolved from one strongly based on textiles and manufacturing into one with a more diverse and well-distributed base.

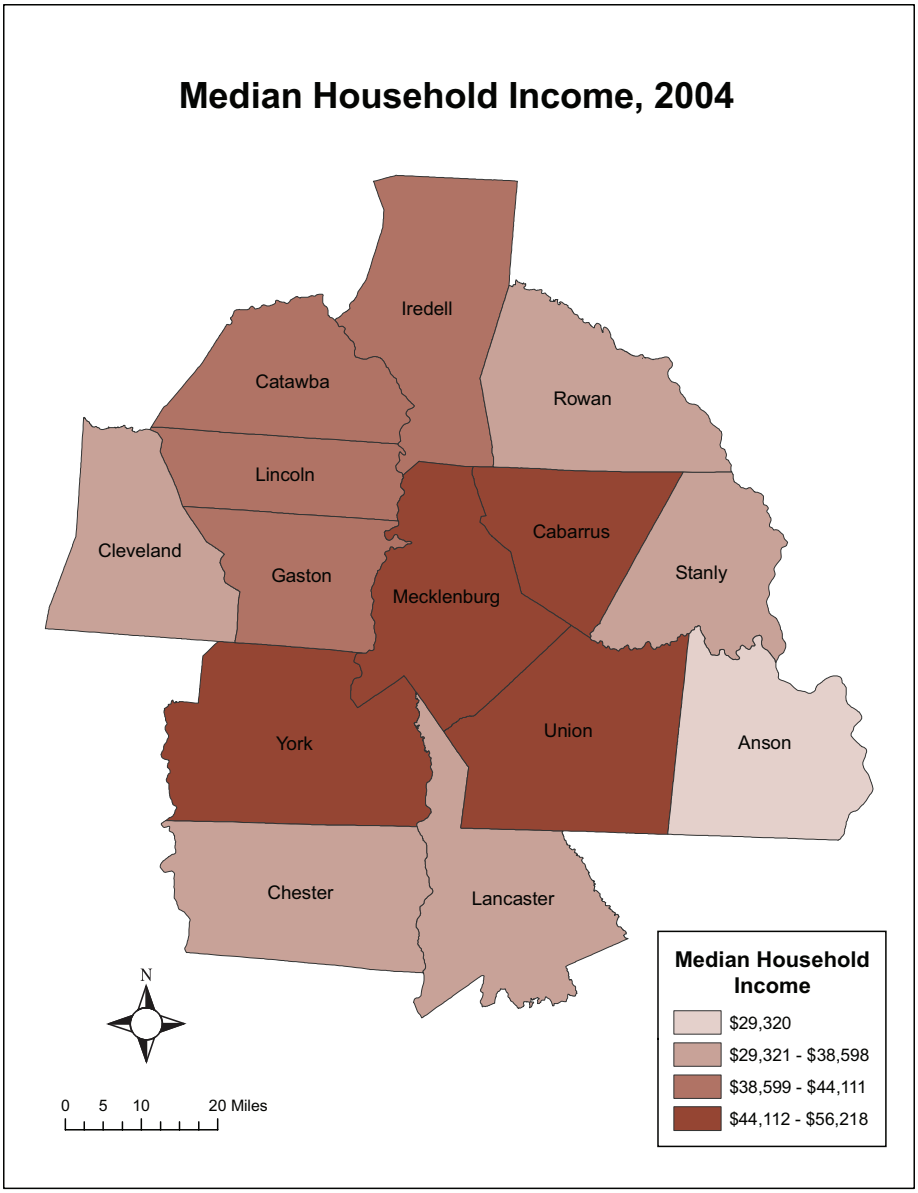
The area's economy is well-represented in industries as varied as banking and finance, tourism, motorsports, retail, information, health care and education. This diversity of employment has protected the area from downturns in the economy when other places have seen job layoffs and high unemployment.

The indicators in this report are employment (measures of persons working or looking for work, such as the civilian labor force, employment, unemployment, and the unemployment rate), employment by industry (a measure of jobs), average annual wage by industry, number of establishments by industry, per capita income and median household income.

### Regional Context

A downturn or upturn in the economy can dramatically change other indicators in this report. Changes in other indicators can similarly affect the economy. The closing of a major business can spur people to move out of the area, while a thriving economy can draw people from across the country, increasing the population. Arts and cultural activities may see a decrease in contributions when the economy struggles, while a booming economy may boost donations.

Education and the economy have a symbiotic relationship. If there is not an educated workforce, the economy will suffer, and if the economy suffers, the education system suffers. There has long been an argument that environmental regulations slow economic growth; however, with air and water quality gaining importance, regional initiatives are showing the two areas can work in harmony. A stable economy can support government activities and encourage residents' participation in the community.




*See page 35 for additional information on this indicator*

A downturn in the economy can lead to lower incomes, a decline in health, more homelessness and deterioration of social well-being, such as more crime and public safety problems. A poor economy means less money being spent, less money available for taxes (government) and thus less money for government services such as roads and improvements (transportation).

The economy cuts across all the other themes in the Charlotte Regional Indicator Project: arts and cultural life, education, environment, government and citizen participation, health,

## Overview (continued)

housing, public safety, social well-being and transportation.

### Summary of Indicator Results

The overall employment picture for the Charlotte region has shone brightly since the early 1990s. Both wages and per capita income have steadily risen. Per capita income in 1990 was $18,641, while in 2005 it was 80 percent higher, at $33,639.

The region's labor force also has grown dramatically. In 2006, the labor force was a third larger than it was in 1990 — increasing from 911,385 to over 1.2 million. Unemployment rates peaked in 2003 at 6.8, dropping since then to 5.1 in 2006.

Employers in Mecklenburg County pay the highest average annual wages in the region, and the industries with the highest wages in the region are "Utilities" and "Management of companies and enterprises" (businesses that manage other companies). The lowest wages are in "Accommodations and food services" and "Retail trade." "Finance and Insurance" ranks fourth in average annual wages in the region, with an average annual wage of $42,114 in 2005.

A great disparity exists, though, for median household income per county. In 2004, the highest median household income for the region was Union County at $56,218, and the lowest, Anson at $29,320.

Though "Manufacturing" as a category declined relative to other job categories over the six years studied (2000 through 2005), it remains strong in the Charlotte region, representing 15.2 percent of all employment, the highest percentage of jobs for any industry category.

As manufacturing's share of jobs has diminished, two categories that have seen significant gains are "Finance and insurance" and "Health care and social assistance," currently at 5.8 percent and 10.4 percent of all jobs, respectively. Both categories are part of the service sector. This rise in the service sector is also borne out by the data on establishments by industry.

So even as employment has been strong in the region from 2000 through 2005, the mix of jobs and industries is changing. If manufacturing continues to shed jobs, the region will need to focus on creating jobs in other industries.

### Missing and Future Indicators

The report's authors considered several other indicators but didn't include them due to priorities among indicators, data availability and time constraints. The economic impact of travel was a low priority in light of other indicators, while a "New Economy Index" was not available on a county basis (only statewide). The report's authors also found data difficult to gather on two key topics they hope to include in future reports: purchasing power and the economy of the older population.

Other indicators worthy of examination for future inclusion include measures of venture capital, entrepreneurship and occupational trends and projections.

Perhaps a regional index could be created to track venture capital and entrepreneurship, given that the only data found to date is on the state level. With occupational trends and projections, the only data found relate to North Carolina workforce development and are not broken out by county.

A major need exists for better comparisons of data across state lines. The 14-county Charlotte region is unique because it does not match any other geographic footprint, such as the Metropolitan Statistical Area or a Combined Statistical Area. The region also crosses state lines, making county comparisons difficult unless the data is available on a federal basis.

*See page 134 for Economy indicator data sources*

## Labor Force

### What's Measured

This measure focuses on the size and work status of the civilian labor force — numbers employed and unemployed and the unemployment rate for each county, the region and the Combined Statistical Area for 1990, 1995 and 2000 to 2006. (Note that the term "civilian workforce" includes members of the military.) Data for this indicator are from the Bureau of Labor Statistics.

These data look at the work status of people who live in the region. These figures do not provide information about the number of jobs in the region. Other indicators such as employment by industry, average annual wage by industry and number of business establishments help gauge the number of jobs in the region. Thus, the size of the civilian workforce is not the same as total employment by industry and the two figures are not directly comparable.

### Why It's Measured

Measurements of the labor force and its employment status are critical to understanding the viability of the region's economy. The civilian workforce measures how many people are working or looking for work. The labor force employment numbers indicate how many people have jobs. Unemployment figures, in contrast, suggest how many people are not currently working but are looking for employment. And the unemployment rate is a simple ratio of the number of unemployed to the total civilian workforce. A healthy economy should have high levels of labor force employment and a low unemployment rate.

### Indicator Results

In 2006, the Charlotte region had a workforce of 1,215,110, up 9.9 percent from 2000. The number of those employed was 1,153,366, which was an 8.1 percent increase from the 1,066,633 employed in 2000. Not surprisingly, then, the number of people unemployed increased by 58.4 percent from 2000, with 38,980 unemployed, to 2006, when 61,744 people were looking for work.

This put the region's unemployment rate at 5.1 percent for 2006. While this rate was higher than the rate in 2000 of 3.5 percent, the 2006 unemployment rate for the region was lower than the rate for any year since 2000. The region's unemployment rate is higher than North Carolina's rate (4.8 percent), but lower than South Carolina's (6.5).

Within the region, most counties saw an increase in their workforces from 2000 through 2006, with Union County experiencing the largest increase at 28.4 percent. Labor force employment likely is up in the region due in part to population increases and in part to an increase in the average number of people per household who are working.

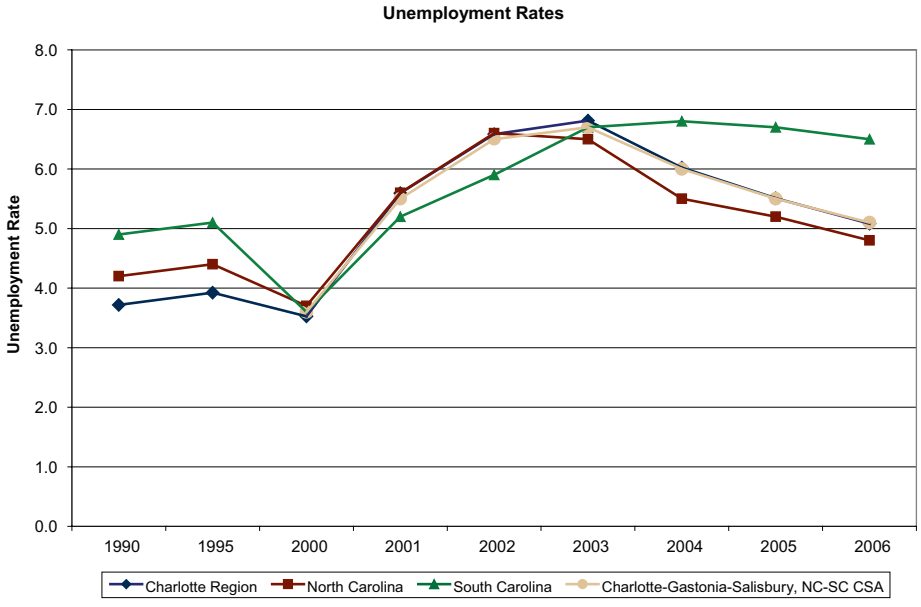
With regard to 2006 unemployment rates, Cabarrus and Union Counties had the lowest unemployment rates (4.1 percent and 4.0 percent, respectively) and Chester County had the highest unemployment rate (10.3 percent).

### Evaluation

Almost every county in the region experienced an increase in its unemployment rate from 2000 to 2002. During this time the country was reeling from the 9/11 terrorist attacks, which caused many businesses to be more cautious in expansions and production. Since 2003 and 2004, most counties have seen a drop in unemployment rates.

But even as regional unemployment rates have fallen and total workforce numbers have risen for the region, half of the region's counties — especially more rural counties — have seen a drop in total workforce numbers. This suggests that some county economies have recovered faster than others since 2001 and 2002.

In many cases, the counties who have experienced falling workforce numbers still have the highest unemployment rates in the region. For example, Anson, Catawba, Gaston, Cleveland and Chester saw workforce declines of 2.1



## Labor Force (continued)

### County Unemployment Rates

| | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|---|---|---|---|---|
| Anson | 4.3 | 9.5 | 5.3 | 8.6 | 9.3 | 9.6 | 8.6 | 7.4 | 7.3 |
| Cabarrus | 3.7 | 3.5 | 3.0 | 4.9 | 5.5 | 7.4 | 6.2 | 4.6 | 4.1 |
| Catawba | 4.2 | 4.4 | 2.8 | 6.4 | 8.3 | 8.0 | 6.5 | 6.2 | 5.4 |
| Chester | 10.2 | 9.3 | 5.0 | 7.7 | 10.1 | 10.9 | 9.8 | 9.2 | 10.3 |
| Cleveland | 4.5 | 5.4 | 5.0 | 9.3 | 10.1 | 8.7 | 7.4 | 6.9 | 6.4 |
| Gaston | 4.1 | 4.2 | 5.5 | 7.7 | 7.7 | 7.3 | 6.4 | 6.1 | 5.5 |
| Iredell | 3.9 | 3.4 | 3.5 | 5.9 | 6.6 | 6.5 | 5.4 | 5.0 | 4.4 |
| Lancaster | 5.6 | 5.8 | 3.6 | 5.4 | 6.6 | 8.9 | 8.8 | 8.3 | 9.1 |
| Lincoln | 4.2 | 4.9 | 3.8 | 6.8 | 7.1 | 7.0 | 6.0 | 5.6 | 5.0 |
| Mecklenburg | 2.7 | 3.1 | 3.0 | 4.4 | 5.8 | 5.8 | 5.1 | 4.9 | 4.5 |
| Rowan | 4.0 | 3.7 | 4.5 | 6.7 | 6.4 | 7.6 | 7.3 | 5.4 | 5.0 |
| Stanly | 4.7 | 6 | 3.9 | 7.2 | 7.2 | 7.3 | 6.2 | 5.4 | 5.1 |
| Union (NC) | 2.9 | 2.7 | 2.8 | 4.1 | 5.1 | 5.2 | 4.8 | 4.5 | 4.0 |
| York | 3.7 | 3.7 | 3.2 | 4.8 | 6.4 | 7.3 | 7.2 | 6.6 | 6.4 |
| Charlotte Region | 3.7 | 3.9 | 3.5 | 5.6 | 6.6 | 6.8 | 6.0 | 5.5 | 5.1 |
| North Carolina | 4.2 | 4.4 | 3.7 | 5.6 | 6.6 | 6.5 | 5.5 | 5.2 | 4.8 |
| South Carolina | 4.9 | 5.1 | 3.6 | 5.2 | 5.9 | 6.7 | 6.8 | 6.7 | 6.5 |
| Charlotte-Gastonia-Salisbury, NC-SC CSA | NA | NA | 3.6 | 5.5 | 6.5 | 6.7 | 6.0 | 5.5 | 5.1 |

to 3.7 percent from 2000 to 2005, yet in 2005, they have unemployment rates ranging from 6.1 to 9.2 percent. Thus, even though the region's employment rate has improved since 2001-02, this recovery does not appear to have been evenly distributed. Counties with diversified economies seem to have weathered the tough economic times the best.

#### Connections

Labor force employment figures have important links to measures of demographics. Growth in the region's workforce is to be expected given the population growth. Population growth, in turn, is driven by the availability of jobs. Labor force employment and unemployment numbers also provide insight into the well-being of the community. High employment can boost the well-being and health of residents, enhance citizen participation and lead to investment in education and the community.

# Industry Employment

### What's Measured

This indicator is a measure of jobs categorized by industry for the years 2000 through 2005, using data from the Bureau of Labor Statistics, the North Carolina Employment Security Commission and the South Carolina Employment Security Commission. The study presents the data by county and region.

The industry categories are broken down into the standard two digit sector codes, according to the North American Industry Classification System (NAICS). These data measure the number of jobs in the region, while the labor force employment figures discussed elsewhere measure the work status of people who live in the region. Because residents of the region hold jobs outside the region (and vice versa), and because people can hold more than one job, the numbers are not comparable.

### Why It's Measured

Measuring jobs by industry provides insight into the nature of the region's economy and how the counties of the region differ. Examining these data over time provides insight into how the counties' economies are changing.

### Indicator Results

In 2005, among all industries, total employment was 1,073,313, down slightly from 1,082,601 in 2000 (but higher than any other year from 2000 through 2005).

"Manufacturing" provided the most employment, accounting for 162,892 jobs and representing 15.2 percent of all employment. "Retail trade" was the second-largest source of jobs, at 121,183 jobs, or 11.3 percent of all employment.

Though manufacturing remains an important source of employment, its share of total jobs fell every year from 2000 through 2005. Employment in "Finance and insurance" rose 38.1 percent from 45,047 in 2000 to 62,208 in 2005 (5.8 percent of all employment, which places it eighth in the region in share of total jobs). As expected, the majority of these jobs (over 50,000) are in Mecklenburg County, which is home to two of the nation's largest banks.

Similarly, "Health care and social assistance" employment rose 28.4 percent from 2000 through 2005. The 111,990 employed in this category represented 10.4 percent of all employment.

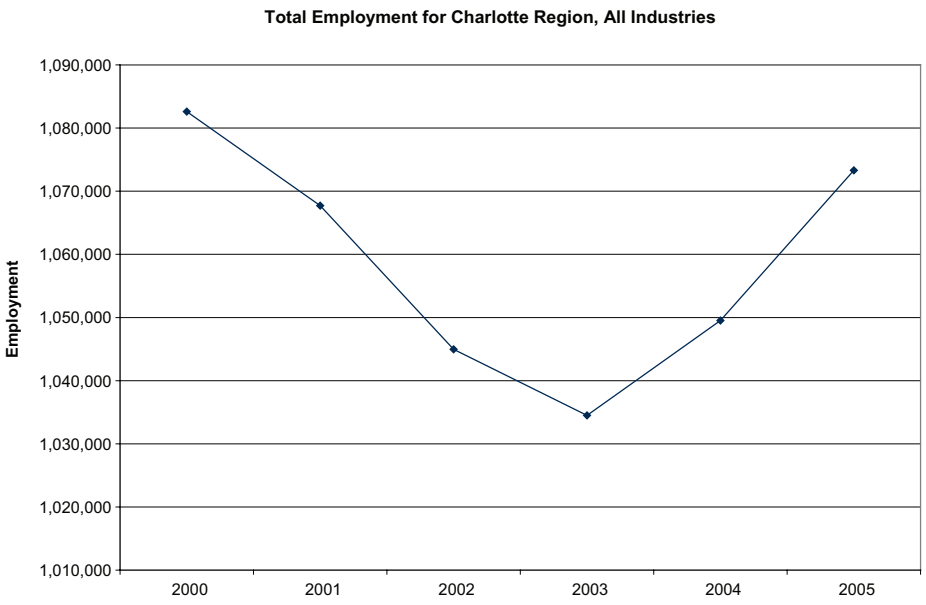
### Evaluation

This indicator shows the changing nature of the region's economy. Manufacturing, long a strength of the region, remains important but is losing some of its prominence. The industries of finance and health care are on the rise, perhaps signaling a move from a manufacturing-based economy to a more service-based economy. If manufacturing continues to lose jobs, the region will need to focus on creating jobs in other industries. Overall, the region's employment has been fairly stable across all industries. After declines in 2000 and 2001, employment has recovered.

### Connections

The make-up of the region's economy has important implications for social services. As the nature of employment changes, the workforce will have to adapt. Workers who have labored in manufacturing may have a difficult time finding employment in new, expanding industries such as finance or health care. This could put a strain on social insurance networks.

Nevertheless, the shifting nature of work provides an opportunity for educational institutions in the region to provide training to help the workforce adapt in a changing economy. If workers cannot find work, this will lead to problems with housing, income, health care, public safety, education, transportation and social well-being.



## Industry Employment (continued)

### Charlotte Regional Employment by Industry

| Industry | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| NAICS 11 Agriculture, forestry, fishing and hunting | 2,885 | 3,228 | 3,441 | 3,337 | 3,290 | 3,583 |
| NAICS 21 Mining | 831 | 898 | 726 | 778 | 700 | 651 |
| NAICS 22 Utilities | 1,960 | 4,166 | 1,996 | 3,853 | 3,805 | 3,813 |
| NAICS 23 Construction | 65,026 | 65,982 | 63,752 | 61,100 | 62,980 | 66,776 |
| NAICS 31-33 Manufacturing | 223,814 | 204,923 | 188,031 | 173,744 | 165,665 | 162,892 |
| NAICS 42 Wholesale trade | 63,891 | 61,239 | 57,675 | 57,498 | 59,465 | 59,222 |
| NAICS 44-45 Retail trade | 122,362 | 120,053 | 117,584 | 116,786 | 118,314 | 121,183 |
| NAICS 48-49 Transportation and warehousing | 46,685 | 46,750 | 45,968 | 45,767 | 46,518 | 48,448 |
| NAICS 51 Information | 28,896 | 26,339 | 26,950 | 26,105 | 25,636 | 29,104 |
| NAICS 52 Finance and insurance | 45,047 | 44,602 | 56,315 | 58,834 | 60,869 | 62,208 |
| NAICS 53 Real estate and rental and leasing | 14,270 | 14,596 | 14,356 | 13,620 | 13,705 | 14,176 |
| NAICS 54 Professional and technical services | 39,454 | 40,806 | 40,302 | 39,655 | 40,674 | 43,702 |
| NAICS 55 Management of companies and enterprises | 40,703 | 33,669 | 25,849 | 24,992 | 25,390 | 23,789 |
| NAICS 56 Administrative and waste services | 70,988 | 68,013 | 65,615 | 68,182 | 66,563 | 68,973 |
| NAICS 61 Educational services | 51,459 | 57,661 | 58,948 | 60,247 | 62,332 | 65,123 |
| NAICS 62 Health care and social assistance | 87,254 | 95,446 | 101,568 | 105,265 | 108,567 | 111,990 |
| NAICS 71 Arts, entertainment, and recreation | 16,219 | 16,537 | 15,781 | 15,874 | 16,521 | 16,495 |
| NAICS 72 Accommodation and food services | 73,779 | 74,645 | 73,889 | 75,046 | 79,254 | 83,414 |
| NAICS 81 Other services, except public administration | 27,113 | 28,301 | 29,386 | 28,123 | 28,344 | 28,760 |
| NAICS 92 Public administration | 38,849 | 39,178 | 39,445 | 39,383 | 41,076 | 40,881 |
| NAICS 99 Unclassified | NA | 25 | 308 | 1,372 | 2,575 | 2,710 |
| **Total, All Industries** | **1,082,601** | **1,067,725** | **1,044,971** | **1,034,509** | **1,049,515** | **1,073,313** |

## Business Establishments

### What's Measured

This indicator notes the number of business establishments by industry for each county and for the region for 2000 through 2005. A business may have more than one physical location, each of which counts as a "business establishment." The numbers are based on data from the Bureau of Labor Statistics, the North Carolina Employment Security Commission and the South Carolina Employment Security Commission. The industry categories are broken down into the standard two-digit sector codes of the North American Industry Classification System (NAICS).

### Why It's Measured

The number of establishments in each industry helps provide a picture of the region's economy. Changes in these data over time may suggest changes in the region's economic structure and health. The number of establishments by industry also may be a good tool to look at the Charlotte region's strengths and weaknesses compared to other regions. All else being equal, a higher number of establishments suggests a stronger economy.

### Indicator Results

In 2005, the region was home to 61,741 business establishments. The industry with the highest number of establishments was "Retail trade," with 8,214. Other industries with a large number of establishments include "Construction" and "Professional and technical services."

From 2000 through 2005, industries that most increased their share of the total number of establishments were "Health care and social assistance" and "Professional and technical services."

Among the region's counties, Mecklenburg was home to some 45.1 percent of all establishments, with 27,785. York County followed, with 4,404 establishments. Mecklenburg's share of the total number of establishments in 2005 was down slightly from previous years, while other counties, notably Cabarrus, Iredell, Union and York, have increased their share of the total number of establishments.

### Evaluation

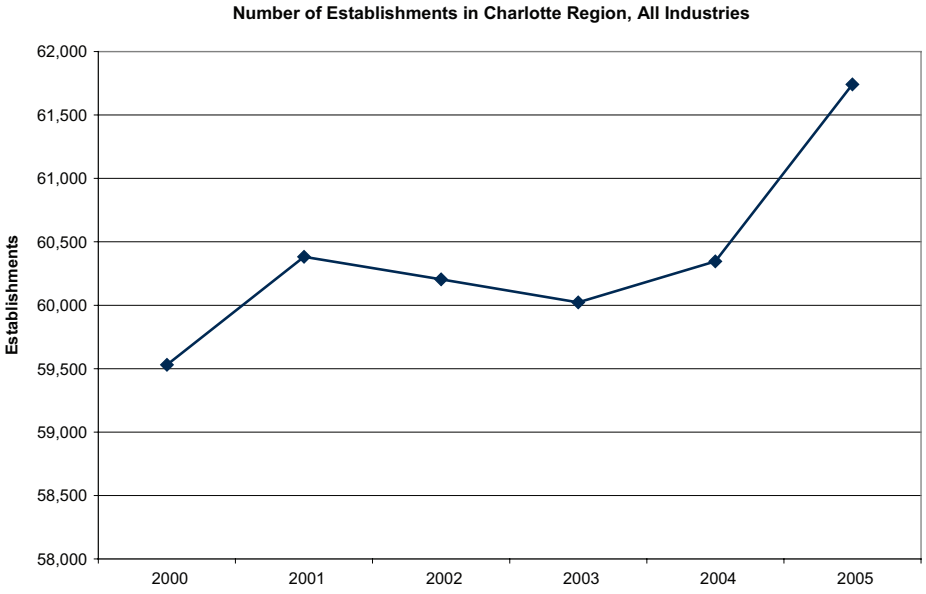
The region's number of business establishments remained fairly consistent from 2000 through 2005. This indicates a degree of stability in the region's economy.

Even while the number of establishments stayed constant, the composition of those establishments by industry has changed. The number of manufacturing establishments has fallen as industries such as health care have seen their numbers rise. This is consistent with other data that show the region's economy moving toward service-based industry.

Examining the data by county confirms Mecklenburg County's dominance as the center of the region's economy. The figures also reveal, however, that counties contiguous to Mecklenburg are gaining in shares of the region's business establishments, while Mecklenburg's and the more rural counties' shares are declining.

### Connections

The number of business establishments connects to the area's housing and demographic growth. If businesses are strong but the economy is not growing, people will move to find jobs elsewhere and housing will soon decline. There can even be a chain of events: the number of jobs falls precipitously, the housing market plummets and banks foreclose on mortgages, leading to a further downturn in the housing and mortgage field.



## Business Establishments (continued)

### Number of Establishments in Charlotte Region by Industry

| Industry | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| NAICS 11 Agriculture, forestry, fishing and hunting | 281 | 327 | 329 | 345 | 298 | 330 |
| NAICS 21 Mining | 36 | 43 | 48 | 49 | 35 | 38 |
| NAICS 22 Utilities | 59 | 88 | 55 | 80 | 102 | 100 |
| NAICS 23 Construction | 7,369 | 7,401 | 7,263 | 7,046 | 6,981 | 7,145 |
| NAICS 31-33 Manufacturing | 4,118 | 4,131 | 4,019 | 3,874 | 3,712 | 3,621 |
| NAICS 42 Wholesale trade | 5,879 | 5,362 | 5,215 | 5,174 | 5,226 | 5,329 |
| NAICS 44-45 Retail trade | 8,780 | 8,731 | 8,605 | 8,344 | 8,204 | 8,214 |
| NAICS 48-49 Transportation and warehousing | 1,582 | 1,614 | 1,678 | 1,622 | 1,613 | 1,661 |
| NAICS 51 Information | 928 | 902 | 947 | 928 | 883 | 861 |
| NAICS 52 Finance and insurance | 3,391 | 3,502 | 3,598 | 3,647 | 3,697 | 3,870 |
| NAICS 53 Real estate and rental and leasing | 2,262 | 2,333 | 2,396 | 2,462 | 2,514 | 2,666 |
| NAICS 54 Professional and technical services | 5,226 | 5,511 | 5,953 | 5,867 | 5,921 | 6,129 |
| NAICS 55 Management of companies and enterprises | 413 | 344 | 350 | 337 | 364 | 383 |
| NAICS 56 Administrative and waste services | 3,609 | 3,899 | 4,081 | 3,900 | 3,637 | 3,725 |
| NAICS 61 Educational services | 865 | 902 | 914 | 937 | 1,009 | 1,066 |
| NAICS 62 Health care and social assistance | 3,812 | 3,924 | 4,164 | 4,212 | 4,343 | 4,475 |
| NAICS 71 Arts, entertainment, and recreation | 845 | 845 | 815 | 796 | 793 | 820 |
| NAICS 72 Accommodation and food services | 3,728 | 3,933 | 3,962 | 3,925 | 3,996 | 4,107 |
| NAICS 81 Other services, except public administration | 4,971 | 5,058 | 4,842 | 4,645 | 4,592 | 4,722 |
| NAICS 92 Public administration | 526 | 545 | 543 | 528 | 540 | 521 |
| NAICS 99 Unclassified | NA | 17 | 204 | 1,065 | 1,777 | 1,964 |
| **Total, All Industries** | **59,530** | **60,382** | **60,204** | **60,022** | **60,346** | **61,741** |

The types of jobs are important as well. If an industry begins to fail, and the economic life of the region is built on that one industry, the area can be devastated. Because the Charlotte region has many different industries, it fared much better during the recession of 2001-2002 and with the latest problems in the housing sector than did many other areas around the country.

# Average Annual Wage

### What's Measured

This indicator shows average annual wage for each county and for the region, as well as by industry category, for the years 2000 through 2005. The average annual wage represents annual total wages across all jobs, divided by total number of jobs. The indicator uses data from the Bureau of Labor Statistics, the North Carolina Employment Security Commission and the South Carolina Employment Security Commission. Industry categories are broken down into the standard two-digit sector codes of the North American Industry Classification System (NAICS). Because data for this indicator are published as averages for each county and the appropriate weighting factors are not available to create a "true" regional annual average wage, the regional indicators reported here are the un-weighted averages of the counties' average annual wages.

### Why It's Measured

Measuring wage by industry gives information about how the region's income is generated. Some industries may account for a fraction of the region's total businesses, but contribute significantly to the region's income (and vice versa). Looking at how such data change over time provides important information about the evolution of the region's economy.

### Indicator Results

In 2005, the average annual wage for the Charlotte region across all industry sectors was $32,240 per job, up from $28,469 in 2000. The industries with the highest wages in the region in 2005 were "Utilities" ($53,934) and "Management of companies and enterprises" ($52,214). The industry with the lowest average wage in 2005 was "Accommodation and food services," with an average wage of $11,356 per job. Among the region's counties, Mecklenburg had the highest average wage, at $49,104. Anson, with an average wage of $27,404, had the lowest average wage.

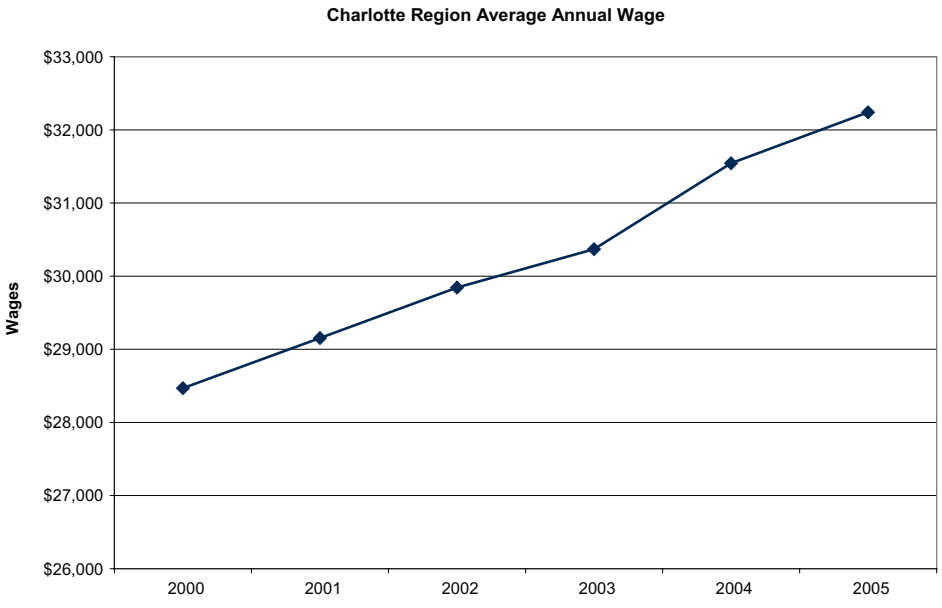
### Evaluation

The region has experienced an increase in average wage, but this increase has not been distributed evenly across all industries. The average wage for some industries in the region has grown significantly, while the average wage for others has grown more slowly. Some industries have even experienced a decline in average wage.

These data show that jobs in "Finance and insurance," "Manufacturing" and "Public administration" have realized the greatest gains in average annual wages over the years. Meanwhile, agriculture and retail trade have seen a decline in average wage in recent years.

### Connections

The average wage based on industry connects to demographic changes in the region. Examining industries with high wages as well as trends for such wages can help to predict the nature of the region's economy and to understand what is driving people to move to (or leave) the region. Additionally, wage figures can have important implications for educational institutions in the region as they train the next generation of workers for success.



## Average Annual Wage (continued)

### Average Annual Wage for All Industries

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Anson | $24,752 | $25,168 | $25,532 | $25,584 | $26,520 | $27,404 |
| Cabarrus | $29,640 | $30,628 | $31,564 | $32,240 | $33,176 | $34,320 |
| Catawba | $28,132 | $28,808 | $29,120 | $29,484 | $30,576 | $31,460 |
| Chester | $26,039 | $26,678 | $28,527 | $29,007 | $30,123 | $31,355 |
| Cleveland | $27,196 | $27,144 | $27,768 | $28,652 | $29,848 | $30,264 |
| Gaston | $28,340 | $28,444 | $29,692 | $29,900 | $30,940 | $31,564 |
| Iredell | $28,392 | $29,016 | $29,744 | $30,420 | $31,564 | $32,448 |
| Lancaster | $26,971 | $27,966 | $28,213 | $29,364 | $30,311 | $32,109 |
| Lincoln | $26,208 | $26,468 | $26,832 | $27,040 | $28,028 | $28,964 |
| Mecklenburg | $40,508 | $41,652 | $43,160 | $44,772 | $46,956 | $49,140 |
| Rowan | $29,276 | $30,160 | $31,252 | $31,668 | $32,968 | $28,132 |
| Stanly | $25,324 | $26,156 | $26,000 | $26,000 | $27,144 | $28,132 |
| Union (NC) | $29,016 | $29,692 | $29,848 | $30,368 | $31,096 | $32,396 |
| York | $28,772 | $30,186 | $30,569 | $30,655 | $32,373 | $33,668 |
| Charlotte Region | $28,469 | $29,155 | $29,844 | $30,368 | $31,545 | $32,240 |

# Per Capita Income

### What's Measured

This study measures per capita income for the years 1990 through 2005, using data from the Bureau of Economic Analysis. Total personal income by county was summed to a regional figure, as were U.S. Census estimates of population by county, to calculate a regional per capita income indicator.

### Why It's Measured

Per capita income provides a measure of average economic well-being in the region. While per capita income does not provide information about the distribution of income, it puts the region's total income in a more understandable perspective. A high per capita income suggests that the region's economy is performing well and that residents typically enjoy a high standard of living.

### Indicator Results

The region's per capita income increased every year from 1990 through 2005. In 2005, the Charlotte region's per capita income was $33,639. This was up 14.1 percent from 2000, when per capita income for the region was $29,493. Per capita income in the Charlotte region was higher than for North Carolina ($31,041) or South Carolina ($28,285) as a whole.

Within the region for 2005, Mecklenburg County had the highest per capita income, at $42,984. Only Mecklenburg, Cabarrus and York counties had per capita income figures greater than those for their respective states.

From 2000 to 2005, the counties experiencing the highest increase in per capita income were Chester (24.4 percent), Mecklenburg (15.3 percent), York (15.3 percent) and Lincoln (14.9 percent). Among all counties, Chester, Lincoln and Mecklenburg alone experienced faster growth in per capita income than did their respective states. From 2000 to 2005, North Carolina's per capita income increased by 14.7 percent and South Carolina's per capita income increased by 15.8 percent.

### Evaluation

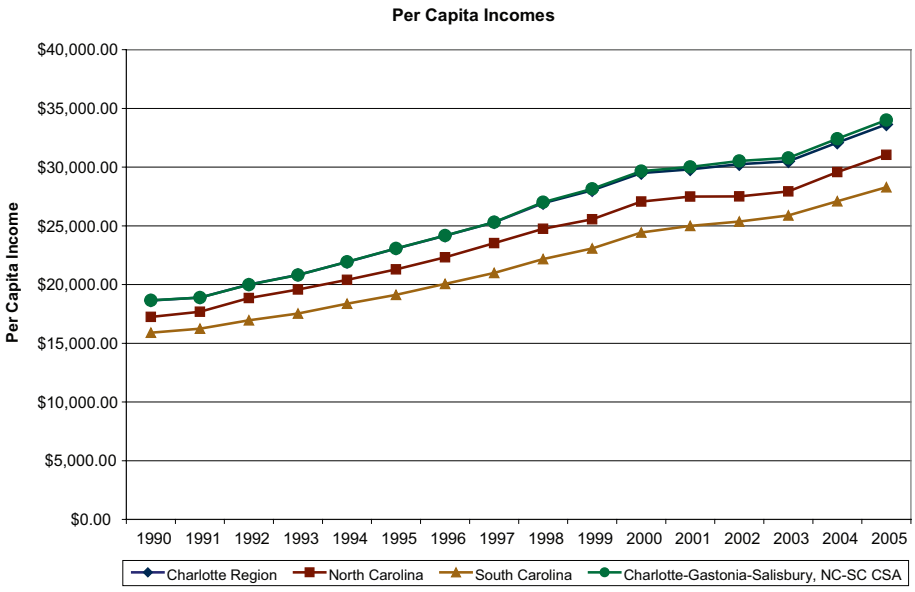
The region's per capita income is higher than the levels for North Carolina or South Carolina. It increased from 2000 to 2005, but at a rate slower than the increase in per capita income figures for North Carolina and South Carolina. That is, while the region has higher per capita income, the rate of growth of its per capita income is not keeping pace with growth in per capita income at state levels.

Among counties in the region, Mecklenburg had by far the highest per capita income and drove the region's numbers higher than state levels. Also within the region, increases in per capita income have occurred fairly consistently across counties. Each county has seen an increase in per capita income from 10 percent to 15 percent except for Cabarrus (9.7 percent) and Catawba (4.1 percent).

Mecklenburg's high per capita income and high rate of growth of per capita income underscore the differences between Mecklenburg's economy and the rest of the region.

### Connections

Per capita income has obvious connections to other aspects of the region's economy. All else being equal, high per capita income suggests that the region has good-paying jobs. Moreover, it indicates that residents will have more resources to spend on goods and services. Per capita income is also an important element in examining the region's standard of living.



## Median Household Income

### What's Measured

This indicator measures median household income by county for 1995 and for 2000 through 2004, using data from the U.S Census Bureau's Small Area Income and Poverty Division. Median household income measures the income of a particular household for which there are an equal number of households with more income and an equal number of households with less income. In contrast, the "mean," or average, household income divides total income of all households by the number of households.

The U.S. Census reports median household income for states and counties, but does not release the detailed census data that would be needed to calculate the region's median household income. This indicator is thus reported for each county rather than for the region as a whole.

### Why It's Measured

Median household income offers a good measure of income levels of households in the middle of the distribution curve and thus of provides insight into households' buying power and the region's economic performance.

### Indicator Results

In 2004, the median household income for North Carolina was $40,863. Of the region's eleven North Carolina counties, six had a higher median household income than did the state. The 2004 median household income for South Carolina was $39,454. Of the region's three South Carolina counties, only one (York) had a median household income higher than the state median.

The county in the region with the highest median household income for 2004 was Union ($56,218), followed by Mecklenburg ($49,683) and Cabarrus ($48,446). Over the fifteen-year period from 1995 to 2000, only Union experienced a faster rate of increase in its median household income (48.2 percent) than did its state (North Carolina, 27.8 percent). Similarly, in the four-year period from the 2000 decennial census through 2004, only Union County outpaced its state in rate of increase in its median household income (Union, 9.6 percent; North Carolina, 5.1 percent).

From 2000 to 2004, Anson, Catawba, Cleveland and Mecklenburg counties each experienced a decrease in their median household income.

### Evaluation

Measures of median household income provide information about total income and the distribution of that income. Overall, the region appears to be performing on par with North Carolina and South Carolina with respect to median household income. The counties are equally divided between those that have a higher median household income than their state and those that have a lower median household income than their state.

This comparison over time, however, shows some potentially disturbing trends. Median household income for North Carolina and South Carolina is rising more rapidly than median household income in most counties of the region. This suggests that either increases in total income in the region are not keeping pace with growth in the states, or the increases in income are not being distributed evenly across all wage-earners.

While increasing median household income for many counties could indicate rising wages and higher paying jobs, it could also be due to an increase in number of employed workers per household.

For counties with rising total income but falling median household income, rising income inequality may be a problem. For example, Mecklenburg County had the second-highest median household income among the counties in both 2000 and 2004, trailing only Union County in both instances. But Mecklenburg's median household income fell from $50,845 in 2000 to $49,683 in 2004, a two percent decline. Possible explanations include a shift in source of incomes from earned wages to retirement incomes and a decrease in the size of households leading to decreasing median household incomes. In 2000, the average household size was 2.49 according to the US Census Bureau. By 2006, the American Community Survey conducted by the US Census estimates the average household size has dropped to 2.41.

### Connections

Median household income has important connections to affordable housing. If increases in median household income do not keep pace with increases in housing prices, then home buyers in the region may have a difficult time finding affordable, desirable housing.

Median household income provides a good picture of households in the middle of the income distribution curve because the number is not affected by unusually high or low values. This middle segment is an important component of the region's economy. However, if the median income continues to trend downward, it may signal that jobs in the area are not paying well. If jobs are not paying well, people may decide to move elsewhere, which in turn affects the economic structure by putting financial strains on businesses, the housing market, health and social systems and the government.

## Median Household Income (continued)

### Median Household Income

| | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|
| Anson | $25,717 | $30,230 | $29,228 | $28,860 | $28,889 | $29,320 |
| Cabarrus | $39,777 | $46,415 | $45,394 | $46,499 | $47,278 | $48,446 |
| Catawba | $36,127 | $42,492 | $41,189 | $40,562 | $40,206 | $41,231 |
| Chester | $27,785 | $32,537 | $31,684 | $31,715 | $33,068 | $34,126 |
| Cleveland | $31,762 | $36,492 | $34,948 | $34,554 | $35,179 | $35,880 |
| Gaston | $35,175 | $39,741 | $38,448 | $38,680 | $39,287 | $40,356 |
| Iredell | $36,153 | $43,750 | $42,454 | $42,539 | $42,603 | $44,111 |
| Lancaster | $30,422 | $34,980 | $33,835 | $33,698 | $34,329 | $35,865 |
| Lincoln | $35,046 | $41,253 | $40,934 | $41,131 | $42,256 | $43,557 |
| Mecklenburg | $41,655 | $50,845 | $50,604 | $50,045 | $49,085 | $49,683 |
| Rowan | $32,954 | $37,874 | $37,133 | $37,283 | $37,774 | $38,598 |
| Stanly | $31,528 | $37,839 | $36,620 | $36,422 | $36,678 | $37,886 |
| Union (NC) | $37,935 | $51,316 | $50,648 | $51,678 | $53,889 | $56,218 |
| York | $38,462 | $44,750 | $44,019 | $44,619 | $45,698 | $47,351 |
| North Carolina | $31,987 | $38,889 | $39,072 | $38,194 | $39,438 | $40,863 |
| South Carolina | $30,060 | $37,283 | $36,953 | $37,442 | $38,003 | $39,454 |

# Education

## Overview

### Scope

To gauge the Charlotte region's "educational" health, this report looks at demographic changes, educational attainment and investment in public education for pre-kindergarten through 12th grade (P-12).

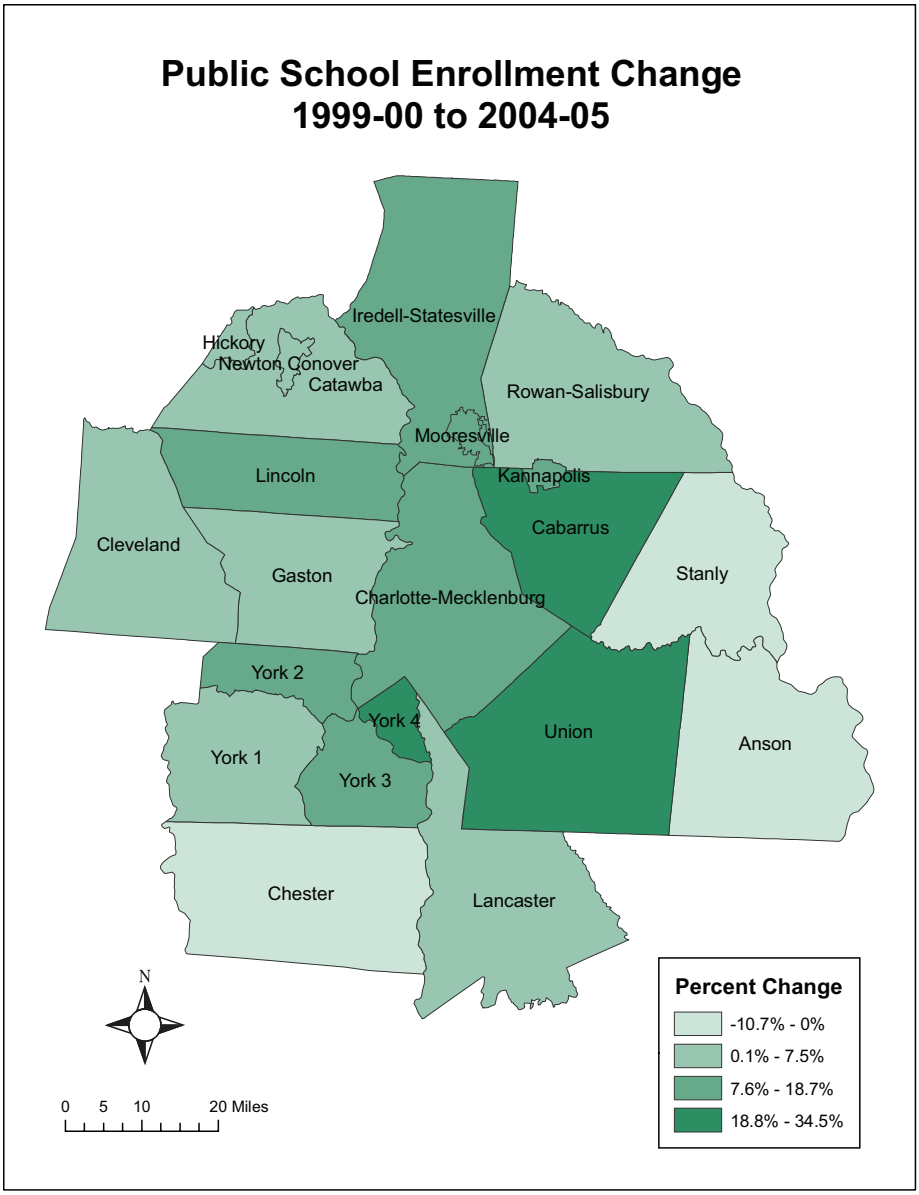
The demographic changes focus on enrollment growth in public schools (P-12) and the working population 25 and older with a college education. Educational attainment is ascertained by examining SAT scores, high school graduation rates and high school graduates continuing their education.

Expenditures per pupil and capital expenditures per capita provide insight into investment in public education (P-12).

### Regional Context

Over the last 20 years, the tremendous increase in public school enrollment mirrors the rapid growth of the Charlotte region. Since the late 1980s the Charlotte-Mecklenburg school system has become one of the nation's largest public school districts. As of the 2003-04 school year, it ranked 24th in the nation based on enrollment, according to the National Center for Education Statistics.

Union County, just east of Charlotte, has been the fastest-growing district in the state for several years. Union's school enrollment has already surpassed that of more urban counties in North Carolina. By the end of the 2005-06 school year, Union County exceeded the school enrollment of Durham County as well as the combined Buncombe County/ Asheville city schools. As of 2006-07, it became the region's second-largest school district, passing Gaston County schools in enrollment (Union 34,312; Gaston 31,861).




*See page 39 for additional information on this indicator*

Though enrollment growth has been dramatic in several counties in the Charlotte region, the majority of student enrollment growth is occurring in only a few counties across North and South Carolina. This pattern of uneven growth is also evident in the Charlotte region.

In addition to the student population, the educational level of the working population in the region is also changing because of growth.

With the exception of Mecklenburg County, the Charlotte region historically has not had educational levels that match state or national averages. Recently, however, Mecklenburg and several other counties have experienced rapidly increasing percentages of college and professionally educated residents.

