

**Executive**

**Summary**

## EXECUTIVE SUMMARY

### Introduction

This second edition of the Greensboro City Data Book is the first in a series of updates to the original, which was created by City of Greensboro staff in cooperation with the Technical Advisory Team. This Book provides an overview of principal findings from facts and figures that were provided by City and County departments and State and Federal agencies. The entire Data Book will not normally be updated with each edition. In this second version, for example, chapters dealing with various City departments are not updated, but will be updated in a future edition of the Data Book. The Executive Summary includes major key indicators that are being used for each update in order to monitor social, economic, cultural, environmental and physical conditions, and to highlight the data contained in each chapter.

### Major Key Trends and Indicators

Eighteen major issues were selected for analyzing and assessing the impact of major trends over time. The indicators represent significant concerns for evaluating various aspects of community life at the city, county and regional levels. The indicators are listed below and discussed in the Key Indicators Chapter.

- Employment growth rate in the Piedmont Triad Region;
- Greensboro's percentage share of retail sales in the Piedmont Triad Region;
- Greensboro's annual population growth;
- Per-capita income in Greensboro (ratio of total income to population);
- Unemployment rate in Greensboro (percent of unemployed in the civilian labor force);
- Growth in manufacturing (e.g. (light and heavy industrial firms) and service (e.g. personal and professional) jobs);
- Median sales price of single family housing units in the Greensboro Regional Market Area;
- Annual regional ozone exceedances based upon federal standards;
- Ratio of water demand (daily average) to capacity for Greensboro/ Guilford County;
- Ratio of waste water demand (daily average) to capacity for Greensboro/ Guilford County;
- Commercial airline daily flights at the Piedmont Triad International Airport;

- Public transit ridership by route for Greensboro;
- Increase in the amount of solid waste tonnage being managed or recycled;
- Greensboro total index crimes compared to North Carolina and out-of-state cities.
- Number of emergency fire service calls: number and timing of response;
- Guilford County school enrollment by grade level;
- Acres of parkland per 1000 population; and
- Municipal Credit Agency Ratings by major bond raters;

Comparisons to benchmark North Carolina and out-of-state cities are given whenever possible. Additional details are included in each chapter.

## TRIAD REGION

The “Triad region” is not clearly defined at federal, state, or local levels, and few definitions include the same counties. In spite of this, it is important to have key statistics for those areas in the region whose population and economies are directly related to Greensboro.

Of the counties that are contiguous to Guilford County, four were selected as being a part of the Triad region for this study. In many cases, some of the cities within these selected counties were examined as well, to compare with Greensboro. The four counties chosen are Rockingham County to the north, Randolph County to the south, Alamance County to the east and Forsyth County to the west.

### Population and Employment

Greensboro's population grew by 21.8 percent from 1990 to 2000, slightly ahead of Guilford County, which had a 21.2 percent rate. In the past 10 years, six towns, all within a 10-mile radius of Greensboro, have incorporated. The towns are Stokesdale, Whitsett, Summerfield, Pleasant Garden, Sedalia, and Oak Ridge.

Many of these suburban (and recently incorporated) communities immediately surrounding Greensboro had significantly higher population growth rates. For example, Summerfield, which adjoins Greensboro's northwest border, had a population growth rate of 316.0 percent. The town of Whitsett, east of Greensboro, experienced a 156.0 percent growth rate.

Randolph County had the highest population growth rate (22.4 percent) of all Triad regional counties during the 1990s, while Rockingham experienced the lowest (6.8 percent). The population growth rates in Alamance (20.9 percent) and Forsyth (15.1 percent) Counties were lower than that of Guilford and Randolph Counties.

Among Metropolitan Statistical Areas (MSAs) in the state, from 1990 to 2000, the Raleigh-Durham-Chapel Hill, NC MSA experienced the highest population growth rate (38.4 percent), followed by the Charlotte-Gastonia-Rock Hill, NC-SC MSA (29.1 percent) and the Greensboro-Winston-Salem-High Point, NC MSA (19.2 percent).

Employment growth between 1990 and 2000 in Guilford County is outpacing population and labor force growth. In the remaining counties, population growth is outpacing employment growth. Thus, commuting into Greensboro from outlying areas (especially Randolph County) is still growing. Increased commuting has a number of implications for transportation, and other infrastructure systems, etc.

### Commuting

Of the approximately 142,000 people working in Greensboro in 1990, just over half (56.4 percent) were residents of Greensboro. In the same year, approximately 62,000 people per day commuted into Greensboro to work from other areas within the region. Of those 62,000, approximately 35,000 were coming from outlying areas within Guilford County, including all of the City of High Point. Although 2000 Census updates to city-level detailed commuting data have not been released, other studies indicate that the number of commuters into Greensboro continued to rise throughout the 1990s.