As part of handling the region's growth, the required investment in schools has been a widely debated public policy issue in recent years. New testing measures

## Overview (continued)

in public schools have brought higher scrutiny to public education while at the same time the extraordinary growth has buffeted the region's educational infrastructure. Questions about the success of educational approaches have been mixed with concerns about capital investments needed to deal with growth. Taken together, these concerns have made the issues surrounding education more challenging to define and resolve in the region.

Educational data in this section reflect rapid demographic changes and the challenges in managing growth and maintaining economic competitiveness as education becomes increasingly critical to maintaining the region's prosperity.

### Summary of Indicator Results

Results show a vastly uneven rate of public school enrollment growth in the 14-county region. Among the 21 school districts in the region, high growth has occurred in parts of York, Union, Cabarrus and Mecklenburg counties, while Chester, Anson and Stanly have experienced declines in public school enrollment.

Districts with high enrollment growth have experienced pressure on educational infrastructure to accommodate their school-age population. But there's also been a major educational benefit tied to the high growth. Counties showing the highest percentage increases in public school enrollment are also showing the highest percentage increases in college graduates in the working population. Since in-migration is the largest component of both population growth and enrollment growth, this suggests that newcomers are raising average educational attainment levels.

Only Mecklenburg exceeds the national average of working population with a bachelor's degree or higher level of education. Several counties are approaching the national average, however, and the majority of counties are experiencing growth rates in college-educated population well above the national growth rate in 2005 estimates.

In terms of college preparedness, students within most districts in the region are scoring within a few percentage points of the U.S. average for the Scholastic Aptitude Test (SAT). High schools within Charlotte-Mecklenburg, however, show a wide range of SAT scores, both above and below the national average. That pattern is not as evident in the surrounding counties, where scores are more similar.

In looking at high school graduation rates and post high school education, patterns vary. School districts show widely different graduation rates for students who begin as freshmen and finish in four years. The region shows two high-growth districts in the top four in graduation rates, York 4 (Fort Mill) and York 2 (Clover), and two low-growth districts occupying the other slots, Catawba County and York 1 (S.C. area).

Once graduated, students from different districts also show different patterns in college and technical school attendance, reflecting an uneven level of educational outcomes and opportunities across the region. For example, while more than 90 percent of students from York 4 (Fort Mill) go on to further education, less than 60 percent of students from York 2 (Clover) do so, despite both districts' having high school graduation rates that are among the highest in the region.

The two low-growth districts with high graduation rates also are widely divergent, with Catawba County at more than 80 percent seeking further education and York 1 (S.C. area) just above 50 percent, the lowest post high school education rate in the region.

The region's investments in P-12 public education, measured by average in per-pupil expenditures, are just below the national average, as with the regional SAT score average. Though the regional average has been rising, per pupil expenditures have remained below both national and state averages in recent years.

Such expenditures show a fairly wide range of dollars spent from one district to another, and capital expenditures vary widely as well. Not surprisingly, capital expenditures generally go up with enrollment growth.

### Missing and Future Indicators

Data and time constraints precluded the inclusion of several indicators: reading and math scores at third and eighth-grade levels, turnover rates for teachers, school-bond passage rates and facility construction backlogs.

North and South Carolina log test scores and teacher turnover rates in such different ways that it makes the data difficult to compare. Tracking passage of school bonds was difficult to gather on short notice. The sporadic nature of bonds makes long timelines best for comparisons. Capital expenditures were used to gain some idea of local support for school construction and improvement.

To look at facility construction backlogs, an objective scale is needed. Criteria such as whether and how mobile classrooms are counted, ways to measure and compare renovation needs, etc. would need to be in place for this to be pursued.

In the future, the report's authors would like to see a regional survey to assess attitudes and opinions about educational issues, including satisfaction, support for improvement, and private/home schooling. Better ways to compare achievement levels across state lines would also be beneficial.

*See page 134 for Education indicator data sources*

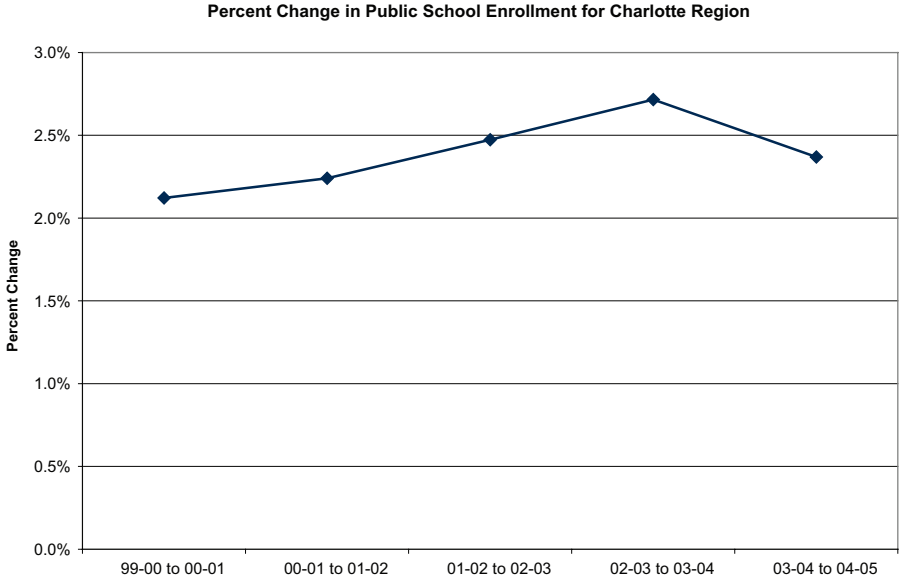
# Public Schools Enrollment

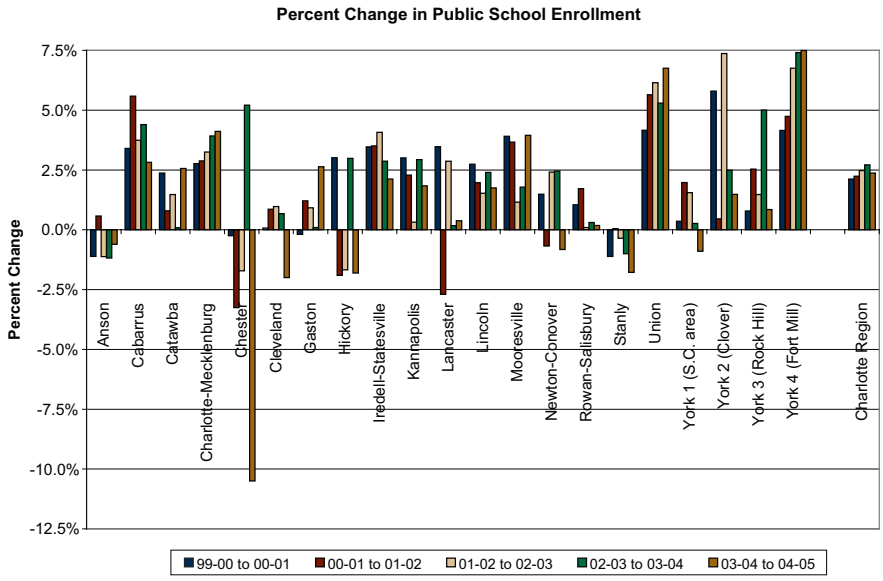
## What's Measured

This section looks at the percentage change in public school enrollment from the 1999-00 school year through the 2004-05 school year, by school district and for the region. The enrollment data includes students from pre-kindergarten through grade 12, and is from the National Center for Education Statistics.

## Why It's Measured

Public school enrollment growth has a large impact on local governments. While state government provides much education funding, local systems are usually responsible for new buildings and other expenses. Additionally, rapid growth makes it more difficult to meet the need for more teachers as well as administrative and support staff such as bus drivers.




## Indicator Results

Overall, the region experienced enrollment growth of 12.5 percent over the six-year period from school years 1999-00 through 2004-05 and 2.4 percent from 2003-04 to 2004-05. This growth is distributed unevenly in the 14-county region. Mecklenburg is experiencing high enrollment growth, along with most of the surrounding counties, especially Union, Cabarrus, Iredell and parts of York. However, Anson, Chester, and Stanly have experience declines in public school enrollment.

## Evaluation

Enrollment growth for the region as a whole appears to be on track for continued increases. The patterns of growth are dynamic and could affect new or different areas in the region as conditions change. In the counties beyond Mecklenburg, there are districts among the fastest growing in the country (Union) as well as districts experiencing loss of student enrollment (Chester, Stanly, Anson). This presents the region with a wide variety of issues surrounding this indicator.

## Connections

High growth areas are struggling to keep up with dramatic enrollment increases. It is critical to the overall community that these patterns be understood and plans made to address the growth. Ups and downs in the economy, immigration issues, water availability, highways and changing attitudes toward new development could all affect locations and patterns of student-enrollment growth. Better understanding of these forces and their impact may improve the region's ability to anticipate these changes.

## Educational Attainment

### What's Measured

This indicator looks at the percentage of the working-age population (age 25 and older) with a bachelor's degree or higher. This is calculated using 1990 and 2000 data from the U.S. Census. Estimates for ten of the region's counties are available from the American Community Survey of the U.S. Census for 2005 (not included in that survey are Anson, Chester, Lancaster, and Stanly counties).

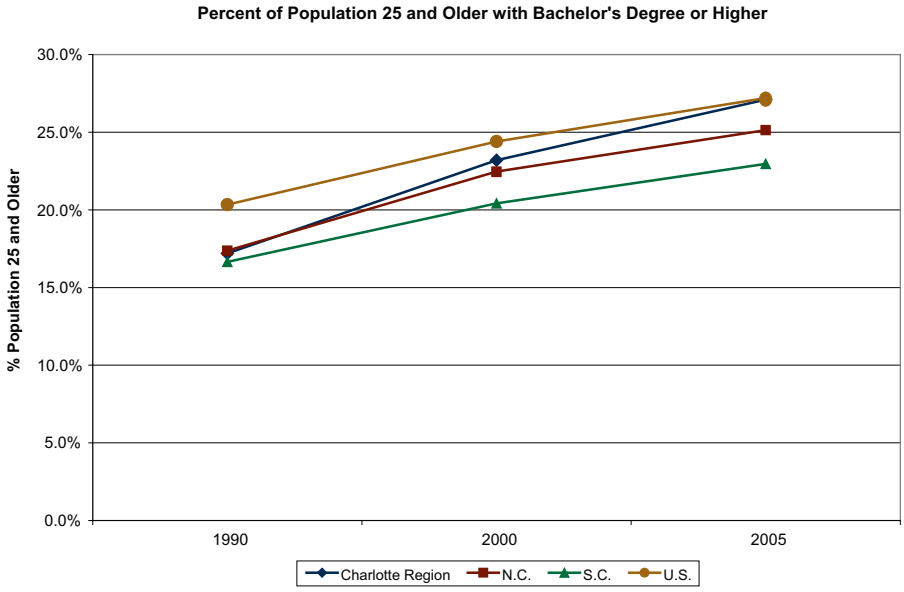
### Why We Measure It

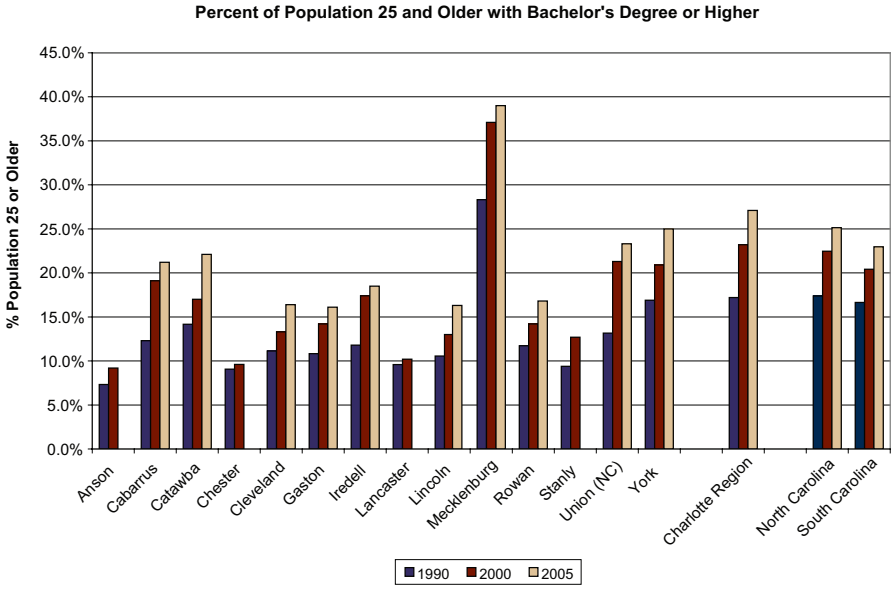
As the economy transitions away from manufacturing, the level of education in the working population will be critical to participating in emerging economic sectors, improving income levels and maintaining overall competitiveness.

### Indicator Results

The region's percentage of college-educated working adults (age 25 and older) rose from 17.2 percent in 1990 to 23.2 percent in 2000. This moved the region much closer to the national average (which rose from 20.3 percent in 1990 to 24.4 percent in 2000).

Estimates from 2005 are only available for 10 of the 14 counties in the region. For those 10 counties, the average has risen to 27.1 percent, just under the U.S. estimate of 27.2 percent for 2005.




### Evaluation

Levels of education in the working population are moving in a positive direction. However, except for Mecklenburg, counties in the region are all below the national average. Trend data from the last two censuses, as well as mid-decade numbers just becoming available, indicate that the fastest-growing counties are growing in college-educated population at a much faster rate than the country at large. Combined with the large percentage of population growth attributable to in-migration, this suggests migrants into the region tend to be better educated than the existing population of the region.

### Connections

This indicator describes an important factor in the region's competitiveness on national and international fronts. The level of education in the working population correlates with growth and types of jobs within a local economy. A strong link between education and income also means this indicator affects standard of living, health and other community concerns, such as support for the arts.

## SAT Scores

### What's Measured

This study examines the average Scholastic Aptitude Test (SAT) score as a percentage of the U.S. average score, for each of the region's 21 school districts and for the region as a whole. This was done from the 2000-01 school year through the 2005-06 school year. Data come from the North Carolina Department of Public Instruction and the South Carolina Department of Education. Average scores are published both for individual high schools and for school districts, based on scores of all students taking the SAT in a given year. Students taking the SAT are mostly juniors in high school, but can include some sophomores and seniors as well. Beginning with the 2005/2006 school year, the SAT consists of three sections of the SAT: math, critical reading (formerly called the verbal score) and writing. The writing score is new. For consistency with previous data, the writing score was omitted and only the combined math and critical reading scores were used in calculations for 2005/06.

The district and regional combined math and critical reading scores are compared to the U.S. average combined math and reading score. The combined math and critical reading scores have a total possible score of 1600, with 800 points from math and 800 points from critical reading. For example, if the U.S. average combined score is 1000, and a district's average combined score in reading and math totals 980, the district score is 98 percent of the U.S. average. A district with an average score of 1020 in the same year is 102 percent of the national score of 1000.

### Why It's Measured

The SAT offers a measure of college preparedness among high school students. Differences in how states maintain other achievement measures make the SAT score a measure that can more easily be compared across districts in North and South Carolina.

### Indicator Results

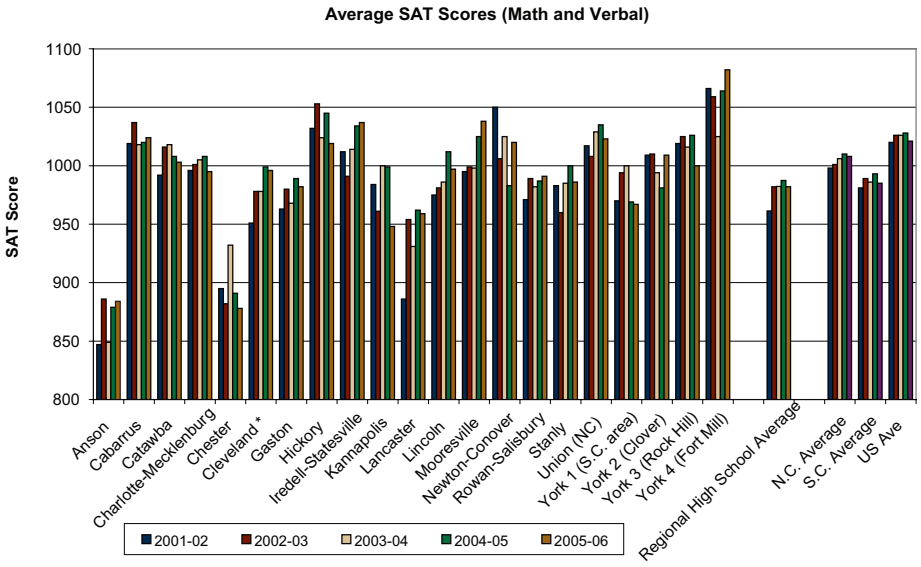
The regional high school average SAT score as a percent of the U.S. score for 2005-06 is 96.2 percent. The regional high school average SAT score has consistently hovered around 96 percent of the U.S. average score from 2000-01 through 2005-06. Overall, school districts in the Charlotte region have tended to score within a few percentage points of the national average, with several districts at or just above the national average score.

### Evaluation

Most districts in the region are producing high school students who are performing respectably compared to their national counterparts in this measure. Some districts in the region, such as Iredell-Statesville, posted scores above the national average in three of the six school years studied. More variation exists, however, when scores are compared from high school to high school. High growth suburban areas are often seeing above-average SAT scores, while rural and poorer areas have much lower scores. But this is not universally the case.

### Connections

The variation among districts, and especially from high school to high school, indicates a range of college preparedness among regional high school students. Understanding how issues of poverty, both in rural and urban areas, correlate with lower scores is critical if the region is to meet the longer-term challenge of building human capital to provide jobs and improve incomes.



## SAT Scores (continued)

### SAT Scores (Math and Verbal) as a Percent of the U.S. Score

| | 2000/01 | 2001/02 | 2002/03 | 2003/04 | 2004/05 | 2005/06 |
|---|---|---|---|---|---|---|
| Anson County | 85.2 | 83.0 | 86.4 | 82.7 | 85.5 | 86.6 |
| Cabarrus County | 98.6 | 99.9 | 101.1 | 99.2 | 99.2 | 100.3 |
| Catawba County | 100.5 | 97.3 | 99.0 | 99.2 | 98.1 | 98.2 |
| Charlotte-Mecklenburg | 97.7 | 97.6 | 97.6 | 98.0 | 98.1 | 97.5 |
| Chester County | 91.7 | 87.7 | 86.0 | 90.8 | 86.7 | 86.0 |
| Cleveland County * | 95.0 | 93.2 | 95.3 | 95.3 | 97.2 | 97.6 |
| Gaston County | 95.4 | 94.4 | 95.5 | 94.3 | 96.2 | 96.2 |
| Hickory City | 100.8 | 101.2 | 102.6 | 99.8 | 101.7 | 99.8 |
| Iredell-Statesville | 100.4 | 99.2 | 96.6 | 98.8 | 100.6 | 101.6 |
| Kannapolis City | 96.9 | 96.5 | 93.7 | 97.5 | 97.2 | 92.9 |
| Lancaster County | 87.9 | 86.9 | 93.0 | 90.7 | 93.6 | 93.9 |
| Lincoln County | 93.0 | 95.6 | 95.6 | 96.1 | 98.4 | 97.6 |
| Mooresville City | 97.6 | 97.5 | 97.4 | 97.3 | 99.7 | 101.7 |
| Newton-Conover City | 98.9 | 102.9 | 98.1 | 99.9 | 95.6 | 99.9 |
| Rowan-Salisbury | 95.7 | 95.2 | 96.4 | 95.7 | 96.0 | 97.1 |
| Stanly County | 95.3 | 96.4 | 93.6 | 96.0 | 97.3 | 96.6 |
| Union County (NC) | 98.9 | 99.7 | 98.2 | 100.3 | 100.7 | 100.2 |
| York 1 (S.C. area) | 97.9 | 95.1 | 96.9 | 97.5 | 94.3 | 94.7 |
| York 2 (Clover) | 100.2 | 98.9 | 98.4 | 96.9 | 95.4 | 98.8 |
| York 3 (Rock Hill) | 100.1 | 99.9 | 99.9 | 99.0 | 99.8 | 97.9 |
| York 4 (Fort Mill) | 102.6 | 104.5 | 103.2 | 99.9 | 103.5 | 106.0 |
| Regional High School Average | 95.8 | 94.2 | 95.7 | 95.7 | 96.1 | 96.2 |

* Note: Cleveland County school district includes Kings Mountain and Shelby City high school scores from 2005/04 on, reflecting those schools' merger into the county school system. Kings Mountain and Shelby City high school scores are included in the Regional High School Average for all years shown, including years prior to their merger into the Cleveland County school system.

## Graduation Rate

### What's Measured

High school graduation rates are presented for the 2005-06 school year. The figures are the four-year cohort graduation rate, which reflects the number of graduating seniors in a given year as a percentage of the number of enrolled ninth graders from three years prior – in effect, it is the percent of ninth graders who graduate four years later. This measure only became available in North Carolina starting with the 2005-06 school year, so trend data are not yet available. Data come from the North Carolina Department of Public Instruction and the South Carolina Department of Education.

Because data is only available for a single year at this time, and because appropriate weights were not available for calculating a weighted regional average graduation rates, graduation rates for each school district are shown in the current report, but a regional average district rate is not shown.

### Why It's Measured

High school graduation was once considered a sufficient level of educational attainment in the industrial economy. Today, it is a necessary precursor to a college education or the pursuit of advanced technical training.

### Indicator Results

The national estimate of the graduation rate in 2005-06 was 74.3 percent (reflecting graduation rate of ninth graders from 2002-03). The estimate for North Carolina's rate for that year was 71.4 percent; for South Carolina, 60.6 percent, based on data from the National Center for Education Statistics.

In the region, some districts show a pattern of exceeding the state and/or national average, while others fall well below that level, creating considerable variation across the region. The variation ranges from 60 percent (Anson) to 89 percent (York 4, Fort Mill). The rate for Charlotte-Mecklenburg was about 75 percent. Nine of the region's 21 school districts report that less than 70 percent of enrolled freshman graduate from high school within four years, while three report graduation rates of more than 80 percent.

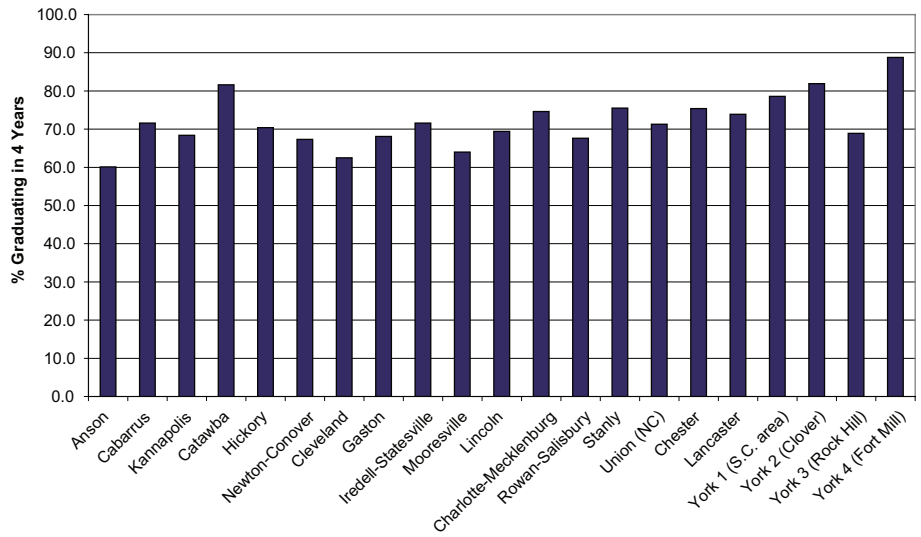
### Evaluation

This measure varies more than the SAT measure of college preparedness among the districts. South Carolina districts show slightly higher graduation rates than their North Carolina counterparts. Catawba shows impressive numbers in this area. Determining what factors underlie the success of some districts with the SAT may be helpful to the region as a whole.

### Connections

Today job opportunities are greatly tied to educational attainment; thus, the region has a tremendous need to address school districts not successfully graduating a high percentage of students. Future earnings and the likelihood of needing public support or interacting with the criminal justice system have been linked to lack of a high school diploma. This indicator ties in strongly with issues of the economy, public safety and social well-being.

**High School Cohort Graduation Rate, 2005-06**



## College Plans

### What's Measured

This indicator tracks the higher-education plans of high school seniors for the year after they graduate from public high schools. Percentages are calculated for students planning on attending two-year, four-year or community colleges, and for those with no plans for higher education (this may include military service). Data are from the North Carolina Department of Public Instruction and the South Carolina Department of Education.

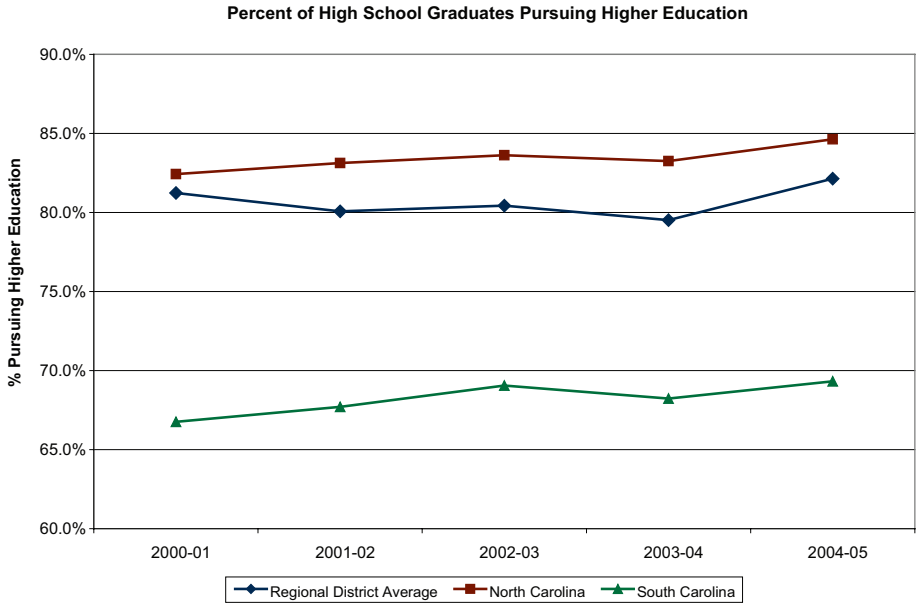
### Why It's Measured

The decision to seek education or training after high school is critical for students in today's economy. It is a measure of the variation in opportunities that high school students have, and a key factor in future earnings and job options.

### Indicator Results

For the region, 82 percent of graduating high school seniors from public schools in the school year 2004-05 planned on attending a two-year, four-year or community college. This is an increase from 81 percent in 2000-01. Of seniors graduating throughout North Carolina in 2004-05, 85 percent were planning to pursue some form of higher education. Some 69 percent of South Carolina seniors fell into that category for 2004-05.

Students from different districts show different patterns in college and technical school attendance, reflecting an uneven level of educational outcomes and opportunities across the region. For example, while more than 90 percent of students from York 4 (Fort Mill) go on to further education, less than 60 percent of students from York 2 (Clover) do so, despite both districts' having high school graduation rates that are among the highest in the region. Similarly, the two low-growth districts with high graduation rates also are widely divergent, with Catawba County at more than 80 percent seeking further education and York 1 (S.C. area) just above 50 percent, the lowest post high school education rate in the region.




### Evaluation

In Mecklenburg County, the rate of students planning to pursue higher education is over 90 percent. Mecklenburg represents nearly 30 percent of public high school graduates in the region. The other North Carolina counties in the region fall below the state average with the exception of Gaston.

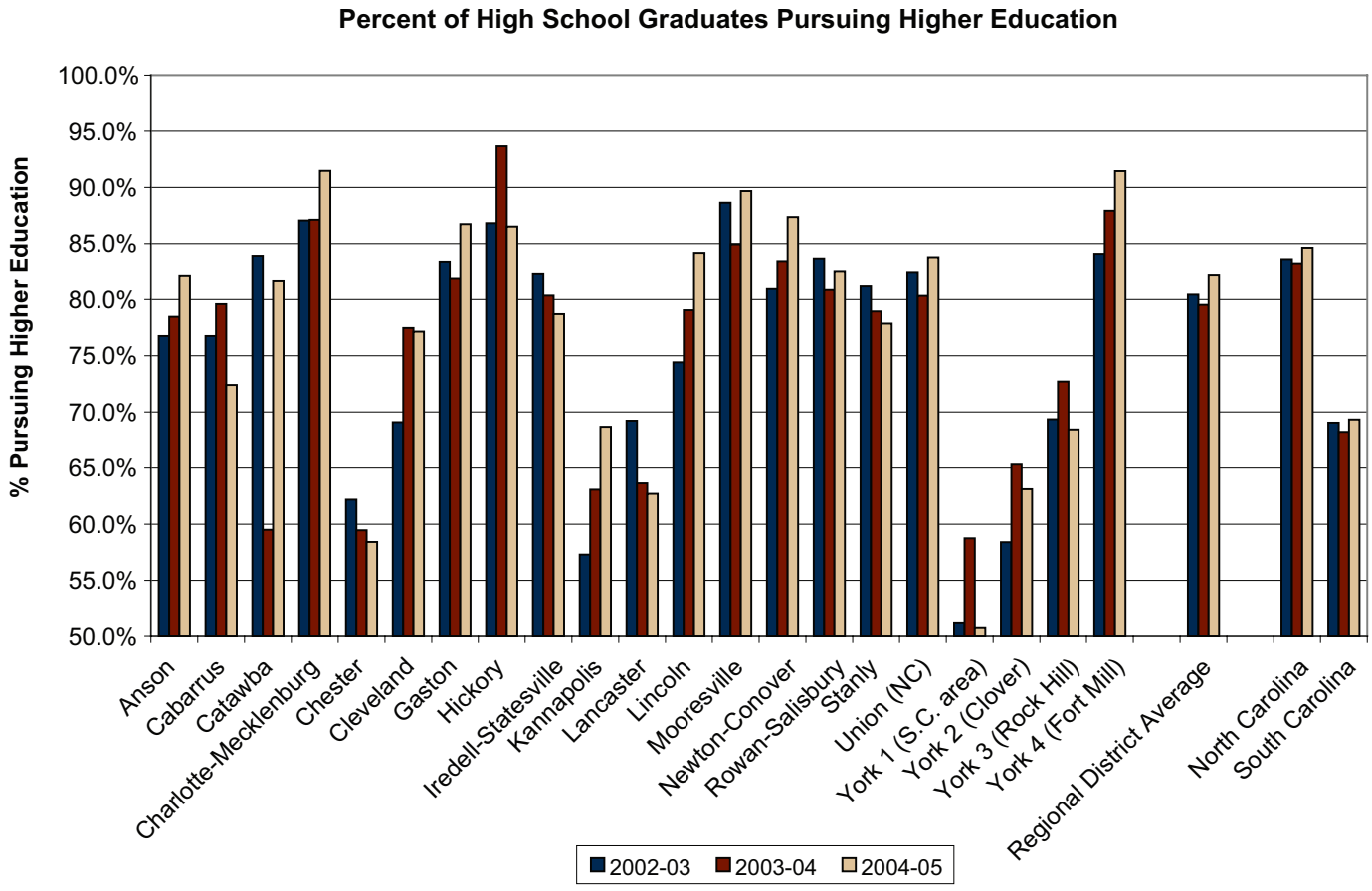
The gap between the regional district average and the North Carolina average grew slightly larger after 2000-01 (when it was about one percentage point) but then narrowed again in 2004-05 (to about a two percentage point gap). This constitutes an important trend that should be monitored.

Though South Carolina has a higher percentage of students graduating from high school than do many of the North Carolina districts in the region, a substantially smaller percentage of the South Carolina students are continuing their education after high school.

### Connections

Of the students who make it through high school, those not planning to pursue higher education have a severely limited set of career options in the modern economy. This affects the future income, health and social well-being of the region.

## College Plans (continued)



# Expenditures Per Pupil

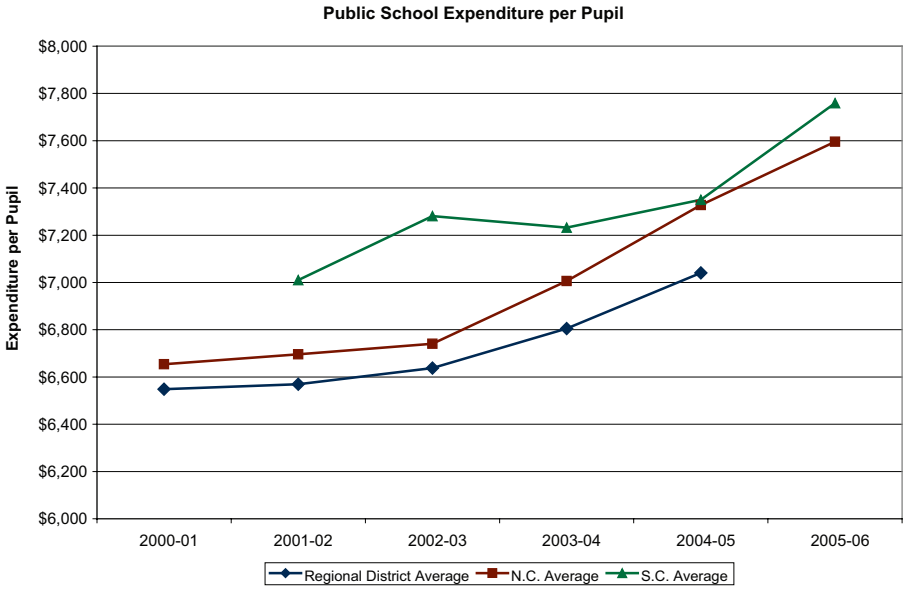
## What's Measured

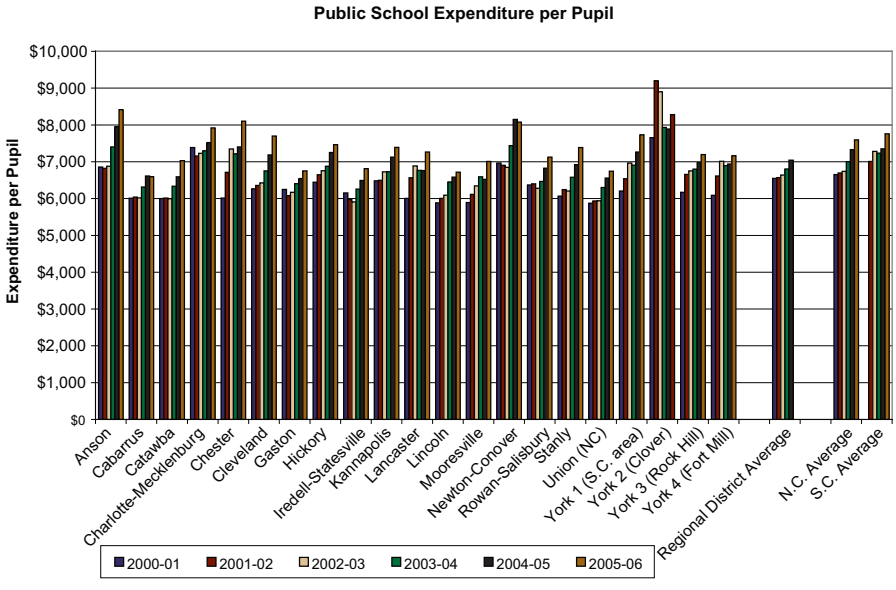
Expenditures per pupil in public schools, excluding capital expenditures, are available from state government sources for each local district. A regional figure was estimated for each school year from 2000-01 through 2004-05 by multiplying expenditures per pupil by enrollment figures for each school district. The sum of total expenditures across all districts was divided by the total regional enrollment to estimate the regional expenditure per pupil.

The regional average for 2005-06 was not calculated because enrollment data were not available from the same source for that school year. Data came from the North Carolina Public Schools Statistical Abstract (multiple years) and the South Carolina Department of Education. U.S. figures are from the National Center for Education Statistics.

## Why It's Measured

Spending per pupil shows the financial resources available in the public schools throughout the region.




## Indicator Results

The estimated regional average, calculated from 2004-05 enrollment data, is $7,041. That puts the region below both the North Carolina and South Carolina figures for that year ($7,328 and $7,350, respectively). In fact, the regional average is below North Carolina, South Carolina and national averages for all years available for comparison. Within the region, only five districts are at or above their state averages in 2004-05.

## Evaluation

The regional average has been rising, but has remained below state and national averages. Charlotte-Mecklenburg's student population and expenditures are a large influence on the region's average. Outside of Mecklenburg, regional expenditure rates are often quite low in comparison to state averages. In comparing expenditure rates within the region, many slower-growing rural counties have higher per pupil expenditures than rapidly growing suburban districts. This may reflect increased state and federal funding for districts with higher percentages of low-income families, as well as other factors.

## Connections

Since spending reflects support from local, state and federal sources, it represents the resources public school districts can draw upon for their unique set of issues and challenges. These resources are applied to everything from the basics of school operations to programs designed to address special needs and poverty. These special programs, in particular, tie in with social well-being, health and public safety.

## Capital Expenditures

### What's Measured

Public school capital expenditures per pupil are measured both for school districts and the region. A five-year average is calculated because capital spending by school districts fluctuates significantly from year to year. Total capital expenditures were divided by total enrollment to produce an annual per pupil capital expenditure for each school year from 2000-01 through 2005-05. Those annual figures were then averaged to produce an average per pupil capital expenditure in public education for the five-year period.

Data are from the North Carolina Public Schools Statistical Abstract (multiple years) and the South Carolina Department of Education Financial Analysis Model for Education. Enrollment data used for per pupil calculations are from the National Center for Education Statistics.

### Why It's Measured

Per pupil capital expenditures provide a measure of money invested in school districts to renovate or add schools. Strong enrollment growth tends to drive this measure.

### Indicator Results

The average annual per pupil public school capital expenditure from 2000-01 to 2004-05 for the region was $898. This is higher than the North Carolina average ($682), but lower than South Carolina's ($1,143).

### Evaluation

This format shows that districts such as York 4 (Fort Mill) and Union County, which have had dramatic enrollment increases, have indeed spent more per pupil on capital improvements than other districts in the region.

From 2000-01 through 2004-05, York 4 (Fort Mill) averaged the highest per pupil capital expenditure of any school district in the region, at $2,324. Union was a distant second at $1,419.

York 3 (Rock Hill) and Charlotte-Mecklenburg were virtually tied at $1,391 and $1,385, respectively. After that, the next highest total was $985 (Lancaster County).

### Connections

Investment will be critical to keep up with growth. This indicator links to other infrastructure decisions in communities, such as roads and water and sewer projects. Since resources are limited, strategic use of funds will be critical to meet the range of infrastructure needs, including school facilities.

**Charlotte Regional School Districts**
**Per Pupil Capital Expenditures**

| | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | Average Annual Per Pupil Capital Expenditure 2000-01 through 2004-05 |
|---|---|---|---|---|---|---|
| Anson County | $1,268 | $44 | $197 | $148 | $36 | $339 |
| Cabarrus County | $41 | $76 | $603 | $658 | $683 | $412 |
| Kannapolis City | $55 | $40 | $95 | $158 | $14 | $72 |
| Catawba County | $889 | $264 | $158 | $268 | $820 | $480 |
| Hickory City | $644 | $367 | $84 | $807 | $1,779 | $736 |
| Newton-Conover City | $223 | $84 | $85 | $105 | $204 | $140 |
| Cleveland County | $379 | $505 | $177 | $290 | $75 | $285 |
| Gaston County | $141 | $140 | $140 | $432 | $284 | $227 |
| Iredell-Statesville | $1,082 | $1,178 | $193 | $715 | $705 | $774 |
| Mooresville City | $1,333 | $869 | $693 | $383 | $342 | $724 |
| Lincoln County | $152 | $858 | $1,804 | $718 | $459 | $798 |
| Charlotte-Mecklenburg | $1,999 | $1,654 | $1,302 | $1,161 | $809 | $1,385 |
| Rowan-Salisbury | $278 | $310 | $58 | $50 | $96 | $159 |
| Stanly County | $838 | $2,089 | $812 | $366 | $485 | $918 |
| Union County (NC) | $1,375 | $991 | $732 | $1,560 | $2,438 | $1,419 |
| Chester County | $106 | $698 | $900 | $778 | $33 | $503 |
| Lancaster County | $1,769 | $2,149 | $392 | $99 | $514 | $985 |
| York 1 (S.C. area) | $528 | $644 | $479 | $407 | $95 | $431 |
| York 2 (Clover) | $688 | $750 | $273 | $315 | $587 | $522 |
| York 3 (Rock Hill) | $727 | $1,166 | $1,232 | $2,226 | $1,604 | $1,391 |
| York 4 (Fort Mill) | $5,659 | $3,208 | $1,191 | $114 | $1,449 | $2,324 |
| Charlotte Region | $1,132 | $1,028 | $745 | $808 | $777 | $898 |
| N.C. Average | $897 | $770 | $624 | $594 | $523 | $682 |
| S.C. Average | $1,108 | 1,293 | $1,039 | $1,081 | $1,196 | $1,143 |

# Environment

## Overview

### Scope

Environmental issues do not respect regional, county or other geographic boundaries. Still, the authors sought the best regional information available on three key areas: air, water and land.

Under the topic of "Air", the focus is on air quality. "Water" looks at both water quality and water-supply quantities, focusing on water quality of the region's surface waters, which include streams, rivers and lakes, and on public water system consumption.

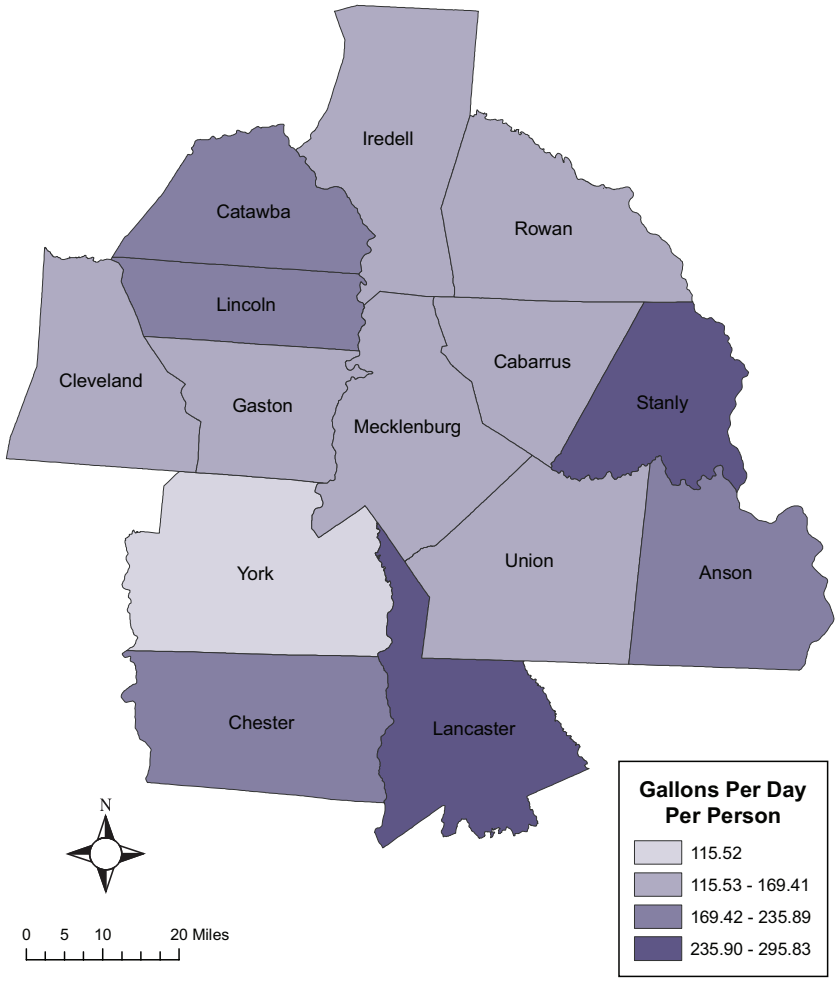
"Land" spotlights the disposal of municipal solid waste and construction/demolition debris, as well as how much acreage per person is developed in the region.

In the future, the authors would like to address the topic of energy and related indicators, as well as include additional indicators pertinent to air, water and land. For more on possible future topics, see the "Missing and Future Indicators" section in this report.

### Regional Context

The region has seen unprecedented growth and development over the last two decades. The 30-year period from 1970 to 2000 saw population grow by 68 percent, and the region is projected to grow by as much or more in the 30-year period from 2000 to 2030. As a result, challenges to air and water quality have arisen, along with a re-examination of predominant land-use patterns and energy usage. A large portion of the region was declared in "Non-Attainment" of the Clean Air Act by the federal Environmental Protection Agency in 2005. The region has suffered major droughts in recent years, raising consciousness about water supply and consumption.

**Per Capita Average Daily Water Consumption for Public Water Systems, 2002**




*See page 54 for additional information on this indicator*

The region and its local governments have responded to these challenges in a variety of ways. The 1998 Regional Environmental Summit brought together over 500 people representing businesses, local governments and the public to develop a regional environmental vision. Volunteer Action Teams then spent a year developing action plans for each of these environmental categories: air quality and transportation, water quality, resource recovery/recycling, land use and open space.

The regional nonprofit, Voices & Choices of the Carolinas, published a regional "State of the Environment Report" in 2004. Mecklenburg County has published a county-level bi-annual "State of the Environment" report since 1988.

Local land trusts emerged around the region beginning in the 1980s. As of 2007, five local land trusts collectively are providing stewardship of over 21,000 acres of undeveloped land, permanently protected through conservation

## Overview (continued)

easements or land purchases.

Most local jurisdictions that did not have any land-use regulations in place two decades ago now have adopted land-use plans and zoning ordinances. Several jurisdictions in the region are regarded as national models for "New Urbanist" land-use planning concepts — which encourage compact development that is walkable and bikeable, incorporate a mix of land uses, require public open space and implement "low-impact design" stormwater-management practices.

The region's transportation planning organizations have taken first steps in addressing the region's air quality "Non-Attainment" status by developing the multi-jurisdictional Long-Range Transportation Plan. The plan is based on sophisticated modeling of future transportation demand from a growing population.
The regional Sustainable Environment for Quality of Life (SEQL) initiative sponsored by Centralina Council of Government and Catawba Regional Council of Governments involves elected officials, local government staffs, business and industry groups, economic development groups and environmental stakeholders working together toward viable solutions to regional growth. Over 80 jurisdictions have implemented a cumulative total of over 800 action items.

This initiative has been followed by Carolinas-Charlotte-CONNECT, also sponsored by the two COGs. It is articulating a regional set of core values about land development and growth management drawn from locally adopted land-use plans and public policy documents. By spring 2008, CONNECT expects to formulate a regional vision for sustainable growth based on the core values.

### Summary of Indicator Results

With air quality, the trend shows the Metropolitan Statistical Area's (MSA) percentage of unhealthy Air Quality Index days has declined over the past decade. However, a large portion of the region was declared in "Non-Attainment" of the Clean Air Act by the Environmental Protection Agency (EPA) in 2005 for ground-level ozone. A contributor to the MSA being in non-attainment despite a decline in unhealthy air days is that the EPA raised the standard for ozone attainment to better protect public health.

As the region's population continues to grow, controlling contributions to ground-level ozone formation from sources such as on-road vehicular, nitrogen oxides (NOx) emissions will be increasingly critical to public health — and thus to workplace productivity and the region's attractiveness as a place to live and work. Failing to control growth in per capita nitrogen-oxides emissions will increase the difficulty of controlling ground-level ozone formation, which in turn will increase the difficulty and cost of returning the region to compliance with the Clean Air Act.

With water consumption, the more urban counties tend to show lower per person consumption figures than their more rural counterparts, likely reflecting the impact of spreading industrial uses of public water over larger, more concentrated populations. Since the more urban counties also tend to cluster along region's river systems, the lower per capita figure also may reflect more industrial water users in those counties relying on their own water-intake permits rather than public water systems.

Seven of the region's North Carolina counties reported reduced average daily water consumption per person between 1992 and 2002: Catawba, Cleveland, Gaston, Iredell, Lincoln, Rowan, and Union. Among South Carolina counties, Chester and York showed a reduction in per person daily consumption over the three-year period, 2001-2003.

The most immediate connections for water consumption are health-related and economic. Both intermittent drought years and continued population growth — with its commensurate demands for industrial and power generation as well as residential and commercial uses of water — have the potential to strain the region's water resources. That places a premium on good water resources management, including water conservation, appropriate uses of potable and reclaimed water and careful allocation of water supplies among industry, power generators and domestic consumers.

Related to water quality, impaired streams occur in both urban and rural parts of the region, but are more prevalent downstream of urban areas. The quality of water in streams reflects land use. It is also affected by permitted and regulated discharges from public and industrial wastewater treatment systems as well as by accidental spills and stormwater runoff. Stormwater runoff can carry pollutants from roads, parking lots, lawns, constructions sites and agricultural areas. Such pollutants include sediment, bacteria, petroleum products from vehicles, and nitrogen and other commercial fertilizer residue.

With "land" indicators, disposal of municipal solid waste and construction/demolition debris is a significant measure. The 3-county South Carolina average per capita disposal rate for such waste and debris increased by 3 percent from 2004 to 2006. Meanwhile, North Carolina's 11-county average increased by nearly 12 percent between 2005 and 2006 after almost no change from 2004 to 2005. A significant portion of the North Carolina increase is attributable to demolition of the former Pillowtex plant in Kannapolis, which pushed Cabarrus County's disposal rate up 45

## Overview (continued)

percent between fiscal year 2005 and fiscal year 2006

Even in this rapidly growing region, municipal solid waste is typically a much larger component of the total waste stream than construction and demolition debris. Efforts to meet disposal reduction goals have thus tended to focus on household and commercial/industrial waste disposal. In the future, however, efforts to reduce construction/demolition waste disposal may have a greater impact on overall waste-disposal reduction.

Solid waste disposal represents environmental, economic and even social costs. Transporting waste to landfills adds to mobile emissions of air pollutants, and protecting groundwater from landfill leakage requires costly engineering and decades of site monitoring. Social-justice questions may arise when landfills are located in economically depressed areas or low-income neighborhoods, while the exporting of waste across state lines may raise concerns as well. Viewed as a measure of a community's efficiency in using and managing resources, reductions in landfill waste represent an opportunity for economic efficiency and productivity gains.

With land development, the UNC Charlotte Center for Applied Geographic Information Systems is currently compiling data as part of a study. The data now available are only for three counties in the region (Cabarrus, Mecklenburg and Union), and only for 1996 and 2006. Mecklenburg County's acreage and population — both of which are the largest among the three counties examined at this time — drive the three-county regional average for developed acreage per person. It is premature to draw conclusions about trends in the region, or even for a county, without data from the rest of the counties and from prior decades.

Once the additional data are available, this method of estimating the region's average acres developed per day may provide more accurate estimates than those established in a previous study. A 1998 UNC Charlotte Urban Institute study estimated 41 acres per day (averaged from 1980 through 2020 based on projected land uses) using a different methodology.

In a rapidly urbanizing area such as the Charlotte region, development and its patterns influence many facets of quality of life. More compact development tends to yield more cost-effective delivery of public services because public infrastructure is not as spread out. It also tends to reduce water runoff associated with roads and parking lots. Agricultural land uses and rural ways of life are more readily maintained when competition for urban and suburban uses does not push up land prices.

On the other hand, without careful design, denser development may not reduce vehicle trips, improve air quality or traffic congestion, nor necessarily produce vibrant and aesthetically pleasing places to live and work.

### Missing and Future Indicators

In the future, the authors plan to study energy, targeting consumption. Other potential energy topics are conservation, renewable sources and alternative fuels.

Currently, North and South Carolina do not collect energy consumption data in a form that permits reporting below statewide levels; thus, energy data are not included in this year's report. Possible energy measures to examine are: average BTUs (millions) consumed per person annually, average kilowatt hours consumed per person, "green" buildings certified by Leadership in Energy and Environmental Design (LEED) and average fuel efficiency of registered vehicles (or percentages of alternative fuel-capable and low-emission vehicles) and green-power options (percentages of providers and customers enrolled).

In current categories, the air quality assessment would benefit from studying stationary emissions sources (such as power generation plants), specific measures of pollutants (carbon monoxide; particulate matter, PM 2.5 and PM10; nitrogen oxides; sulphur dioxide and ozone) and the respiratory codes from emergency room admissions.

Data on stream-buffer regulations, coliform bacteria and sediment-pollutant measures, floodplain development, water-use efficiency (lost through infrastructure, gained through reclaimed water usage) and water-quality violations would enhance indicator monitoring of sustainable water management.

With land, another measure for future consideration includes protected open space (either as a per capita figure or percentage of total land area) and comparing publicly protected land to privately protected land. Other helpful measures of land could include tree canopy and the percentage of brownfield sites that have been reclaimed. Looking at how recent local jurisdictions' adopted land-use plans are, as well as the percentage of developments that are using low-impact designs for stormwater management, would also provide more information.

*See pages 134-135 for Environment indicator data sources*

## Air Quality Index

### What's Measured

This section identifies the percentage of Air Quality Index (AQI) days per year in the "Unhealthy" ranges for the Charlotte-Gastonia-Rock Hill Metropolitan Statistical Area (MSA).

The EPA calculates a daily AQI based on the measurement of five major air pollutants regulated by the Clean Air Act, as recorded at approximately 4,000 monitoring stations across the country. The five pollutants are: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide and nitrogen oxides (NOx). A daily index value is calculated for each air pollutant measured. The highest of those index values is the AQI value, and the pollutant responsible for the highest index value is the "Main Pollutant."

AQI data are summarized annually for counties and Metropolitan Statistical Areas (MSAs), categorized by number of days "Good," "Moderate," "Unhealthy for Sensitive Groups" and "Unhealthy," "Very Unhealthy" and "Hazardous."

This indicator looks at the number of days reported in each year with an AQI of "Unhealthy for Sensitive Groups," or worse, and divides by the number of days in the year with a reported AQI. Generally, the number of AQI days each year corresponds to the number of days in the year.

Please note that not all monitoring stations record all five pollutants, and not all counties in the Charlotte region have monitoring stations. For this reason, the 7-county Charlotte-Gastonia-Rock Hill MSA data has been used rather than county-level data for this indicator. The MSA includes Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan, Union and York counties.

### Why It's Measured

AQI values indicate health concerns associated with air pollution. AQI values range from 0 to 500, with values of 100 corresponding roughly to the national air quality standard for the pollutant.

AQI values above 100 are considered unhealthy (code "orange," "red," "purple" or "maroon"). Those between 50 and 100 indicate acceptable air quality for all but exceptionally sensitive individuals (code "yellow") and those below 50 represent air quality with little to no associated health risks (code "green").

### Indicator Results

In 2006, the percentage of AQI days per year in the "Unhealthy" ranges for the Charlotte-Gastonia-Rock Hill MSA was 5.5.

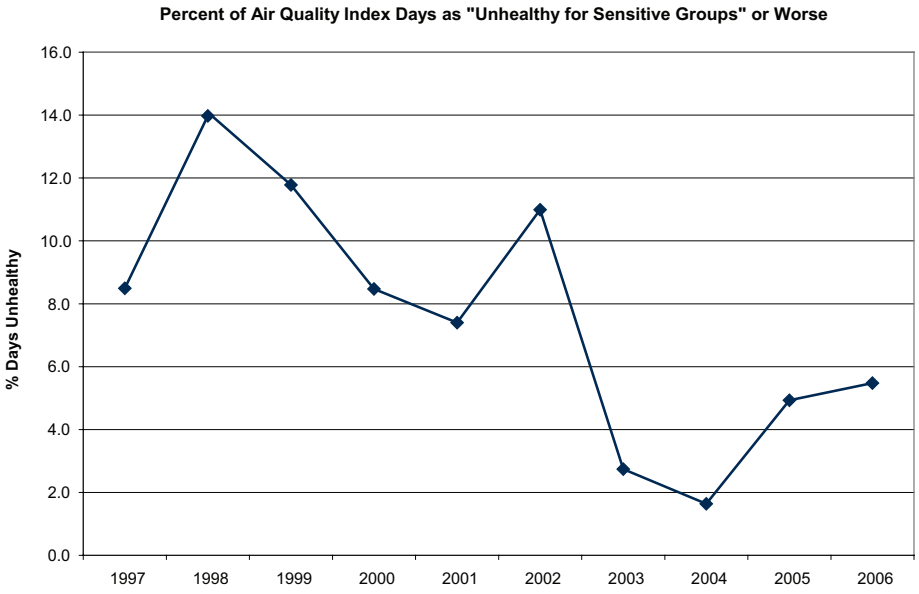
Twenty out of 365 AQI days in 2006 were "Unhealthy for Sensitive Groups" or worse. This is lower than the 10-year average of 7.6 percent. The highest result was reached in 1998, when 14.0 percent of AQI days were in the unhealthy ranges. The lowest result occurred in 2004, when only 1.6 percent of AQI days were in the unhealthy ranges.

In 2006, particulate matter was the main pollutant on 223 AQI days, with ground-level ozone accounting for the remaining 142 AQI days. For the prior seven years, particle pollution was also the main pollutant on the majority of AQI days.

### Evaluation

The trend shows the MSA's percentage of unhealthy AQI days has declined over the past decade. However, a large portion of the region was declared in "Non-Attainment" of the Clean Air Act by the EPA in 2005. A contributor to the MSA being in "Non-Attainment," despite a decline in unhealthy air days, is that the EPA raised the standard for attainment to better protect public health. Although the region's air quality has improved, further improvement is still needed. The region is required to implement a plan for returning to compliance with the Clean Air Act.

Factors influencing AQI unhealthy air days in the region include mobile and stationary emissions, wind patterns



## Air Quality Index (continued)

and summer air temperatures. Two of those factors are not under anyone's control. Being in the South, the region typically experiences higher summer air temperatures than the national average, thus contributing to ground-level ozone formation. The region also is prone to stagnating air conditions, a phenomenon in which air masses settle in one location and do not disperse pollutants effectively. The burden for continuing to improve on the AQI trend rests with controlling and reducing mobile and stationary emissions.

### Connections

Poor air-quality days can be correlated to respiratory health, especially of vulnerable populations such as children, the elderly and individuals with lung disease, asthma or other respiratory conditions. Recommended restriction of outside activity during "Unhealthy" AQI days reduces quality of life. Corporate and individual decisions to remain in or relocate to the region may be affected by these health and quality-of-life considerations.

## Vehicle Emissions

### What's Measured

This section spotlights on-road vehicular emissions of nitrogen oxides (NOx) in the 14-county region. States are required by the EPA to collect and report emissions data every three years. Data for this indicator are from the North Carolina Department of Environment and Natural Resources, and the South Carolina Department of Health and Environmental Control.

The most recently published data are for 2002, with 2005 data anticipated in 2008. Data for prior time periods were defined and collected differently, precluding comparison to current data. Population data are from U.S. Census inter-censal population estimates.

### Why It's Measured

Because volatile organic compounds (VOCs) are in plentiful supply due to vegetation and other sources, NOx is the limiting agent in the formation of ground-level ozone in the region, meaning that the amount of NOx determines how much ozone is produced. Moreover, NOx emissions are something over which the region can exert some control.

Although non-mobile "point sources" (for example, smokestacks) are important emitters of NOx, mobile on-road sources (cars, trucks, vans, etc.) are more directly affected by individual decisions. Ground-level ozone has been the chief cause of the EPA's 2005 designation of "Non-Attainment" for much of the region. This designation will have an economic impact if not addressed.

### Indicator Results

In 2002, NOx on-road vehicular emissions for the 14-county region averaged 82.8 pounds per person.

By county, a high degree of variability exists in per-person measures of NOx emissions from on-road vehicles. Iredell had the highest figure at 167.9 pounds per person in 2002, based on 10,952 tons emitted and a population of 130,495. Union, York, and Lancaster counties have the lowest per capita emissions at 58.2, 58.3, and 60.6 pounds per person, respectively.

Union and York each have roughly half of Iredell's emissions, with populations slightly higher than Iredell's. Lancaster has about one-fifth the emissions and about half the population of Iredell.

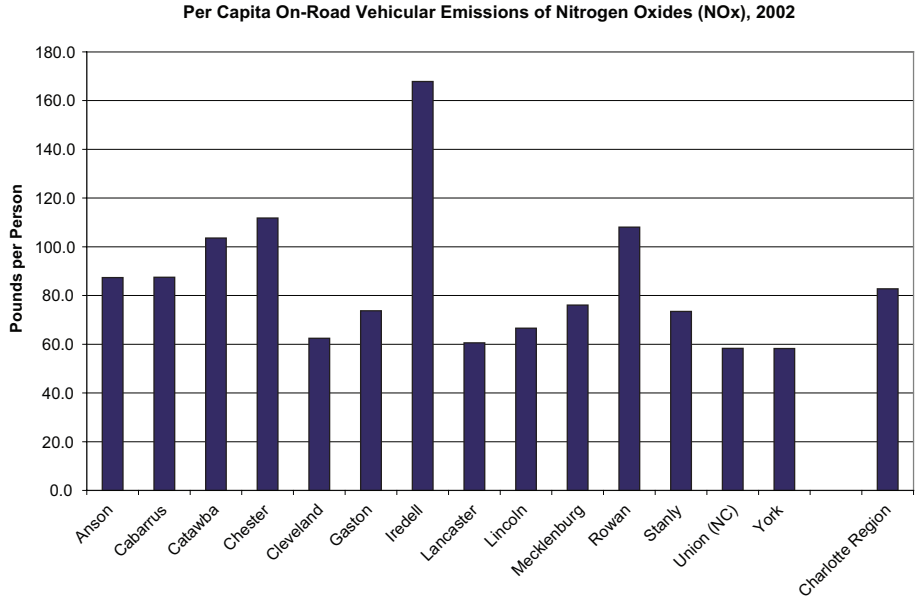
Mecklenburg has the highest actual emissions at 27,967 tons, but it also has the highest population at 735,194. Those numbers yield a rate of 76.1 pounds per person.

### Evaluation

It is potentially misleading to emphasize individual county results when examining air pollutants from any source. Air pollutants shift downwind from their source, and in the case of on-road emissions, the presence of interstate highways in predominantly rural counties tends to elevate the per capita rate. For example, Iredell's high per capita measure of on-road emissions is in part attributable to the location of Interstates 40 and 77 within its borders. The regional trend will be the more critical indicator to monitor once 2005 data are released.

### Connections

As the region's population continues to grow, controlling contributions to ground-level ozone formation from sources such as on-road vehicular NOx emissions will be increasingly critical to public health — and thus to workplace productivity and the region's attractiveness as a place to live and work. Failing to control growth in per capita NOx emissions will increase the difficulty of controlling ground-level ozone formation, which in turn will increase the difficulty and cost of returning the region to compliance with the Clean Air Act.



## Water Consumption

### What's Measured

This section examines local water system use in average gallons per day per person served by the water systems. Both North and South Carolina require reporting of water withdrawals by local water-supply systems above minimum thresholds. North Carolina requires reporting of withdrawals by all local government water systems or other water systems that regularly serve 1,000 or more service connections or 3,000 or more people. South Carolina requires reporting withdrawals of three million gallons or more in any given month. Data for this indicator are from North Carolina's Department of Natural Resources and South Carolina's Department of Health and Environmental Control.

This indicator includes only the use of water by local water systems filing reports with the states, and excludes water used for agriculture or power generation, water drawn from individual wells and permitted water intakes by residential or industrial water consumers. These local water systems include municipal, county, and private water systems. Each state provides an estimate of the number of people served by these water systems, which is used to calculate the per person indicator.

South Carolina mandates yearly reporting; North Carolina requires it every five years. Both states provide data by county; however, they differ in how they report those withdrawals. North Carolina includes purchases of water from systems in other counties and excludes sales of water to systems in other counties, yielding a "local consumption" figure. South Carolina reports "local withdrawals," which does not include water purchased from other counties or water sold to systems in other counties.

Ideally, a future indicator would include all "consumptive" uses (typically defined as water withdrawals that are consumed by humans or livestock, incorporated into products or crops, evaporated, transpired or otherwise removed from the immediate water environment), especially agriculture and industrial uses. However, it is important to note that to the extent industrial water consumers use public water systems rather than their own water intakes, some industrial water consumption is included in the current indicators.

### Why It's Measured

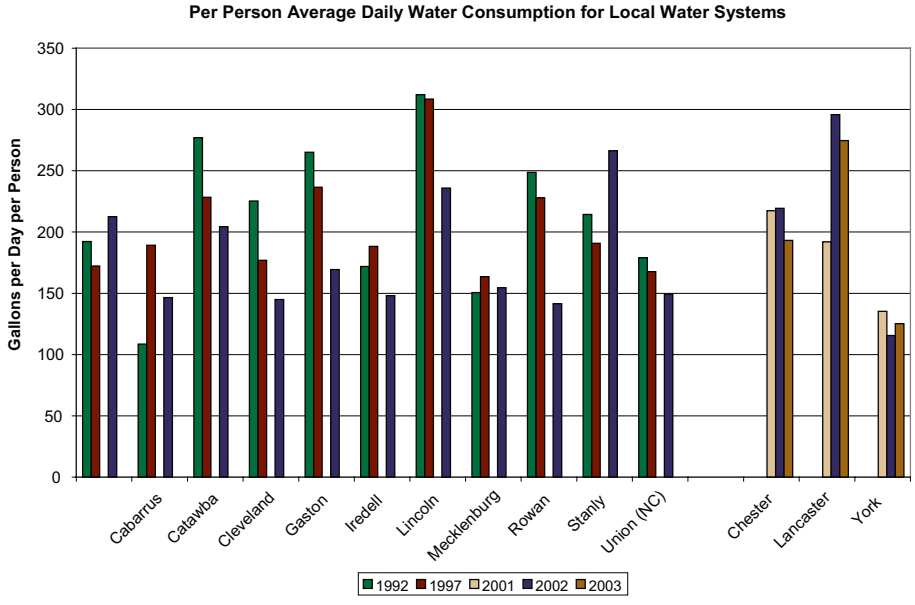
Adequate supplies of water for power generation as well as residential, commercial, industrial and agricultural uses are essential to the region's continued economic prosperity and sustainability. Our local water systems are the second-largest users of water, after power generation, and are much heavier "consumers" of water than non-consumptive uses such as hydroelectric power generation, which typically diverts water temporarily before returning it to its source.

### Indicator Results

In 2002, for the 11-county North Carolina portion of the region, the water-use average was 160.9 gallons per day, per person. For the three-county South Carolina part of the region, the water-withdrawal average was 186.0 gallons per day per person in 2002.

This report used figures from 2002 for calculating the North and South Carolina regional averages because it is the only year for which there were data from both states. South Carolina has water withdrawal data for 2001 through 2004, whereas North Carolina has water-usage data for 1992, 1997 and 2002.

In North Carolina, Rowan County yielded the lowest average daily per person consumption for 2002, at 141.4 gallons per day per person, followed by Cleveland, Cabarrus, Iredell, and Union counties, in that order. Mecklenburg and Gaston counties were closest to the 2002 North Carolina regional average, at 154.6 and 169.4 gallons per day per person, respectively. Stanly County had the highest average daily per person consumption (266.3 gallons per day per



## Water Consumption (continued)

person), followed by Lincoln, Anson, and Catawba counties, in that order.

In South Carolina, York County had the lowest average daily per person withdrawal for 2002, at 115.5 gallons per day per person, while Chester and Lancaster counties reported substantially higher amounts (219.4 and 295.8 gallons per day per person, respectively).

Seven of the region's North Carolina counties reported reduced average daily per person water consumption between 1992 and 2002: Catawba, Cleveland, Gaston, Iredell, Lincoln, Rowan, and Union. Among South Carolina counties, Chester and York showed a reduction in per person daily consumption over the three-year period, 2001-2003.

### Evaluation

Given the wide variation in per person water consumption among the region's counties, and predictions of increasing pressures on water supplies, it will be helpful if future reports can include data that shed light on possible explanations for these variations. Are they reflections of urban versus rural consumption patterns? Are they due to differences in extent of smaller water suppliers not required to report withdrawals to the states, or in extent of industrial water users relying on local water systems?

To gain a better understanding of local consumption in future reports, the regional water consumption indicator could capture self-supplied industrial water use as well as local water system use, to monitor a larger share of total water use in the region.

### Connections

The most immediate connections for water consumption are health-related and economic. Both intermittent drought years and continued population growth — with its commensurate demands for industrial and power generation as well as residential and commercial uses of water — have the potential to strain the region's water resources. That places a premium on good water resources management, including water conservation, appropriate uses of potable and reclaimed water and careful allocation of water supplies among industry, power generators and domestic consumers.

## Impaired Streams

### What's Measured

This measure looks at impaired stream miles as a percentage of total stream miles in the 11 North Carolina counties in the Charlotte region. It also examines monitoring sites reporting impaired streams in the three South Carolina counties in the region. Because of different reporting methodologies, data from the two states cannot be combined.

The federal Clean Water Act requires states to collect and report data on streams with impaired water quality by measuring pollutants that exceed standards for the stream's intended use or designation. State reports to the EPA under this provision of the Clean Water Act are referred to as each state's "303(d)" list of impaired streams. Data for this indicator are from each state's respective 303(d) annual report for 2006. However, since states are not required to use the same methodologies or formats, "303(d)" data from the two states in the region cannot be combined to create a regional indicator.

In its 2006 report, North Carolina published a Geographic Information Systems map of perennial streams, rivers and lakes that showed impaired streams, making calculation of the stream-miles percentage practical for the first time. The term "stream" encompasses all surface waters, including rivers and lakes.

### Why It's Measured

The quality of water in streams affects aquatic ecosystems and their ability to provide what have come to be known as "ecosystem services" to humans. Aquatic plants and animals that live in streams form the bottom of an ecological chain, the disruption of which has ripple effects far up the chain, including land-based animals. Also, water-supply and potable water treatment costs are affected, as well as the viability of streams for such activities as fishing, wading or swimming.

### Indicator Results

In 2006, impaired stream miles as a percentage of total stream-miles was 5.6 percent for the region's 11 North Carolina counties. Of the 16,546 miles of streams in the North Carolina counties, 922 miles were impaired.

In the South Carolina counties, 73 of 144 monitored stream locations reported impaired water quality.

### Evaluation

Impaired streams occur in both urban and rural parts of the region, but are more prevalent downstream of urban areas.

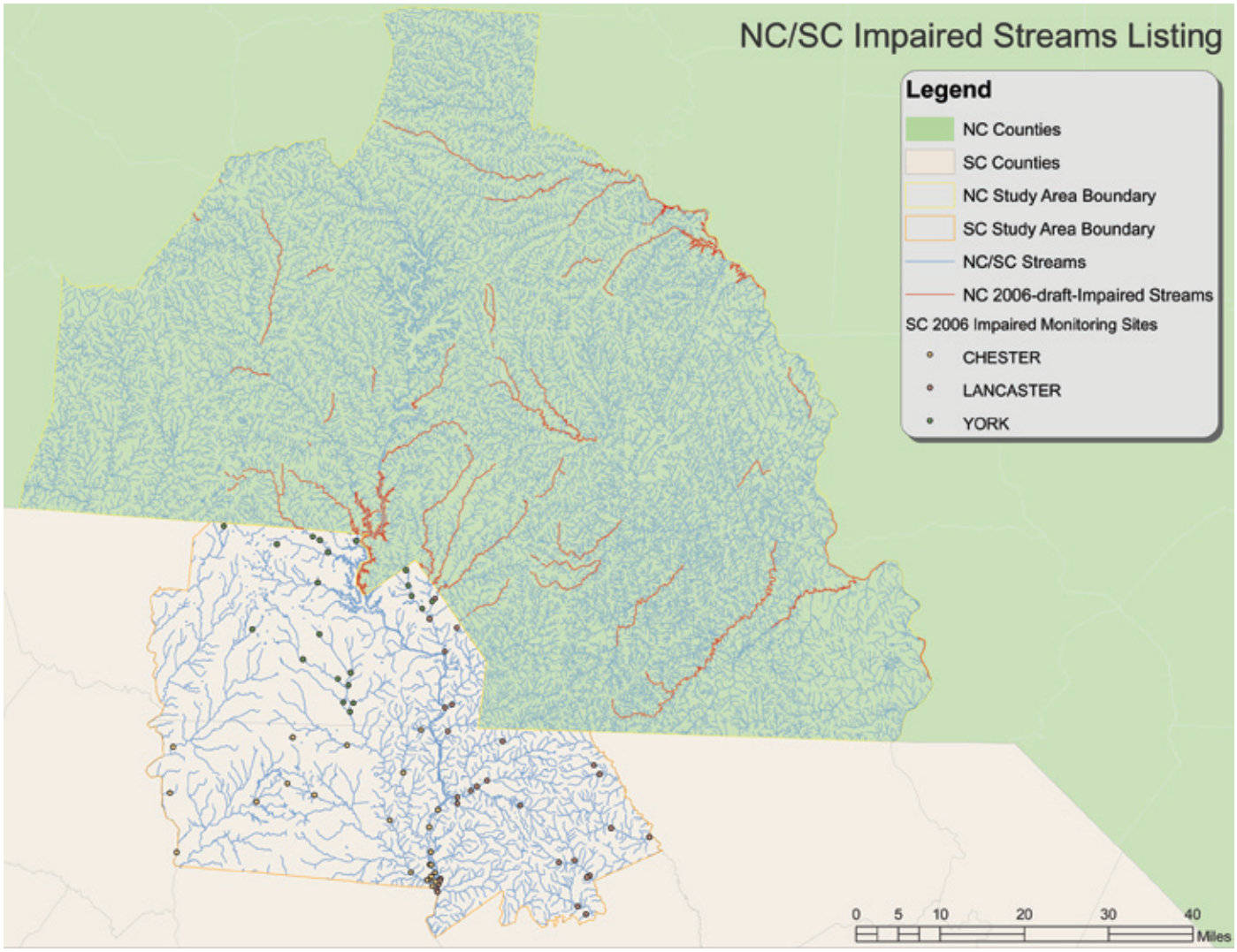
It would be misleading to construe the South Carolina indicator as a percentage for comparison to the North Carolina figure, since the location of monitored sites reflects locations of known and suspected pollution sources rather than a blanket monitoring of evenly distributed sites.

Since the North Carolina indicator results also reflect locations of actual monitored sites, caution must be used in interpreting the indicator expressed as a percent of total stream miles. However, as long as the methodology for selecting monitor locations remains relatively stable in each state, the indicators can effectively track progress in maintaining or improving water quality over time.

### Connections

The quality of water in streams reflects how we use land. It is affected by permitted and regulated discharges from public and industrial wastewater treatment systems as well as by accidental spills and stormwater runoff. Stormwater runoff can carry pollutants from roads, parking lots, lawns, constructions sites and agricultural areas. Such pollutants include sediment, bacteria, petroleum products from vehicles and nitrogen and other commercial fertilizer residue.

## Impaired Streams (continued)



## Solid Waste Disposal

### What's Measured

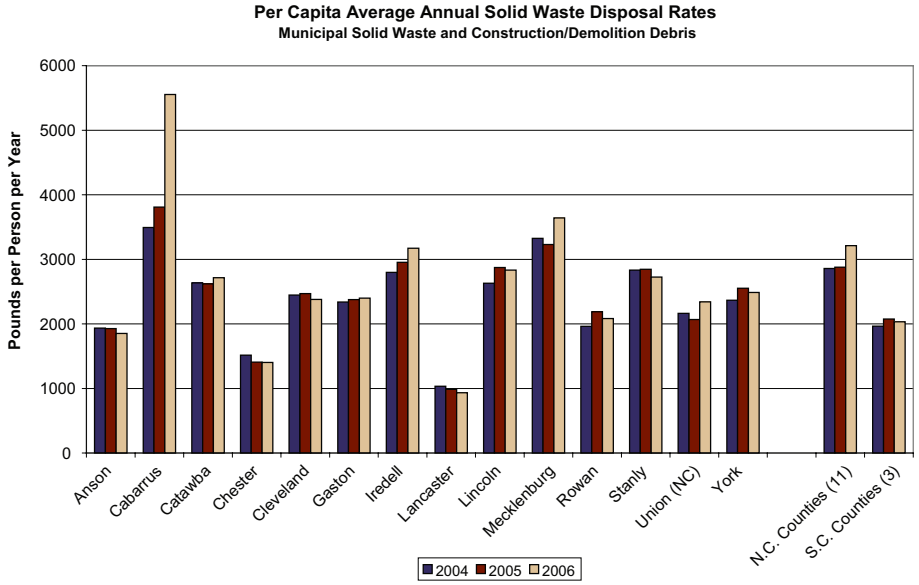
This section quantifies the disposal of municipal solid waste (MSW) and construction and demolition (C&D) debris. Both North and South Carolina maintain annual data by county on waste disposed at landfills. Both states also adjust their county-level data to exclude waste "imported" from other places and to include waste "exported" to other places, providing a measure of waste generated from within each county that is disposed at landfills, regardless of where the disposal occurs.

However, the two states differ in how the three main categories of landfill waste are reported, making it difficult to construct a regional indicator covering all 14 counties. South Carolina uses the EPA's definition of MSW and reports it separately from waste disposed at C&D debris landfills and land-clearing debris (LCD) landfills. North Carolina reports a combined MSW and C&D disposal figure.

Because some LCD waste may be included in C&D landfill data, it is not possible to obtain a precise measurement of South Carolina C&D waste disposed that, when added to its municipal solid waste data, would be directly comparable to North Carolina's combined MSW/C&D data. Nor is it possible to subtract North Carolina's C&D waste from its combined MSW/C&D data. For this reason, separate indicators for the North and South Carolina portions of the region have been constructed. Data for these indicators are from the North Carolina Solid Waste Management Annual Report for 2005-2006 and the South Carolina Solid Waste Management Annual Reports for fiscal years 2001 through 2006.

### Why It's Measured

Reducing waste disposal is a goal for both states, neither of which has achieved success in reversing the historic trend of increases, despite increases in recycling programs and "reduce-reuse-recycle" public-awareness efforts. Land for landfills is increasingly scarce and expensive, and the cost of managing waste disposal and constructing and maintaining landfills is large.




### Indicator Results

In fiscal year 2006, disposal of MSW and C&D debris amounted to more than 3,200 pounds per person in the North Carolina portion of the region, and more than 2,000 pounds per person in the three-county South Carolina portion of the region. The actual figures were 3,211 (North Carolina) and 2,032 (South Carolina).

Cabarrus County leads the North Carolina counties with the highest per capita waste disposal rate, followed by Mecklenburg, Iredell and Stanly counties. Anson, Rowan, and Union report the lowest per capita waste disposal rates among the 11 North Carolina counties.

The South Carolina counties reflect their respective degrees of urbanization: York has the highest per capita disposal rates, while Chester and Lancaster report rates at roughly half that of York.

### Evaluation

South Carolina's three-county average increased by three percent over the last three years, while North Carolina's 11-county average increased by almost 12 percent from 2005 to 2006 after almost no change from 2004 to 2005. A significant portion of the North Carolina increase is attributable to demolition of the former Pillowtex plant in Kannapolis, which pushed Cabarrus County's disposal rate up 45 percent between fiscal year 2005 and fiscal year 2006.

It is not surprising that some rural counties are among the lowest in per capita waste disposal rates.. Urban areas collect waste generated by both urban residents and by urban workers who commute from suburban and rural areas. The greater concentration of industrial and commercial production in urban areas also contributes to a larger per person waste stream than

## Solid Waste Disposal (continued)

in more rural areas. Construction also occurs disproportionately in and near urban areas than in rural areas, generating construction and demolition debris. Therefore, urbanism tends to play a more significant role in increasing the waste stream.

Even in this rapidly growing region, municipal solid waste is typically a much larger component of the total waste stream than construction and demolition debris. Efforts to meet disposal reduction goals have thus tended to focus on household and commercial/industrial waste disposal. Reductions can come in four areas: reduced consumption, reduced packaging, increased re-use and increased recycling. In areas of the region where household and commercial/industrial waste reduction efforts are estimated to already have yielded their maximum impact, efforts to reduce C&D waste disposal may have a greater impact on overall waste disposal reduction.

### Connections

Solid waste disposal represents environmental, economic and even social costs. Transporting waste to landfills adds to mobile emissions of air pollutants, and protecting groundwater from landfill leakage requires costly engineering and decades of site monitoring. Waste-management decisions are often fraught with political issues. Social justice questions may arise when landfills are located in economically depressed areas or low-income neighborhoods, while the exporting of waste across state lines may raise concerns as well. Viewed as a measure of a community's efficiency in using and managing resources, reductions in landfill waste represent an opportunity for economic efficiency and productivity gains.

## Developed Acreage

### What's Measured

This report measures developed land in acres per person. Developed acres include both residential and nonresidential development, excluding agriculture, and are assessed using satellite imagery, taken at roughly 10-year intervals from 1976 to 2006. The imagery is on a 30-meter by 30-meter pixel scale.

Population data are taken from inter-censal estimates of the U.S. Census. The imagery data are being compiled as part of a study conducted by the UNC Charlotte Center for Applied Geographic Information Systems (CAGIS) and is currently only available for three counties in the region (Cabarrus, Mecklenburg and Union), and only for 1996 and 2006.

But by the end of December 2007, the imagery will be available for all counties in the 14-county region for all four time periods (1976, 1985, 1996, and 2006). Please note that data from 1985 was used instead of data from 1986 because of the high degree of cloud cover in the 1986 satellite imagery.

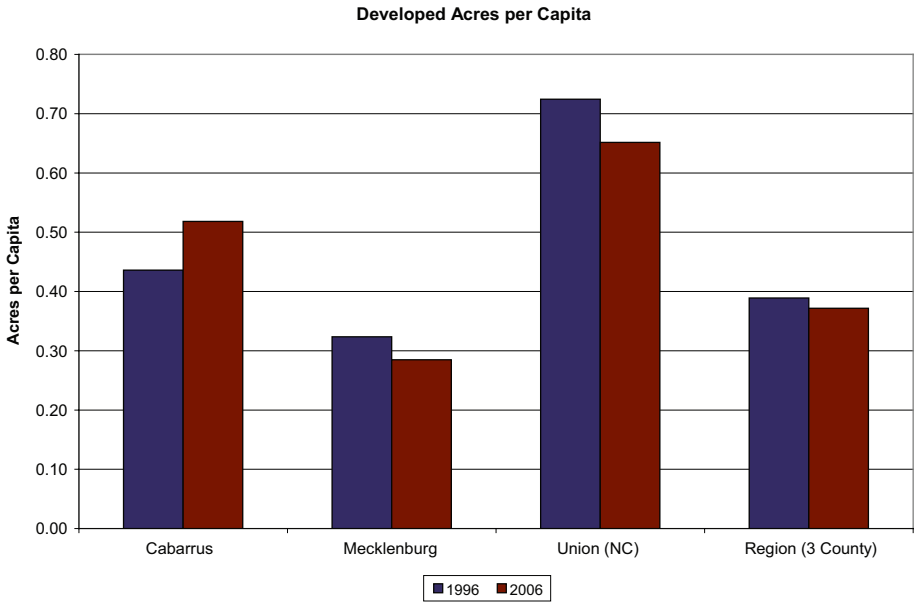
### Why It's Measured

Per capita developed acres measures how land development is keeping pace with population growth. Over time, it indicates if the population is requiring more or less total developed land per person, not just for housing but for roads, jobs, etc.

### Indicator Results

In 2006, developed acres for Cabarrus, Mecklenburg and Union counties averaged just over a third of an acre per person, at 0.37. The figure represents the three counties together as a portion of the region.

Developed acres per person in 2006 ranged from a low of 0.28 for Mecklenburg County to a high of 0.65 for Union County. The three-county average declined slightly over the past decade, as did both Union and Mecklenburg counties. Cabarrus County showed an increase in developed acres per person during that same period.




The data also showed a three-county average rate of land development from 1996 to 2006 of 28.9 acres per day.

### Evaluation

Mecklenburg County's population and developed acreage — both of which are the largest among the three counties examined at this time — drive the three-county average. It is premature to draw conclusions about trends in the region, or even for any county, without data from the rest of the counties and from prior decades. It is clear, though, that the differences between the counties are as expected: Mecklenburg's relatively low number of developed acres per person corresponds to its high degree of urbanization and higher density of development in and around Charlotte's center city area; Union's higher number of developed acres per person reflects its suburbanizing pattern of development.

It is interesting, however, to compare the preliminary results from the current study by CAGIS to estimates established in a previous study. A 1998 UNC Charlotte Urban Institute study using a different methodology estimated 41 acres per day average rate of land development from 1980 through 2020, based on current and projected land uses and population for a 15-county version of the region (the Indicators Project's 14 counties plus Cherokee, South Carolina). The 1998 Institute study also estimated 13.8 acres per day for the 3-county portion of the region for which preliminary CAGIS study results are available. The difference between the two estimates – 13.8 acres developed per day in the 40-year period from 1980 to 2020 according to the 1998 Institute study, and 28.9 acres developed per day in the 10-year time period from 1996 to 2006 in the CAGIS study – could be indicative of a real increase in the average rate of development in those three counties since the 1998 study was conducted, or could simply reflect

## Developed Acreage (continued)

differences in the methodologies. Once the additional data from the CAGIS study are available, these differences can be examined more closely.

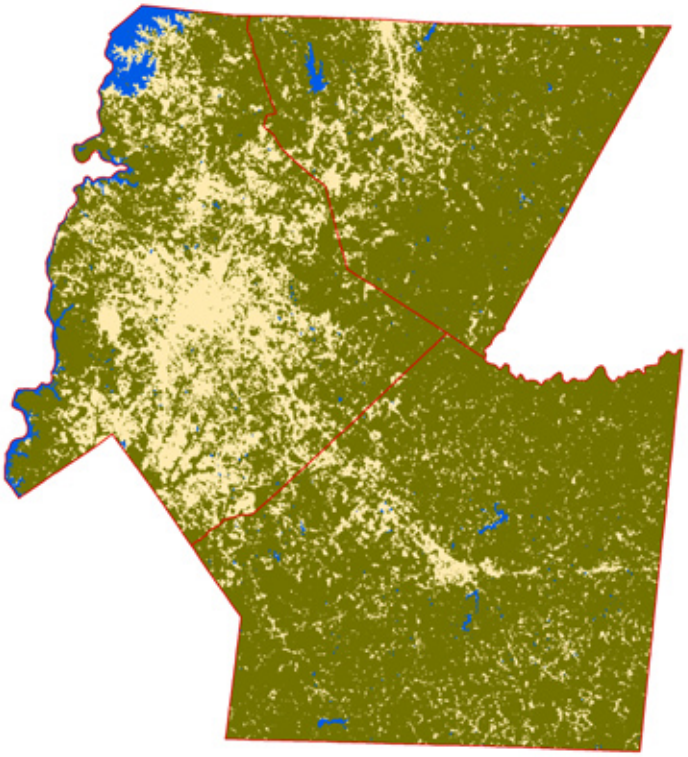
The 1998 Institute study also showed the same pattern of developed acres per person as the CAGIS study when the 1990 results for Cabarrus, Mecklenburg and Union counties were compared: Mecklenburg had the lowest rate (0.38), Union had the highest (0.74), and Cabarrus fell between the two (0.69).

### Connections

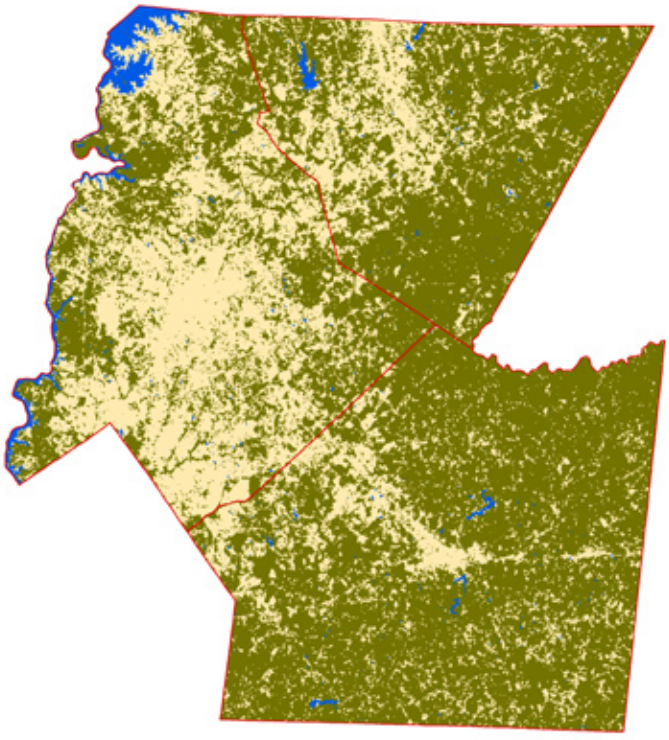
In a rapidly urbanizing area such as the Charlotte region, development and its patterns influence many facets of quality of life. More compact development tends to yield more cost-effective delivery of public services because public infrastructure is not as spread out. It also tends to reduce water runoff associated with roads and parking lots. Agricultural land uses and rural ways of life are more readily maintained when competition for urban and suburban uses doesn't push up land prices.

On the other hand, without careful design, more dense development may not reduce vehicle trips, improve air quality or traffic congestion, nor necessarily produce vibrant and aesthetically pleasing places to live and work.

**1996 Land Development**



**2006 Land Development**



# Government and Citizen Participation

## Overview

### Scope

This year's report covers government and citizen participation related to the presence and activity of public charities and private foundations, contributions to those groups and participation in the electoral process in terms of voter turnout.

Eventually, the authors would like to see this topic encompass efficiency and effectiveness of government, equality in government, responsiveness and quality of government, citizens' willingness to be engaged in the community through donations, volunteering, political participation or holding public office, and citizens' ability to contribute to the community through organizations that foster civic involvement and engagement.

As data and resources become available, future indicators will be designed to cover the full breadth and depth of the theme area.

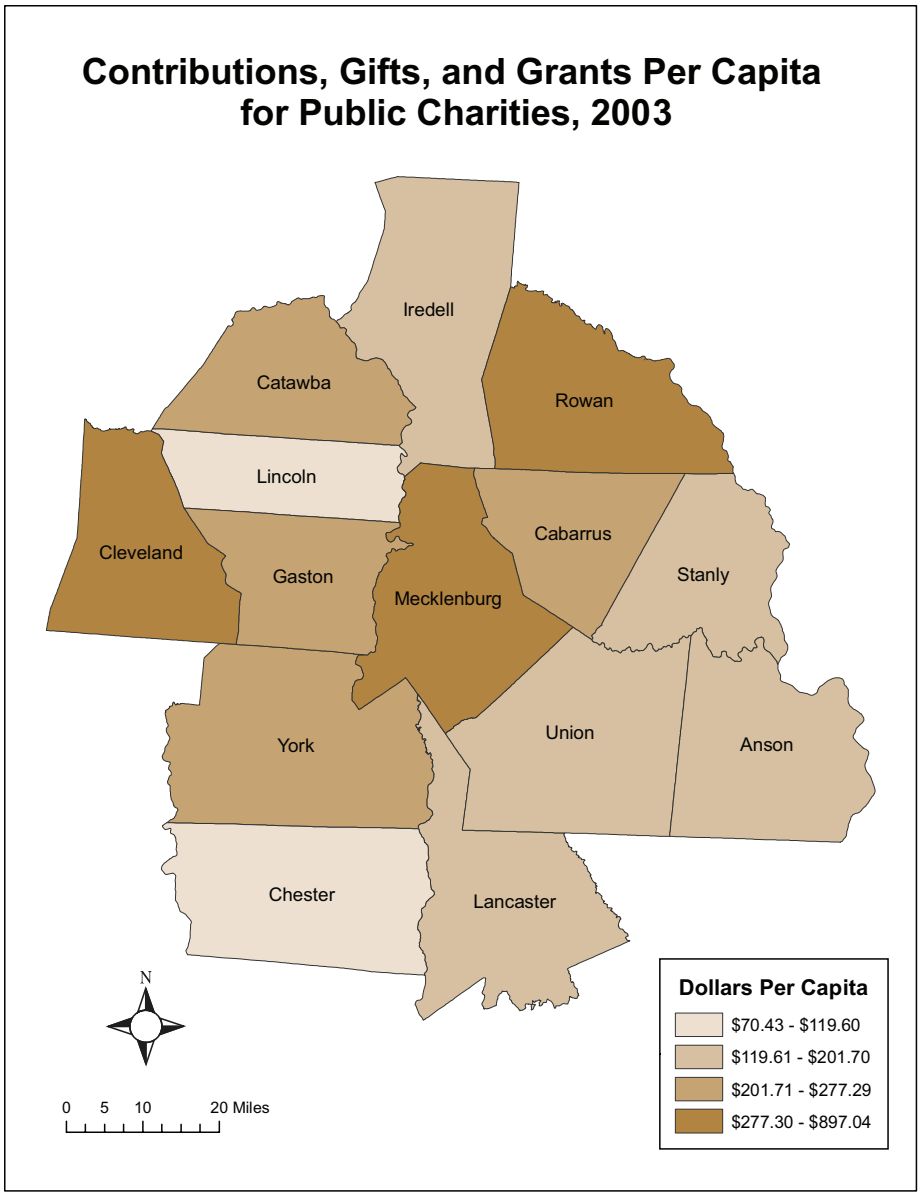
### Regional Context

Over the last several decades, public charities and private foundations in the region have changed shape.

In the past, public charities focused primarily on smaller community organizations — such as churches and faith-based groups, local organizations and grassroots entities that targeted money locally and were "hands-on" with donors. With the region's growth, larger public charities have emerged that have a broader or regional focus. Good examples are the Foundation For The Carolinas, United Way of Central Carolinas, Goodwill Industries of the Southern Piedmont and The Lee Institute.

With private foundations, the evolution has been from a variety of organizations serving particular communities to a more collective approach. Mergers in corporate America have led to larger corporate foundations serving more than one community, with many of those foundations now serving a national constituency. Similarly, the region over the years has become home to a number of large private foundations, such as the Duke Endowment, whose service areas extend well beyond the boundaries of the 14-county region.

With government, services have grown to meet the region's population growth over the last several decades. Increases can be seen in the number of programs for the disadvantaged, and greater levels of services and regulations. With government increasingly playing such a prominent role in meeting the needs of the region's population, questions arise as to the quality of that government at the local level and how active the region's citizens are in choosing their governmental leaders. Voter turnout is an indicator of citizen involvement.




*See page 71 for additional information on this indicator*

## Overview (continued)

### Summary of Indicator Results

While findings were inconclusive about the growth of private foundations and public charities, indicators provided clear information about the giving to those organizations.

Per capita giving to private foundations is doing extraordinarily well. The regional average was $107.94 for 2004. That's 66 percent higher than the North Carolina average ($64.91) and more than seven times higher than the South Carolina average ($12.93).

While these numbers reflect that many regional and national foundations are headquartered in Charlotte, the fact remains that the region is blessed with a wealth of philanthropic resources through its private foundations.

Despite the wealth of foundation resources, however, the region tends to lag in philanthropic giving to public charities. Even with Mecklenburg County and its concentration of public charities and private wealth, the region still trails the North Carolina average in per capita giving to public charities ($459.99 for the region vs. $702.22 for the state). The regional figure also is not substantially higher than the South Carolina average of $351.69.

Taken together, these two indicators of philanthropic giving (private foundations and public charities) suggest that the region's financial support of its nonprofit sector is more top-down than grassroots.

The inconclusive nature of the data surrounding the growth of public charities and private foundations is based on filing federal tax forms required of charities with incomes of more than $25,000. While the number of public charities has grown in the region, the number filing Internal Revenue Service (IRS) Form 990 has decreased, leading to a situation where nearly two-thirds of the public charities did not file a 990 Form in 2007.

The growth in the number of public charities would seem to indicate an increase in citizen participation through the region's private, nonprofit sector. However, drawing such a conclusion would depend on a better understanding of the public charities that did not file Form 990. If most of these non-filing organizations are "start-ups" with income of $25,000 or less, the argument could be made that there is indeed growth in regional civic engagement through the nonprofit sector, and that there is emerging a more grassroots-oriented nonprofit community in the region.

However, if the diverging numbers reflect a growing number of "inactive" public charities that have yet to dissolve legally, an argument could be made that there has been, at best, a maintenance of the status quo, and at worst, a decrease in civic engagement through the nonprofit sector. Only a more detailed analysis of the data could determine this.

As with public charities, data on the number of private foundations filing Form 990 showed a dramatic drop between 2004 and 2005. Closer analysis of the data revealed that most of this drop occurred in Mecklenburg County. Other counties in the region as well as the state averages remained fairly stable during this period.

No satisfactory explanation for this drop has been identified. Was there a major consolidation of foundations during this period? Or, was there some regulatory change at the federal level that caused a significant shift in how people make charitable donations (perhaps moving from family foundations to other giving mechanisms such as donor-advised funds at community foundations)? As with the discrepancy related to public charities, more study is needed.

In looking at citizen engagement in the government realm, the study examined turnout in presidential voting years and non-presidential voting years. Historically, turnout is higher in presidential years, which held true for this report.

Of more interest, the survey showed that across counties in the region turnout in presidential years has been increasing, while turnout in non-presidential years has been declining. This makes the disparity in these voting scenarios (presidential vs. non-presidential years) that much greater.

Comparing regional turnout to state turnout, the region was on par with North Carolina but lower than South Carolina. Within the region, rural counties tended to vote at higher rates than urban counties, suggesting that as the region continues to become more urban, voting rates may decline.

### Missing and Future Indicators

Looking at future indicators, the authors of this study would like to see a refinement of the information related to charitable activities as well as additional information on political participation.

Three new areas worthy of consideration are tracking the diversity of elected officials, gauging the effectiveness of local government and looking at attitudes within the faith-based community toward civic participation.

Refining charitable information will be contingent on the availability of data. Helpful information would include a comparison of 501(c)(3) organizations to other types of IRS-designated, nonprofit organizations and segregating information on 501(c)(3) organizations by their level of operations, including

## Overview (continued)

budget, number of staff, volunteers, etc. The development of a methodology to assess the activity of public charities with income of $25,000 or less (thereby excluding them from the reporting requirements of the IRS) would answer many questions about an important segment of public charities in the region.

Furthermore, additional analysis of donations to and grants from such regional charitable organizations as the Foundations For The Carolinas and United Way of Central Carolinas would provide a more accurate assessment of charitable activity by county. Time constraints did not permit this level of analysis for this inaugural report, but many of those organizations have offered their assistance in providing access to that information for future reports.

In addition to measuring political participation by voter turnout — as was done in this year's report — attitudinal surveys could assess direct participation in the political process. The project could survey citizens about their attendance at public meetings, such as hearings, council and commission meetings and government-sponsored information sessions.

With the changing diversity of the region, are county commissions, town councils, etc. reflecting the diversity of the population? Having leadership mirror the make-up of the region is important to ensuring all interests are represented in governing bodies.

How do citizens feel about the job their local governments are doing serving the public? Using secondary-source material or directly surveying regional citizens on their views of government would provide an assessment of how town or county governing boards are performing.

The faith-based community is an important vehicle for citizen participation in the region, but data are difficult to obtain. Perhaps through attitudinal surveys with this group, future indicator reports could capture data on religious practices and volunteerism.

*See page 135 for Government and Citizen Participation indicator data sources*

# Voter Turnout

### What's Measured

This study looks at the percentage of registered voters who voted in election years 2000, 2002, 2004 and 2006, using data from the North Carolina State Board of Elections and the South Carolina State Board of Elections.

### Why It's Measured

Measuring turnout of registered voters provides information about the political engagement of citizens. High levels of voter turnout suggest that citizens are interested in political campaigns and want to participate in the selection of their representatives. Historically, voter turnout is higher in years including a U.S. presidential election, and so the indicator examines both presidential and non-presidential election years.

### Indicator Results

In the last presidential election year (2004), turnout among registered voters in the region was 65.3 percent. This was higher than North Carolina's turnout (64.0), but lower than South Carolina's turnout (70.5 percent).

As expected, voter turnout was lower in non-presidential election years. In 2002, voter turnout in the region was 45.7 percent, and in 2006, it was 37.0 percent. In both years, turnout in the region was lower than turnout in either North Carolina or South Carolina as a whole.

Within the region, the county with the highest voter turnout is, by far, Chester County, with 91.1 percent turnout in 2004 and 67.2 percent in 2006. Other counties with relatively high turnout include Lancaster (70.7 percent in 2004, 44.8 percent in 2006), Lincoln (67.7 in 2004, 42.0 in 2006), Stanly (71.5 in 2004, 43.4 in 2006), and York (71.2 in 2004, 46.6 in 2006).

With data from just four years (two presidential elections and two off-year elections), it is difficult to identify trends.

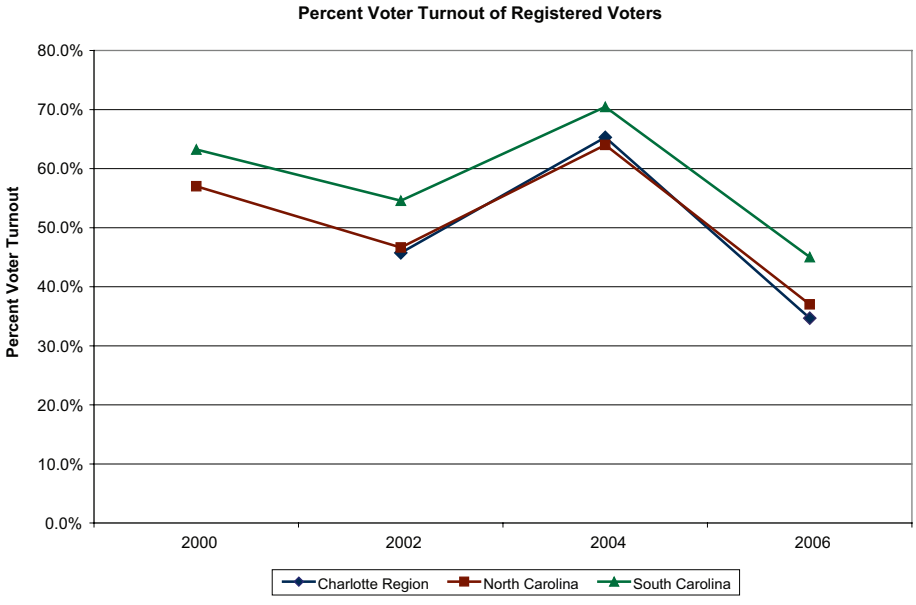
### Evaluation

Voter turnout in the region is below turnout figures for either North Carolina or South Carolina; although, the region's turnout numbers are not far below North Carolina's turnout rate.

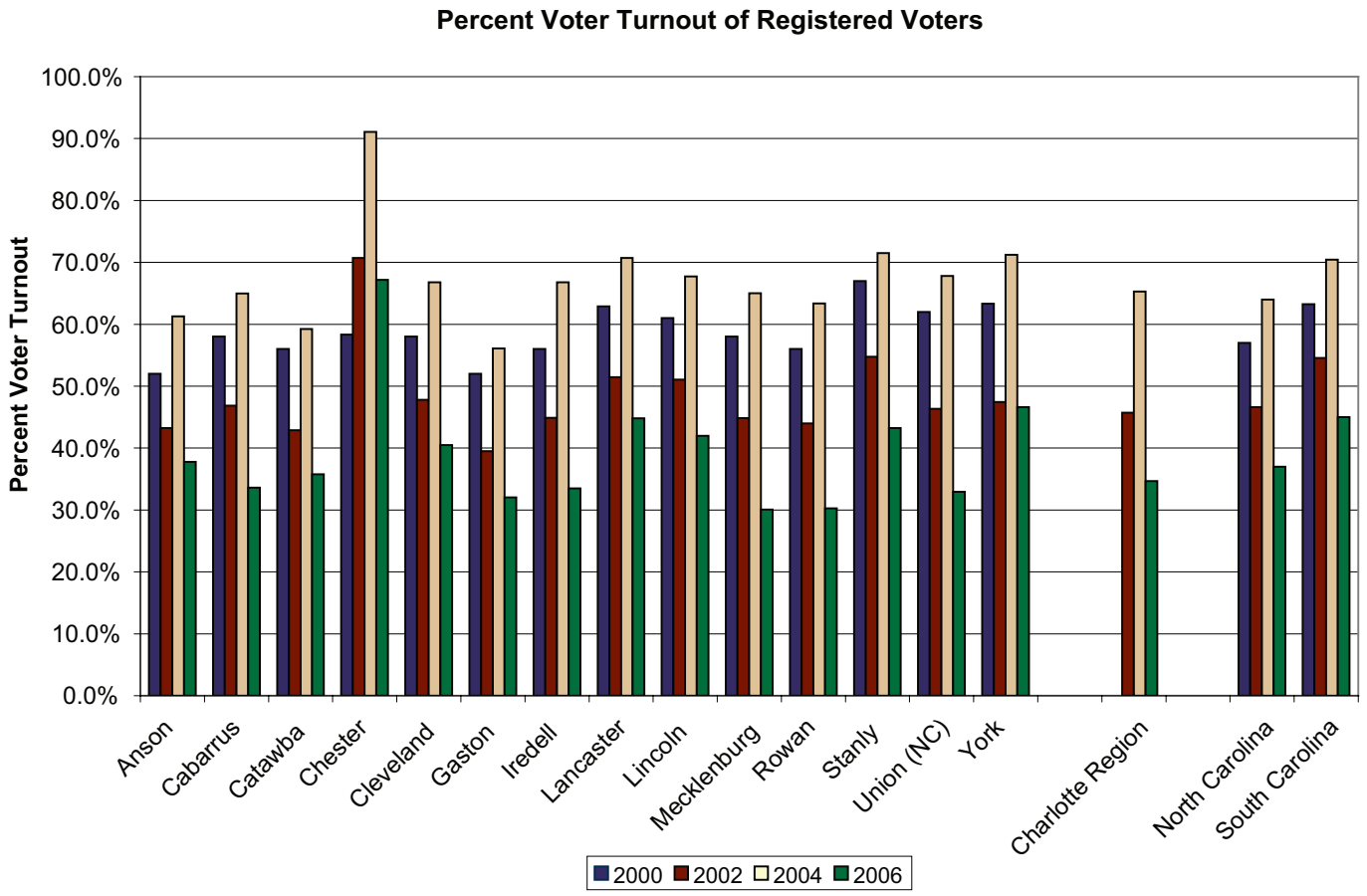
Among the counties, there is some variation in voter-turnout rates. Typically the more rural counties have higher voter turnout than the more urban counties. With regard to trends, turnout was higher in 2004 than 2000 (both years with presidential elections), but turnout was lower in 2006 than 2002. Thus, it is not clear from the numbers whether voter turnout in the region is increasing or decreasing, but one might speculate that voter turnout will fall as the region's population becomes more concentrated in urban areas.

### Connections

Voter turnout has important connections to other measures of citizen involvement. High voter turnout suggests that citizens have a high level of interest in participating in the political process. Lower voter turnout suggests that residents do not feel as much a part of the political process, which is an important measure of community involvement. Low voter turnout may also increase the influence of special interests and groups with more extreme views, with less strongly-motivated citizens staying away from the polls.



## Voter Turnout (continued)



## Public Charities

### What's Measured

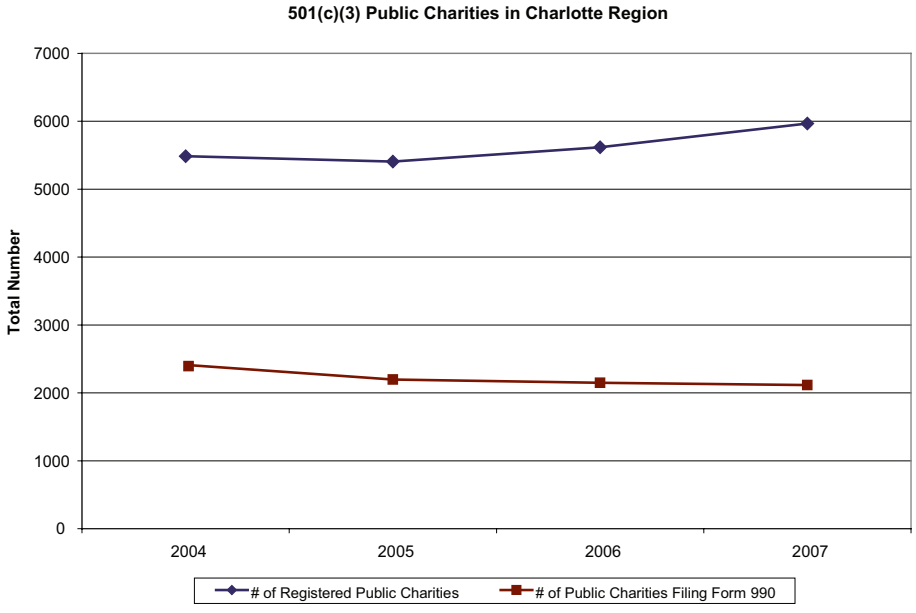
The report identified the number of registered 501(c)(3) public charities in the region, including those that have filed an Internal Revenue Service (IRS) Form 990, for the years 2004 through 2007, using data from the National Center for Charitable Studies. Data prior to 2004 were unavailable. U.S. Census population estimates were used to calculate the per 1,000 population indicators.

Public charities designated as 501(c)(3) organizations under the Internal Revenue Code are exempt from federal income taxes because they are operated solely for religious, charitable, scientific, public safety (testing), literary or educational purposes; amateur sports competition or for the prevention of cruelty to children or animals. Such organizations with more than $25,000 in income are required to file an annual Form 990 with the IRS to provide information on their mission, program and finances.

501(c)(3) public charities are different from 501(c)(3) private foundations in that public charities are primarily supported by the general public (and sometimes the government) and therefore have different filing requirements than private foundations. Private foundations typically receive contributions from a single source such as an individual, family or corporation, and face stricter reporting requirements than other 501(c)(3) organizations. This indicator tracked registered public charities, comparing those that filed a Form 990 and those that did not.

### Why It's Measured

Public charities provide opportunities for residents to contribute both their time and money to support causes they are passionate about, improving the quality of life of their communities. A ratio of 501(c)(3) public charities to population suggests higher levels of civic engagement. The number of such organizations required to file Form 990 gives some insight into the relative scale of operation of the region's public charities and the mix of large versus small public charities.




### Indicator Results

In 2007, the region was home to 5,967 public charities (2.5 per 1,000 residents), 2,115 of which filed Form 990 (0.9 per 1,000 residents). From 2004 through 2007, the number of public charities rose from 5,487, but the number of public charities filing Form 990 fell from 2,412.

The ratio of public charities to population has remained fairly stable for the time period. Mecklenburg County had the highest ratio of public charities, at 3.0 per 1,000 residents, while Stanly, Cabarrus and Rowan counties also had relatively high public charity ratios at 2.7, 2.5 and 2.5 charities per 1,000 residents, respectively. Union County — at 1.7 charities per 1,000 residents — had the lowest ratio of public charities to population.

At 2.5 public charities per 1,000 residents, the region had a lower ration of public to population than either North Carolina (2.9 per 1,000 residents) or South Carolina (3.3 per 1,000) as a whole. From 2004 through 2007, the public charities ratios increased slightly in both North and South Carolina, while the ratio for the region stayed about the same.

### Evaluation

An obvious question arises in looking at both the gap in actual numbers and the diverging trend lines between the number of registered public charities and those filing Form 990. As the number of charities in the region grew between 2004 and 2007, the number of charities filing Form 990 decreased, to the point that by 2007 nearly two-thirds of the region's registered public charities had not filed Form 990.

This disparity could indicate that the growth in the number of registered public charities in the region has been fueled by smaller, grassroots organizations with income of $25,000

## Public Charities (continued)

or less (thereby excluding them from the filing requirement). If so, this would be an important measure of growing civic engagement through the nonprofit sector. Alternatively, the diverging numbers could reflect a growing number of "inactive" public charities or the merging of organizations. Further analysis of this issue is needed.

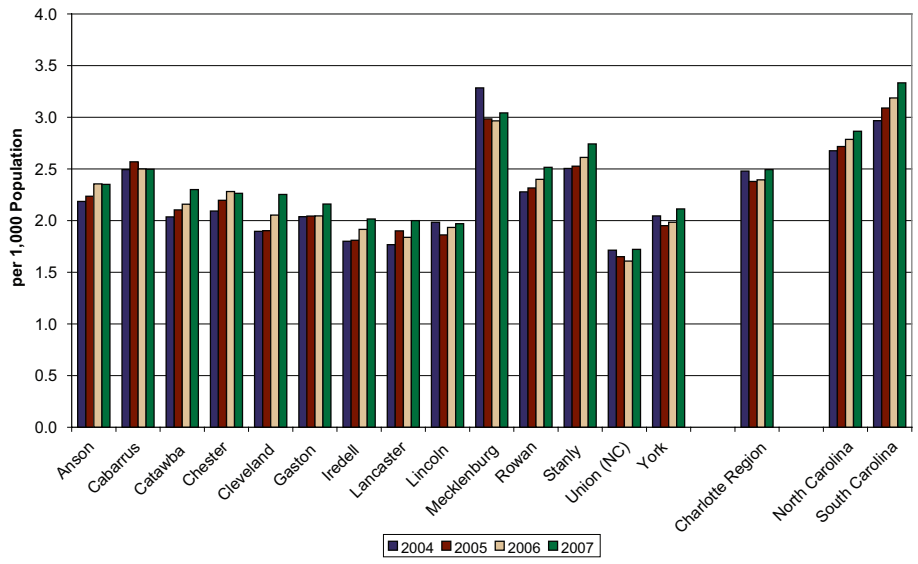
Looking at the ratio to population, Mecklenburg County leads the region in the number of public charities per 1,000 residents. Rather than indicating a greater level of civic engagement in Mecklenburg relative to the other counties, this figure may just reflect that many nonprofit organizations with a regional focus are based in Charlotte because of its central location.

Stanly County's regional rank of second in public charities ratio to population is an interesting number given the county's location on the region's periphery, and is perhaps an important measure of that county's level of civic engagement.

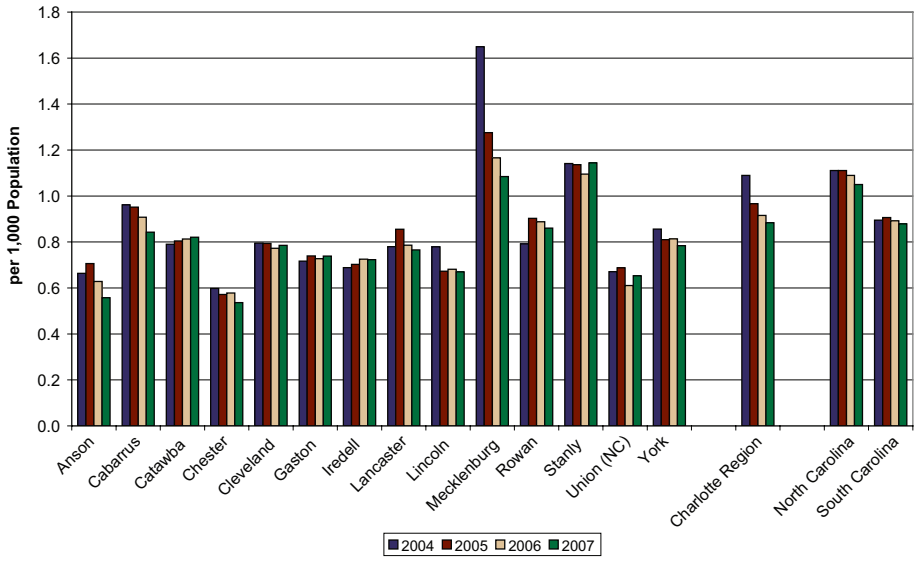
The region's lagging numbers relative to state averages in North and South Carolina may reflect a greater concentration elsewhere of nonprofit organizations with a statewide focus, such as in the state capitals of Raleigh and Columbia. This question needs to be explored further to determine how the region actually compares to other regions in the Carolinas.

Another question that should be explored further is whether the lower regional numbers relative to the state average reflect a different model of nonprofit organization, with fewer nonprofit organizations doing more of the work (i.e. a preference in the region for larger, consolidated operations in the nonprofit sector rather than smaller, grassroots efforts). The answer to this question may be related to the earlier one about why so few public charities in the region are reporting Form 990 relative to the total number of registered public charities.

**Number of Registered 501(c)(3) Public Charities per 1,000 Population**




**Number of 501(c)(3) Public Charities Filing Form 990 per 1,000 Population**




### Connections

The number of registered public charities will be an important benchmark to track over time with other quality-of-life indicators, especially those related to social well-being, the arts, the environment, health and education. One would expect that as regional needs grow in these areas, there would be a corresponding demand for public charities to help address those needs, especially in the absence of adequate government support.

## Private Foundations

### What's Measured

This study sought the number of registered 501(c)(3) private foundations that have filed Internal Revenue Service (IRS) Form 990 for the years 2004 through 2007, using data from the National Center for Charitable Statistics. Data prior to 2004 were unavailable.

Foundations designated as 501(c)(3) organizations under the Internal Revenue Code are exempt from federal income taxes because they are operated solely for religious, charitable, scientific, public-safety (testing), literary or educational purposes; amateur sports competition or for the prevention of cruelty to children or animals. Such organizations with more than $25,000 in income are required to file an annual Form 990 with the IRS to provide information on their mission, program and finances.

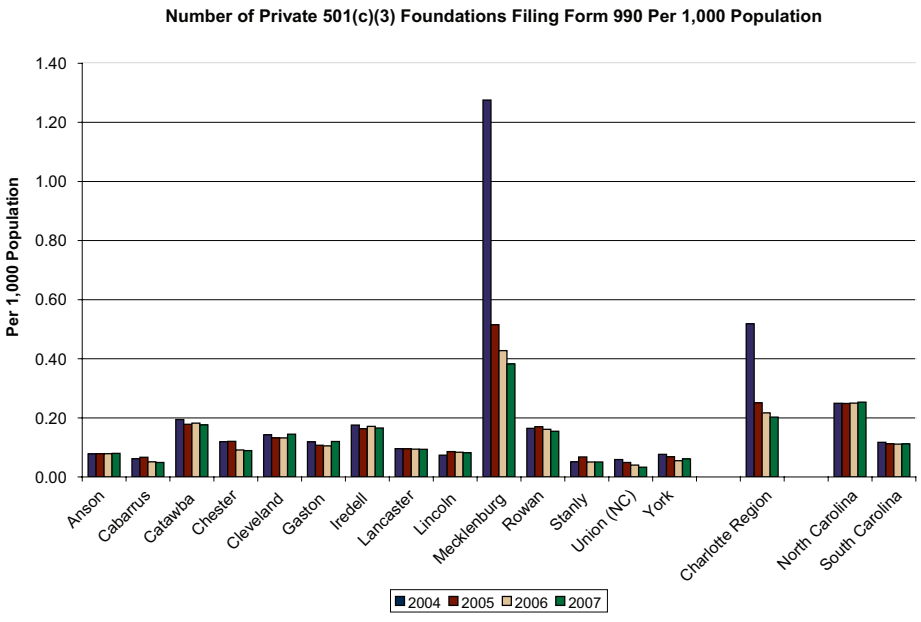
Private foundations typically receive contributions from just a few individuals or families and therefore face stricter reporting requirements than other 501(c)(3) organizations. Only registered private foundations that filed a Form 990 were included in this study, under the assumption that compliance with this filing requirement indicates an active status in terms of both organizational activity and revenue generation.

### Why It's Measured

The number of 501(c)(3) private foundations is a measure of philanthropic capacity, reflecting the number of charitable entities established for the purpose of redistributing wealth from donors to charitable causes. A higher per capita number of 501(c)(3) private foundations suggests that a community has a greater capacity for civic engagement in the form of charitable giving.

### Indicator Results

In 2007, the number of 501(c)(3) private foundations in the region (defined as those filing a Form 990) was 485, or 0.2 per 1,000 residents. The region saw a sharp drop in the number of foundations between 2004 (1,147) and 2007 (485), with the most significant drop occurring between the years 2004 and 2005.




Much of this decline occurred in Mecklenburg County, with the other counties in the region, as well as the averages for both North and South Carolina, remaining fairly steady. Among the counties that comprise the region, Mecklenburg had the highest ratio of private foundations to population (0.38 per 1,000 residents), while Union had the lowest (0.03 per 1,000 residents).

### Evaluation

At 0.2 foundations per 1,000 residents, the region had a lower ratio of 501(c)(3) private foundations to population in 2007 than North Carolina as a whole (0.25 per 1,000 residents). But the region had more than South Carolina as a whole (0.11 per 1,000 residents). This marks a stark change from 2004, when the region had many more foundations per 1,000 residents (0.52) than either North Carolina (0.25 per 1,000 residents) or South Carolina (0.12 per 1,000 residents).

As noted previously, much of this decline occurred in Mecklenburg County between 2004 and 2005. This raises the question as to what might have occurred in Mecklenburg to cause such a dramatic drop in the number of private foundations filing 990 Forms. Was there a major consolidation of foundations during this period or did endowment levels drop below the Form 990 filing threshold for large numbers of foundations? Did donors identify alternative giving mechanisms during that period? Further analysis is needed to answer these questions.

In comparing the counties, Mecklenburg led the region with 0.38 foundations per 1,000 residents in 2007, reflecting the concentration of wealth in Charlotte and its immediate suburbs. However, of the three counties with the lowest number of foundations per 1,000

## Private Foundations (continued)

residents, two (Cabarrus and Union) were among the region's fastest growing and increasingly affluent counties, where one might have expected a higher number of foundations.

The overall decline in the number of 501(c)(3) private foundations in recent years suggests a possible decline in philanthropic capacity. However, these numbers may be misleading. The Charlotte-based Foundation For The Carolinas, though registered as a public charity rather than a private foundation, plays a significant role in most of the regional counties, providing a mechanism for philanthropic giving through county-based affiliates.

This has probably reduced the incentive in some counties for the creation of more traditional "family-based" foundations. Therefore, much of the existing capacity for charitable giving in these counties is probably not being reflected in this indicator because of the Foundation For The Carolinas' role, and the fact that the Foundation's work, as reported on its Form 990, is counted only for Mecklenburg County. For future reports, the Foundation For The Carolinas has offered its assistance in assessing the level of giving by county through the Foundation. Still, this measure should remain a good indicator over time of the growth in the region's philanthropic capacity.

### Connections

Throughout the region's history, private foundations have made important contributions. Some foundations have adopted broad-based missions, such as many of the region's corporate foundations, while others have maintained a more specialized emphasis, such as the Duke Endowment as prescribed its original benefactor. The decline in private foundations might say something about a drop in civic engagement, but it also could mean that donors are seeking alternative modes of philanthropy. The decline also may offer insights into the region's economy.

One relationship worth tracking is the region's growing affluence by county and the number of 501(c)(3) foundations in each of those counties. The lack of a positive correlation between these two measures in recent years certainly raises questions about the region's ability to translate its new-found wealth into greater philanthropic capacity. However, a possible shift in the nature of charitable giving could explain what is occurring.

## Giving: Public Charities

### What's Measured

This section examines the amount of contributions, gifts, and grants to 501(c)(3) public charities located in the region and filing Internal Revenue Service (IRS) Form 990 for 2001 through 2003. The data are from the National Center for Charitable Statistics, which has not yet released public charities data for the period after 2003.

The data come from the Form 990 submitted to the IRS by those 501(c)(3) public charities in the region with more than $25,000 in annual income. (See the indicator titled "Registered 501(c)(3) Public Charities and Those Filing Form 990" for a further explanation of public charities and their reporting requirements.)

### Why It's Measured

Contributions to public charities represent an important measure of philanthropy in a community. Because financial support of public charities is much broader in terms of the actual number of individual donors than for private foundations, this indicator is also an important measure of a community's civic engagement through its non-governmental, not-for-profit sector.

### Indicator Results

In 2003, public charities located in the region and filing Form 990 received $999,988,707 in contributions, or $459.99 per capita. Those per capita contributions increased in each year between 2001 and 2003, beginning with $398.62 in 2001. Within the region, Mecklenburg County's Form 990 public charities received the highest level of contributions per capita, at $897.04. Chester ($73.59) and Lincoln ($70.43) counties' Form 990 public charities received the lowest. The region's public charities filing Form 990 received less in contributions per capita ($459.99) than North Carolina as a whole ($702.22), but more than South Carolina ($351.69).

### Evaluation

With the exception of Mecklenburg County, average giving per capita to public charities for every county in the region was lower than the North Carolina average, at least for Form 990 filers. With the exception of Mecklenburg and Rowan, all of the counties were also lower than the South Carolina average.

This trend was consistent for all three of the years studied. While these numbers may reflect the concentration of many regional nonprofit organizations in Mecklenburg County (for example, United Way of Central Carolinas), there still appears to be a disparity between the resources available to public charities in Mecklenburg County and those available to public charities in surrounding counties.

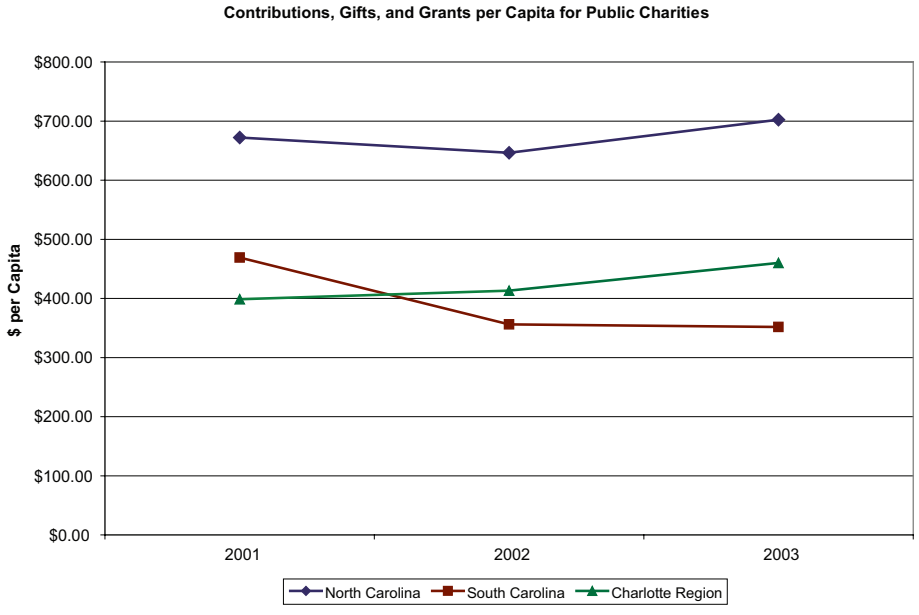
Similarly, comparing the region to averages for North and South Carolina, the region as a whole does not enjoy the same advantage in giving to public charities that it does in giving to foundations (see relevant indicator on foundation giving).

Given that support for public charities is generally broader than that for foundations, this indicator may suggest that the region's philanthropy is currently less grassroots in nature than in other parts of North Carolina, and if one excludes Mecklenburg and Rowan, also less than other parts of South Carolina.

It should be emphasized that data for this indicator came only from public charities that filed a Form 990, which excluded organizations with $25,000 or less in income. That may mean there is a significant level of under-reporting for counties outside Mecklenburg, where public charities with smaller budgets may be more common.

### Connections

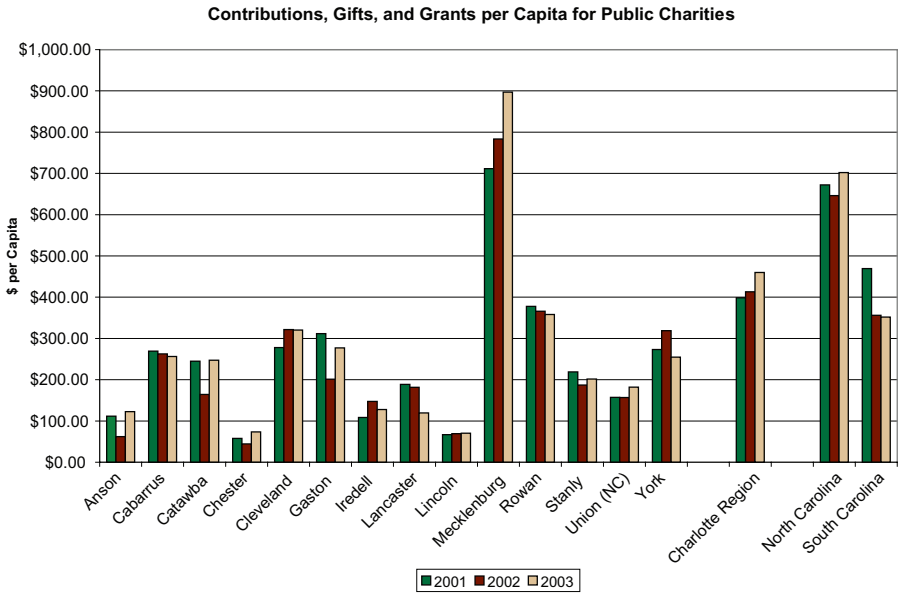
This indicator also may be related in interesting and informative ways to economic and demographic characteristics of the region. In particular, as residents and locally based corporations become more



## Giving: Public Charities (continued)

affluent in the years ahead — as most demographers and economic development officials predict — one would expect to see a corresponding increase in the level of giving to public charities.

Contributions to registered public charities also will be an important benchmark to track over time with other quality-of-life indicators, especially those related to social well-being, the arts, the environment, health and education. One would expect that as regional needs grow in these areas, there would be a corresponding demand for public charities to help address those needs, and that financial support for these charities would likewise increase.



## Giving: Private Foundations

### What's Measured

This section looks at the amount of contributions, gifts and grants received by 501(c)(3) private foundations located in the region and filing Internal Revenue Service (IRS) Form 990 from 2001 through 2004. The data are from the National Center for Charitable Statistics, which has not yet released private foundation data for the period after 2004.

The data come from the Form 990 submitted to the IRS by those 501(c)(3) private foundations in the region with more than $25,000 annual income. (See the indicator entitled "501(c)(3) Private Foundations Filing Form 990" for a further explanation of private foundations and their reporting requirements.)

### Why It's Measured

Contributions to private foundations provide an important measure of philanthropy in a community. While they do not capture all charitable giving, private foundations, including community-based foundations, have historically played an important role in fostering community philanthropy, which is an important indicator of civic engagement.

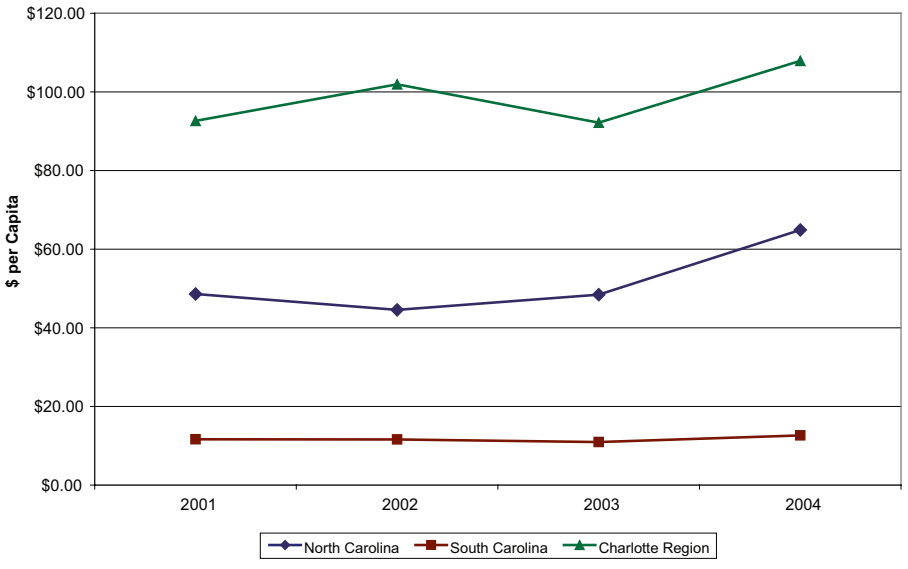
### Indicator Results

In 2004, private foundations in the region filing Form 990 received $238,875,320 in contributions — $107.92 per capita. This marked a modest gain over 2001 figures, which were $194,166,507 and $92.62 per capita.

Among the region's counties, Form 990 private foundations in Mecklenburg far outpaced their counterparts in other counties in fundraising, with per capita contributions of $283.93. The closest county to Mecklenburg was Gaston ($42.25), with numerous counties barely registering any contributions at all, including Anson, Stanly, Union and York.

As a region, private foundations received more in per capita contributions ($107.92) than private foundations in all of North Carolina ($64.91) and South Carolina ($12.63), for Form 990 filers. However, that regional figure was fueled primarily by private foundations located in Mecklenburg.

**Contributions, Gifts, and Grants per Capita for Private Foundations**




### Evaluation

The region performs well on this indicator — with per capita giving to foundations that file Form 900 substantially higher than the state average for either of the Carolinas. As a consequence, private foundations in the region, and the donors they represent, are in a good position to help improve the region's quality of life.

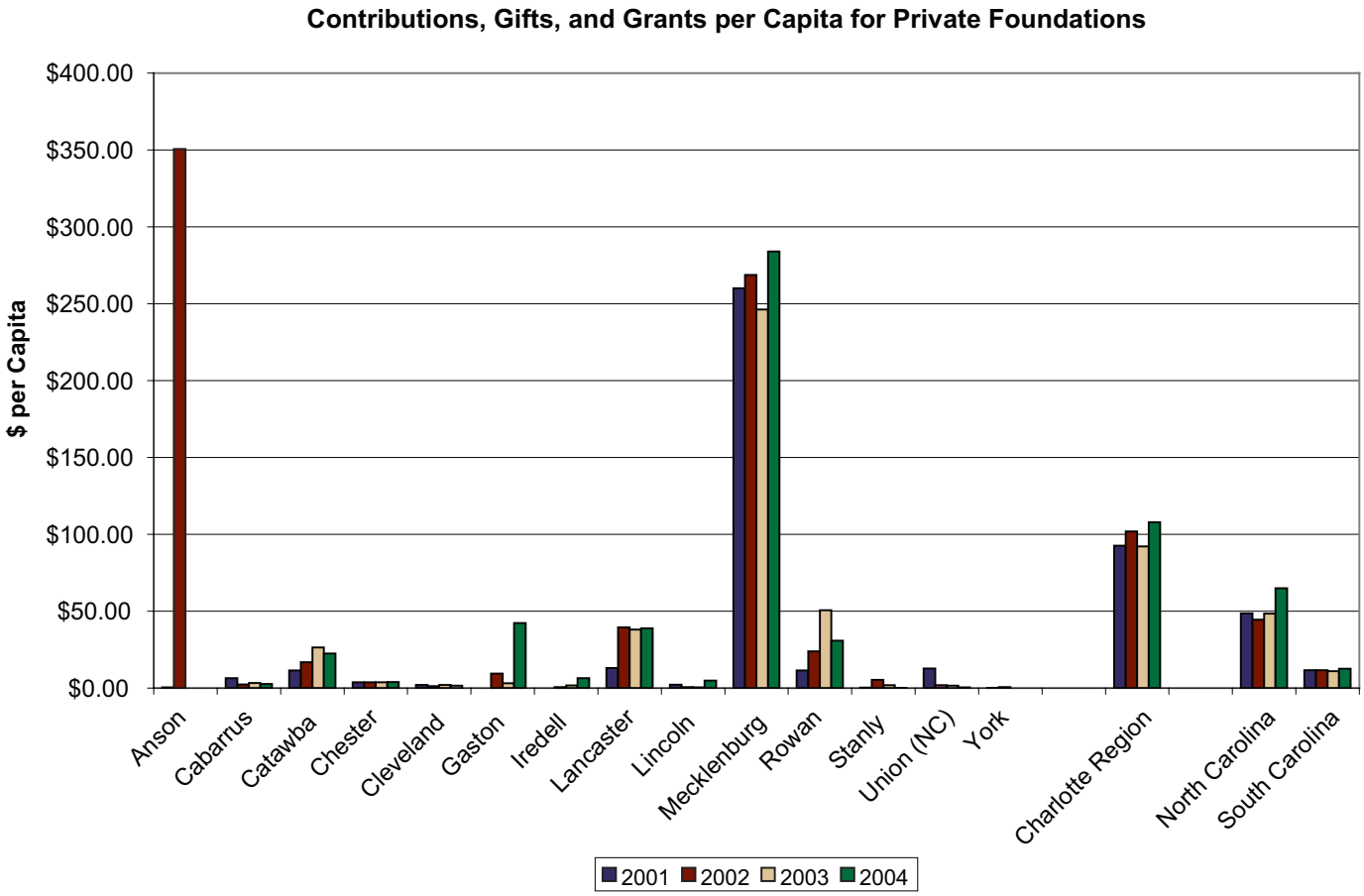
While it appears that this wealth in foundation resources is inequitably distributed, with much of it residing in Mecklenburg County, these numbers can be misleading. Charlotte is the base for many foundations that have a regional, even national, focus. Examples include many corporate foundations, as well as the renowned Duke Endowment, whose grant making reaches well beyond the borders of Mecklenburg County and the region.

Also, data for this indicator came only from private foundations that filed a Form 990, which excluded foundations with $25,000 or less in income. That means that there may be some level of under-reporting for the surrounding counties, where smaller, family foundations may be more common.

### Connections

This indicator also may be related in interesting and informative ways to economic and demographic characteristics of the region. In particular, as residents and locally based corporations become more affluent in the years ahead — as most demographers and economic development officials predict — one would expect to see a corresponding increase in the level of giving to private foundations.

## Giving: Private Foundations (continued)



# Health

## Overview

### Scope

This report looks at a variety of health indicators: suicide rate, infant mortality rate, overall mortality rate, birth rate and sexually transmitted diseases (STDs).

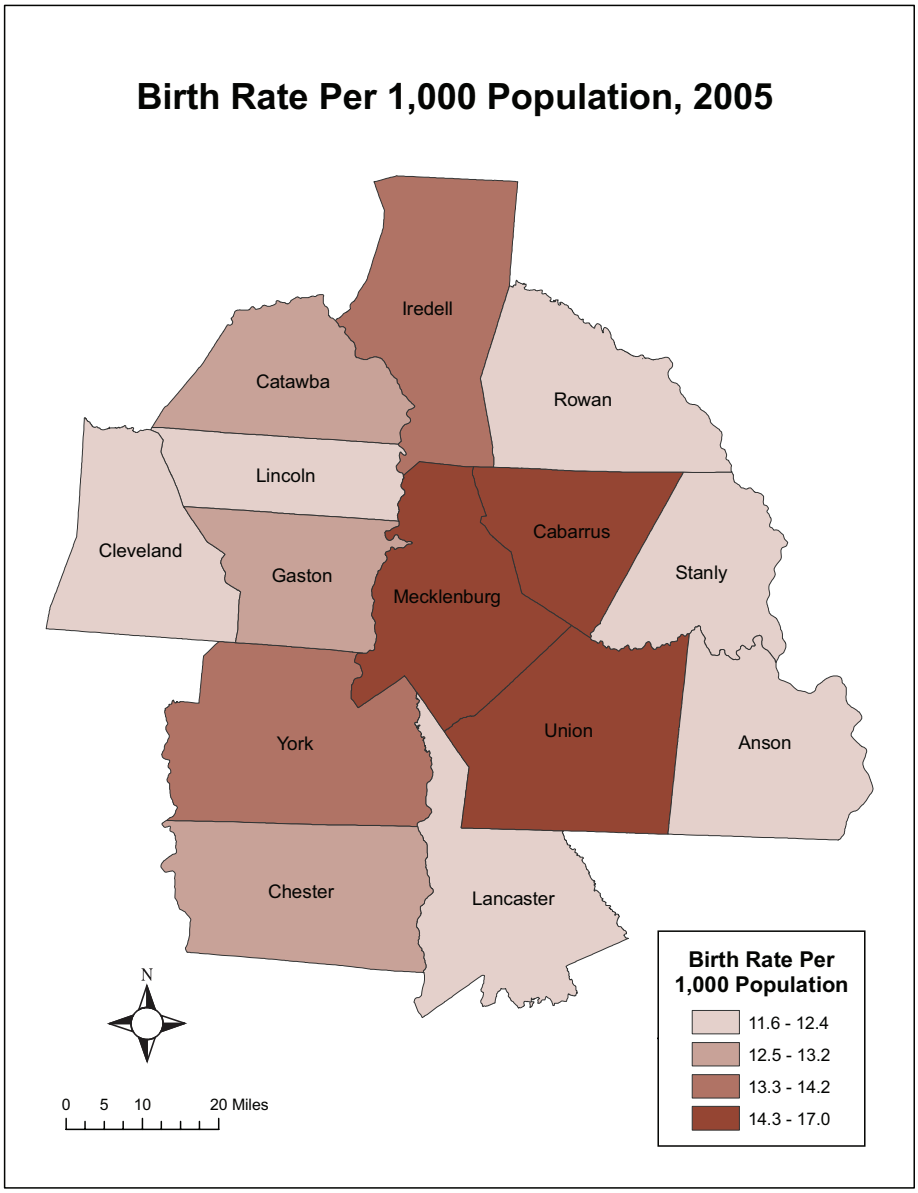
STDs focus on gonorrhea and chlamydia. The mortality data include subsets of heart disease and cancer mortality. The infant mortality information breaks out rates for racial categories of white and minorities. (Note that "Hispanic" is an ethnic category, not a racial one, so white Hispanic infant mortality is included in white infant mortality rates and non-white Hispanic infant mortality is included in minorities infant mortality rates).

In the future, the authors would like to expand the health indicators to include measures of HIV/AIDS (also called HIV disease), alcohol and drug abuse, mental health, child dental care, residents without health insurance and many other categories. For a broader look at potential topics, see "Missing and Future Indicators" in this report.

### Regional Context

The rapid population growth of the Charlotte region has led to an influx of people who need health-care assistance. People are moving into the area for the economy, better jobs and to be near family. As newcomers arrive, health-care providers must be prepared to help with the births, illnesses and deaths in their lives. An additional challenge is that some of these newcomers do not speak English and/or are unfamiliar with the U.S. health-care system.

The health-care field has faced criticism over rising prices and equitable access to quality healthcare, especially related to minority populations. While this report does not address health-care costs, infant mortality rates are broken down by race to show disparities. Many health issues have a more direct effect on one race than another, and the report's authors hope future reports will reflect more breakdowns of data by race.




*See page 77 for additional information on this indicator*

Access to health care has always been an important issue in the region. In addition to many colleges and universities in the 14-county region offering training in health care fields, there is a strong health-care industry that consists of hospitals, research centers, medical centers, health departments, etc.

In times of crisis, residents rely on this network of health-care providers to communicate with public-safety personnel. Such crises include evacuations, weather emergencies and disease outbreaks.

### Summary of Indicator Results

Two positive indicators in this year's

## Overview (continued)

results are the birth rate and the rate of sexually transmitted diseases.

From 2002 through 2005, the birth rate was stable, and most counties within the region outpaced both North and South Carolina in number of live births per 1,000 residents. In 2005, the birth rate in the region was 14.8 live births per 1,000 persons. Cabarrus (15.9), Mecklenburg (17.0) and Union (16.0) counties had the highest birth rates for 2005.

With the two sexually transmitted diseases studied, the region posted lower rates than both North and South Carolina in 2006. The incidence of gonorrhea for the Charlotte region was 199.1 cases per 100,000 persons. The North Carolina figure was 199.3 cases per 100,000 persons, while the South Carolina number was 209.9 cases per 100,000 persons.

With chlamydia, the rate for the region was 306.4 cases per 100,000 persons in 2006. The North Carolina rate was 387.1 cases per 100,000 persons, while South Carolina was 441.7 per 100,000 persons.

The health indicators that raised concerns were: the infant mortality rate for minorities (nonwhites), the overall mortality rate and the suicide rate.

For minorities, the average county infant mortality rate in the region rose from 15.7 deaths per 1,000 live births in 2003 to 17.7 in 2004. That was nearly twice the overall average county rate (9.3) and nearly three times the rate for whites (6.5). Note that in the absence of a specific breakout of race by ethnicity, the rates presented for both racial categories can include Hispanic infant deaths.

With mortality rates in general, the average county mortality rate in the region was higher than mortality rates for North Carolina (897.6 deaths per 100,000 persons) and South Carolina (890 deaths per 100,000 persons) in 2004.

A positive note emerged related to average county mortality rates for heart disease and cancer. Both rates declined for the region from 2003 to 2004.

With suicide, the average county rate for the region was 12.6 suicides per 100,000 persons in 2004. That figure slightly exceeded rates for North Carolina (11.6) and South Carolina (11.3) and needs to be monitored.

### Missing and Future Indicators

Indicators considered for this report but not included because of time, data-availability or space constraints were: HIV disease cases (data not measured uniformly in all areas) and percentages of the population with no health insurance, who smoke or who are overweight or obese.

Other potential indicators could include measures of alcohol and drug abuse, mental health facility admissions, child dental/oral care, the number of dentists and the number of nursing-home beds.

The aforementioned indicators will be considered for inclusion in future reports. Furthermore, an indicator that would be useful in understanding health would be regional survey data on attitudes and opinions about health issues. The report's authors also would like to find better ways to compare health data across state lines.

Breaking down more of the health indicators along socioeconomic, racial, and other demographic lines would also be informative.

*See page 135 for Health indicator data sources*

# Birth Rate

### What's Measured

This report studies birth rates from 2002 through 2005, using the number of live births reported by the North Carolina State Center for Health Statistics (part of the North Carolina Department of Health and Human Services) and the South Carolina Department of Health and Environmental Control. The birth rate per 1,000 persons was calculated using population estimates from the U.S. Census.

### Why It's Measured

The birth rate for the region provides important information regarding population growth and the vitality of the area. Higher birth rates signal an increase in the child-bearing population as well as in the number of individuals or couples starting families.

### Indicator Results

In 2005, the birth rate in the region was 14.8 live births per 1,000 persons. The birth rate remained stable from 2002 through 2005. Within the region, Mecklenburg, Union and Cabarrus counties posted the highest rates per 1,000 population in 2005. They had rates of 17.0, 16.0 and 15.9, respectively. The lowest rates were reported in Cleveland and Stanly counties (each at 11.6 per 1,000 persons), Anson (11.8), Lancaster (12.0) and Rowan counties (12.1).

The region's birth rate per 1,000 population (14.8) is slightly higher than North Carolina's rate of 14.2 and higher than South Carolina's rate of 13.5 for 2005. Five of the counties in the region maintained a birth rate at or above North Carolina's. But many of the mostly rural counties in the region maintain birth rates below the birth rate of South Carolina.

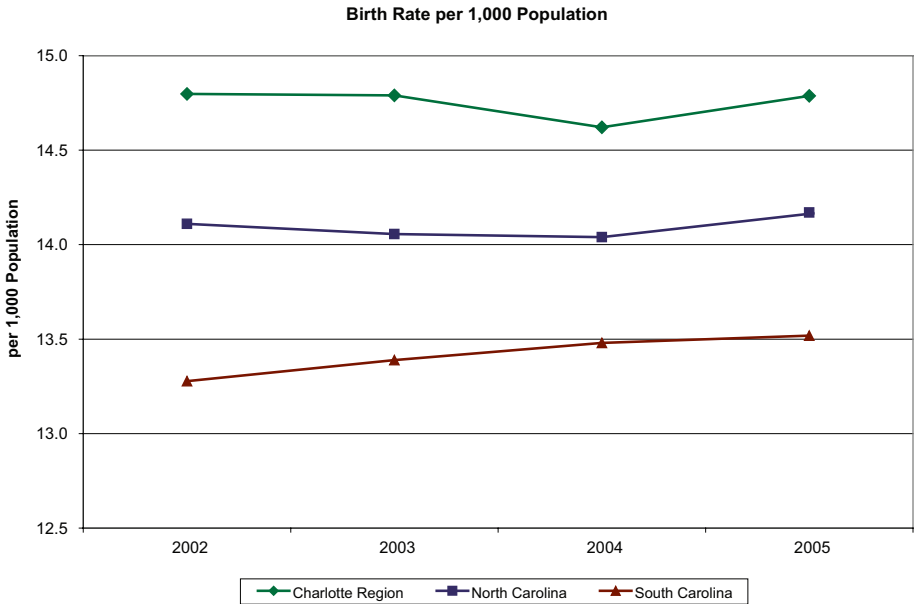
### Evaluation

Higher birth rates in the region are indicative of a demographic profile that includes a growing, young adult segment of the population in its child-bearing years. In particular, increased Latino immigration has contributed to increasing birth rates. Services to the segment of the Latino population that is unfamiliar with American medical, educational and social service systems will require attention.

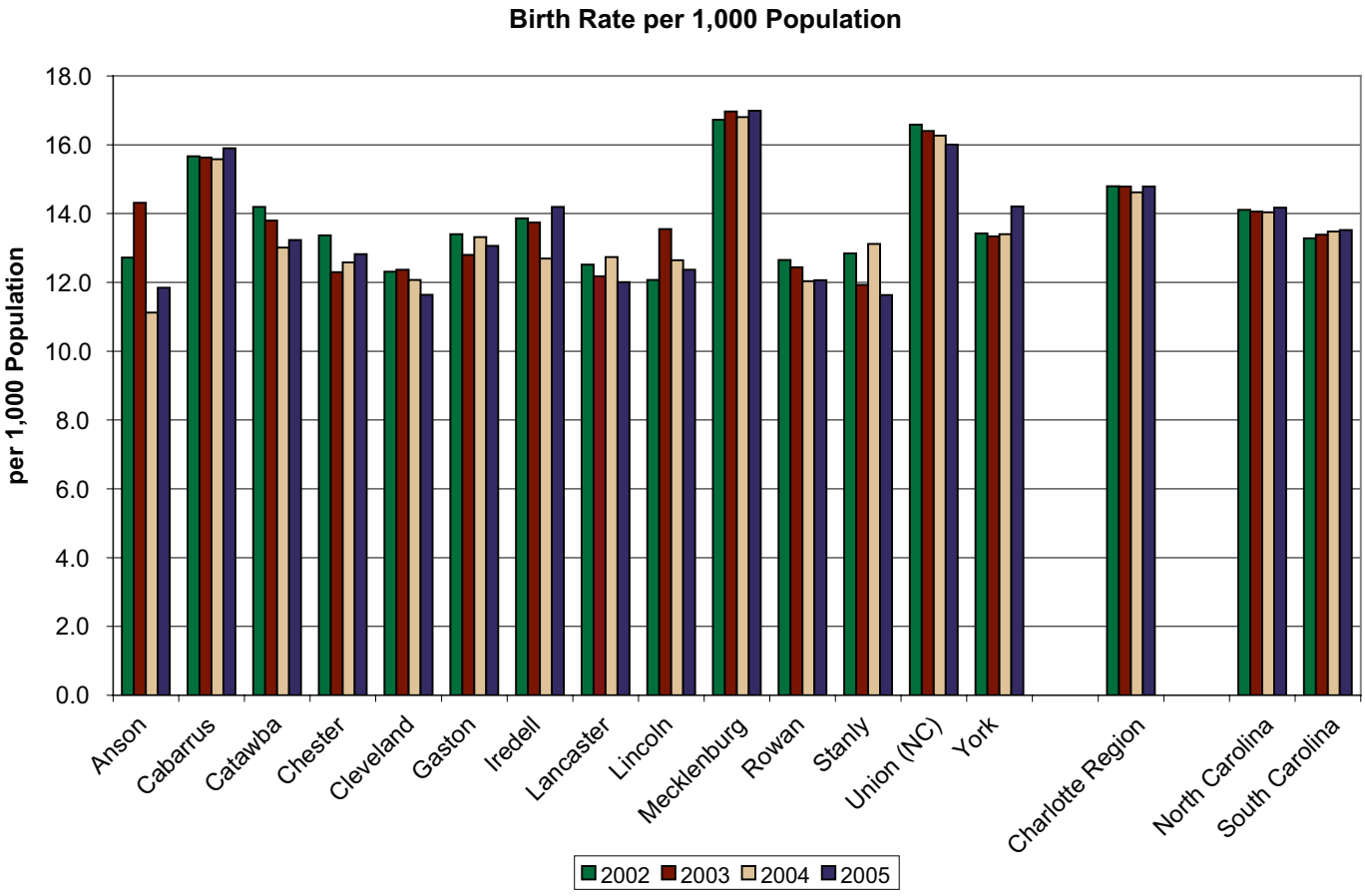
But even if birth rates remain constant, as long as the population is growing, then the number of births will be increasing. Thus, maintaining adequate levels of services for the region's youth will continue to be significant in the years to come.

### Connections

The birth rate has key connections to the region's ability to provide adequate services to an expanding population, and cuts across all theme areas. The growth in the region's population has come from the in-migration of people from outside the region as well as from existing residents having children. Some of the services that need to keep pace with population growth and rising birth rates are education, child care, social services and health care.



## Birth Rate (continued)



# Infant Mortality

## What's Measured

These data examine infant mortality rates for 2003 and 2004 for the region and for the fourteen counties, using data from the North Carolina Department of Health and Human Services State Center for Health Statistics and the South Carolina Department of Health and Environmental Control. Data for 2005 are available for North Carolina counties, but are not yet available for South Carolina counties. The data reflect deaths of infants aged one year or younger per 1,000 live births. The data also compare infant mortality rates for minorities and whites.

The regional indicator is calculated as an un-weighted average of the county rates.

## Why It's Measured

The infant mortality rate provides important information about the region's provision of pre-natal and neo-natal health care, as well as parenting education and support to keep infants born healthy alive through their first year. A measure of the infant mortality rate by race provides information about equality of access to these services.

## Indicator Results

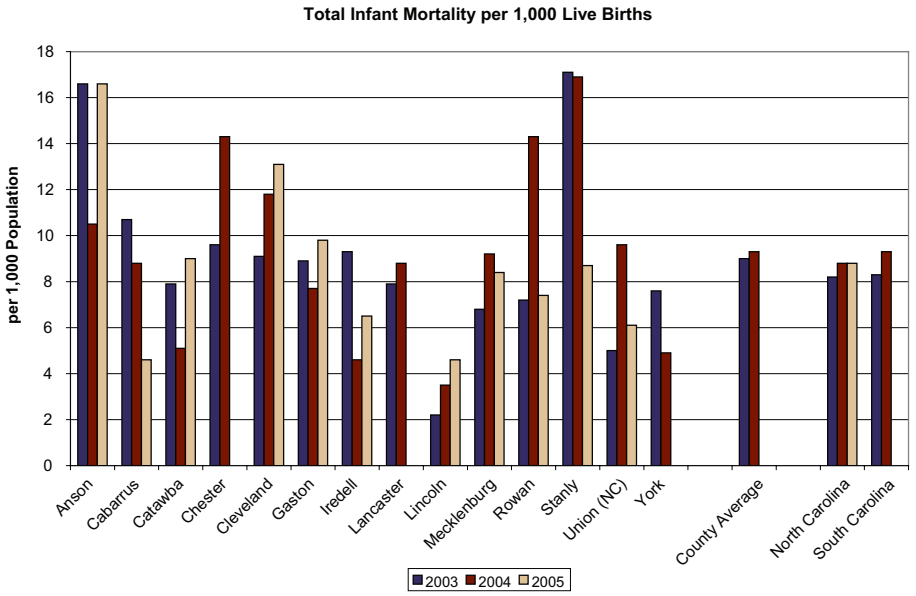
In 2004, the average county infant mortality rate in the Charlotte region was 9.3 deaths per 1,000 births. This was slightly higher than the infant mortality rate in 2003 (9.0 deaths per 1,000 births). The region's 2004 infant mortality rate was higher than North Carolina's (8.8 deaths per 1,000 births) and equal to South Carolina's.

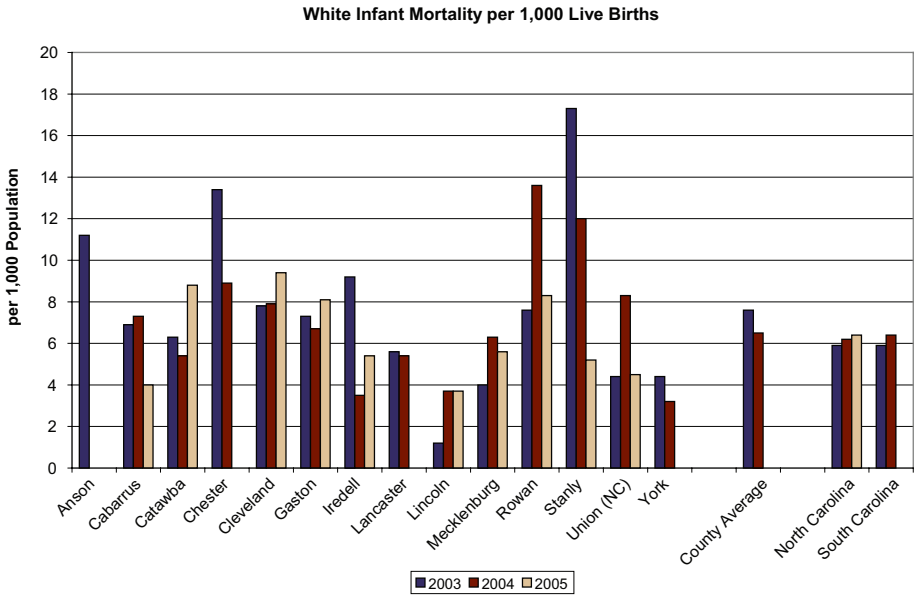
But the big disparity in infant mortality rate numbers comes with the consideration of race. The 2004 average county infant mortality rate for minorities was nearly double that of the overall county rate: 17.7 deaths per 1,000 births for minorities, compared with the 9.3 county average for all races. And, the 2004 minority rate of 17.7 was up from 15.7 in 2003.

On the state level, North Carolina's minority infant mortality rate was lower in 2004, at 15.6 deaths per 1,000 births, but South Carolina's minority rate is higher, at 24.2 deaths per 1,000 births.

The average county white infant mortality rate is dramatically lower than the minority rate. The white rate was 6.5 deaths per 1,000 births. The rates for whites in both North Carolina (6.2 deaths per 1,000 births) and South Carolina (6.4 deaths per 1,000) were lower than that of the region.

Many of the mostly rural counties in the region have few incidents of infant mortality, partly due to a small number of total births. Therefore, county comparisons are difficult to make because rates based on fewer than 10 deaths are considered unreliable and



## Infant Mortality (continued)

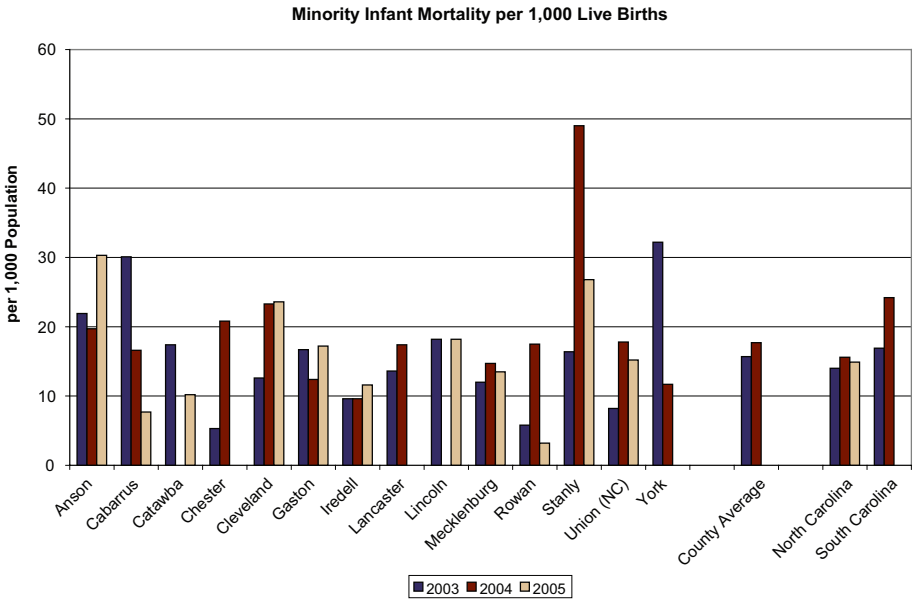
should be interpreted with caution. For example, Anson, Chester, Cleveland and Lancaster counties all reported fewer than ten infant deaths in 2004, and only Mecklenburg County reported more than ten infant deaths in both the white and minority infant categories.

### Evaluation

North Carolina's lower infant mortality rate suggests room for improvement in the Charlotte region. The most troubling fact shown by this indicator is the very high minority infant mortality rate compared with the white infant mortality rate. The high rate may be explained partially by the socio-economic status of minorities, but may also be attributable to factors that fall within control of communities within the region. That is, this indicator may suggest that health-care professionals and nonprofit organizations need to increase efforts to educate pregnant minority women about the steps required to deliver and care for healthy infants.

### Connections

The region's infant mortality rate should have a close correlation to the number and effectiveness of programs targeting the health of infants and pregnant women. The infant mortality rate also provides information about the accessibility of health care and parenting education and support.



# Mortality Rate

## What's Measured

This section focuses on the overall mortality rates (deaths per 100,000 population) for the region and for the fourteen counties, as well as mortality rates for heart disease and cancer, the two leading causes for death in the United States, for 2003 and 2004. The data are from the North Carolina Department of Health and Human Services State Center for Health Statistics and the South Carolina Department of Health and Environmental Control.

The regional indicators are calculated as un-weighted averages of county rates.

## Why It's Measured

The mortality rate and the composition of the mortality rate (by cause of death) provide key information about major health challenges facing the region. The heart disease mortality rate offers insight into stress levels as well as prevention, screening programs and treatment related to the cardiovascular health of the population. Similarly, the cancer mortality rate points to exposure (voluntarily and involuntarily) to carcinogens as well as prevention, screening and treatment.

## Indicator Results

In 2004, the average county mortality rate in the Charlotte region was 921.5 deaths per 100,000 persons. The mortality rate decreased from the previous year (933.6 in 2003).

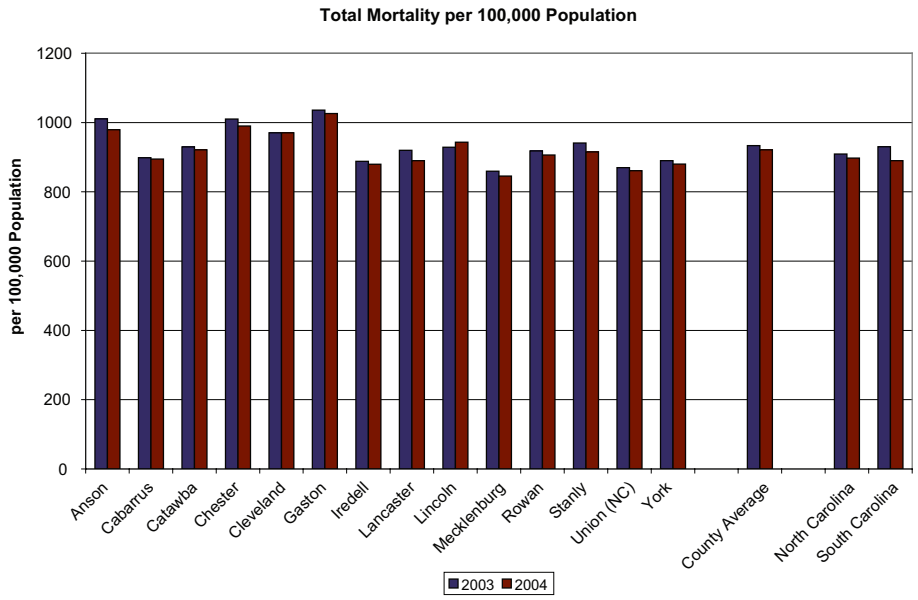
The average county mortality rate in the region was higher than the mortality rates for North Carolina (897.6 deaths per 100,000 persons) and South Carolina (890 deaths per 100,000 persons).

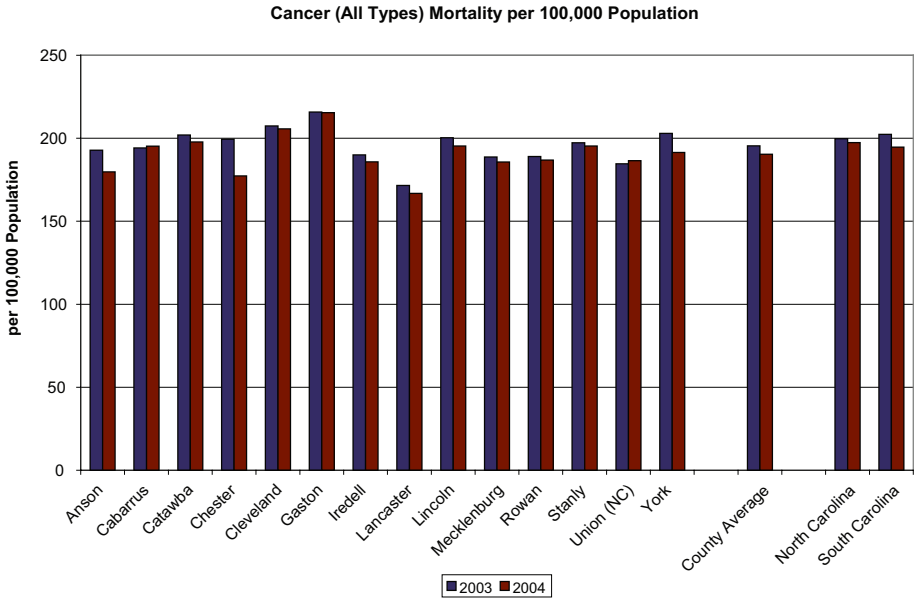
Gaston (1,026.0), Chester (990.0) and Anson (979.3) counties had the highest mortality rates for 2004. Counties with the lowest mortality rates for 2004 were Mecklenburg (845.3) and Union (861.1).

The region's 2004 average county heart disease mortality rate was 257.2 deaths per 100,000 persons, down from the 2003 rate of 265.6, but still higher than the rates for North Carolina (233.9) and South Carolina (221.2).

Chester (302.7), Anson (287.8) and Stanly (283.5) counties had the highest heart disease mortality rates for 2004. Counties with the lowest heart disease mortality rates for 2004 were Mecklenburg (198.0), York (217.1) and Catawba (221.2).

With cancer, the 2004 average county mortality rate was 190.4 deaths per 100,000 persons, lower than rates for North Carolina (197.4) and South Carolina (194.7), and a decrease from the 2003 level of 195.4.



## Mortality Rate (continued)

Cleveland (205.7) and Gaston (215.4) counties had the highest cancer mortality rates for 2004. Counties with the lowest cancer mortality rates for 2004 were Anson (179.8), Chester (177.3) and Lancaster (166.8).

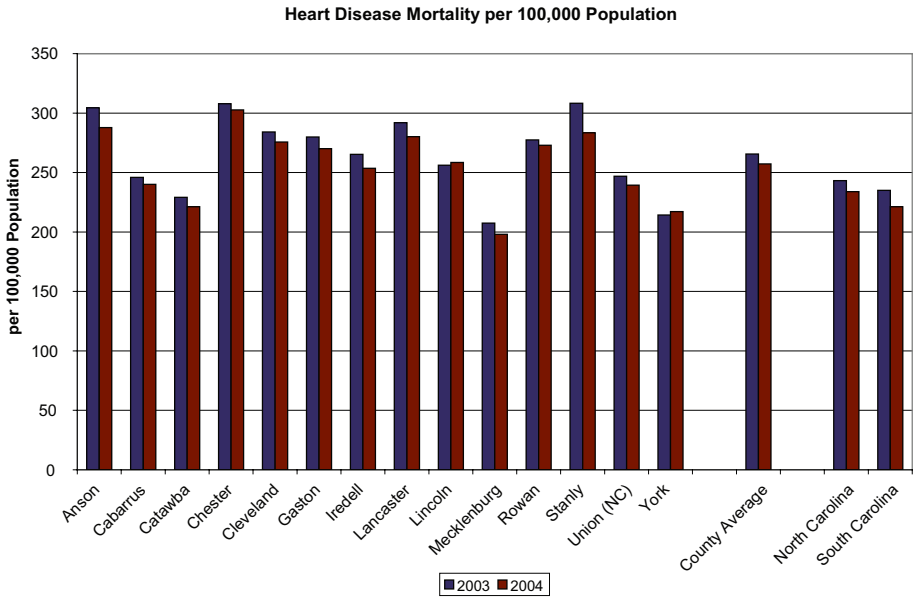
### Evaluation

The region's higher rates of death due to heart disease than North and South Carolina may say something about the prevalence of the heart-disease causes in the region, which can include heredity or other physical factors and environmental or lifestyle factors. Or, it may speak to prevention and screening efforts as well as the ability of regional health-care providers to diagnose and treat heart disease. At the least, the data suggest more can be done to put the region's heart health in line with that of North and South Carolina.

The region's cancer mortality rate was slightly better than the rates for North and South Carolina. Again the data could implicate the causes of cancer as well as the ability of doctors in the region to identify and treat cancer.

### Connections

The mortality rates have important connections to other measures of demographic data. Higher mortality rates may suggest an older or higher-risk population, if diagnosis or treatment and access to such services are adequate, or they may suggest a population in need of better health care education. Environmental causes of death are contributors to mortality rates, as is poverty.



# Suicide Rate

### What's Measured

The report looks at the suicide rates for 2003 and 2004, for the region and for the fourteen counties. The data, reported as deaths by suicide per 100,000 persons, are from the North Carolina State Center for Health Statistics (part of the North Carolina Department of Health and Human Services) and the South Carolina Department of Health and Environmental Control.

The regional indicator is calculated as an un-weighted average of the counties' suicide rates.

### Why It's Measured

The suicide rate provides information the mental health of the region's population. The suicide rate suggests levels of emotional suffering in the region, as well as mental health care services in the region to diagnose and treat mental illness, and access to those services.

### Indicator Results

In 2004, the average county suicide rate for the region was 12.6 suicides per 100,000 persons. The 2004 rate was slightly higher than the 2003 rate of 12.3 suicides per 100,000 persons.

The 2004 average county suicide rate for the region was higher than the rates for North Carolina (11.6 suicides per 100,000 persons) and South Carolina (11.3 suicides per 100,000 persons).

Gaston (16.0), Chester (15.8), Catawba (15.3), and Rowan (15.1) counties had the highest suicide rates for 2004. Counties with the lowest suicide rates for 2004 include Cabarrus (8.9), Union (9.6), Mecklenburg (9.8) and York (9.8).

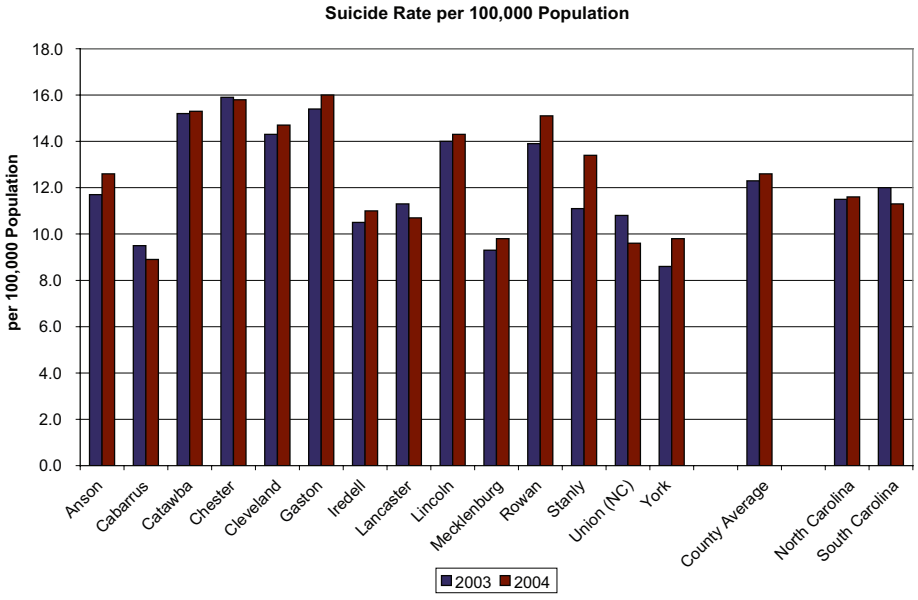
### Evaluation

From the limited data available, the suicide rate appears to be fairly stable. It is in line with rates for North and South Carolina. One area of concern is the higher suicide rates in some of the mostly rural counties when compared to the more urban counties in the region.

Nevertheless, continuing to monitor this indicator is important. The region's rate is slightly higher than the statewide rates, and the rate increased from 2003 to 2004. If those differences grow, it may signal a need to address factors that are contributing to mental. Higher suicide rates may suggest a problem of accessibility of treatment for mental illness or point to less effective methods of diagnosis or treatment.

### Connections

The suicide rate has important connections to factors that induce mental stress, such as economic struggles. Similarly, the suicide rate has critical implications for evaluating the robustness of institutions and social networks in the region that contribute to good mental health.



# STD Rate

## What's Measured

The report examines sexually transmitted disease rates for gonorrhea and chlamydia from 2002 through 2006, as cases per 100,000 persons. Data are available from the North Carolina Department of Health and Human Services and the South Carolina Department of Health and Environmental Control. The regional rates are calculated from the number of cases in the region and the U.S. Census population estimates for the region's counties. The county rates are as published by the two state agencies.

The report's authors planned to include rates for syphilis, but data inconsistencies between North and South Carolina precluded inclusion. Future reports will attempt to include incidence rates for all three sexually transmitted diseases.

## Why It's Measured

Incidence rates for gonorrhea and chlamydia provide important information about the prevalence of sexually transmitted diseases in the region, and indirectly, about the incidence of unsafe sex. These diseases have far-reaching consequences for those who are infected and for their sexual partners.

## Indicator Results

In 2006, the gonorrhea rate per 100,000 people in the region was 199.1, up from 186.7 in 2002. The rate increased from 2002 to 2003 but dropped in 2004 before rising again in 2005 and then holding relatively steady in 2006. Still, the region's 2006 rate per 100,000 for gonorrhea was lower than the rates for North and South Carolina (199.3 and 209.9 cases per 100,000 persons, respectively).

Within the region, six of the fourteen counties had gonorrhea rates higher than either North or South Carolina. Among those six, Anson, and Chester had the highest incidences of gonorrhea, at 317.7 and 301.1 cases per 100,000 persons, respectively. The lowest rates in the region were reported by Lincoln and Union counties (55.8 and 98.8 cases per 100,000, respectively).

In 2006, the chlamydia rate per 100,000 people in the region was 306.4. The rate increased each year from 2002 through 2005 (from 264.0 to 354.6) before dropping in 2006. The region's 2006 chlamydia rate was lower than the rates for North and South Carolina (387.1 and 441.7 cases per 100,000 persons, respectively). Chester and Anson counties reported the highest 2006 incidences of the disease, at 550.6 and 419.6 cases per 100,000 persons, respectively. Lincoln and Union counties reported the lowest 2006 chlamydia rates (124.6 and 168.2, respectively).

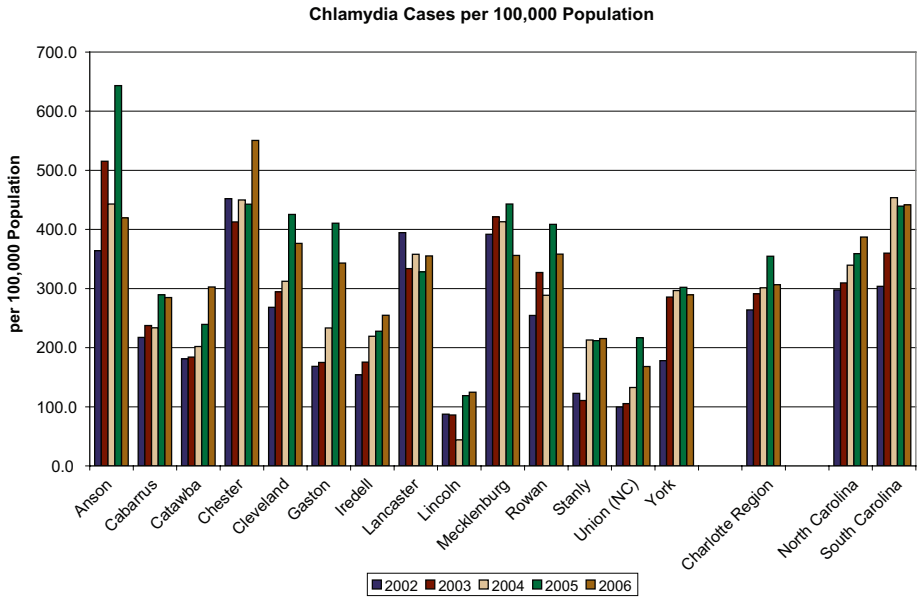
Since people with chlamydia often don't experience symptoms, the reported incidence of the disease is directly related to screening. Increases in screening through new initiatives tend to produce increases in the reported incidence of chlamydia. Therefore, chlamydia trends have to be interpreted in this light. Higher numbers can mean that access or outreach has improved rather than a true increase has occurred within the population.

## Evaluation

The region as a whole appears to have a healthier (that is, lower) rate of sexually transmitted diseases than North or South Carolina. This is good news for the health of the region's population.

The trend lines for gonorrhea and chlamydia were slightly different. The number of gonorrhea cases remained fairly stable, while the number of chlamydia cases rose for three consecutive years and then decreased in the latest period, from 2005 to 2006. This may signal to health-care professionals and nonprofits a need to change priorities in their efforts against sexually transmitted diseases.

Moreover, in analyzing which counties within the region had the highest rates of each disease, the report's authors saw



## STD Rate (continued)

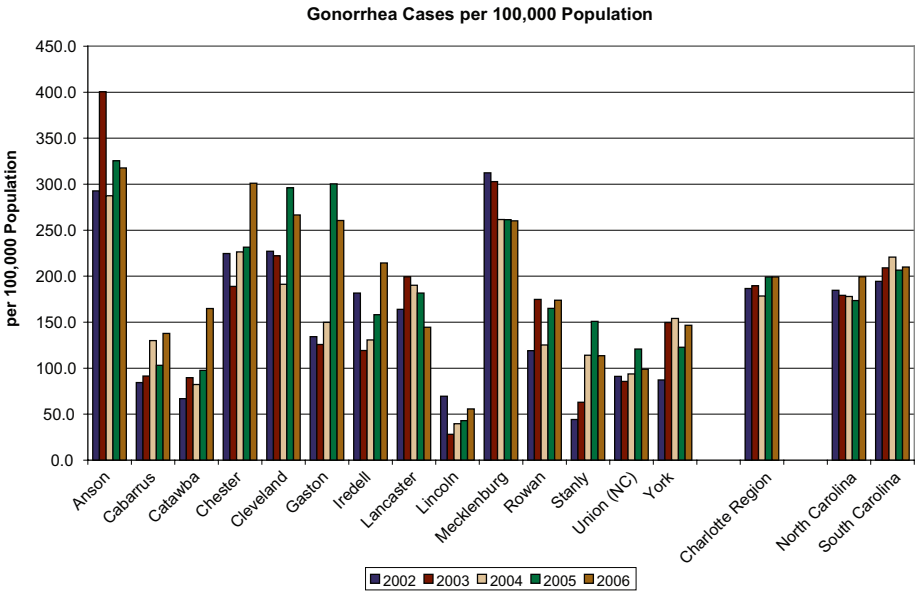
many of the same counties, rural and urban, with high incidences of both diseases. This is not surprising because the transmission of both diseases results from unprotected sex.

This situation suggests that these counties need assistance in fighting sexually transmitted diseases, which is a matter of prevention and good sex education. The existence of this problem in both urban and rural counties presents a challenge because programs in one county may not work in a county that is demographically different.

### Connections

The rate of sexually transmitted diseases (STDs) has obvious connections to other aspects of public health in the region. Rising rates of STDs may signal a failure to educate residents about the dangers of unsafe sex, just as declining rates may signal success in such educational efforts.

The number of gonorrhea and chlamydia cases also may be related to demographic change. That is, rising rates may indicate that more single, sexually active people are living in the region. Declining rates, on the other hand, may signal a relative decline in that population.



# Housing

## Overview

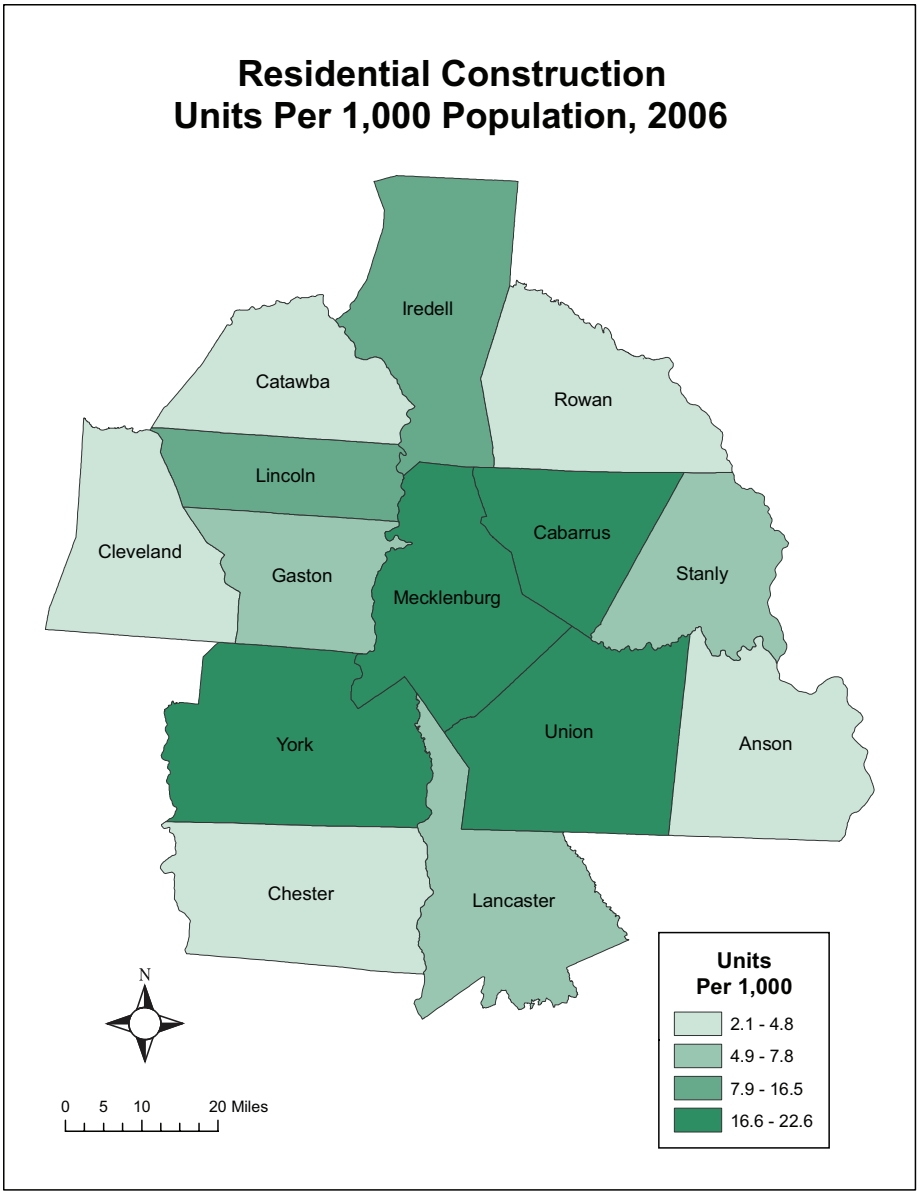
### Scope

The housing section covers housing units and types, home ownership, residential construction, home sales and apartment rents.

### Regional Context

Until recently, housing patterns in the region fell into a few traditional categories: detached single-family subdivisions, apartment complexes, and mobile homes. New construction was focused on the suburban fringe of growing cities and towns. Public housing was concentrated in "projects." Affordable housing consisted of basic apartments, or starter homes in older decaying neighborhoods or in near-rural subdivisions where land prices were low.

As the region has grown in population and in demographic diversity, and as land prices have risen, the housing market has responded with a widening array of housing patterns and choices. In Mecklenburg, the most urban county, these include attached single-family townhomes, mid- and high-rise condos and apartments, lofts, live-work units, and more. Gentrification has occurred in some older "inner ring" neighborhoods, and residential in-fill development is increasingly common. In cities and urbanizing counties elsewhere in the region, similar housing diversification changes are underway. New housing developments in Concord, Gastonia, Rock Hill, Salisbury, and other small cities reflect this trend. In Charlotte, mixed-income developments including a mix of subsidized and market rate housing units have been introduced in the city's First Ward, inside the I-277 loop. Housing that is affordable for teachers, police and firefighters is in increasingly short supply. Housing Charlotte 2007 was an initiative to find new solutions to address this growing problem.




*See page 94 for additional information on this indicator*

There is an interactive relationship between housing and the economy. If the economy turns up or down, the housing market may follow. Likewise, the housing market can have the same effect on the economy. However, the region's housing markets have over the past two decades remained robust even in times of national economic downturn. Home values, and therefore property tax bases, have risen steadily and generally have out-performed the national rates of increase. During early 2007, almost every metropolitan area in the country except Charlotte experienced a slowdown in new home construction, according to the Charlotte Business Journal's May 9 edition.

### Summary of Indicator Results

The indicators suggest the region's housing market remains strong and, at least through 2006, was insulated from the recent downturn in many markets across the country.

## Overview (continued)

From 2000 to 2005, the number of housing units in the region grew faster than the region's population. Though new residential housing building permits decreased from 2000 to 2003, the number began to increase in 2004.

From 2005 to 2006, the number of closings and new home sales rose, indicating a steady resilience in the housing market. However, as the housing market weakens across the country because of subprime lending problems and tighter mortgage requirements, the Charlotte region needs to keep a close watch on its market as well.

In painting a picture of the regional housing market, the numbers show a majority of homes are owner occupied (nearly 70 percent) and that the majority of dwellings consist of single-family homes. Mecklenburg has the most multi-family housing of any county, while Chester has the most mobile homes of any county.

With apartments, vacancy and rental rates have varied from 2000 through early 2007, depending on the supply and demand of available housing. In 2006, the last full year of data examined, Mecklenburg County had the highest vacancy and rental rates among the counties studied.

Growing regions often face challenges in providing adequate affordable housing. The rising per capita number of housing units suggests that there is an increasing supply of housing. One indicator that warrants further monitoring is the measure of rental rates, as rising rents make housing more expensive for those who choose to rent their home.

### Missing and Future Indicators

Because of time constraints, two indicators of interest that were not pursued were "Home Cost and Price Appreciation" and "Home Cost and Income."

The most accurate data for home cost would come from tax appraisers' offices in the 14-county region. These indicators are targeted for future study.

Another high priority indicator for the future is obtaining more complete data on home sales by county in the region. The Carolina Multiple Listing Service, owned by the Charlotte Regional Realtor® Association (CRRA), provides data for only seven of the 14 counties covered by this report.

Reliable data for the missing counties were difficult to obtain. This report's 14-county region does not match any other geographic footprint, such as the Metropolitan Statistical Area or other statistical areas. It also crosses state lines, which makes comparing county data difficult unless the data are available on a federal basis.

The authors also would like to look at percentages of housing types and see how they change over time. Declines in mobile homes within rural areas may signify that those areas are becoming more urban and/or land prices are rising. Increases apartments in urban counties may signify a push for higher density development.

Another useful indicator would be tracking the number of houses on the market at given times. Such information could suggest whether the market has an excess supply of housing or whether the supply is consistent with market conditions.

*See page 135 for Housing indicator data sources*

## Housing Units

### What's Measured

Using data from the U.S. Census Bureau, this section looks at the number of housing units per capita from 2000 through 2005. Housing units include all types of residential development, encompassing single-family homes, apartments, condos, townhomes and all other housing types.

### Why It's Measured

The number of housing units points to the supply of housing in the Charlotte region. In an area growing as fast as this region, population growth can outstrip increases in housing supply, leading to a shortage of affordable housing.

### Indicator Results

In 2005, the Charlotte region had 980,133 housing units (431.32 housing units per 1,000 residents). This represented an increase of 15.4 percent over the number of housing units in 2000 (849,600 units). It also represented an increase in per capita housing units. In 2000, there were 416.73 housing units per 1,000 residents, 14.59 units fewer than in 2005.

Mecklenburg County accounted for 36.4 percent of all housing units in the region in 2005. From 2000 through 2005, Cabarrus, Mecklenburg, Union, and York counties increased their shares of the region's housing units. While all other counties saw a decrease in their share of the region's housing units, no county experienced a decrease in the number of housing units for the period studied.

The Charlotte region's 431.32 housing units per 1,000 residents represented fewer housing units per capita than either North Carolina (454.37) or South Carolina (453.94) as a whole. Chester, Iredell, Mecklenburg and Stanly counties had the most housing units per capita. Union County had the fewest housing units per capita, at 367.75.

### Evaluation

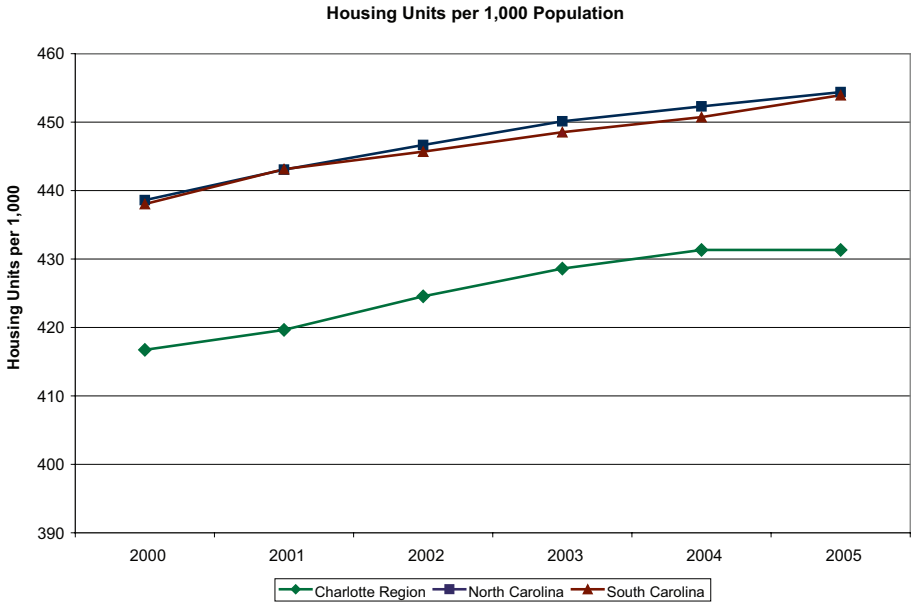
From 2000 through 2005, the number of housing units in the region grew faster than the region's population. The number of housing units in the region increased by 15.4 percent from 2000 to 2005, while the population increased by 11.5 percent during the period. Nevertheless, the region's per capita number of housing units is still lower than state levels. The growth of the Charlotte region poses many challenges to the local housing market and residential home developers. The housing market must keep the housing supply at or near the demand for housing as the region's population continues to rise.

Although population growth occurred during the period studied, per capita levels of housing in the Charlotte region did not change dramatically. Nor is the difference between the region and North Carolina and South Carolina very large. In sum, the number of housing units in the region seems to be in line with state levels and what one would expect based on population numbers.

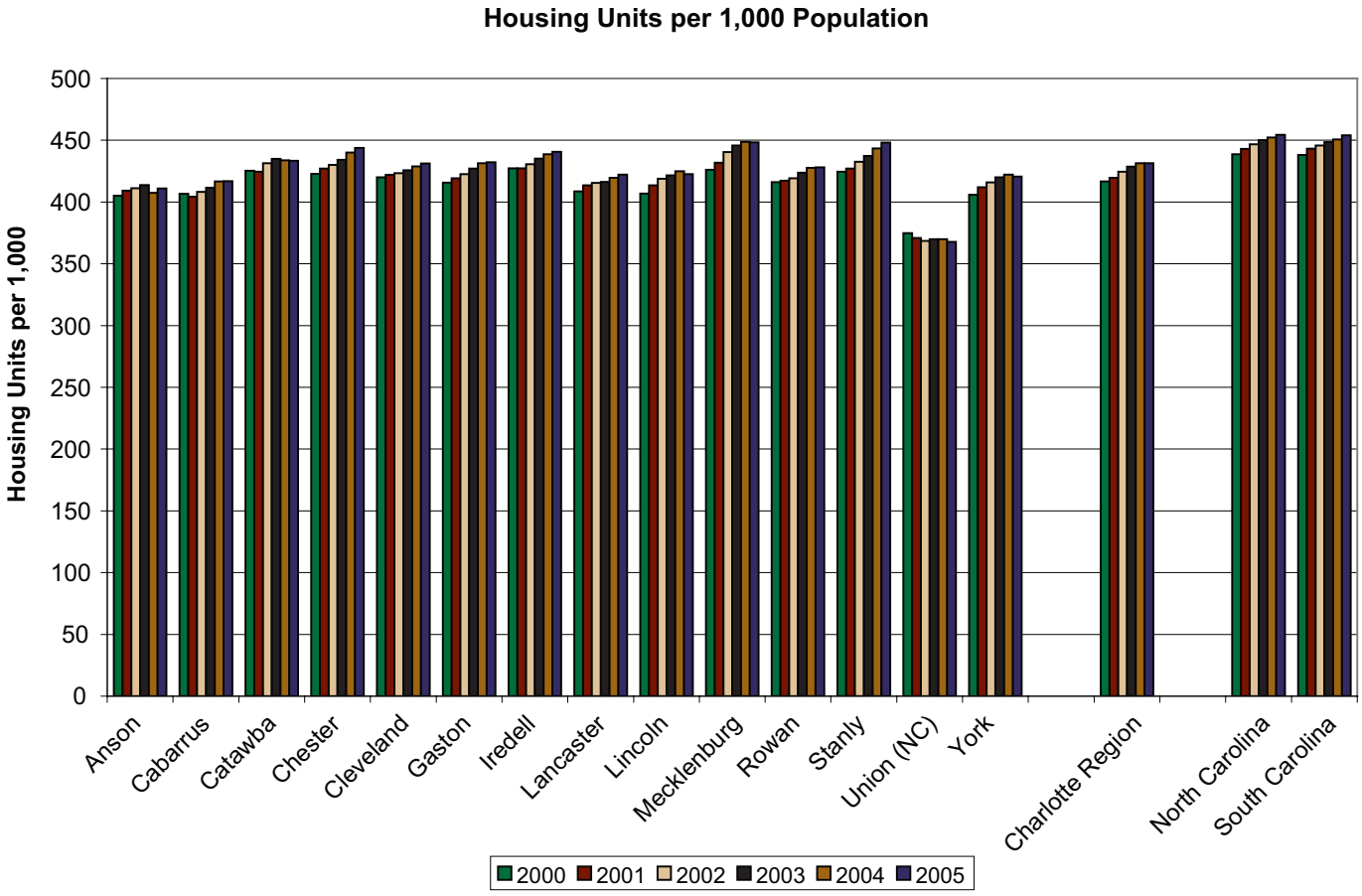
### Connections

The number of housing units has important connections to the region's economy. If housing units fail to keep pace with population growth, residents will have increased difficulty finding affordable housing. This shortage, in turn, may serve as an impediment to future growth, as newcomers are unable to find desirable dwellings. Conversely, if home construction outpaces population growth by too much, the region could experience a fall in housing prices – a major problem for homeowners.

The number of housing units also has important implications for the region's environment and provision of public services. A rapidly increasing housing supply can strain the region's natural resources and amenities.



## Housing Units (continued)



## Housing Types

### What's Measured

This measure compares housing types in the Charlotte region in 1990 and 2000 using data from the U.S. Census Bureau. The types of housing include single-family detached, single-family attached (row houses or townhomes), multi-family units, mobile homes and all other housing (such as boats, RVs and vans). The number of housing units of each housing type is reported as a percent of all housing units. This indicator uses data from the decennial census, which means that it cannot be updated until 2010 figures are released.

### Why It's Measured

Data on the region's mixture of housing provide information about the organization of communities and patterns of land use. Detached single-family homes typically provide families with more space, but consume more land and resources per resident than other types of development. Higher numbers of attached single-family homes and multi-family housing suggest denser development.

### Indicator Results

In 2000, 67.14 percent of housing in the Charlotte region was single-family detached housing, 2.78 percent was single-family attached housing, 18.25 percent was multi-family and 11.78 percent was mobile homes.

These numbers were not much different from the 1990 numbers: 67.3 percent single-family detached, 2.1 percent single-family attached, 18.2 percent multi-family and 11.6 percent mobile homes.

Compared to North Carolina and South Carolina as a whole, in 2000 the region had a little more single-family detached housing, about the same amount of single-family attached housing (more than South Carolina, less than North Carolina), a little more multi-family housing and fewer mobile homes.

Among counties in the region, Union had the biggest percentage of single-family detached housing (82.3 percent) and Mecklenburg had the smallest percentage (60.4). Mecklenburg had the most single-family attached housing (5.1 percent), and Chester had the least (0.5 percent).

Mecklenburg had by far the most multi-family housing (32.4 percent), and Anson had the least (5.5 percent). Chester County had the highest percentage of mobile homes (26.7 percent), and Mecklenburg had the lowest (2.1 percent).

### Evaluation

The data show that housing in the Charlotte region, as in North Carolina and South Carolina, is dominated by single-family detached housing. Such a statistic is not necessarily a bad thing, but given the region's population growth (growth that is expected to continue), the prevalence of detached single-family housing development raises concerns about sprawl and attendant traffic congestion, long commutes and loss of open space.

Mecklenburg County has more multi-family and attached single-family housing, suggesting that at least one county experiencing growth may turn to a denser model of development. The share of mobile-home housing in the region grew slightly from 1990 to 2000, suggesting that it is filling a need for affordable housing in much of the region.

### Connections

The mixture of housing types has important connections to patterns of growth in the region. Increased numbers of detached single-family homes are indicative of suburban growth, typically located in previously undeveloped areas on the outskirts of cities and towns. Higher numbers of attached single-family homes and multi-family homes suggest denser development.

Housing and land-use patterns suggested by the mix of housing types provide important sociological information as well as information about the region's consumption of public services and natural resources.

## Housing Types (continued)

### Percent Housing Types, 1990

| | Single Family Detached | Single Family Attached | Multi-Family | Mobile Home or Trailer | Other |
|---|---|---|---|---|---|
| Anson | 74.8% | 0.7% | 5.8% | 17.7% | 1.0% |
| Cabarrus | 73.9% | 1.2% | 10.9% | 13.4% | 0.6% |
| Catawba | 67.1% | 1.7% | 15.4% | 15.2% | 0.6% |
| Chester | 74.3% | 1.1% | 7.4% | 16.1% | 1.1% |
| Cleveland | 72.5% | 1.0% | 9.3% | 16.4% | 0.7% |
| Gaston | 74.1% | 0.9% | 12.2% | 12.0% | 0.8% |
| Iredell | 70.0% | 1.2% | 9.1% | 18.9% | 0.8% |
| Lancaster | 75.3% | 0.6% | 7.8% | 15.3% | 1.0% |
| Lincoln | 66.9% | 0.7% | 7.1% | 24.7% | 0.6% |
| Mecklenburg | 58.8% | 3.9% | 33.7% | 2.8% | 0.8% |
| Rowan | 68.8% | 0.9% | 11.0% | 18.6% | 0.7% |
| Stanly | 77.6% | 1.2% | 6.4% | 14.0% | 0.8% |
| Union (NC) | 77.4% | 0.8% | 8.4% | 12.7% | 0.7% |
| York | 66.1% | 2.4% | 12.9% | 17.9% | 0.7% |
| Charlotte Region | 67.3% | 2.1% | 18.2% | 11.6% | 0.8% |
| North Carolina | 64.9% | 2.6% | 16.3% | 15.3% | 0.8% |
| South Carolina | 63.1% | 2.4% | 16.8% | 16.9% | 0.9% |

### Percent Housing Types, 2000

| | Single Family Detached | Single Family Attached | Multi-Family | Mobile Home or Trailer | Other |
|---|---|---|---|---|---|
| Anson | 69.0% | 0.9% | 5.5% | 24.3% | 0.2% |
| Cabarrus | 74.2% | 1.3% | 12.1% | 12.4% | 0.0% |
| Catawba | 66.1% | 2.5% | 15.1% | 16.2% | 0.1% |
| Chester | 65.9% | 0.5% | 6.5% | 26.7% | 0.4% |
| Cleveland | 68.2% | 1.1% | 8.9% | 21.7% | 0.1% |
| Gaston | 73.4% | 1.4% | 13.7% | 11.4% | 0.0% |
| Iredell | 71.3% | 1.5% | 9.2% | 17.9% | 0.1% |
| Lancaster | 70.0% | 0.6% | 7.6% | 21.7% | 0.1% |
| Lincoln | 66.8% | 1.6% | 7.0% | 24.6% | 0.0% |
| Mecklenburg | 60.4% | 5.1% | 32.4% | 2.1% | 0.0% |
| Rowan | 67.7% | 1.3% | 10.3% | 20.6% | 0.1% |
| Stanly | 75.3% | 1.1% | 6.5% | 17.1% | 0.0% |
| Union (NC) | 82.3% | 1.0% | 6.2% | 10.5% | 0.0% |
| York | 66.0% | 2.6% | 13.9% | 17.4% | 0.1% |
| Charlotte Region | 67.1% | 2.8% | 18.2% | 11.8% | 0.1% |
| North Carolina | 64.4% | 3.0% | 16.1% | 16.4% | 0.2% |
| South Carolina | 61.5% | 2.3% | 15.8% | 20.3% | 0.1% |

## Home Ownership

### What's Measured

This section looks at owner-occupied and renter-occupied housing as a percentage of occupied housing units in the Charlotte region in 1990 and 2000, using data from the U.S. Census Bureau. This indicator uses data from the decennial census, which means that it cannot be updated until 2010 figures are released.

### Why It's Measured

The amount of home ownership (compared to renting) in the region provides information about the affordability of housing and the ties of residents to the community. Moreover, for most homeowners, their home is their most important investment.

### Indicator Results

In 2000, 69.99 percent of homes in the region were owner-occupied and 30.01 percent of homes were renter-occupied. Home ownership was up slightly from 1990, when 69.0 percent of homes in the region were owner-occupied and 31.0 percent were renter-occupied.

Regional home-ownership rates were similar to state levels. In North Carolina, 69.4 percent of homes were owner-occupied in 2000; while in South Carolina 72.2 percent were owner-occupied.

Among counties in the region, Union had the highest percentage of owner-occupied housing at 80.5. Mecklenburg had the lowest percentage of owner-occupied housing, at 62.3. From 1990 to 2000, Union had the biggest increase in home ownership. For the same period, Catawba, Gaston, Lincoln, Rowan and Stanly counties experienced a decrease in home ownership.

### Evaluation

Levels of home ownership in the region remained fairly constant from 1990 to 2000. Similarly, home-ownership rates for the region appear to be fairly consistent with state levels.

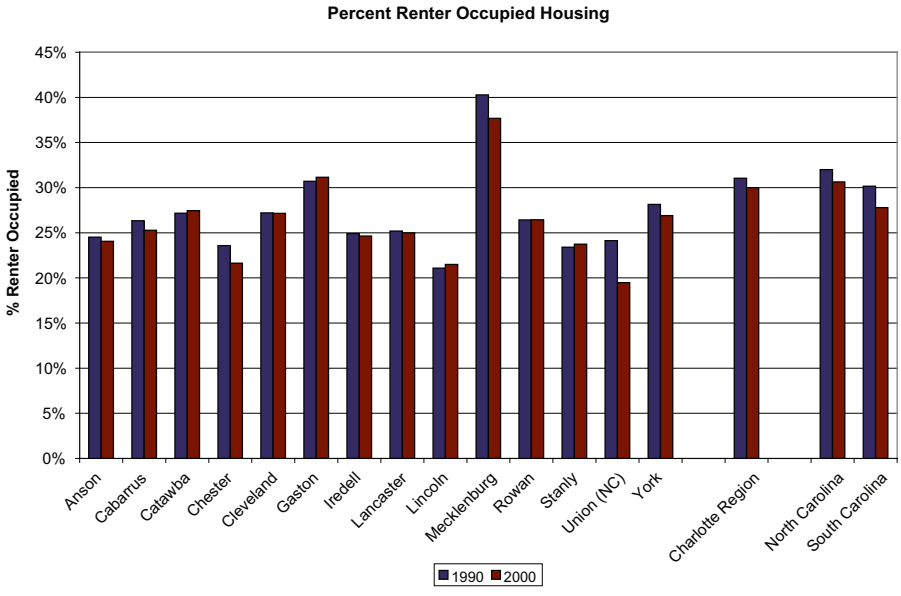
Nevertheless, there are interesting differences across the counties comprising the region. All else being equal, higher levels of home ownership suggest higher income levels. But in areas experiencing rapid population growth, low home-ownership rates (or, conversely, high percentages of renters) may be explained by the presence of newcomers who have not yet decided on a permanent place to live.

### Connections

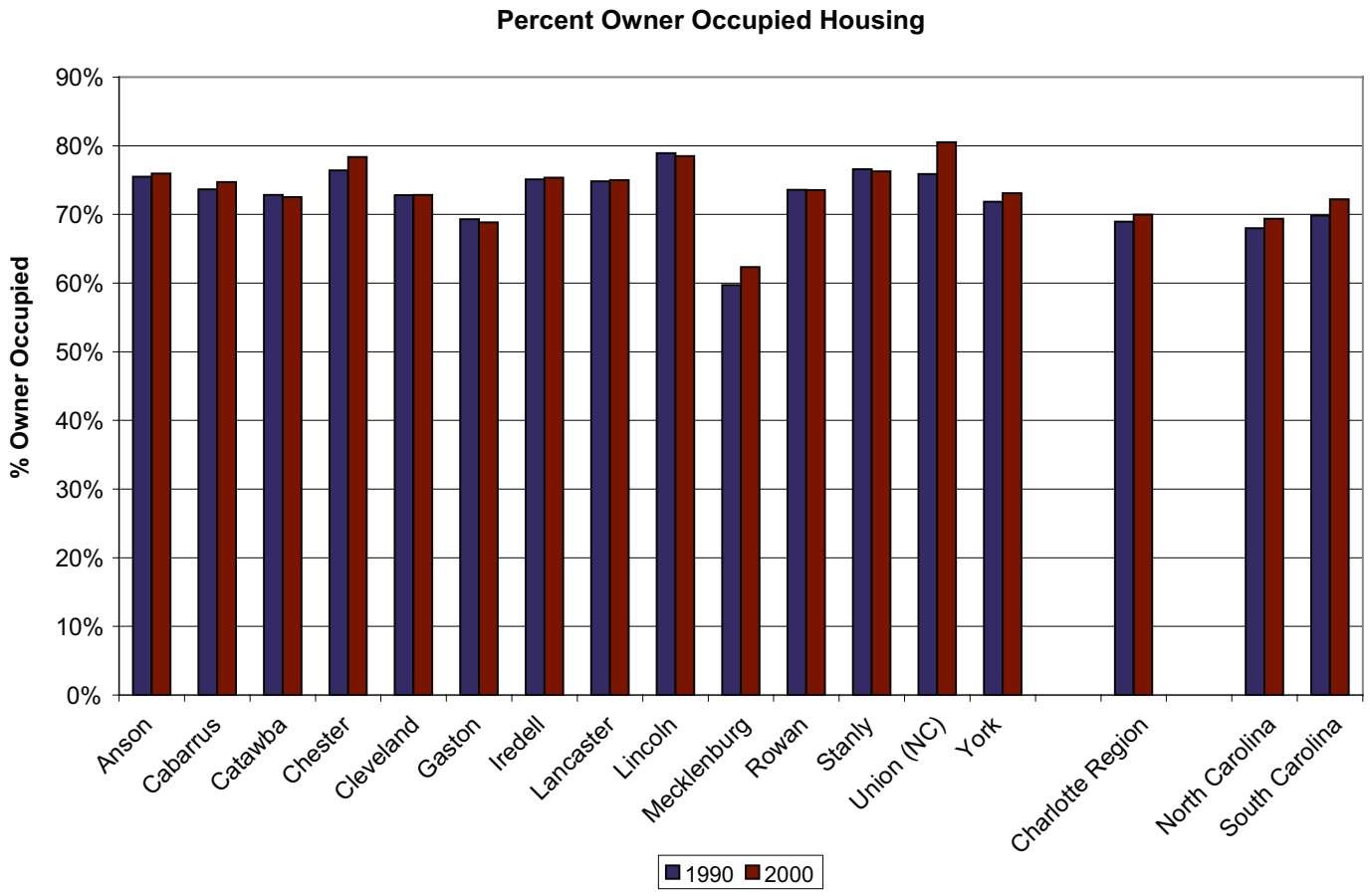
Home-ownership and renting data provide important information about the region's economy. Higher levels of home ownership suggest that a greater number of individuals and families enjoy sufficient wealth or income to purchase a home.

There is also a contrast between urban and rural areas. Urban areas attract younger people more likely to rent as well as newcomers also more likely to rent before they buy, both of which may reflect a vibrant economy. Also, lower levels of home ownership may suggest that the region's wealth is more concentrated in the hands of a few.

Home ownership also has important sociological implications, as home owners typically are more invested in their communities, working to make them safe, clean and liveable.



## Home Ownership (continued)



## Residential Construction

### What's Measured

This measure focuses on the number of housing units for which building permits were issued by counties within the Charlotte region from 2000 through 2006, based on data from the U.S. Census Bureau. The indicator is expressed as housing units per 1,000 persons.

Data on types of residential permits and construction costs are included as well.

### Why It's Measured

Looking at annual residential building permits can offer insight into the region's housing supply. A high number of permits for newly constructed housing units suggests an expansion of the housing supply. Provided that the increase in supply keeps up with the increase in demand (caused by population growth and other factors), housing prices should remain fairly stable. If supply outpaces demand, prices should fall. If supply does not keep up with demand, prices should rise.

### Indicator Results

In 2006, the average county number of residential building permits issued was 9.99 permits per 1,000 residents. This was up from 9.9 permits per 1,000 in 2000, but down from a high of 10.3 permits per 1,000 residents in 2005. The fewest permits were issued in 2003, when the counties averaged 9.0 permits per 1,000 residents.

From 2000 to 2006, the average cost of construction increased every year. In 2006, the average cost per unit was $165,201.79.

Of residential permits issued in the region in 2006, 17.8 percent of the units were multi-family. This was sharply lower than in 2000, when 29.1 percent of the permits were for multi-family.

Among the counties in 2006, Union issued permits for the most units at 22.6 per 1,000 residents. Anson issued permits for the fewest units, 2.1 per 1,000 residents. Lincoln had the highest cost per unit at $346,563.40. This figure was up dramatically from $114,581.04 in 2005. Union had the second-highest cost per unit ($202,123.96), and Chester had the lowest cost per unit ($84,100.85).

### Evaluation

The number of permits issued to build residential units has been rising in the region, suggesting an increase in the region's supply of housing. Single-family residential units account for a large proportion of the permits issued, and their share increased from 2000 through 2006 (although there was a slight decrease from 2005 to 2006).

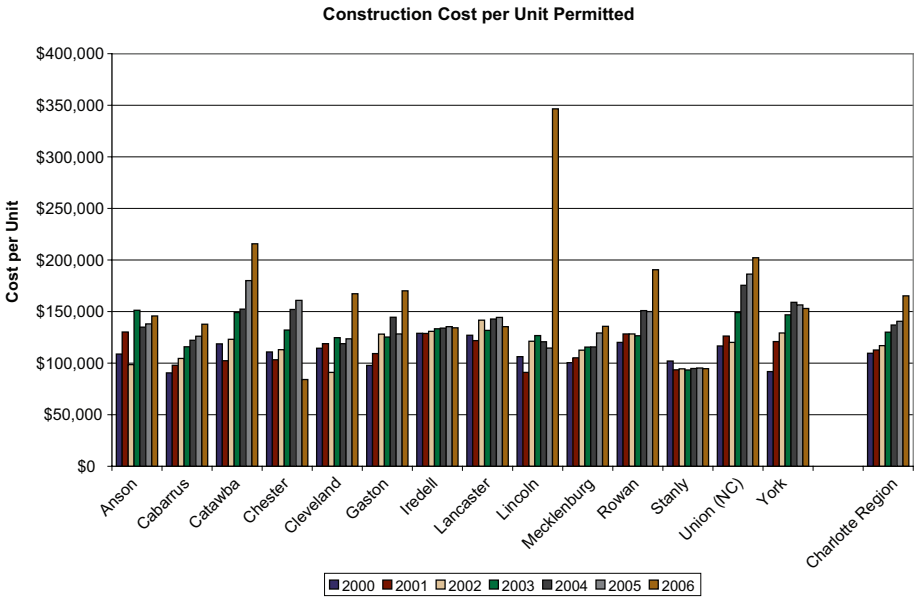
Costs also have increased steadily, for both single-family and multi-family units. This trend may reflect price increases for construction materials, and could result in housing affordability issues in the region.

As a part of the regional economy, development and construction of housing seemed to be performing well through 2006, even as other real estate markets across the country began to decline. This industry provides an important source of income, but the region's rapid growth could put strains on public and natural resources.

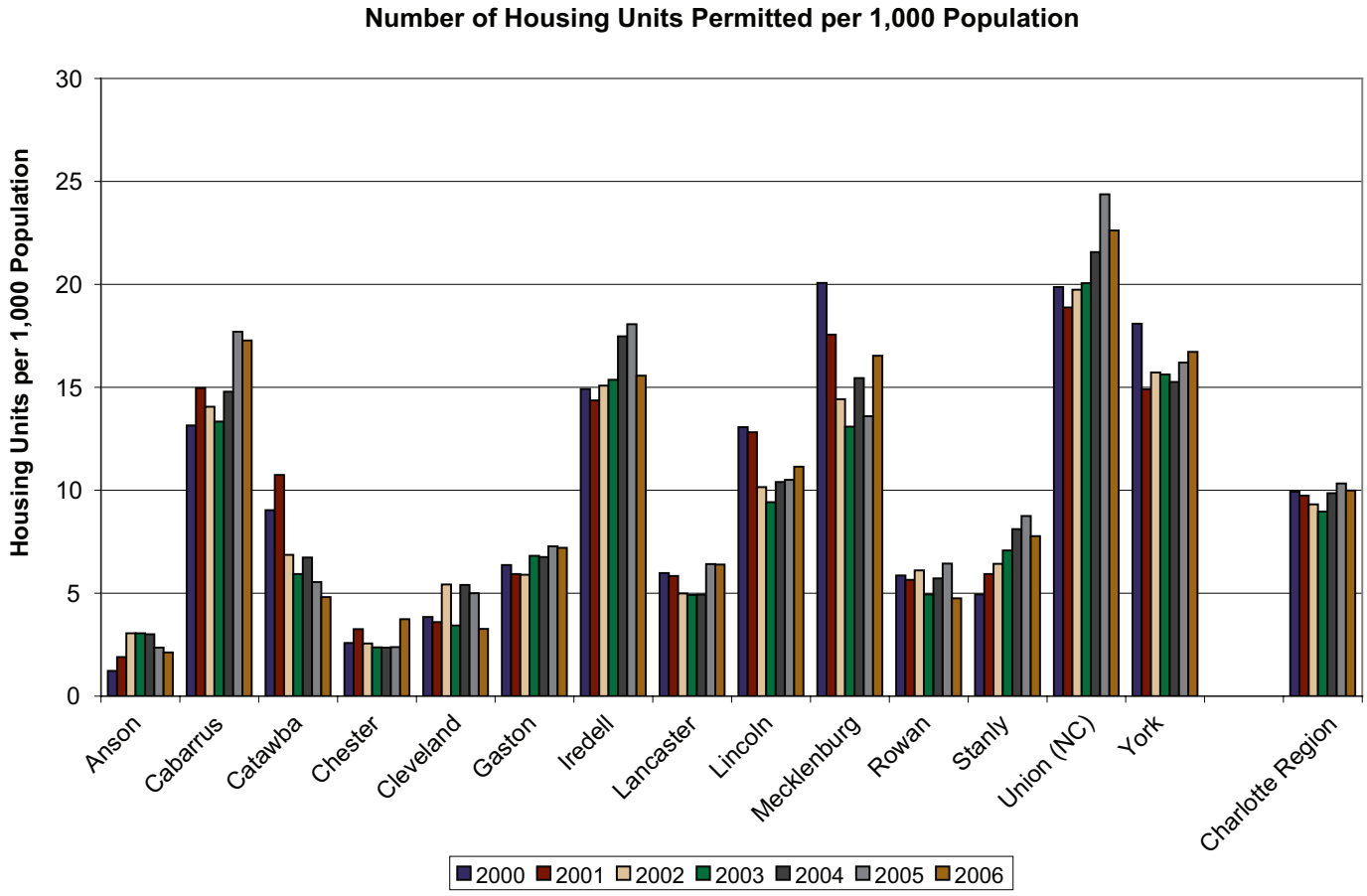
### Connections

The number of annual residential building permits has important implications for the region's economy. It has obvious connections to the availability of housing for residents. But new construction is itself a significant contributor to the economy in the form of jobs and investment opportunities.

Beyond the economy, residential building permits are connected to the adequacy of public services and natural resources. High numbers of permits may strain schools, water and sewer networks and police and fire coverage. Moreover, increased building leads to a loss of open space and natural areas.



## Residential Construction (continued)



## Sales

### What's Measured

This indicator targets the rate of residential real estate closings (the number of closings per 1,000 persons) and the average price of such home sales for single-family homes, condominiums and townhomes for selected counties in the Charlotte region in 2005, 2006 and the first quarter of 2007. Data come from the Carolina Multiple Listing Services which covers seven of the region's counties (Cabarrus, Gaston, Iredell, Lincoln, Mecklenburg, Stanly, and Union).

### Why It's Measured

The number of residential closings provides information about the region's housing market. A high number of closings suggest an active housing market, with buyers and sellers being able to engage in desirable transactions. The average price at closing provides information about the affordability of housing in the region.

### Indicator Results

In 2006, there were 22.82 closings per 1,000 residents in the seven counties surveyed, up from 21.31 in 2005. In the first quarter of 2007, there were 4.8 closings per 1,000 residents (using 2006 population numbers because 2007 numbers were unavailable), down from 4.9 in the first quarter of 2006 (using 2005 population numbers for consistency's sake).

The average sales price in 2006 was $224,741, up from $213,505 in 2005. For the first quarter in 2007, the average sales price was $226,429, up from the first quarter 2006 average of $206,856.

Among the counties, Mecklenburg had the highest number of closings per 1,000 residents (27.1). Stanly had the lowest number of closings per capita (4.7 per 1,000 residents). Every county but Lincoln experienced an increase in the number of closings from 2005 to 2006, but every county except Gaston, Lincoln, and Mecklenburg counties experienced a decline in per capita closings from the first quarter of 2006 to the first quarter of 2007.

Regarding sales price, Union County had the highest average ($277,068) and Gaston County had the lowest average ($138,270). Each county studied experienced an increase in average sales price from 2005 to 2006, and from the first quarter of 2006 to the first quarter of 2007.


### Evaluation

Based on the seven counties studied over the designated period, the region's housing market seemed to be healthy. There was an increase in the number of closings from 2005 to 2006, and sales prices have risen continuously.

A comparison of the first quarters of 2006 and 2007 showed an occurrence that should be monitored. Specifically, per capita closings fell from 2006 to 2007, suggesting that the housing market may be cooling off, and that sellers and buyers are less able to arrange mutually beneficial transactions.

Even as per capita closings were falling, however, the average price at those closings continued to rise. This suggests that the housing market in the region may not be as susceptible to national downturns in the housing market as other regions in the country.

### Connections

Home sales and the average sales price provide information about how active residential real estate markets are in the region. This, in turn, provides information about housing demand and housing supply. A high number of transactions and rising prices suggest that demand is higher than supply, so the region could expect to see developers build new housing — something that has important consequences for regional public services and natural resources.

## Rental and Vacancy Rates

### What's Measured

Using data from surveys conducted twice yearly by Carolinas Real Data, this section measures apartment vacancy and rental rates for six counties in the Charlotte region from 2000 through 2007. The six counties surveyed by Carolinas Real Data are Cabarrus, Gaston, Iredell, Mecklenburg, Union and York. The apartment vacancy rate is the percent of all apartments that are vacant as of the date of the survey call on that certain day. The rental rate is the average rent in dollars per month.

The regional indicator for the apartment vacancy rate is calculated as an un-weighted average of the counties' average apartment vacancy rates. Annual numbers are the average of the two surveys Carolinas Real Data conducts each year in March and September. Data for 2007 include only the March number. September data had not been released at the time of this report.

### Why It's Measured

Vacancy and rental rates for apartments provide important information about the housing market in the region. Higher apartment rents signal an increase in demand and contribute to rising prices for real estate. Thus, one would expect to see lower vacancy rates as rents rise, which may result in the development of more apartment units. Higher rental rates and lower vacancy rates suggest that residents may have a more difficult time finding affordable housing.

### Indicator Results

In 2006, the average county apartment vacancy rate was 7.62 percent. In March 2007, the vacancy rate was 6.5 percent. This represented a return to about the same vacancy rate as existed in 2000 (7.7 percent). The high for the period occurred in 2002, at 14.3 percent.

Among the counties surveyed in 2006, Cabarrus had the lowest vacancy rate (5.5 percent), and Gaston and Iredell had the highest vacancy rates (9.1 and 9.0, respectively).

The average county apartment rental rate was $630.17 in 2006. In March 2007, the average rental rate was $649.50. The highest average county rate during the period studied was $645.17, in 2002. The lowest rental rate was $606.83, in 2004.

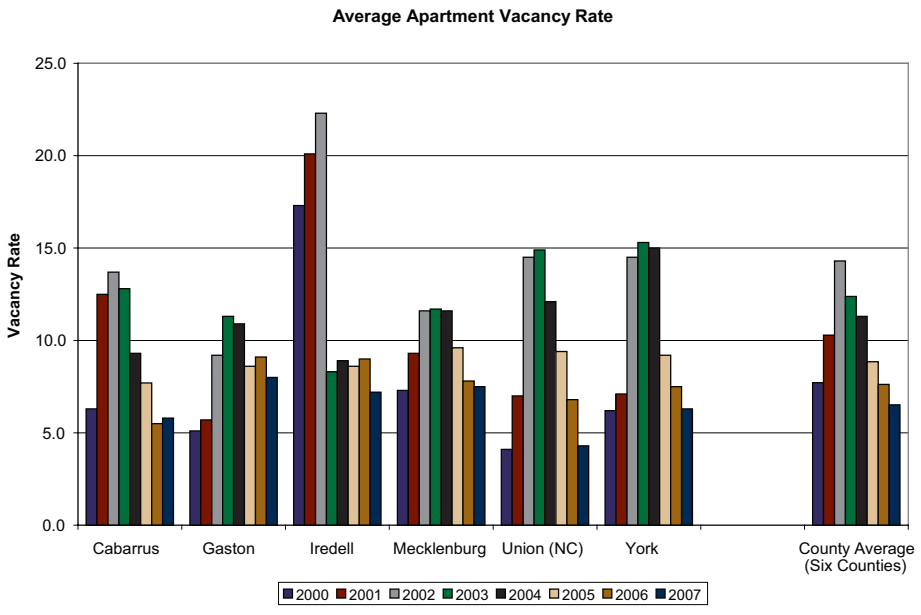
Mecklenburg County had the highest rental rate ($698.00 in 2006 and $727.00 after one of two surveys in 2007). Gaston County had the lowest rental rate ($585.00 in 2006 and $615.00 after one of two surveys in 2007).

### Evaluation

Based on the six counties studied over the designated period, the average vacancy rate rose from 2000 to 2002 and did not start falling until 2004. Meanwhile, the average rental rate rose from 2000 to 2001, then dropped from 2002 to 2004, and rose again in 2006/2007.

The residential rental market appeared to be in a period of transition from 2000 to 2002. Both vacancy and rental rates rose, in contrast to the expected inverse relationship between the two. Vacancy and rental rates can rise at the same time, however, until the vacancy rate reaches approximately 10 percent. The numbers suggest an increase in supply (the result of the development of new rental units) brought about by increased demand, while prices adjusted to equilibrium levels.

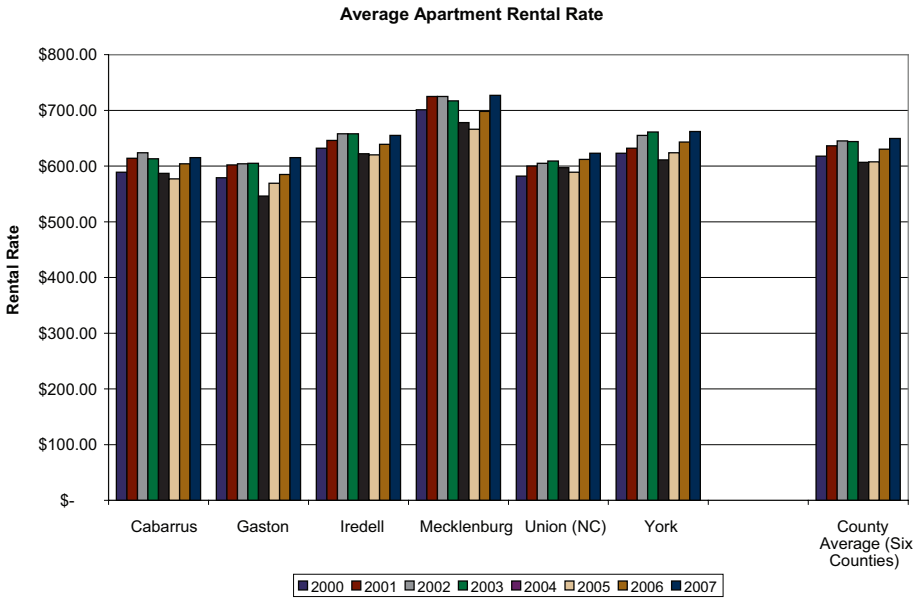
One additional note: The apartment market generated much activity in 2000-2001, and the economy declined and job growth slowed in 2001 and 2002. This combination of effects magnified issues during this period.



## Rental and Vacancy Rates (continued)

### Connections

Apartment vacancy and rental rates have key connections to the region's economy. High rents and low vacancy rates may mean that the economy is performing well, attracting more residents and increasing the demand for housing, signifying a fairly strong market. But high rents and low vacancy also may mean that more of the region's residents are choosing to rent instead of to buy homes, signaling possible uncertainty about the region's real estate market.



# Public Safety

## Overview

### Scope

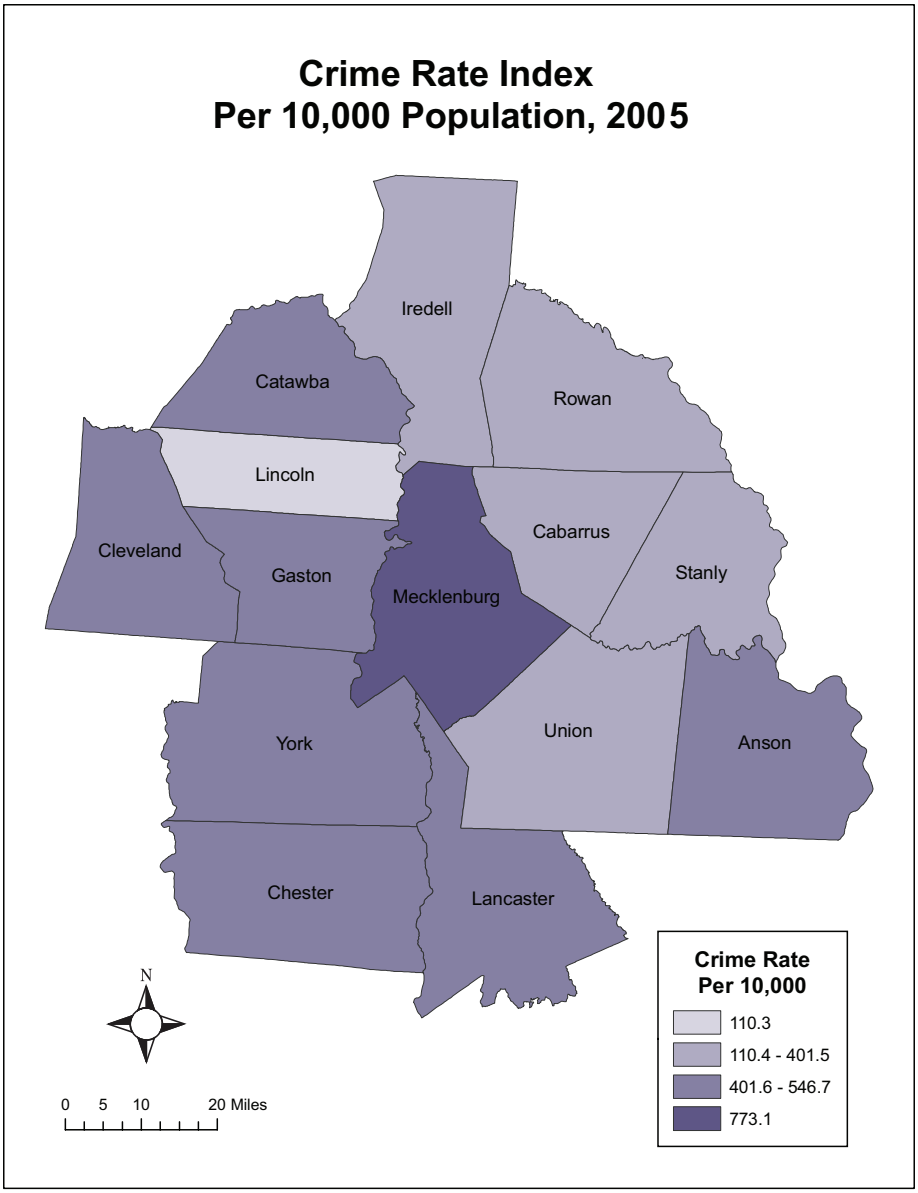
Public safety involves protecting the population from danger and providing help after injury. Typical personnel involved in public safety are police, fire fighters, medics and emergency-preparedness directors.

This report covers calls for emergency service, the crime index, motor vehicle accidents, workplace fatalities, educational opportunities in public safety and evacuation and disaster preparedness.

"Calls for service" focus on 911 calls for help. The crime index measures crimes per 10,000 persons, as reported by the police.

Motor-vehicle accidents are on-the-road motor-vehicle crashes causing death, injury or property damage. Fatalities on the job show only the number of fatalities on the job that have been investigated or are under investigation for the North Carolina counties within the region. South Carolina does not release such information by county.

Educational opportunities show the colleges and universities in the region that offer training in criminal justice, emergency-medical services or fire fighting. The information on evacuation routes and disaster preparedness comes from surveying county officials in the region.




*See page 103 for additional information on this indicator*

### Regional Context

Public safety has become more important to residents of the Charlotte region. Many have a heightened sense of crime based on media coverage, especially TV. On most nights, local televisions stations lead their broadcasts with stories of crimes and their victims.

In the summer of 2007, two Charlotte-Mecklenburg police officers were killed in the line of duty. Fear of terrorism is also a factor, based on bombings around the world and in the wake of the terrorist attacks on 9/11.

Public safety operations include federal, state, county, city and volunteer agencies that must work together to protect the ever-growing population of the region. Essential partners include local educational institutions and hospitals.

Public safety cuts across many themes in the overall indicator report. A dramatic increase in population can require an increase in public safety personnel. The region must have educational facilities ready to train and prepare personnel at all school levels, from kindergarten through higher education.

A downturn in an area's economy can lead to an increase in drug and property crime and a lack of housing. Congested roadways lead to more traffic accidents. The health and social well-being of the residents of an area are in the hands of the men and women in public safety.

## Overview (continued)

### Summary of Indicator Results

A growth in calls for service occurred from 2005 to 2006 in 10 of the 14 counties in the region. One county (Cleveland) saw a decrease in calls, while three could not be measured because of missing data. The increases can be attributed to population growth.

The crime-index rate dropped for the region from 2000 to 2005, although change in individual counties' crime-index rates over that time period varied substantially, with some declining and some increasing. Most of the change in crime rates could be seen in the different types of crime, such as violent crime and property crime. Most counties saw a drop in larceny between 2000 and 2005; however, motor-vehicle theft rose in all but four counties.

With motor-vehicle accidents, people involved in property damage and non-fatal injury accidents dropped between 2001 and 2005. However, people involved in fatal accidents increased slightly.

With workplace safety, investigated fatalities on the job have decreased in most counties in North Carolina. South Carolina does not release information on a county basis due to disclosure rules.

Concerning educational opportunities related to public safety, 15 colleges and universities offer public safety courses in criminal justice, fire safety and emergency-medical training.

In case of a disaster or evacuation, most of the region is well prepared. Many counties have trained for disasters and have evacuation plans in place.

### Missing and Future Indicators

Data inconsistencies, lack of reliable data and time constraints precluded inclusion of several indicators in the report.

Widely differing formats for North and South Carolina made it difficult to compare data related to juvenile crime arrest rates. With hate-crime incidents (bias motivation), cities had data but not counties.

To look at homes as a location of injuries and incidents, the authors couldn't find reliable data listing "home" as an injury location.

Gathering incarceration rates proved difficult within the required time. North Carolina has such data by the county in which the offender committed the crime, while South Carolina has data by county in which the correctional institution is located. More time was also needed to study the sites of emergency-medical services, fire and police stations, with an eye toward whether such facilities are located near the resources that need them.

In future reports, the authors would like to see regional survey data on attitudes and opinions about public safety, including personal safety in neighborhoods, support for public safety personnel and average response time to 911 calls.

Future indicators on gang activity and alternative sentencing also would be informative.

A major need is for better comparisons of data across state lines. The 14-county Charlotte region used for this report does not match any other geographic footprint, such as Metropolitan Statistical Area or combined statistical area. Comparing counties in the two-state region is difficult unless data are available on a federal basis.

*See page 136 for Public Safety indicator data sources*

# 911 Calls

## What's Measured

This measure is the annual per capita calls for 911 Emergency Service. The data for number of calls made to 911 centers were obtained from each county's 911 Emergency Services office. The authors requested the data for 1990, 1995, 2000, 2004, 2005 and 2006. However, many counties did not have data for all the years. As a result, the authors picked the years with the most responses, 2005 and 2006, covering 11 counties in the region (excluding Anson, Lancaster, and Union). The per capita calculations were based on U.S. Census population estimates for each county for 2005 and 2006.

The authors also requested breakdowns of the calls by service requested (police, fire and emergency-medical services), and response times, but these data were not available for many counties. As technology at 911 centers improves and methods used to track calls and response times continue to get better, these will be useful indicators.

## Why It's Measured

The per capita rate of calls for emergency service provides a measure of demand for police, fire and emergency-medical services, complementing the "crime index" and "motor vehicle accidents" indicators shown in other sections of this report. Breakdowns by type of request can shed light on the factors that generate the calls, and the extent to which they may be preventable: motor vehicle accidents with injuries, other accidents or medical crises, crimes, fires.

One note of caution is that some people call 911 for non-emergency requests, such as referrals to social services or to report a stray animal. As more counties provide a 311 information system, non-emergency calls to 911 centers should drop, making this indicator a more accurate measure of demand for emergency services.

## Indicator Results

In 2006, the 11-county regional per capita rate of calls for 911 emergency services was 0.97, up from 0.93 per capita in 2005. The highest per capita rate of 911 calls in 2006 was in Stanly County (1.78), followed by Chester County (1.27). The lowest rates of 911 calls were reported by Catawba County (0.36) and York County (0.49).

In general, the both the number of calls and the per capita rate of calls increased from 2005 to 2006 in each county for which data was available, with the exception of Cleveland County, which saw decreases in both measures. Not surprisingly, Mecklenburg, the largest and most urban of the counties, received the most calls for service, and saw the largest increase in number of calls from 2005 to 2006. The largest percentage change in the per capita rate of 911 calls occurred in Lincoln and Gaston counties (up 28.6 and 15.6 percent, respectively).

The regional and county indicators cannot be compared to figures for either of the two states since a state 911 system does not exist that collects data from all 911 centers.

## Evaluation

Given the wide variation in per capita call rates among the counties, the small increase in the 11-county regional 911 call rate is probably of negligible significance. Without breakdowns by type of request, underlying causes of the variation in per capita rates cannot be assessed. Furthermore, to assess whether the regional rate is stable, increasing or declining will require more than two years' data.

The most interesting information was that many counties had switched over to a new software system, among them Gaston, Lincoln, Iredell and Union. A few were unable to provide data for selected years because of the switch, and Union County advised to call back the next year when the conversion was complete to obtain data.

## Connections

Calls for emergency service are directly related to other public safety measures, such as motor vehicle accidents and crimes, and indirectly related to health, social well-being and transportation. Lower socio-economic status generally correlates with poorer health education and health outcomes that can lead to medical crises requiring 911 service. Emergency personnel are often the first responders to a disaster or public health crisis. Highway congestion tends to increase motor vehicle accidents, resulting in a higher rate of 911 calls. Congested roads also make it harder for emergency vehicles to respond quickly and safely.

## 911 Calls (continued)

| Area | Calls for Emergency Service | | | | |
|---|---|---|---|---|---|
| | 2005 | | 2006 | | % Change in Per Capita Rate |
| | # Calls | Calls Per Capita | # Calls | Calls Per Capita | |
| Anson County | na | na | na | na | na |
| Cabarrus County | 83,140 | 0.55 | 88,019 | 0.56 | 5.9% |
| Catawba County | 55,274 | 0.36 | 56,052 | 0.36 | 1.4% |
| Chester County | 40,571 | 1.22 | 41,668 | 1.27 | 2.7% |
| Cleveland County | 68,911 | 0.70 | 67,452 | 0.69 | -2.1% |
| Gaston County | 115,809 | 0.59 | 133,846 | 0.67 | 15.6% |
| Iredell County | 94,907 | 0.67 | 95,996 | 0.66 | 1.1% |
| Lancaster County | na | na | na | na | na |
| Lincoln County | 57,031 | 0.82 | 73,326 | 1.02 | 28.6% |
| Mecklenburg County | 1,038,718 | 1.30 | 1,132,715 | 1.37 | 9.0% |
| Rowan County | 130,302 | 0.96 | 135,575 | 1.00 | 4.0% |
| Stanly County | 97,875 | 1.66 | 105,869 | 1.78 | 8.2% |
| Union County | 131,988 | 0.81 | * | na | na |
| York County | 90,263 | 0.47 | 97,308 | 0.49 | 7.8% |
| 12-County Region | 2,004,789 | 0.92 | na | na | na |
| 11-County Region | 1,872,801 | 0.93 | 2,027,826 | 0.97 | 5.1% |

* County implementing new system

# Crime Index

## What's Measured

This measure is an index of crimes per 10,000 persons. It is the sum of the crime rates per 10,000 persons for seven categories of crimes: murders, rapes, robberies, aggravated assaults, burglaries, larcenies and motor-vehicle thefts. Larcenies typically make up the largest share of the crime index, followed by burglaries; murders and rapes account for the smallest shares of the crime index.

Data for each county in the region were obtained from the Uniform Crime Reporting (UCR) programs of the South Carolina Law Enforcement Division and the North Carolina Department of Justice, State Bureau of Investigation, for 2000 and for 2002 through 2005. (Data were not available for 2001.) UCR is a nationwide effort administered by the Federal Bureau of Investigation to collect a reliable set of criminal statistics. To align North Carolina's crime rates published as "per 100,000 persons" with South Carolina's "per 10,000 persons" rates, the North Carolina figures were restated as "per 10,000 persons" for this report.

The regional indicator is calculated as an un-weighted average of the county crime indices.

## Why It's Measured

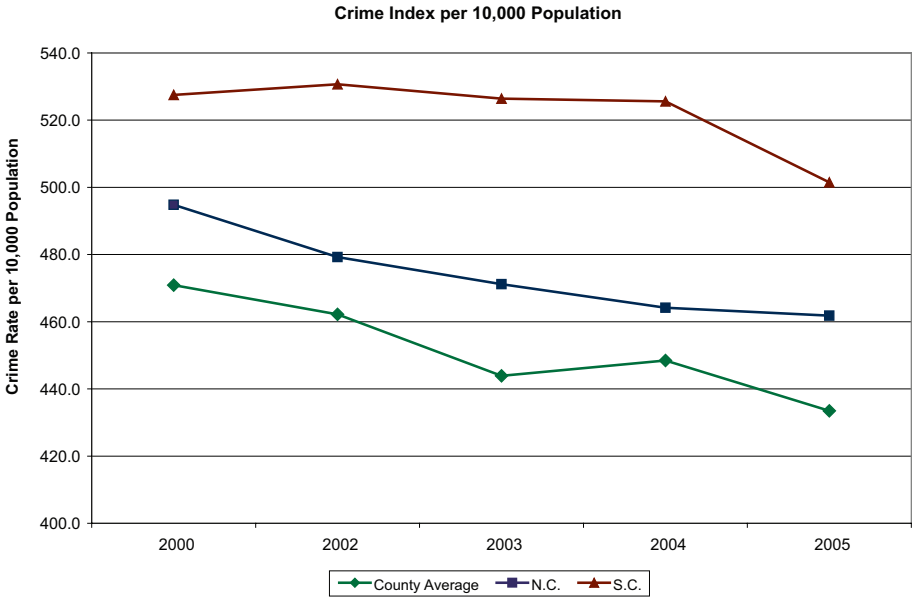
An important component of public safety is crime – vulnerability to it and protection from it. When crime rates are perceived to be high, quality of life is adversely affected. Researchers, planners, criminal-justice professionals and legislators study the UCR numbers to allocate resources and to chart the movement of crime over time. News media use UCR crime statistics to let the public know about crime in their area.

However, the FBI cautions against ranking the crime-index statistics to show which places are the safest (in other words, have the lowest crime). According to the FBI's UCR information, each area is unique based on many factors, such as 'population density and degree of urbanization of the locality and its surrounding area; variations in composition of the population; the number of residents versus the "policing population," in other words, residents plus daily commuters, transients, tourists, shoppers, etc.; economic conditions; modes of transportation and highway systems; cultural conditions; family conditions with respect to divorce and family cohesiveness; climate; effective strength of law-enforcement agencies; administrative and investigative emphases of law enforcement; and policies of other components of the criminal justice system, such as the district attorney's office, the court system and the correctional and probation systems.'

## Indicator Results

The 2005 average county crime index for the region was 433.5 crimes per 10,000 persons. This is a drop of 3.3 percent over the prior year and a drop of 7.9 percent since 2000. The region's average county crime index is below those of both North and South Carolina (461.8 and 501.5, respectively), and has been so consistently over the time period studied.

Six counties saw a decline in crime index between 2000 and 2005. The remaining eight reported increases for the six-year period ranging from 1.6 percent (Gaston) to 12.9% (Cabarrus). The year-to-year variation in the crime index for each county is generally smaller than the variation among counties. The exceptions are Lincoln and Stanly counties. Lincoln County saw a 67 percent drop from 2000 to 2005 (from 338.7 to 110.3), with most of the decrease occurring in 2004. Stanly County experienced a 35 percent drop from 2000 to 2005 (from 427.4 to 275.9). Running counter to the regional trend of declining crime index rates from 2000 to 2005, Cabarrus, Catawba and Rowan counties showed increases in the range of 8 to 13 percent. It should be noted, however, that Cabarrus and Rowan's indices were below the average county index in 2000 and remained below it in 2005.

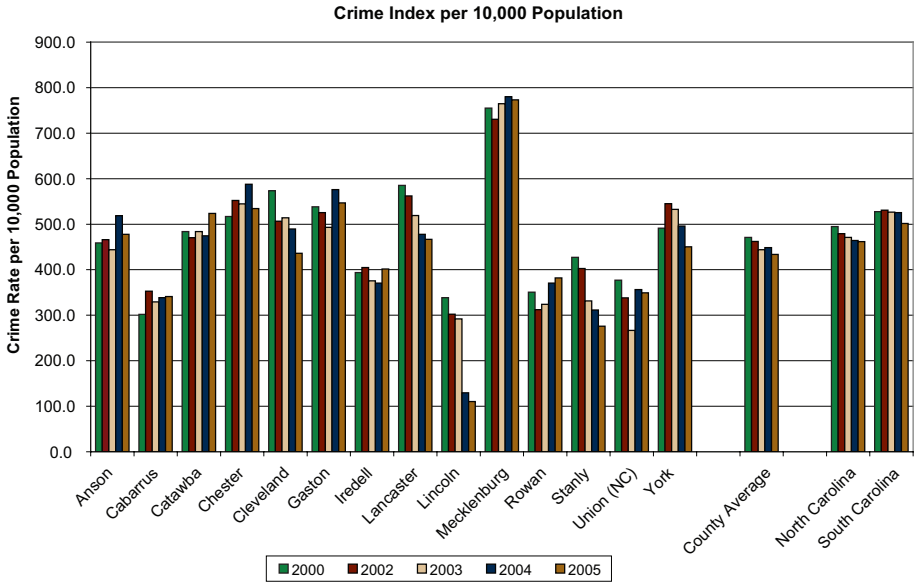


## Crime Index (continued)

### Evaluation

As the populations of the counties and of the region have grown, the number of crimes has increased, but the crime rate has declined for the region and for many of the counties. The dramatic drop in Lincoln County's crime index in 2004 is not readily explainable and warrants further investigation.

Again, the FBI advises against ranking the counties for the "safest" county based on the crime index, because crime index only looks at the number of crime offenses per population. Many other variables can account for crime statistics and whether a community is safe. Therefore, this report is not comparing the counties against each other but rather benchmarking the region and its counties against themselves for future comparisons.




### Connections

Fast-growing populations have a strong impact on crime rates as does urbanization. However, as noted earlier in this section, many factors affect the crime rate and should be taken into consideration. The economy of an area can strongly influence whether crime rates go up or down. High rates of unemployment and poverty can spur illegal activities such as property crime. Whether people feel connected to their community — civic engagement — can often help police solve crime or keep gangs out of an area. A community-watch program, for example, is a strong deterrent to thieves. Locales active in new policing techniques such as "cops on bikes" and "community policing" often see lower crime rates than areas in which the police are not active with the community. Housing often affects crime rates if there is not affordable housing or if housing is overcrowded. Education can affect crime rates if the workforce finds itself unemployable due to advancing technology.

## Vehicle Accidents

### What's Measured

This section examines motor-vehicle accidents in 2001 and 2005. It looks at the total number of people in motor-vehicle accidents as well as whether the accidents involved a fatality, non-fatal injuries, or property damage only. Data are from the Highway Safety Research Center at UNC Chapel Hill and the South Carolina Department of Public Safety.

### Why It's Measured

One element of public safety is to be safe traveling to work, school or any destination. The personal and societal costs of a traffic accident can be staggering — from a loss of life to permanent disability — and even accidents that only cause property damage have costs in terms of stress, inconvenience, and the possibility of lost time from work, as well as the costs of repairs.

### Indicator Results

In 2005, the total number of people involved in motor-vehicle accidents in the region was 156,047. This was a 2.7 percent decrease from 160,453 in 2001. People in accidents involving non-fatal injuries or property damage only also decreased between 2001 and 2005: the non-fatal injury category decreased from 65,471 to 61,758; the property damage only category decreased from 94,289 to 93,589. The number of people in fatal accidents increased 1 percent, from 693 to 700.

Among the counties, Mecklenburg had by far the highest number of people in motor-vehicle accidents of all types (69,393 total people) in 2005. Catawba County had the second-highest numbers for the all-accidents category and for non-fatal injury and property damage only categories (11,600 total people in accidents in 2005), but was seventh in people in fatal accidents (42), behind Mecklenburg (195), Rowan (72), Union (59), Lincoln (54), and Cabarrus and Gaston (45 each).

The largest percentage decrease in the all-accidents category between 2001 and 2005 occurred in Chester County (18.2 percent decline), with Mecklenburg reporting the second largest decline (12.0 percent). Iredell County experienced the largest percentage increase in the all-accidents category between 2001 and 2005 (51.0 percent), followed by Union County (17.5 percent). Given that the property damage only and non-fatal injury categories make up by far the largest shares of total people in motor-vehicle accidents, trends in those categories tend to mirror the overall accident indicator results. Caution should be exercised in interpreting the rates of change in the fatal accidents category, as the number of people in fatal accidents is relatively small and small changes in those numbers result in large percentage changes.

### Evaluation

Considering the region's rapid population growth and increasing number of vehicles on the roads, the decrease in people involved in total motor vehicle accidents in the region is impressive. Given the variation among counties in rate of change in property damage only and non-fatal injury categories, future reports should further investigate underlying causes. Are counties with increased figures experiencing increases in vehicle-miles traveled, or worsening road conditions, or both, or are other factors involved? Are the improvements in some counties' figures the result of infrastructure improvements, changes in travel patterns or in policing strategies, etc.?

### Connections

There are obvious connections between traffic-related accidents and the transportation theme area's measurements of traffic congestion. The overall mortality rates reported on in the health theme area are affected by this indicator's fatal accidents category. And finally, the personal and societal costs of a traffic accident can be staggering — from a loss of life to permanent disability.

## Vehicle Accidents (continued)

**People in Motor Vehicle Crashes, 2001 and 2005 by Type of Crash**

| | 2001 | | | | 2005 | | | | Percent Change | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Property damage only | Fatal | Non-fatal injury | Total | Property damage only | Fatal | Non-fatal injury | Total | Property damage only | Fatal | Non-fatal injury | Total |
| Anson | 838 | 35 | 618 | 1,491 | 822 | 11 | 683 | 1,516 | -1.9% | -68.6% | 10.5% | 1.7% |
| Cabarrus | 6,045 | 72 | 4,451 | 10,568 | 6,646 | 45 | 4,289 | 10,980 | 9.9% | -37.5% | -3.6% | 3.9% |
| Catawba | 7,746 | 35 | 5,235 | 13,016 | 7,194 | 42 | 4,364 | 11,600 | -7.1% | 20.0% | -16.6% | -10.9% |
| Chester | 519 | 5 | 481 | 1,005 | 395 | 16 | 411 | 822 | -23.9% | 220.0% | -14.6% | -18.2% |
| Cleveland | 3,520 | 45 | 2,702 | 6,267 | 3,286 | 33 | 2,345 | 5,664 | -6.6% | -26.7% | -13.2% | -9.6% |
| Gaston | 7,434 | 72 | 6,187 | 13,693 | 7,995 | 45 | 6,473 | 14,513 | 7.5% | -37.5% | 4.6% | 6.0% |
| Iredell | 3,409 | 76 | 3,278 | 6,763 | 5,903 | 39 | 4,272 | 10,214 | 73.2% | -48.7% | 30.3% | 51.0% |
| Lancaster | 843 | 20 | 670 | 1,533 | 856 | 19 | 661 | 1,536 | 1.5% | -5.0% | -1.3% | 0.2% |
| Lincoln | 2,029 | 35 | 1,515 | 3,579 | 2,261 | 54 | 1,702 | 4,017 | 11.4% | 54.3% | 12.3% | 12.2% |
| Mecklenburg | 48,163 | 146 | 30,513 | 78,822 | 42,528 | 195 | 26,670 | 69,393 | -11.7% | 33.6% | -12.6% | -12.0% |
| Rowan | 4,486 | 50 | 3,364 | 7,900 | 4,893 | 72 | 3,310 | 8,275 | 9.1% | 44.0% | -1.6% | 4.7% |
| Stanly | 1,755 | 18 | 1,318 | 3,091 | 1,817 | 38 | 1,153 | 3,008 | 3.5% | 111.1% | -12.5% | -2.7% |
| Union (NC) | 4,761 | 54 | 3,232 | 8,047 | 5,943 | 59 | 3,453 | 9,455 | 24.8% | 9.3% | 6.8% | 17.5% |
| York | 2,741 | 30 | 1,907 | 4,678 | 3,050 | 32 | 1,972 | 5,054 | 11.3% | 6.7% | 3.4% | 8.0% |
| Charlotte Region | 94,289 | 693 | 65,471 | 160,453 | 93,589 | 700 | 61,758 | 156,047 | -0.7% | 1.0% | -5.7% | -2.7% |
| North Carolina | 333,496 | 3,638 | 245,368 | 582,502 | 343,428 | 3,510 | 222,144 | 569,082 | 3.0% | -3.5% | -9.5% | -2.3% |
| South Carolina | 66,822 | 1,060 | 52,350 | 120,232 | 79,443 | 1,093 | 49,841 | 130,377 | 18.9% | 3.1% | -4.8% | 8.4% |

# Workplace Fatalities

### What's Measured

This indicator looks at the number of workplace fatalities in the region that have been investigated or are under investigation by the Occupational Safety and Health Division in the North Carolina Department of Labor. The data are for 2002 and 2006 and are from the North Carolina Department of Labor.

It is important to note that investigated workplace fatalities do not represent the total number of fatalities reported in the workplace. Due to disclosure rules, the North Carolina Department of Labor will not disclose the total number of injuries or fatalities by county, just the number under investigation. South Carolina does not release information about workplace fatalities by county at all.

### Why It's Measured

Outside of the home, most working age adults spend more time at the workplace than anywhere else. Workplace safety is thus another critical component of public safety. Though the number of fatalities investigated doesn't carry the same weight as the total number of fatalities, examining trends over time still provides insight into workplace safety, particularly when examined over time. An indicator for the future would be to see if the state would release a combination of fatality and injury data by county, so as not to identify companies.

### Indicator Results

The 11 county North Carolina portion of the region had 20 investigated workplace fatalities in 2006 and 22 in 2002. Cleveland, Iredell and Lincoln counties had increases in investigated fatalities in 2006 as compared to 2002. Seven of the 8 remaining counties measured had fewer investigated fatalities in 2006 than in 2002, and one county, Union, had no change.

Iredell County saw a relatively high increase in the number of fatalities investigated (from 0 to 4), one of which was a construction fatality. Mecklenburg, the most urban county in the region, had the highest number of investigated fatalities in both years (8 in 2002 and 7 in 2006).

For both states, the number of investigated fatalities increased from 2002 to 2006: North Carolina went from 82 to 91 investigated workplace fatalities and South Carolina went from 93 to 107.

### Evaluation

Federal Occupational Safety and Health Administration (OSHA) standards exist to protect workers by prohibiting unsafe working conditions that can lead to workplace fatalities and injuries. The number of investigated workplace fatalities in the North Carolina portion of the region is small enough that interpreting the indicator results is difficult. The decline in region-wide fatalities could be a minor fluctuation in a longer-term stable or even increasing trend, or it could be part of a true declining long-term trend.

As the number of Hispanic and non-English-speaking or limited-English-proficiency workers in the region increases, especially in the construction industry, the number of workplace fatalities may come under greater scrutiny to determine the extent to which cultural differences and language or communication problems contribute to unsafe working conditions. Culturally, Hispanics may see asking questions about safety as inappropriate questioning of authority. Two of the seven investigated fatalities in Mecklenburg in 2006 were construction fatalities, both involving Hispanics.

### Connections

This indicator ties in strongly with the economy because of the number of people coming to the region for work. It also ties in with demographics because a community criticism has been that the growing Hispanic population is not given enough safety instruction in the construction industry to prevent injuries and death. The language barrier also can be a difficult problem for many companies to ensure compliance and understanding.

### Workplace Fatalities, 2002 and 2006

| | FY 2002 | FY 2006 |
|---|---|---|
| Anson | 2 | 0 |
| Cabarrus | 2 | 1 |
| Catawba | 2 | 0 |
| Chester | NA | NA |
| Cleveland | 0 | 1 |
| Gaston | 2 | 0 |
| Iredell | 0 | 4 |
| Lancaster | NA | NA |
| Lincoln | 0 | 3 |
| Mecklenburg | 8 | 7 |
| Rowan | 3 | 2 |
| Stanly | 1 | 0 |
| Union (NC) | 2 | 2 |
| York | NA | NA |
| Region | 22 | 20 |
| North Carolina | 82 | 91 |
| South Carolina | 93 | 107 |

## Public Safety Education

### What's Measured

This indicator measures the number of colleges and universities in the 14-county region with a two- or four-year degree in criminal justice, fire safety or emergency-medical training.

The College Opportunities Online Locator on the National Center for Education Statistics' Integrated Postsecondary Education Data System was used to search for schools with degrees having the words "criminal justice," "public safety," "fire safety," "fire fighting" and "emergency medical."

### Why It's Measured

As the region grows, the need for a more trained public safety personnel gains importance. More stations for emergency-medical services, fire fighters and police open as the population expands out into the suburbs. Educated, trained personnel are needed to staff the stations. Furthermore, as technology continues to advance, more training is needed on global positioning systems, life-saving equipment and other high-tech resources.

### Indicator Results

Fifteen of the region's 36 colleges and universities (41.7%) are preparing the next wave of public safety personnel and helping today's public safety professionals keep up with new technology.

Nine of the region's counties have at least one school offering at least one public safety degree or certificate program. Mecklenburg, the most urbanized county, has the most schools with degrees in public safety (4). Residents of Cabarrus, Chester, Lincoln, Union and York counties must travel outside their home county to receive higher education in public safety.

Criminal justice is the degree most schools offer (14 out of 15 schools). Emergency Medical Services training is offered at 4 schools, as is Fire Safety. Gaston College is alone in offering programs in all three areas. Eight of the schools offering public safety degrees are community colleges and two are public universities.

### Evaluation

Currently, this indicator simply identifies the number of degree programs in the region in the field of public safety, with a breakdown by three categories of type of program. The available data sources do not provide historic data, meaning the Indicators Project will have to build its own trend data over time and address trends in this indicator in future reports. In the future, the authors would also like to include data on the number of graduates from those programs. And, if statewide data can be made accessible on a more cost-effective basis than is currently available, a per-population based comparison of the region to the two states would be helpful.

### Connections

Higher education in public safety relates to demographics, education, economics and health theme areas. One of the strongest connections is the educational system, especially at the K-12 levels, as proficiency in math, science and technology is increasingly important as a foundation for higher education in public safety. The number of colleges and universities offering public safety degrees has increased across the country, boosted by the appeal of hit television shows like "CSI," data shows.

Public safety, and thus public safety education, also took on additional importance as a result of 9/11 and heightened awareness of the importance of homeland security to sustained economic prosperity. It continues to gain importance as the region's population increases and ages. The number of trained and qualified public safety personnel available makes a significant difference to the health of the community.

## Public Safety Education (continued)

### Degree or Certificate Programs in Public Safety, 2007

| | | Type of Program | | |
|---|---|---|---|---|
| **Institution** | **County** | **Criminal Justice** | **Emergency Medical** | **Fire Safety** |
| **Carolinas College of Health Sciences** | Mecklenburg | | ✔ | |
| **Catawba College** | Rowan | ✔ | | |
| **Catawba Valley Community College** | Catawba | ✔ | ✔ | |
| **Central Piedmont Community College** | Mecklenburg | ✔ | | ✔ |
| **Cleveland Community College** | Cleveland | ✔ | | ✔ |
| **Gaston College** | Gaston | ✔ | ✔ | ✔ |
| **Johnson C Smith University** | Mecklenburg | ✔ | | |
| **Livingstone College** | Rowan | ✔ | | |
| **Mitchell Community College** | Iredell | ✔ | | |
| **Pfeiffer University** | Stanly | ✔ | | |
| **Rowan-Cabarrus Community College** | Rowan | ✔ | | |
| **South Piedmont Community College** | Anson | ✔ | | |
| **Stanly Community College** | Stanly | ✔ | ✔ | |
| **University of North Carolina at Charlotte** | Mecklenburg | ✔ | | ✔ |
| **University of South Carolina-Lancaster** | Lancaster | ✔ | | |

## Evacuation Plans and Disaster Preparedness

### What's Measured

Using a survey designed by the UNC Charlotte Urban Institute with input from task force members who worked on this report, county officials in the region addressed evacuation plans and disaster preparedness. Survey questions concerned reverse 911 systems, radio interoperability, disaster training, disaster response and evacuation plans, mutual-assistance agreements, and related topics.

Reverse 911 systems provide a quick means of notifying a large number of homes and businesses of an emergency affecting them. Radio interoperability ensures that personnel from different disciplines and different jurisdictions can communicate with each other during a disaster. Disaster training for public safety personnel can include conducting mock disaster drills and regular training in disaster preparedness. Having a comprehensive disaster response plan clarifies roles and responsibilities across agencies and disciplines and helps identify areas needing improvement, as does having an evacuation plan. Mutual assistance agreements identify personnel, supplies or other emergency items that may be provided cross-jurisdictionally during a crisis. Having them in place prior to the need for help cuts red tape and response times.

### Why It's Measured

As concerns about terrorism, natural disasters and chemical spills or fires have increased in recent years, public safety officials have geared up to ensure timely and effective response to disasters.

The Charlotte region has several issues of particular concern related to disaster preparedness and evacuation — the magnitude of the number of potential evacuees, the presence in the region of the McGuire and Catawba nuclear plants, and Charlotte's status as the second-largest financial center in the United States.

### Indicator Results

As of 2007, all fourteen of the region's counties have a disaster response plan fully in place, all have mutual assistance agreements with neighboring counties, and all have held a mock disaster drill in the last year.

All counties except Anson (92.9 percent of all counties) have regular training sessions in disaster preparedness for emergency personnel. All counties but Anson also have an emergency response team for disasters involving chemical, biological or nuclear weapons.

Eleven counties (78.6 percent of all counties) have radio interoperability for emergency personnel both within their county and with surrounding counties. Anson and Cleveland counties have partial or limited radio interoperability.

Ten counties have an evacuation plan fully in place (71.4 percent of the counties); Cabarrus, Chester and Stanly counties have a limited or partial evacuation plan in place, and Anson County does not currently have an evacuation plan in place.

Ten counties have a reverse 911 system in place (71.4 percent of the counties); four other counties reported they either do not have a system (Cleveland, Lancaster and Union) or have a partial or limited system in place (York).

### Evaluation

The region is well-prepared for many disasters and can quickly let its citizens know about impending problems. In general, the region's most densely populated counties and those at highest risk of man-made disasters seem to have the highest level of preparedness.

### Connections

Government is a major connection because most preparation and training has to be set up, handled or paid through government agencies. Another connection is health. The preparation and planning related to this indicator is to help minimize injuries and deaths resulting from a disaster and its aftermath.

Housing and transportation also play key roles because evacuation and disaster plans require key knowledge of neighborhoods and transportation infrastructure. In case of a mass evacuation, will the roads handle the volume? In case of emergency extrication (as with New Orleans residents and Hurricane Katrina), does the Charlotte region know where houses are and what are the best ways to reach them?

## Evacuation Plans and Disaster Preparedness (continued)

### Evacuation and Disaster Preparedness

# Social Well-Being

## Overview

### Scope

In looking at social well-being, this report provides a snapshot of some of the region's most vulnerable residents.

For adults with significant economic needs, the study identified the percentage of families and individuals in the region who lived in poverty in 2000 and 2005.

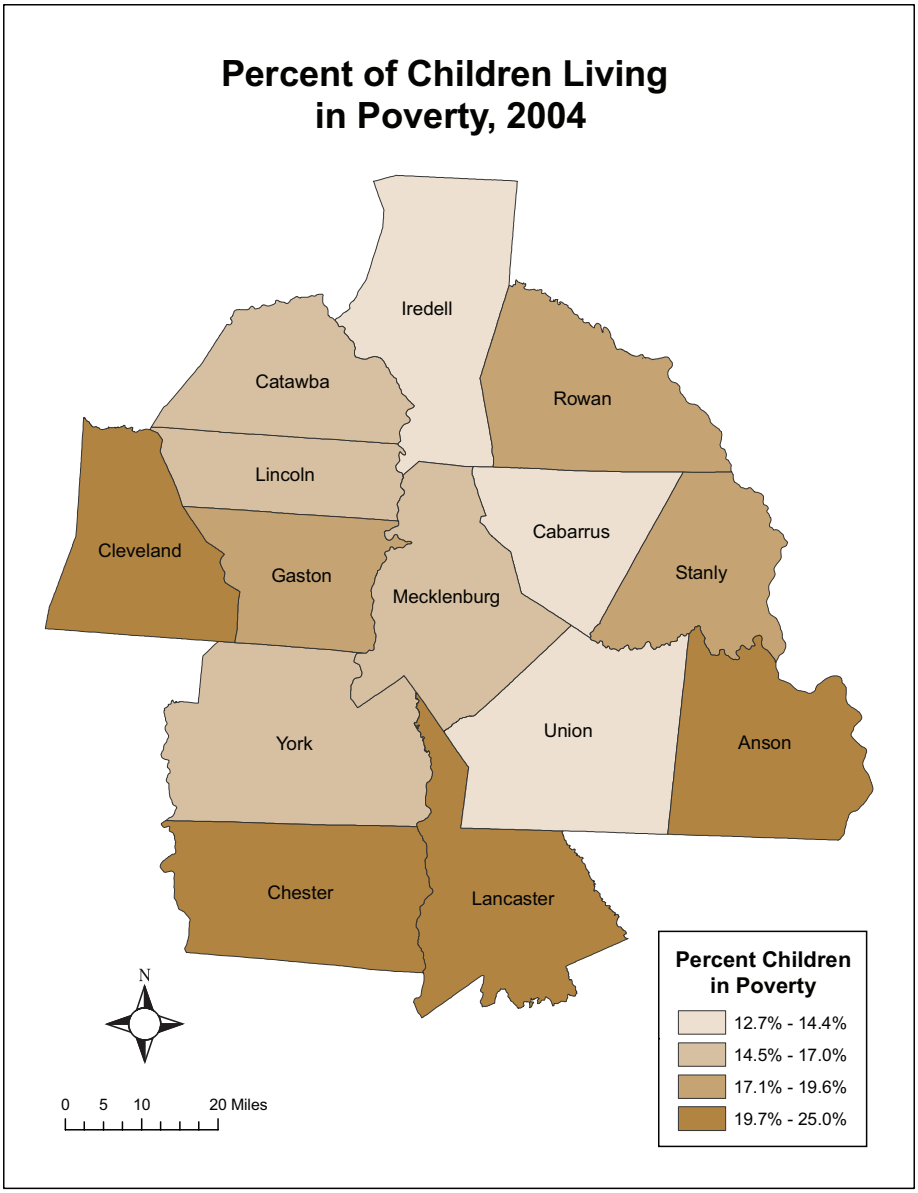
Related to children, the report examined substantiated reports of child abuse or neglect for 2004-05 and 2005-06. The report also looked at child poverty, gauging the percentage of children living at or below the poverty level from 2000 through 2004.

The data on teen parenting looked at the pervasiveness of the problem and the trend. With elderly care, the spotlight was on the percentage of persons 65 or older who needed assistance in performing at least one of the Activities of Daily Living (ADL), such as eating, dressing and communicating.

### Regional Context

As the region continues to grow, it will continue to be faced with more challenges. For many, economic growth in the region has not translated into a better quality of life. Too often those that are faced with challenges are the most vulnerable residents. In fact, many of the most vulnerable residents do not have basic necessities such as: food, clothing, shelter and water.

Many social service organizations have made attempts to address these problems. Programs supported by city and local government bodies have made progress, as have some outreach efforts by the faith community and programs put forth by non-profit organizations. Despite these efforts, the need to address issues of poverty, elderly care, teenage pregnancy and child abuse across this 14-county region remains. To look only at percentages masks the number of residents that are in need of assistance.




*See page 116 for additional information on this indicator*

### Summary of Indicator Results

The most encouraging finding among this year's indicators is the decline in teen pregnancies from 2000 through 2003. The downward trend stems from the myriad of approaches used to combat teenage pregnancy. These approaches include different methods of contraception, public education curricula, and the continued concentration of policy makers on finding ways to sustain recent declines. Of concern, however, is the increase in teen birth rates from 2003 to 2005 in most of the region's North Carolina counties, erasing almost one-third of the decline achieved from 2000 to 2003. (South Carolina data is not yet available for 2003-2005.)

Assessing trends in child abuse and neglect remains inconclusive

## Overview (continued)

throughout the 14-county region since only one year of data is available for South Carolina counties. Available data from 2004-2005 and 2005-2006 suggest that in North Carolina, two of the eleven counties saw negligible change in the substantiated percent of child abuse or neglect reports, four experienced a decrease, and five experienced an increase. While these indicators illustrate how individual counties are doing as it relates to reported child abuse or neglect, it is expected that many cases are still not reported.

Measures of child poverty varied. While the child poverty rate rose from 2000 through 2004, stabilization did occur for many counties in 2003 and 2004. Despite this stabilization in certain counties, the region's child poverty rate increased faster than either of the two state's rates from 2000 to 2004. And, according to recent reports, it is estimated that the number of homeless children is continuing to grow in the region. One of the biggest challenges for the region is raising income levels for those living in poverty. For families and individuals, the percentage of the population living in poverty rose between 2000 and 2005 in each county that reported data. Whereas the region's poverty rates were below the national averages in 2000, as of 2005 they were slightly above.

Another regional challenge is elderly care. The rate of people age 65 or older who need assistance with at least one of the Activities of Daily Living, such as eating, dressing and communicating, ranged by county from roughly 40 percent to 50 percent. Currently it is unclear whether a larger or smaller percentage of Baby Boomers will need assistance performing Activities of Daily Living, given the fact that they are not yet old enough to report major health problems in significant numbers.

### Missing and Future Indicators

In future reports, the authors would like to include the following: percentage of foster children who age out of foster care, number of homeless persons turned away by shelters due to overcapacity, race relations (interracial trust), and percentage of children in out-of-school self-care (latch-key kids). These indicators were not included this year because data sources were not available in all of the region's 14 counties.

Data could possibly be available for one of these indicators if funds were received to conduct a regional Social Capital survey. For instance, this survey could assess attitudes and opinions about race relations (interracial trust) in this 14 county region. This survey could also serve as a benchmark on race relations in this region.

The report's authors would also like to find better ways to compare social well-being indicators across state lines.

*See page 136 for Social Well-Being indicator data sources*

## Poverty Rate

### What's Measured

The study measures the percentage of families and individuals in the region living in poverty for the years 2000 and 2005. "Living in poverty" is defined by federally-determined income thresholds verifying what is needed to feed, clothe and economically sustain an individual or families of specified sizes (for example, "a family of four".) Any family or individual whose income does not reach the threshold amount is considered to be in poverty.

Data from the American Community Survey through the U.S. Census Bureau is used to measure poverty for 2005, and covers most, but not all, of the region's counties. (Anson, Chester, Lancaster and Stanly are not included in that Census report, and Lincoln County is included only for the data on individuals living in poverty but not on families living in poverty.) Among the 3 counties in South Carolina, data is only available for York, SC. However, data from the 2000 decennial census provides indicator information on all 14 counties and for the two states.

In the absence of the appropriate weighting factors for the county data, the regional indicators are calculated as un-weighted averages of the county data.

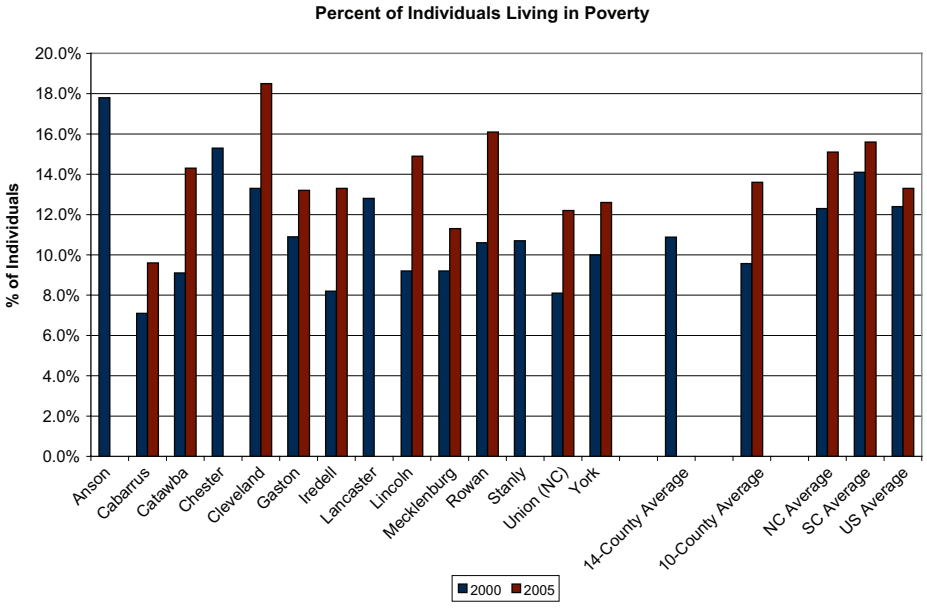
### Why It's Measured

Individuals and families that live in poverty are often times the most marginalized groups in society. Measurements of poverty give insight to the economic mobility or lack thereof of this region's most vulnerable residents, who often times are unable to live within a minimum standard of living.

### Indicator Results

For 2005, the poverty rate for individuals averaged 13.6% across the 10 counties in the American Community Survey portion of the region; for families, the 2005 poverty rate averaged 10.5% across the 9 counties in the American Community Survey portion of the region.

In 2000, the poverty rate for individuals averaged 10.9% across the 14 counties in the region; for families, the 14-county average 2000 poverty rate was 8.3%.



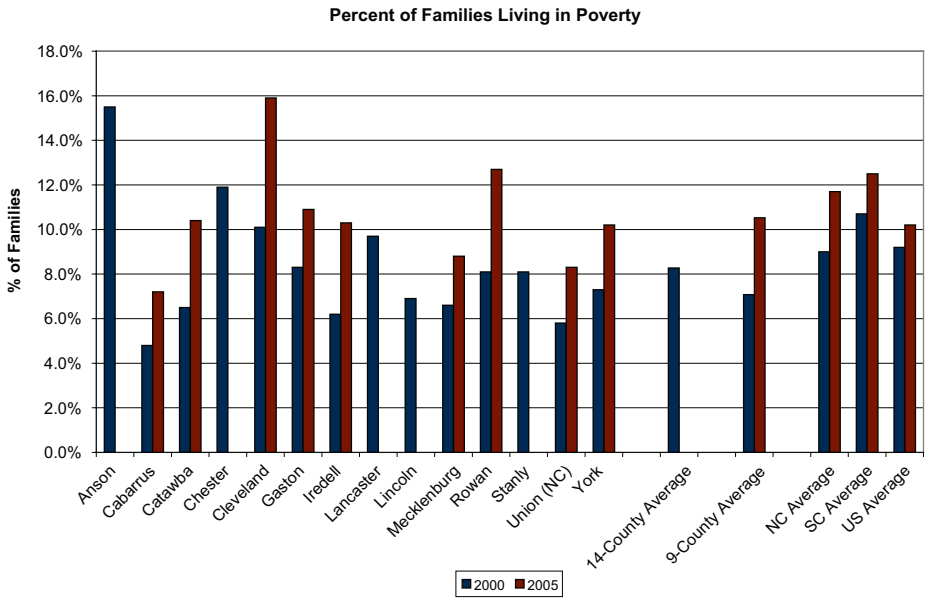

Note that while the regional indicators for 2000 and 2005 are not directly comparable due to different counties being included in the two measures, county, state and national comparisons can be made. The percentage of the population living in poverty rose between 2000 and 2005 for both families and individuals in each county that reported data. The degree of increase varied from a low of 21 percent for Gaston County's individual poverty rate (from 10.9% in 2000 to 13.2% in 2005) to a high of 66 percent in Iredell County's family poverty rate (from 6.2% in 2000 to 10.3% in 2005.) By comparison, during the same time period, North Carolina experienced a 23 percent increase in its individual poverty rate (from 12.3% to 15.1%) and South Carolina an 11 percent increase (from 14.1% to 15.6%), while the national individual poverty rate rose only 7 percent (from 2.4% to 13.3%.) Family poverty rates in the two states and the nation increased even more: North Carolina saw a 30 percent increase (from 9.0% to 11.7%,) and South Carolina experienced a 17 percent increase (from 10.7% to 12.5%,) while the nation's family poverty rate climbed 11 percent (from 9.2% to 10.2%.)

In 2000, Anson (17.8%) and Chester (15.3%) had the highest individual poverty rates in the 14-county region. Of the ten counties for which 2005 data is available, the two counties with the highest individual poverty rates were Cleveland (18.5%) and Rowan (16.1%). The same pattern held true with family poverty rates. For the 2000 family poverty rate, Anson (15.5%) and Chester (11.9%) had the highest rates in the 14-county region, and of the 9 counties for which 2005 data is available, Cleveland (15.9%) and Rowan (12.7%) had the highest rates.

For the 10 counties that reported data in 2005, the county average individual poverty rate (13.6%) is slightly above

## Poverty Rate (continued)

the national average (13.3%) and below North Carolina and South Carolina averages (15.1% and 15.6%, respectively). For the 9 counties with data available on families living at or below the poverty level in 2005, the county average (10.5%) is slightly above the national average (10.2%) and below the NC and SC averages (11.7% and 12.5%, respectively).




### Evaluation

For those counties with available data, the substantial increase of individuals and families living in poverty illustrates how pervasive poverty is in this region.

Analysis of individuals and families living in poverty reveals that they are not a static social class. The overall composition of the poor changes continually, because some residents in this region near the top edge of poverty move above the poverty level after a year or two, while others slip below it. Other residents remained in poverty for many years at a time. Additional analysis is needed to identify ways the region can best reduce the number of individuals and families living in poverty.

### Connections

A correlation between families living in poverty and child poverty rates can be drawn. Increases in the share of the population living in poverty drain financial, educational, and medical resources in the community, resources needed to assist the most vulnerable groups. Poverty is associated with health problems, problems in education, problems in families and parenting, and housing problems. These problems are interrelated and contribute to the perpetuation of poverty across generations, leading to a cycle of intergenerational poverty.

# Child Poverty Rate

## What's Measured

The study gauges the percentage of children, by county, living at or below the poverty level from 2000 through 2004. The U.S. Census produces Small Area Income and Poverty Estimates for children under the age of 18, using federally-defined poverty thresholds. The census develops data by obtaining for each county an account of claimed child exemptions on tax returns, number of food-stamp recipients, resident population under the age of 18, and an estimate of residents in poverty under the age of 18 based on the 2000 Census. The regional indicator is an un-weighted average of the 14-counties' child poverty rates.

## Why It's Measured

Child poverty rates by county indicate where the most vulnerable children live within this region. In addition, child poverty rate is also tracked to target initiatives for children in poverty and to assist institutions to know how and where to place resources. Child poverty has an impact on many other areas important to regional quality of life, such as education, workforce preparedness, and health.

## Indicator Results

The county average child poverty rate for 2004 was 17.9%, up from 2000's rate of 15.1%. While the regional county average child poverty rate increased during this five-year window, most of the increase came in 2000-2003, with the rate stabilizing between 2003 and 2004. During these last two years of the data, eight North Carolina counties saw child poverty rates decrease (some noticeably, others negligibly) while others experienced modest increases (of about two percent of the indicator value, or less than half a percentage point in the poverty rate.) All three South Carolina counties experienced increases, ranging from 3 to 7 percent of the indicator value, or about one percentage point in the poverty rates.

From 2000 to 2004, the 14-county region witnessed a 19 percent increase in the child poverty rate (from 15.1% to 17.9 %,) bringing the percentage of children living in poverty to more than one in six. By county, the largest increases came in Cabarrus (from 10.5% to 14.4%,) Mecklenburg (from 12.2% to 16.7%) and York (from 12.6% to 17.0%.)

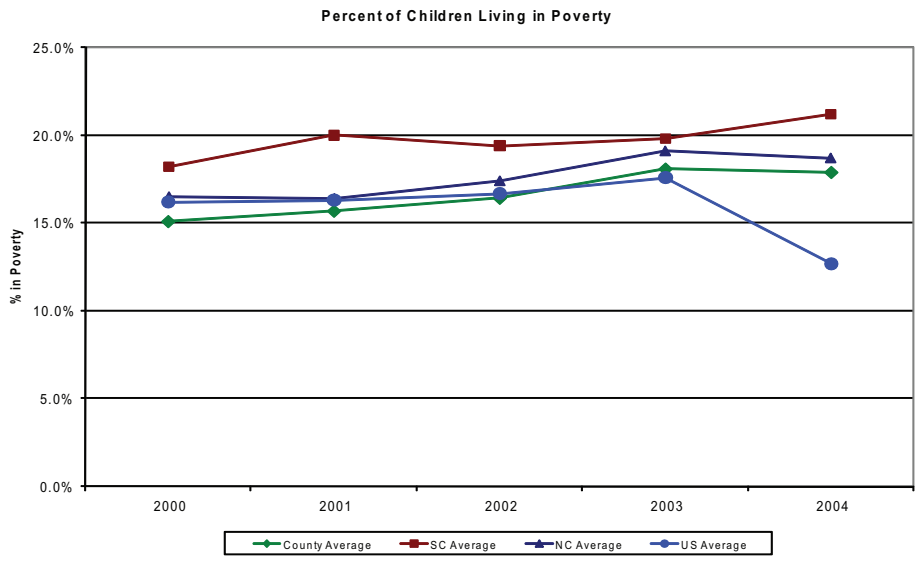
For the state of South Carolina as a whole, figures increased from 18.2% in 2000 to 21.2% in 2004, a 16 percent gain. North Carolina increased from 16.5% to 18.7% for the same years, a 13 percent rise. Although lower than either of the two state's rates from 2000 through 2004, the region's child poverty rate increased faster than either of the two state's rates during that time period.

Nationally during this time period the child poverty rate declined (from 16.2% to 12.7%). Therefore, the regional average has gone from slightly lower than the national average to substantially higher.

## Evaluation

The lackluster performance of the region and the two states on this indicator compares unfavorably with the national improvement in child poverty rates. If the region's economic competitiveness is to be sustained, the child poverty rates of the region's counties must be improved.

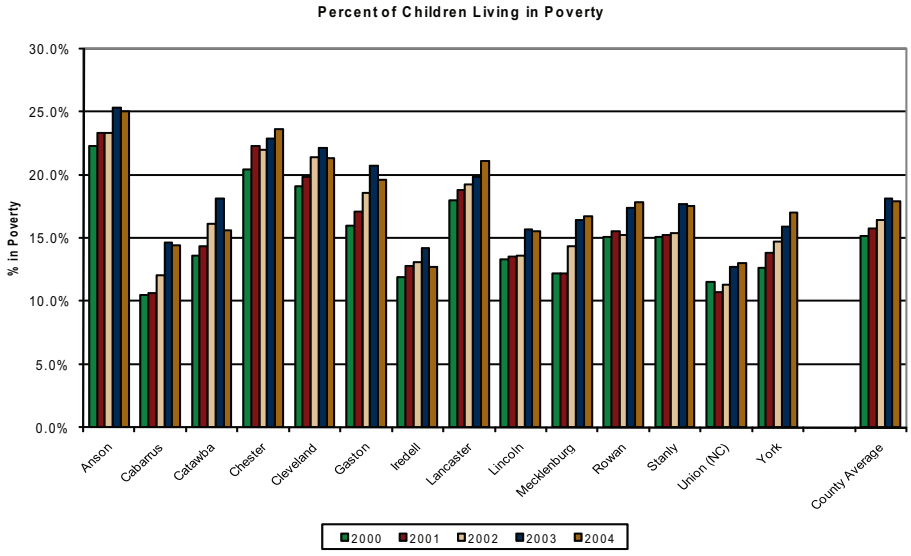
Children are poor because the adults they live with are poor. High fertility rates among poor families and the higher prevalence of single parent families among the poor leads to substantially higher poverty rates for children than for adults. Further investigation is needed into the specific underlying causes of child poverty in the Carolinas and the region, and into the national success in reducing child poverty rates.



## Child Poverty Rate (continued)

### Connections

Child poverty is connected to many facets of social well-being throughout the region. It indicates assistance needed for children, whether through medical, educational, economic or social means, to one of the region's most vulnerable group: children. The continued assessment of children living in poverty is required to maintain a healthy and upwardly mobile population.



# Child Abuse

## What's Measured

The report examines substantiated reports of child abuse or neglect per county for the fiscal years 2004-05 and 2005-06. The indicator does not document the percentage of children abused and/or neglected in a county, or even the percentage of children who are the subjects of reports of abuse and/or neglect. It represents only the percentage of abuse and/or neglect reports made to each county's child protective services that are substantiated by those agencies, based on investigative findings. The actual number of reports of abuse and/or neglect is not available on a county basis. Data for this indicator are from the NC Department of Health and Human Services Division of Social Services and the South Carolina Department of Social Services. For convenience, "child abuse and/or neglect" is shortened below to "child abuse."

The regional indicator is calculated as an un-weighted average of county indicators.

## Why It's Measured

Child abuse is a measure of the well-being of a vulnerable segment of the population. Child abuse has been shown to have both profound immediate as well as long- term effects on child development. The immediate effects of abuse can be observed in children that are often times passive and withdrawn from others. The long-term effects of abuse can be witnessed in higher rates of psychiatric disorders, increased rates of substance abuse, and a host of severe relationship difficulties. This measurement will also assist agencies in their efforts to address this issue and provide a measurement for initiatives to reduce the amount of children that are abused in this region.

## Indicator Results

For fiscal year 2005-06, the regional county average of substantiated reports of child abuse was 23.5%. The 14-county average for fiscal 2005-06 was 1.4 percentage points (or 6 percent) higher than the North Carolina average (22.1%) and 13.5 percentage points (or 36 percent) lower than the South Carolina average (37.0%).

The highest rates of substantiated reports of child abuse for 2005-06 occurred in Iredell (38.4%), York (33.0%), and Chester and Lancaster counties (31.0% each.) The lowest rates occurred in Union (12.2%), Gaston (14.8%) and Cleveland (15.6%) counties.

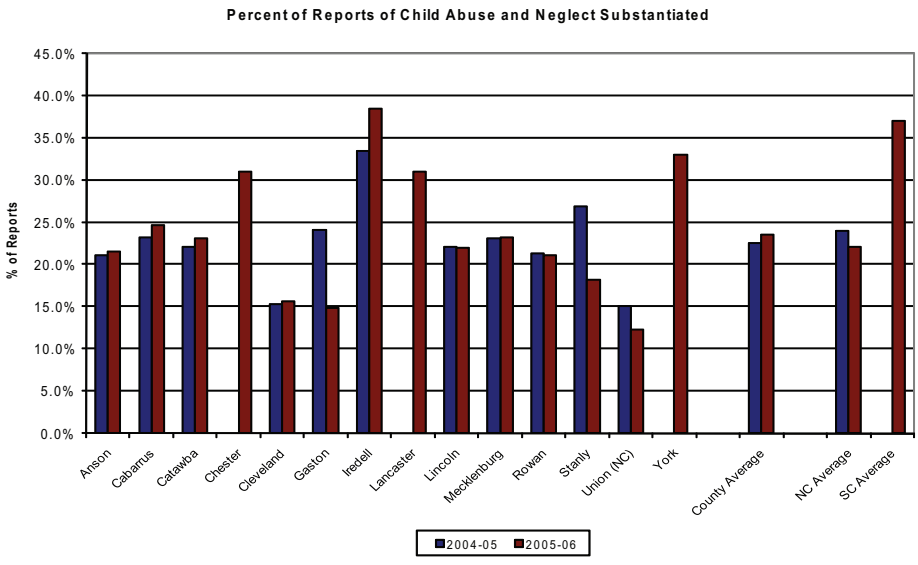
It is important to note that although South Carolina has data available for 2005-06, it does not have data for 2004-05, limiting historic trend analysis to the region's North Carolina counties. Of the eleven North Carolina counties that reported child abuse and/or neglect for 2004-05 and 2005-06, two counties' rates of substantiated child abuse reports remained relatively unchanged (Lincoln and Mecklenburg,) while five showed increases (Anson, Cabarrus, Catawba, Cleveland, and Iredell,) and four showed decreases (Gaston, Rowan, Stanly and Union.)

## Evaluation

The absence of trend data for the entire region limits the ability to interpret the indicator results. However, the more than two-fold difference between the lowest and highest rates reported by counties suggests that further investigation into underlying causes is warranted. Are the higher numbers the result of more instances of child abuse or of increased willingness to report suspected abuse, and vice-versa for the lower numbers?

## Connections

Concern for the welfare of children, particularly those who are abused and neglected, has been a long-standing issue among medical and health care professions, social service providers, and the general public. There are connections to education, health, and public safety.



## Teenage Birth Rate

### What's Measured

The study looked at births to mothers under the age of 18 as a percent of all births. The years examined were 2000 through 2005 for North Carolina counties in the region and 2000 through 2003 for South Carolina counties in the region. North Carolina State Center for Health Statistics and the South Carolina Office of Research and Statistics provide data on births to mothers under 18. The regional indicator is the un-weighted average of the 14-counties' teen birth rates, and is calculated only for 2000 - 2003.

### Why It's Measured

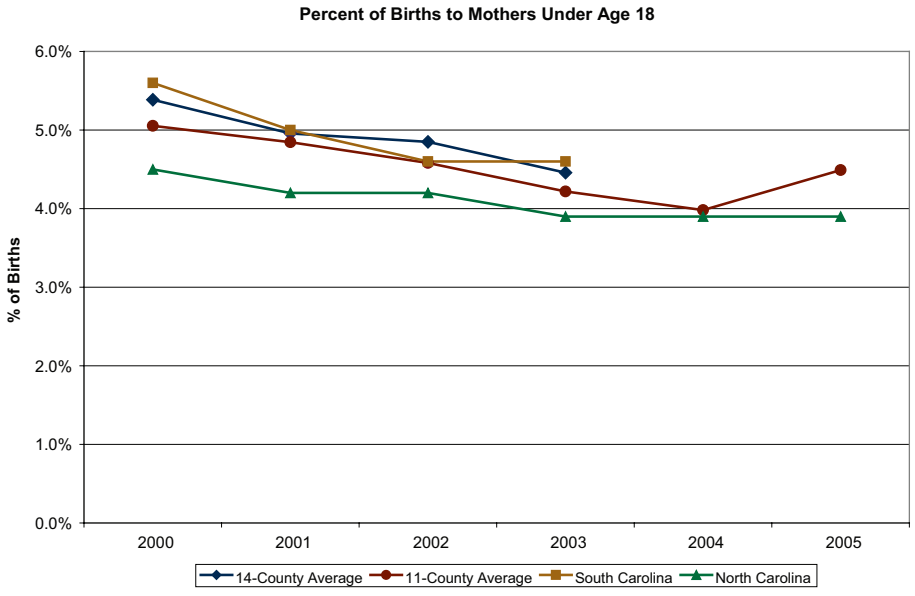
This measure indicates potential stress placed on counties and the region due to challenges associated with teen parenting. It also helps indicate social well-being, economic opportunity and educational attainment of these young parents, both as teenagers and future adults. This indicator can help keep the issues facing teen parents on the agenda, assist agencies in dealing with this issue, and provide a measurement for initiatives that have lowering teen births as a goal.

### Indicator Results

The 2003 regional county average of births to teenaged mothers was 4.5%, down from 5.4% in 2000. The regional county rate was higher than the statewide rate for North Carolina (3.9% for 2003,) and has remained so for all four years examined. It has fluctuated around the statewide rate for South Carolina (4.6% for 2003.) By county, the highest rates of teen births in the region for 2003 were in Chester (7.5%) and Cleveland (5.6%,) while the lowest were in Mecklenburg (3.1%,) Union and Cabarrus (3.5% each) and Catawba (3.6%.)

From 2000 to 2003, thirteen of the region's fourteen counties saw a decline in teen birth rates. The exception was Iredell County, whose teen birth rate increased from 4.4% in 2000 to 4.6% in 2003. Lancaster, Anson and Gaston experienced substantial drops in teen birth rates: Lancaster went from 6.9% to 4.6%, Anson from 7.4% to 5.0%, and Gaston from 5.3% to 3.8%.

From 2003 to 2005, the declining trend in teen births among the region's North Carolina counties appears to be reversing: the 11 counties averaged a 4.5% teen birth rate for 2005, up from 4.0% in 2004 and 4.2% in 2003. Anson, Cleveland, Gaston, Stanly and Union led this trend reversal with increases ranging from one-half to two percentage points (or, ten to 40 percent of the indicator value.) Only Cabarrus, Iredell and Lincoln continued the trend of declines in teen birth rates.




### Evaluation

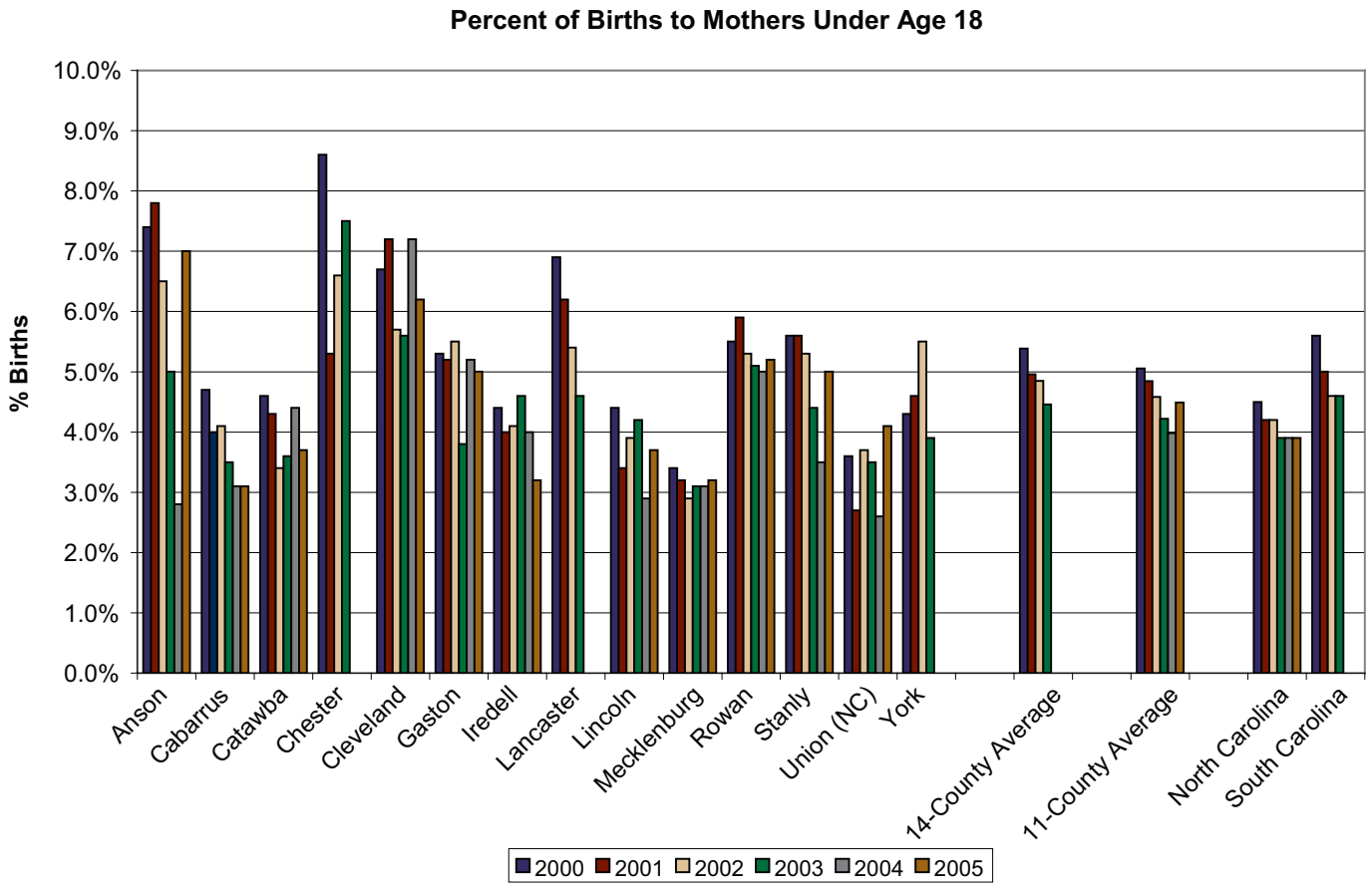
Some authorities argue that the recent decline in teenage pregnancies can be attributable to the increased use of contraceptives. However, despite data that illustrates that contraception decreases rates of teen pregnancy, there has yet to be a general consensus on whether the decline is attributable to public schools sex-education curricula, contraceptive usage, or a combination of both factors.

The apparent increase in teen birth rates from 2003 to 2005 among the region's North Carolina counties is troubling, and bears monitoring to determine whether the long-term trend is truly reversing, stabilizing, or with this minor aberration, continuing downward, as well as to see what pattern the region's South Carolina counties follow. On the state and federal level, policy makers need to continue to concentrate on finding ways to sustain recent declines in teenage pregnancy and childbearing.

### Connections

Births to teenaged women can be correlated to multiple social, economic and health- related indicators as a measurement of social well-being. Girls under the age of 18 that become pregnant also are at increased risk for not finishing high school. Without that educational attainment, they erode their earning potential, thus increasing the chance they will live a life of poverty.

## Teenage Birth Rate (continued)



## Elderly Assistance Rate

### What's Measured

The study spotlights the percentage of individuals age 65 or older who require assistance in performing Activities of Daily Living (ADL). Data by county were available for the year 2000 from North Carolina Division of Aging and Adult Services and South Carolina Mature Adult Count. Activities of Daily Living include eating, dressing, bathing, personal hygiene-related tasks, transfers (the ability to get in and out of a bed or chair), ambulation and communication.

The percent of individuals aged 65 and older who need ADL assistance is available for each county in the region and for the two states. In the absence of the appropriate weighting factors for the county data, the regional indicator is calculated as an un-weighted average of the county data.

### Why It's Measured.

An individual's ability to perform Activities of Daily Living is important to individual quality of life and autonomy, but also helps in determining types of long-term care (i.e. home care or nursing home) and coverage of individual needs (i.e. Medicaid, Medicare). While ADL assistance may be provided by family members, these services may also be provided by local, state and private agencies. This indicator can help those agencies gauge the level of demand for such services. Also, as Baby Boomers embark on retirement, the number of people needing ADL assistance will likely increase.

### Indicator Results

The regional county average for 2000 of the percent of elderly residents who need ADL assistance was 46.4%. This is consistent with the North Carolina average of 45.7% and the South Carolina average of 45.8%. By county, residents needing ADL assistance ranged from a low in Mecklenburg at 40.9 % to a high in Gaston at 49.6 %.

### Evaluation

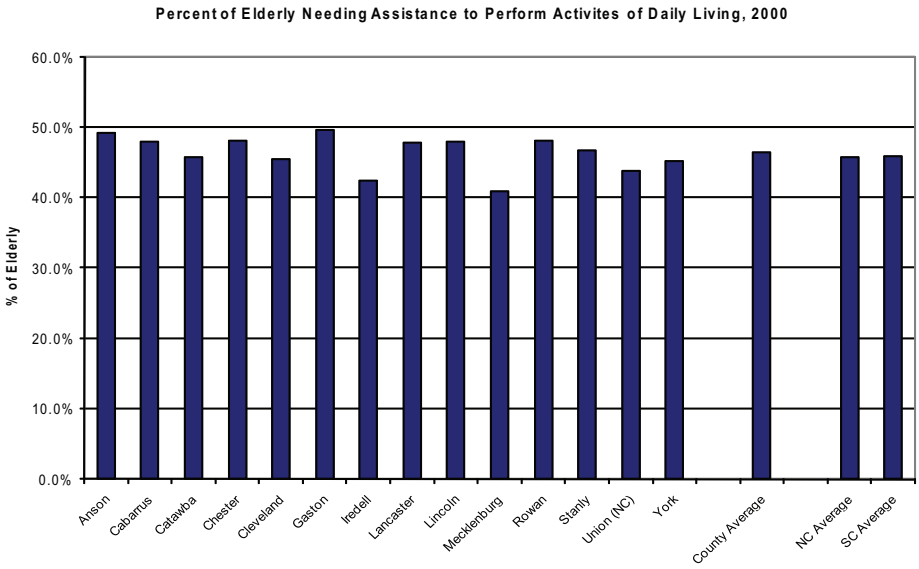
Without further data and analysis, no clear pattern can be established to explain the relatively small differences among the counties' results for this indicator. The region's most rural counties, such as Anson and Chester, tended to have among the highest rates of elders needing ADL assistance in 2000, and Mecklenburg, the most urban county, had the lowest; however, the pattern is less clear for counties that are both urban and rural.

The relatively low degree of variation by county, the potential impact of the aging Baby Boomer population and increasing life expectancies, suggest that services for those ages 65 or older will need to be carefully considered not only on a county level but on regional, state and national levels as well.

The lack of trend data also hampers interpretation of this indicator. Is it changing or remaining stable? If it is changing, how fast is it changing? Many factors influence elders' ability to manage Activities of Daily Living without assistance, including their health status, their age, and the state of medical science. To date, every generation in the U.S.'s recent history has entered retirement in better overall health and with longer life expectancy than the preceding generation. Will the Baby Boomers continue that trend, or diverge from it? Will advances in medical science enable more elders to care for themselves longer or will they extend lives but at the cost of additional ADL assistance needed? Given the size of the Baby Boom generation, the implications for provision of elder care could be significant, underscoring the importance of monitoring trends in this indicator.

### Connections

There are obvious connections to demographics and health, in that the age and health status of individuals and medical science all play a role in determining the extent to which ADL assistance is needed. There are also connections to the economy, in that "Health care and social assistance" is among the region's fastest growing employment sectors.



# Transportation

## Overview

### Scope

This year's report focuses on transportation related to traffic congestion and air travel.

Eventually, the study's authors would like to see the transportation theme cover all aspects related to the movement of people and goods throughout the region, including car, transit, air, rail, bicycle, walking, etc. For more on possible future indicators, see the "Missing and Future Indicators" section of this report.

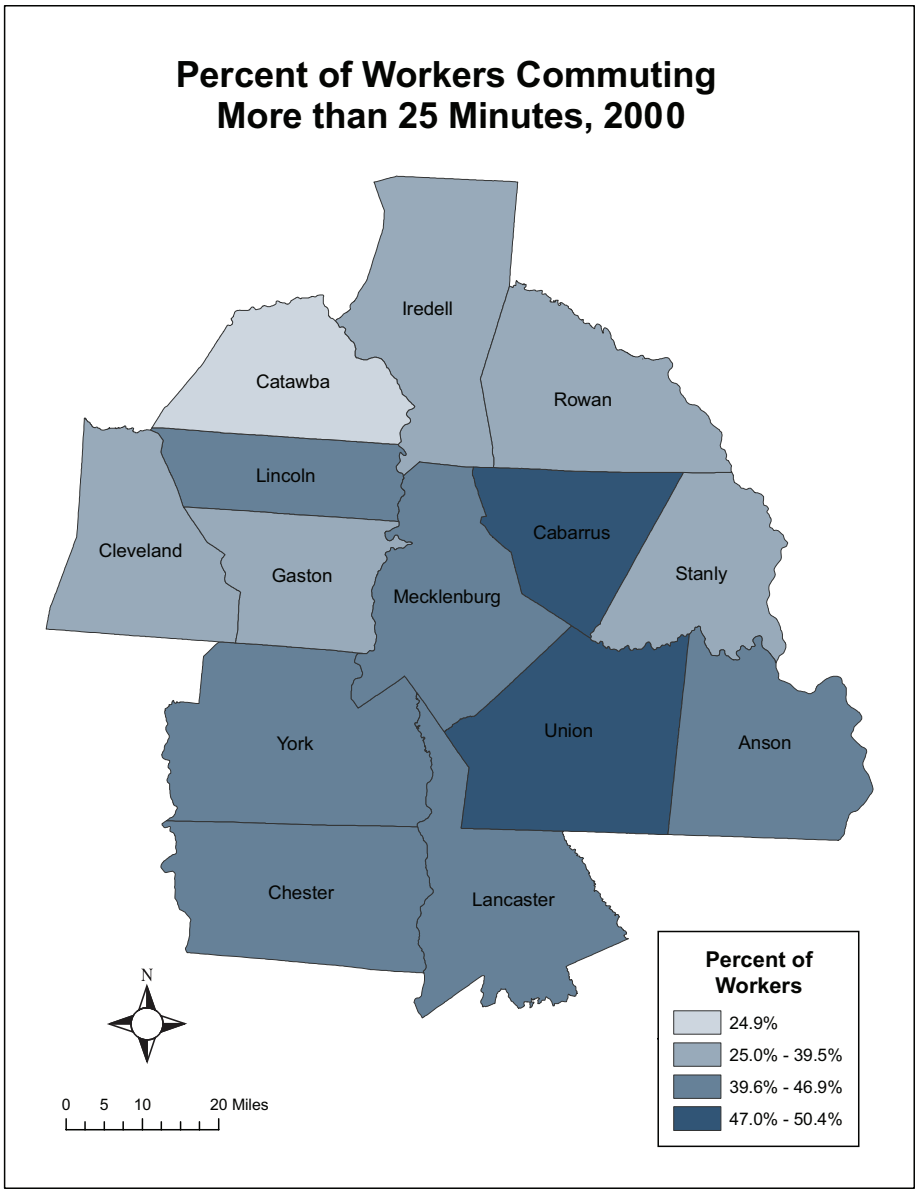
### Regional Context

Over the last 25 years, the Region has experienced tremendous population and economic expansion. This has greatly affected a region that, prior to that time, was primarily defined by two-lane rural roads.

Highway and road improvements have been the regional priority for many years, but they have not come close to keeping pace with needs. One of the largest projects in the last 15 to 20 years has been the approval and construction of the I-485 outer loop, which is still not completed.

Many suburban areas are dealing with overburdened, often two-lane roads handling far more vehicles than they were designed for. Funding for road improvements in those areas and throughout the region remains lacking, and the number of road miles needing improvements keeps growing.

Recently, some areas of the region have endeavored to incorporate alternative modes of transportation into transportation planning, including greenways, bikeways, pedestrian-friendly roadways, carpool lanes, park-and-ride bus service, light rail and streetcars.




*See page 127 for additional information on this indicator*

The region's first light-rail line, running between uptown Charlotte and I-485 near Pineville, opened in November 2007. Additional light-rail lines, a commuter rail line and streetcars are in the planning stages, with development and construction contingent on future funding.

Charlotte/Douglas International Airport is home to US Airways' largest hub and in 2006 ranked 18th nationwide in passenger travel, according to Airports Council International. The airport is currently constructing a third parallel runway that will be 9,000 feet long. When the new runway is completed in 2010, the airport will have the capacity to handle three independent approaches for arrival.

### Summary of Indicator Results

On three measures that dealt with traffic congestion, the good news is that the region hasn't gotten worse in recent

## Overview (continued)

years. But the bad news is it hasn't gotten better either.

An unequivocal bright spot is the vitality of air travel. The study looked at the number of passengers arriving and departing from Charlotte/Douglas International Airport. Both numbers have steadily increased since 2003, with the greatest number of enplanements and deplanements occurring in 2006, the last year studied.

With traffic, the percentage of workers age 16 or older driving to work alone remained steady. While the figure slightly trailed the North and South Carolina percentages, it exceeded the national average.

With commuting to work, the percentage of workers traveling more than 25 minutes remained steady from 2000 to 2005. But the figure is still much higher than in 1990. The region tops both the North and South Carolina percentages. In looking at travel during peak times — from 6 a.m. to 9 a.m. and 4 p.m. to 7 p.m. — the annual delay time per peak traveler seems to have leveled off in recent years. But this figure has nearly doubled since 1995.

### Missing and Future Indicators

Time and labor constraints prevented inclusion of the following indicators: public transit use, public transit access and regional road/highway maintenance or improvement backlog (funded vs. unfunded).

To include "intercity rail boarding" as an indicator, a consistent, reliable source of data on passenger information needs to be found.

In the future, the study's authors would like to see indicators on regional highway capacity based on level of service, full regional representation of congestion/delay calculations, as done by the Texas Transportation Institute and indicators that shed light on the movement of goods and products within the region and beyond.

Additional indicators related to Charlotte/Douglas International Airport would also be good — indicators such as cargo traffic, number of city connections, number of international passengers, etc.

The study's authors would also like to a see a comparison of the region's transportation data to figures from peer cities/regions nationwide.

*See page 136 for Transportation indicator data sources*

## Commuting Alone

### What's Measured

This study looks at the percent of workers 16 or older who drive to work alone by car, truck or van. This information is available from the U.S. Census Bureau's decennial census and most recently available from the U.S. Census American Community Survey. Unfortunately, the American Community Survey does not currently include Anson, Stanly, Lancaster and Chester counties; therefore, the 2005 regional numbers are for the 10-county American Community Survey portion of the region only.

### Why It's Measured

The percent of workers 16 or older driving to work alone provides information related to commuting preferences and patterns. Despite rising fuel costs, increases in alternative modes of transportation and an ever-more environmentally aware population, the majority of people still commute to work by driving alone.

Single-person commuting by car, truck or van affects traffic congestion and thereby contributes to air quality challenges and to lost productivity because of time stuck in traffic.

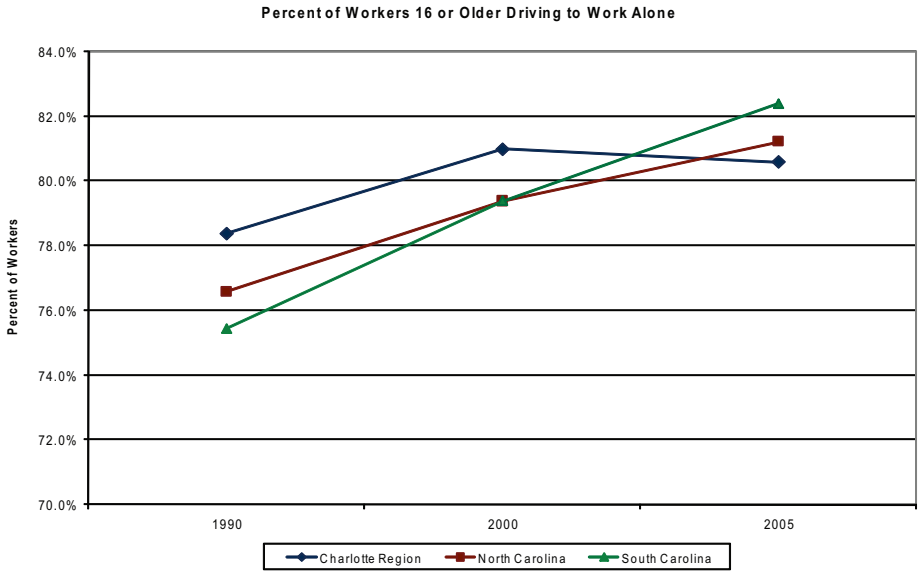
### Indicator Results

In the region — minus the four unavailable counties — the percentage of workers 16 or older driving to work alone in 2005 was 80.6 percent. In 2000, the indicator for the 10-county portion of the region was 81.1 percent, and in 1990 it was 78.8 percent. For the entire 14-county region, the percentages were very similar: 81.0 percent in 2000 and 78.4 percent in 1990.

Individual counties in the region didn't deviate from the 10-county regional average a great deal in 2005. Lincoln has the highest percent of workers who drive alone at 85.5, and Mecklenburg has the lowest percent of workers at 77.5. The region is slightly below the North and South Carolina percentages of workers who drive alone, but the figures are comparable.

### Evaluation

While the percentage of workers 16 or older driving to work alone remained steady from 2000 to 2005, the region faces a difficult time ahead as the population continues to increase and road capacities reach their limits.




The region is not facing this alone, according to a U.S. Census Bureau publication in June 2007. National numbers indicate that nearly 77 percent of workers drove to work alone in 2005. The region shows numbers slightly higher than the national data, but the region is actively engaged in providing alternative modes of transportation.

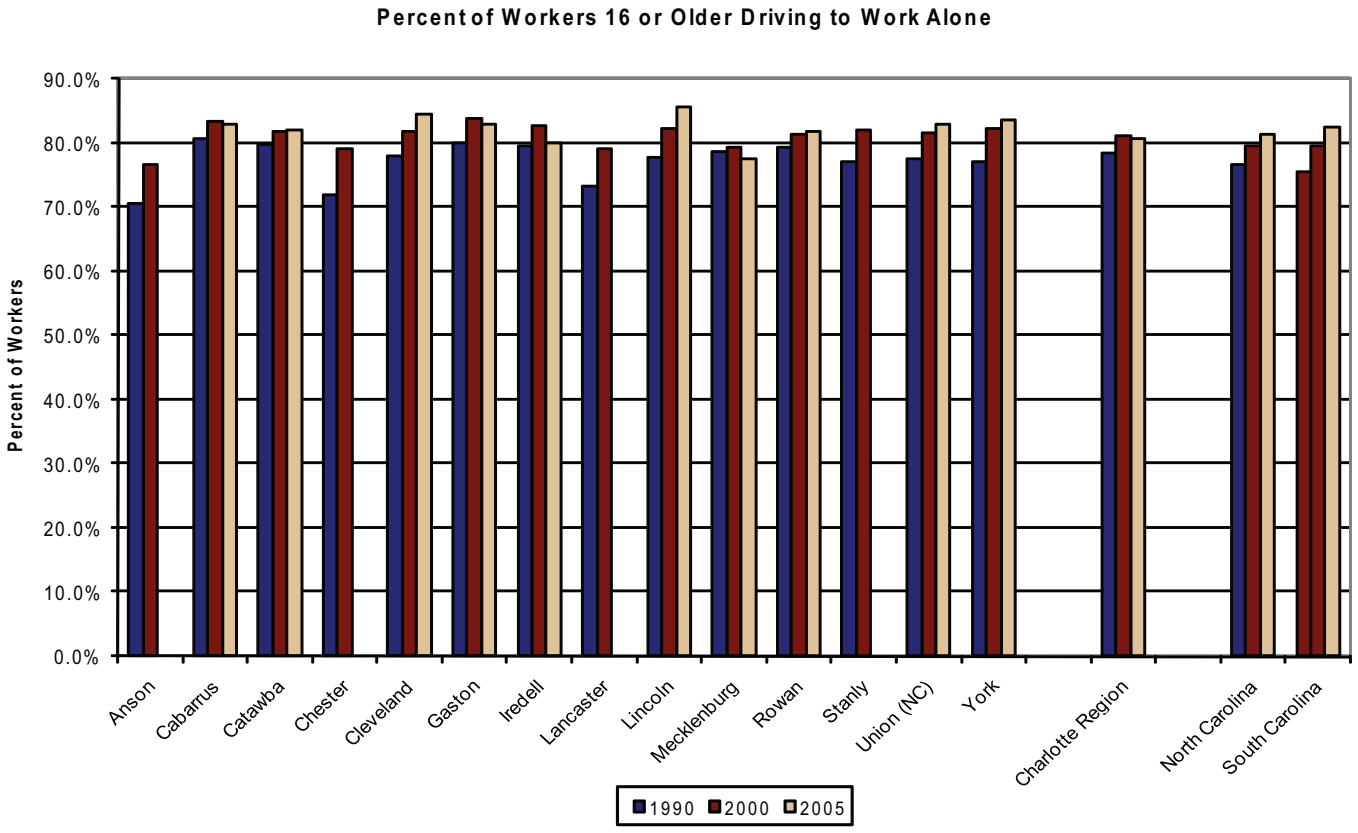
Increased bus services, light rail, car-pool lanes, greenways, bike lanes and pedestrian-friendly rights-of-way are just some of the methods being implemented in the region. As these commuting alternatives mature, the region may see a decrease in the percentage of workers driving to work alone.

### Connections

Increases in the percentage of workers driving to work alone can be associated with regional quality-of-life issues. Traffic congestion increases as cars, trucks, vans, etc. push the capacity of roads to their limits. The resulting increase in vehicle emissions degrades air quality.

Economically, productivity suffers due to workers' lost time stuck in traffic. Socially, traffic congestion decreases leisure time available to workers to partake in family or personal-enrichment activities. The continued examination of this indicator is not only necessary to understanding the region's commuting preferences, but in many ways, to assessing overall quality of life.

## Commuting Alone (continued)



## Average Travel Delay

### What's Measured

This section focuses on travel delays during peak travel times – considered to be from 6 a.m. to 9 a.m. and from 4 p.m. to 7 p.m. The Texas Transportation Institute (TTI) calculates such figures as "person hours of annual delay per peak traveler." The figures are calculated by dividing the number of extra travel hours by the number of peak period travelers in an urban area.

The average annual travel delay per peak traveler is the yearly sum of delays per peak trip, divided by the number of travelers who started a trip during the peak period.

One caveat with this indicator is that it does not cover the entire 14-county region. The figures are for the Charlotte Urban Area, which includes Charlotte, surrounding municipalities in Mecklenburg County and portions of Union and York counties.

### Why It's Measured

TTI is a well-respected research institute that studies nearly every aspect of transportation. One of its most widely circulated reports deals specifically with urban mobility and congestion, from which this measure is taken. The annual delay per peak traveler reflects the effects of per-mile congestion as well as the length of each trip.

### Indicator Results

The Charlotte Urban Area has seen its annual delay per peak traveler dramatically increase since 1995. It nearly doubled from 1995 through 2005, rising from 23 person hours in 1995 to 45 person hours in 2005.

The indicator rose each year from 1995 through 2002, when it reached 45 person hours. It has remained relatively more stable since then, fluctuating somewhat as it decreased slightly to 44 person hours in 2003 and increased to 47 person hours in 2004 before hitting 45 person hours again in 2005. It is important to keep in mind that small changes in these figures may be negligible and that it is most beneficial to view the annual delay per peak traveler in terms of multi-year trends.

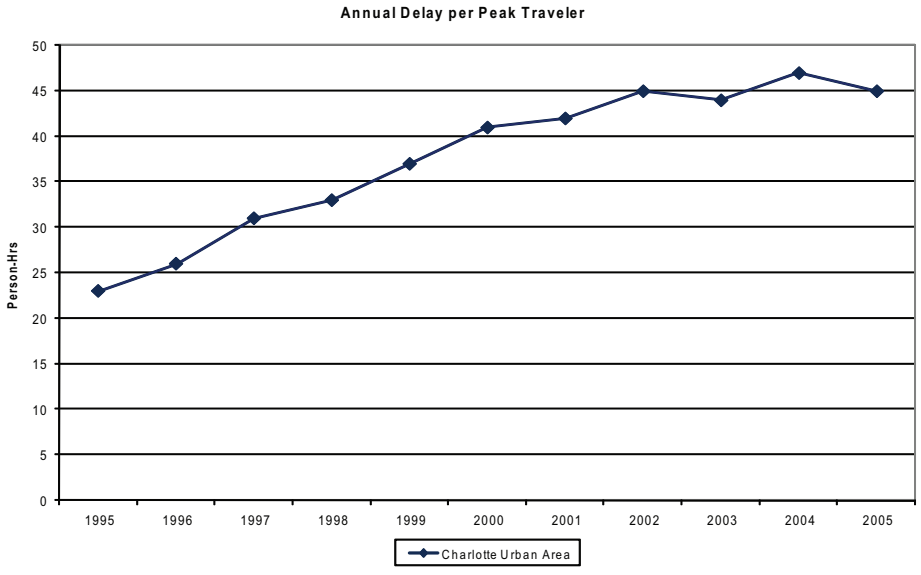
### Evaluation

Though this indicator does not cover the entire 14-county region, it provides a good representation of travel conditions and congestion in three of the most highly traveled portions of the region. As the region continues to grow, its roadways are becoming increasingly burdened. The annual delay per peak traveler reflects congestion and trip length, two of the region's most pressing transportation issues.

### Connections

The dramatic rise in travel time during peak periods stems directly from an increased number of vehicles on road systems whose capacity is not keeping up with growth in travel demand. Travel delays have important consequences for the region's quality of life, leading to lost productivity, lost personal time, and an increased risk of traffic accidents. The delayed vehicles' emissions have reduced the region's air quality. Increased trip lengths also can be linked with the growing population in surrounding suburban counties and away from the urban core.

Overall, without improvement to the transportation infrastructure — which includes alternative modes of transportation — the annual delay per peak traveler will continue to increase.



## Commute Time

### What's Measured

This section targets the percentage of workers 16 or older not working at home who commute more than 25 minutes. This information is available from the U.S. Census Bureau's decennial census and most recently available from the U.S. Census American Community Survey. Unfortunately, the American Community Survey does not currently include Anson, Stanly, Lancaster and Chester counties; therefore, the 2005 regional numbers are for the 10-county American Community Survey portion of the region only.

### Why It's Measured

The percentage of workers commuting more than 25 minutes to work provides information related to commuting patterns and capacity of transportation infrastructure. Looking at workers in the region who commute more than 25 minutes also gives a sense of the number of workers whose commute time exceeds national and state averages, which are close to 25 minutes. (Nationally, the average commute time was 24.3 minutes in 2003. For North and South Carolina, the figures were 23.2 and 23.0, respectively — which put the states 22nd and 23rd among the 50 states and the District of Columbia.)

### Indicator Results

In the 10-county portion of the region, the percentage of workers commuting more than 25 minutes in 2005 was 41.5. This represents a slight decrease from 2000 (41.8 percent) but is still much higher than the 33.9 percent in 1990.

County figures for 2005 vary from a low of 28.1 percent in Catawba to a high of 53.7 percent in Union. The region had a higher percentage of workers commuting more than 25 minutes in 2005 than both North and South Carolina, at 37.0 percent and 37.5 percent, respectively.

In 1990, the region's indicator value (33.9 percent) was below the national average (36.0 percent) but above the two states' averages (31.9 percent for South Carolina and 29.4 percent for North Carolina). The 2000 and 2005 numbers for the region are now slightly higher than national numbers while the two states' numbers have remained below the national averages: for 2000, the national average was 40.3 percent of workers commuting more than 25 minutes; for 2005, the national average was 41.0 percent.

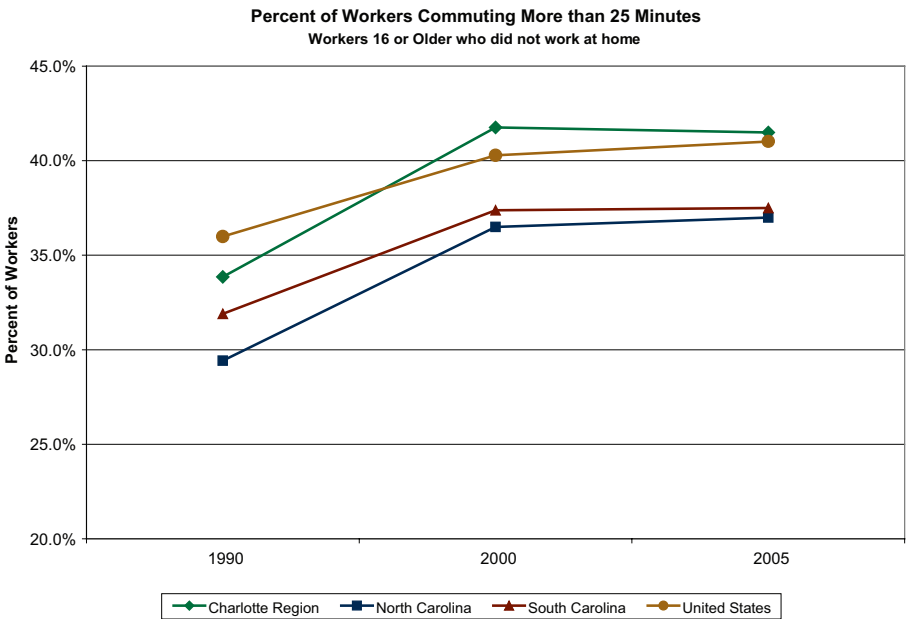
### Evaluation

The number of workers in the region commuting 25 minutes or more increased dramatically between 1990 and 2000.

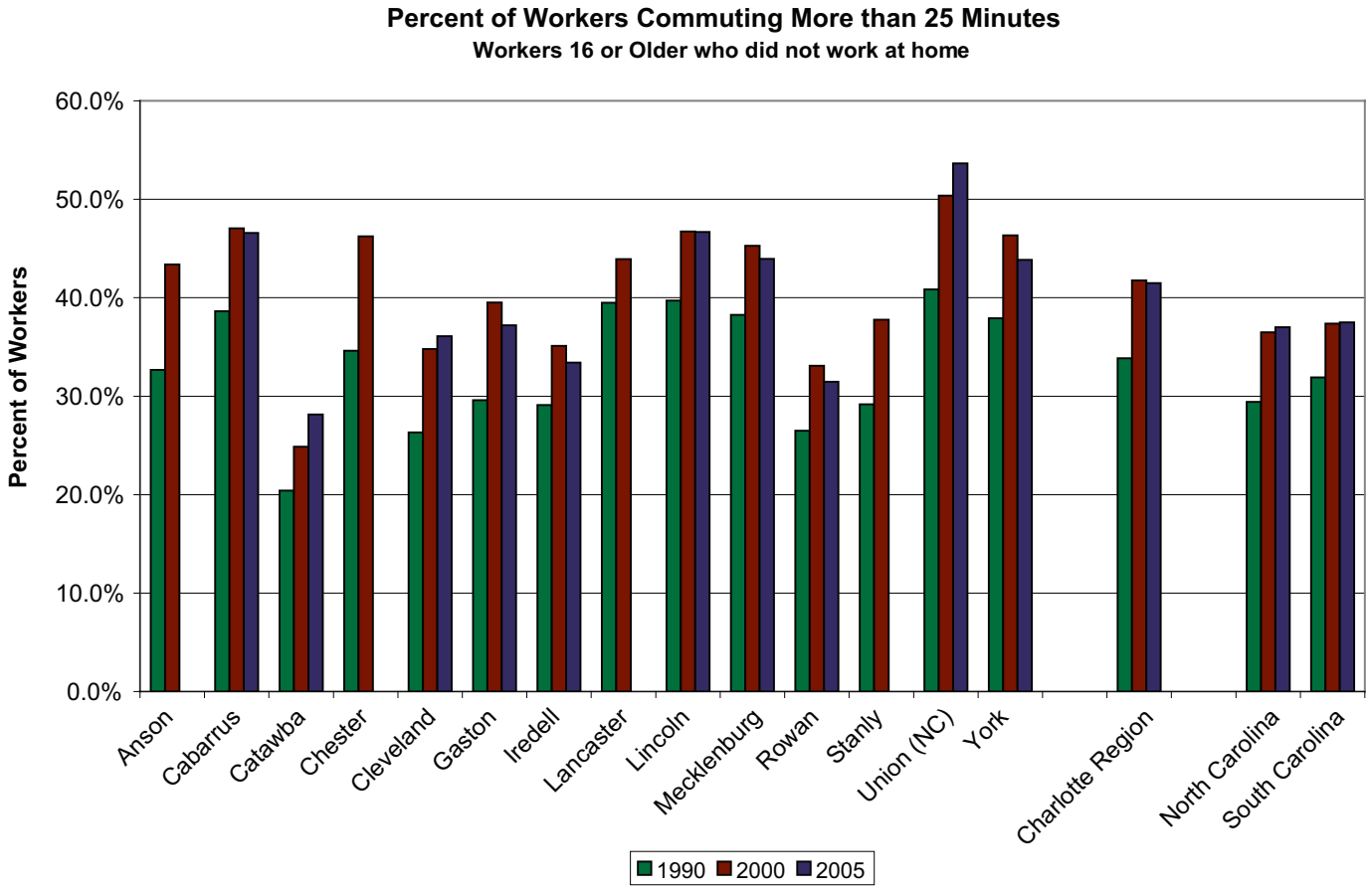
As the region continues to grow, the number of people commuting more than 25 minutes will increase unless changes are made. This increase in commute times can be moderated by alternative modes of transportation, which include high occupancy vehicle lanes, bike lanes, light rail, increased bus service, park-and-ride services and greenways. Many of these alternatives are already being implemented in some form or another, and can help to limit further worsening of commuting times.

### Connections

Longer commute times are connected to increased traffic congestion, and congestion contributes to vehicle emissions and a resulting decline in air quality. The more time spent commuting takes away from time on the job, at home and in personal pursuits. All of these aspects can have detrimental effects on the economic, environmental, health and social well-being of the region.



## Commute Time (continued)



## Airport Travelers

### What's Measured

This indicator gauges the number of passengers boarding planes ("enplanements") and disembarking from planes ("deplanements") at Charlotte/Douglas International Airport. Passengers making connecting flights at Charlotte/Douglas are included in these figures. Data were obtained from Charlotte/Douglas Aviation Activity Reports produced annually by the City of Charlotte for 2000 through 2006. The annual percentage change in enplanements and deplanements is also measured.

### Why It's Measured

Passenger travel at Charlotte/Douglas International Airport provides a measure of the region's capacity to serve the increasing air-travel market. The airport also plays a significant role in connecting people to the region and in linking regional residents to the rest of the world.

### Indicator Results

Passenger enplanements and deplanements track each other very closely: in 2006, enplanements were 14,828,149 and deplanements were 14,865,800. Both figures represent a 5.3% increase over the prior year (over 740,000 more passengers were accounted for in each of enplanements and deplanements).

Passenger enplanements and deplanements have risen since 2000, with a slight decline from 2002 to 2003. Despite the terrorist attacks on 9/11, passenger enplanements and deplanements increased each year from 2000 to 2002. Enplanements and deplanements were at their lowest point of the six-year time period in 2003: 11,511,465 enplanements and 11,551,105 deplanements. Both passenger enplanements and deplanements grew by more than 300,000 between 2003 and 2006. The largest gains came in 2004 and 2005: enplanements and deplanements each increased 9.1% in 2004 and 12.1% in 2005.

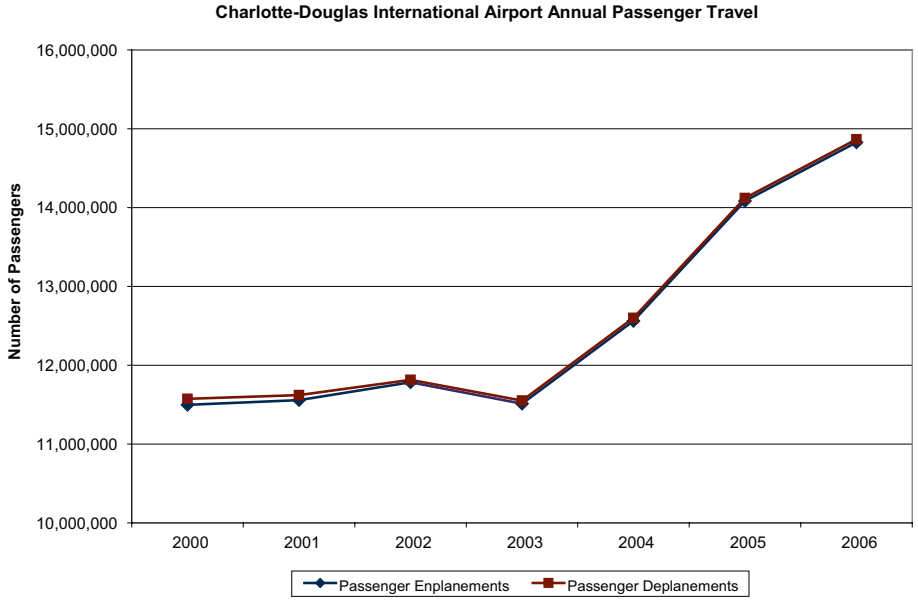
### Evaluation

Charlotte/Douglas International Airport has an important and ever-increasing role in regional development. As the largest airport in the Carolinas, Charlotte/Douglas continually serves a greater number of people from across the region and beyond by providing a hub of air travel used by a multitude of leisure and business travelers.

Increases in passenger enplanements and deplanements show that the importance of Charlotte/Douglas continues to increase. The growth of the airport also ties to the growth of the region with regard to economic competitiveness. One caveat: A large portion of the enplanements and deplanements are transfers due to Charlotte's role as a major hub for US Airways. Therefore the link with economic development is somewhat less than implied by the numbers.

### Connections

The growth of the airport is directly connected to the growth of the region. As the population continues to increase and more businesses locate and expand in the area, the airport continues to be a key element for regional success. The airport is a connection to cities around the country and world. To maintain the region's attractiveness to business, Charlotte/Douglas International Airport must continue to be a top-tier, air-travel provider.



# Appendices

## Task Force Members

We are indebted to all task force members agreeing to participate in the Charlotte Regional Indicators Project. Without the volunteer effort of these individuals this report would not have been possible. We would like to extend a special thanks to Michelle Abbott, Robert Bush, Mary Lynne Calhoun, Harry Campbell, Charles Dalton, Rob Devlin, Owen Furuseth, Laurie George, Jim Hickman, Helene Hilger, Susan Long-Marin, Vivian Lord, Walt Martin, Ross Meentemeyer, Mihir Mehta, Heidi Pruess, Gary Rassel, Don Rayno, Doug Shoemaker, Kathy Steckler, Pete Stevens, Holly Welch Stubbing, and Jean-Claude Thill for additional comment and review.

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### In-Kind/Contributors

The Lee Institute

Lowe's Motor Speedway

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Susan Shackelford

Moonlight Creative Group

Ross Meentemeyer and Doug Shoemaker of the Center for Applied Geographic Information Science (CAGIS) at UNC Charlotte

# Data Sources

## Demographics

U.S. Census Bureau (www.census.gov); Population projections from: N.C. State Data Center, State Demographics (http://demog.state.nc.us/); S.C. Budget and Control Board, Office of Research and Statistics (http://www.sccommunityprofiles.org/index.asp)

## Arts, Recreation, and Cultural Life

**Grants Expenditures:**
North Carolina Art Council; South Carolina Arts Commission (www.ncarts.org; http://www.southcarolinaarts.com/)

**Library Holdings:**
Library Research Center: Public Library Survey by National Center for Education Statistics (https://lrcreport.lis.uiuc.edu/FSCS/rdPage.aspx?rdReport=IDBEntrance2)

**Library Funding:**
North Carolina Department of State Treasurer; South Carolina State Budget and Control Board (http://www.treasurer.state.nc.us/lgc/units/D_12.htm; http://www.ors.state.sc.us/economics/economics.asp)

**Arts Graduates:**
National Center for Education Statistics, IPEDS Database (http://nces.ed.gov/ipedspas/index.asp)

## Economy

**Labor Force:**
Bureau of Labor Statistics (http://www.bls.gov/lau/home.htm)

**Industry Employment:**
Bureau of Labor Statistics (http://www.bls.gov/lau/home.htm); North Carolina Employment Security Commission (http://www.ncesc.com/lmi/industry/industryMain.asp#industryWages); South Carolina Employment Security Commission (http://www.sces.org/LMI/data/wages/cew/index.htm)

**Business Establishments:**
Bureau of Labor Statistics (ftp://ftp.bls.gov/pub/special.requests/cew); North Carolina Employment Security Commission (http://www.ncesc.com/lmi/industry/industryMain.asp#industryWages); South Carolina Employment Security Commission (http://www.sces.org/LMI/data/wages/cew/index.htm)

**Average Annual Wage:**
Bureau of Labor Statistics (ftp://ftp.bls.gov/pub/special.requests/cew/); North Carolina Employment Security Commission (http://www.ncesc.com/lmi/industry/industryMain.asp#industryWages); South Carolina Employment Security Commission (http://www.sces.org/LMI/data/wages/cew/index.htm)

**Per Capita Income:**
Bureau of Economic Analysis (http://www.bea.gov/bea/regional/reis)

**Median Household Income:**
U.S. Census Bureau's Small Area Income and Poverty Division (http://www.census.gov/hhes/www/saipe/)

## Education

**Public Schools Enrollment:**
National Center for Education Statistics Common Core of Data (CCD), "Local Education Agency Universe Survey" , 1999-2000 v.1b, 2000-01 v.1a, 2001-02 v.1a, 2002-03 v.1a, 2003-04 v.1b, 2004-05 v.1a (http://nces.ed.gov/ccd/)

**Educational Attainment:**
U.S. Census 1990, 2000, American Community Survey 2005 (www.census.gov)

**SAT Scores:**
North Carolina Department of Public Instruction; South Carolina Department of Education (http://www.ncpublicschools.org/accountability/reporting/sat/; http://ed.sc.gov/topics/assessment/)

**Graduation Rate:**
North Carolina Department of Public Instruction; South Carolina Department of Education (http://disag.ncpublicschools.org/; http://ed.sc.gov/topics/assessment/scores/)

**College Plans:**
NC Public Schools Statistical Profile 2002-2006, SC Dept. of Education College Freshmen Report 2000-2005 (http://ed.sc.gov/agency/offices/research/CollegeFreshmanReport.html; http://www.ncpublicschools.org/fbs/resources/data/)

**Expenditures Per Pupil:**
North Carolina Department of Public Instruction, Beyond 20/20 Web Server; South Carolina Department of Education (http://149.168.35.67/WDS/TableViewer/tableView.aspx?ReportId=124; http://www.ed.sc.gov/agency/offices/finance/insite/)

**Capital Expenditures:**
North Carolina Department of Public Instruction; South Carolina Department of Education (http://149.168.35.67/WDS/TableViewer/tableView.aspx?ReportId=124; http://www.ed.sc.gov/agency/offices/finance/insite/)

## Environment

**Air Quality Index:**
United States Environmental Protection Agency (http://www.epa.gov/air/data/geosel.html)

**Vehicle Emissions:**
North Carolina Department of Environment and Natural

## Data Sources (continued)

Resources, Division of Air Quality, Attainment Planning Branch; South Carolina Department of Health and Environmental Control, Bureau of Air Quality, Emissions Inventory Section

**Water Consumption:**
North Carolina Department of Environment and Natural Resources, Division of Water Resources, 02LWSP Pop-Use#s (http://www.ncwater.org/) (South Carolina Water Use Report, 2002 Summary (www.scdhec.gov)

**Impaired Streams:**
North Carolina Department of Environment and Natural Resources, Division of Water Quality, North Carolina Water Quality Assessment and Impaired Waters List, (2006 Integrated 305(b) and 303(d) Report), Final; State of South Carolina Integrated Report for 2006, Part I: Listing of Impaired Waters (www.scdhec.gov)

**Solid Waste Disposal:**
North Carolina Solid Waste Management Annual Report July 1, 2005 – June 30, 2006, Appendix B: County Population, Waste Disposal, Per Capita Rate and Percent Reduction, FY 2005-2006; South Carolina Department of Health and Environmental Control Division of Mining and Solid Waste Management, South Carolina Solid Waste Management Annual Reports, Fiscal Years 2001-2006

**Developed Acreage:**
UNC Charlotte Center for Applied GIS, Preliminary Regional Growth Model Results, Unpublished.

### Government and Citizen Participation

**Voter Turnout:**
North Carolina State Board of Elections; Log Into North Carolina; South Carolina State Board of Elections (http://www.sboe.state.nc.us/; http://data.osbm.state.nc.us/pls/linc/dyn_linc_main.show; http://www.state.sc.us/scsec/election.html)

**Public Charities:**
National Center for Charitable Statistics (http://nccsdataweb.urban.org/tablewiz/states.php)

**Private Foundations:**
National Center for Charitable Statistics (http://nccsdataweb.urban.org/tablewiz/states.php)

**Giving (Public Charities):**
National Center for Charitable Statistics (http://nccsdataweb.urban.org/tablewiz/states.php)

**Giving (Private Foundations):**
National Center for Charitable Statistics (http://nccsdataweb.urban.org/tablewiz/states.php)

### Health

**Birth Rate:**
North Carolina State Center for Health Statistics, Health Data Query System; South Carolina Department of Health and Environmental Control (http://www.schs.state.nc.us/SCHS/data/births/bd.cfm; http://scangis.dhec.sc.gov/scannet/tables/birthtable.aspx)

**Infant Mortality:**
North Carolina Department of Health & Human Services State Center for Health Statistics; South Carolina Department of Health and Environmental Control (http://www.schs.state.nc.us/SCHS/deaths/ims/2005/; http://scangis.dhec.sc.gov/scan/mch/infantmortality/)

**Mortality Rate:**
North Carolina Department of Health & Human Services State Center for Health Statistics; South Carolina Department of Health and Environmental (http://www.schs.state.nc.us/SCHS/deaths/lcd/2003/; http://scangis.dhec.sc.gov/scannet/tables/death2table.aspx)

**Suicide Rate:**
North Carolina Department of Health & Human Services State Center for Health Statistics; South Carolina Department of Health and Environmental Control (http://www.schs.state.nc.us/SCHS/deaths/ims/2004/; http://scangis.dhec.sc.gov/scannet/tables/death2table.aspx)

**STD Rate:**
North Carolina Department of Public Health; South Carolina Department of Health and Environmental Control (http://www.epi.state.nc.us/epi/hiv/surveillance.html; http://www.scdhec.net/co/phsis/biostatistics/index.asp?page=pubreps)

### Housing

**Housing Units:**
U.S. Census Bureau (www.census.gov)

**Housing Types:**
U.S. Census Bureau (http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DEC&_submenuId=datasets_0&_lang=en)

**Home Ownership:**
U.S. Census Bureau (http://censtats.census.gov/usa/usa.shtml)

**Residential Construction:**
U.S. Census Bureau (http://censtats.census.gov/bldg/bldgprmt.shtml)

**Sales:**
Carolina Multiple Listing Services, Charlotte Regional Realtor Association (http://www.carolinahome.com/)

**Rental and Vacancy Rates:**
Carolinas Real Data (http://www.realindex.com/)

## Data Sources (continued)

### Public Safety

**911 Calls:**
Calls to each 911 office in the 14 county region

**Crime Index:**
South Carolina Law Enforcement Division (http://www.sled.sc.gov/SCCrimeBooksaspx?MenuID=CrimeReporting); North Carolina Department of Justice, State Bureau of Investigation (http://sbi2.jus.state.nc.us/crp/public/Default.htm)

**Vehicle Accidents:**
Highway Safety Research Center at the University of North Carolina at Chapel Hill (http://www.hsrc.unc.edu/crash/index.cfm); South Carolina Department of Public Safety, 2005 South Carolina Traffic Collision Fact Book (http://www.scdps.org/ohs/stat_services.asp)

**Workplace Fatalities:**
North Carolina Department of Labor; South Carolina Department of Labor, Licensing and Regulation (http://www.nclabor.com/dol_statistics/stats.htm; http://www.llr.state.sc.us/Labor/Osha/BLS/index.asp?file=fatalitydata/03fatal.htm)

**Public Safety Education:**
National Center for Education Statistics Online Locator: College Opportunity Online Locator (COOL) (http://nces.ed.gov/ipeds/cool/)

**Evacuation Plans and Disaster Preparedness:**
Survey Questionnaire Administered by UNC Charlotte Urban Institute

### Social Well-Being

**Poverty Rate (Individuals and Families):**
U.S. Census Bureau Decennial Census, American Community Survey (www.census.gov)

**Child Poverty Rate:**
U.S. Census, Small Area Income & Poverty Estimates (http://www.census.gov/hhes/www/saipe/)

**Child Abuse:**
North Carolina Department of Health and Human Services, Division of Social Services; Prevent Child Abuse South Carolina (http://www.dhhs.state.nc.us/dss/stats/cr.htm; http://www.pcasc.org/Research/0-06%20DSS%20Intake%20Activity-Statewide%20County%20All.pdf)

**Teenage Birth Rate:**
North Carolina State Center for Health Statistics; First Steps Data, A Publication of the South Carolina Office of Research and Statistics (http://www.schs.state.nc.us/SCHS/; http://www.ors2.state.sc.us/firststeps/index.asp)

**Elderly Assistance Rate:**
North Carolina Division of Aging and Adult Services; South Carolina Mature Adults Count, S.C. Lt. Governor's Office on Aging (www.ncdhhs.gov/aging/cprofile/cprofile.htm; http://www.scmatureadults.org/select_cty03.asp)

### Transportation

**Commuting Alone:**
U.S. Census Bureau Decennial Census, American Community Survey (www.census.gov)

**Average Travel Delay:**
Texas Transportation Institute (TTI) (http://mobility.tamu.edu/ums/)

**Commute Time:**
U.S. Census Bureau Decennial Census, American Community Survey (www.census.gov)

**Airport Travelers:**
Charlotte/Douglas Aviation Activity Reports (http://www.charmeck.org/Departments/Airport/About+CLT/Activity+andTraffic+Reports.htm)

Photo by Brad Kuntz, courtesy of the Charlotte Chamber





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