### Agriculture

Farmland acreage in all counties in the Triad region has been in decline since at least 1974, and data previous to that time collected for Guilford County shows an even longer decline. However, in all counties of the Triad region, the average size of farms (in acreage) increased between 1974 and 1997.

### Retail Sales

The City of Greensboro accounted for over a third of all retail sales (34.1 percent) among municipalities within the five-county Triad region for the period 2000-2001. Winston-Salem followed at 24.6 percent. Among the regional counties, Guilford had the highest proportion of retail sales at 49.1 percent. Annual per capita retail sales in Greensboro were the highest among all other cities in the region at 34.1 percent.

## DEMOGRAPHICS

### Population

Between 2000 and 2002, the population of the City of Greensboro is estimated to have grown from 223,891 to 229,634 people. According to the Greensboro Planning Department and the United States Census Bureau, Greensboro's population has increased every year from 1990 to 2002. In 1995, there was a population increase of an estimated 2.2 percent and in 1997, there was an estimated 4.3 percent rise. In 2000, the population gained over 15,000 persons (7.2 percent), based on the 1999 estimate. Much of Greensboro's popula-

tion growth over the 1990s was the result of annexation (16,401 people), although this was one of the region's lower levels of annexation, something also true of the period from 2000-2002.

From 2000 to 2001, Greensboro's population is estimated to have increased by 0.6 percent, with an urban growth rate (excluding annexation) of 0.5 percent. During the same time period, the population of Durham increased by 2.1 percent, with an urban growth rate of 2.1 percent, Charlotte's population increased by 5.4 percent, with an urban growth rate of 1.8 percent, Raleigh's population increased by 4.4 percent, with an urban growth rate of 2.3 percent, Winston-Salem's population increased by 1.5 percent, with an urban growth rate of 1.2 percent, and High Point's population increased by 0.8 percent, with an urban growth rate of 0.7 percent.

Along with the population growth, the corporate limits of Greensboro expanded and population density decreased over the last decade. Population density is a relationship between land acreage and population. In 2000, Greensboro's land area increased by 33.6 percent to 67,011 acres in 2000 from 52,344 acres in 1990. Persons per acre decreased from 3.5 to 3.34 persons. In the comparison cities of Charlotte and Durham, the population density also declined between 1990 and 2000, while in Winston-Salem and High Point, the population density increased. Raleigh's population density remained the same in 1990 and 2000, 3.76 persons per acre.

In Charlotte, Durham, and Greensboro, the population density declined between 1990 and 2000, while in High Point and Winston-Salem, the population density increased.

According to the 2000 Census, among all comparison cities, Montgomery, AL had the lowest number of persons per household, at 2.11, while High Point, NC had the highest, at 2.49. The lowest numbers of persons per household in North Carolina were in Raleigh and Greensboro, each at 2.30 persons per household.

### Age, Race, and Ethnic Origin

Between 1990 and 2000, the number of Black persons and American Indian persons in Greensboro grew at a higher rate than any other race, 34.3 percent and 27 percent, respectively. The number of Asians increased tremendously, although it is not possible to calculate either numbers or percentages by way of comparing 1990 with 2000, due to different data collection and reporting methods used by the United States Census Bureau for each decade. In Census 2000, citizens were allowed to report themselves as being of one race alone, or as being of more than one race. In addition, many racial categories were altered. For example, in 1990 one category was Asian and Pacific Islander. In 2000, it was split into Asian alone and Native Hawaiian and Other Pacific Islander alone. Those reporting Hispanic or Latino ethnic origin (can be of any race) experienced a growth change from 1990 to 2000 of 564.9 percent.

Geographically in 2000, Census Tracts within Guilford County with the highest minority populations were found primarily on the eastern side of Greensboro and in central High Point (see map in Demographics chapter entitled, 2000 Percentage of Non-White Population

by Census Tract, Guilford County, NC).

According to the US Census, from 1980 to 2000, Greensboro's median age increased from 28.9 to 33.0. Over the 30 year time span studied here, the fastest growing age group in Greensboro was those aged 35-44, increasing from 11 percent in 1980 to 15 percent in 2000. The fastest growing age group over the past decade was those aged 45-54, rising from ten percent to 13 percent. In 2000, the largest proportion of the City's population was in the 25-34 age group (17 percent) and the 35-44 age group (15 percent). The third highest proportion was the 0-9 age group (13 percent). Generally, Greensboro's median age has been increasing since before the 1980s, meaning that the City's population is aging.

According to the US Census Bureau, between 1990 and 2000 in Guilford County, the number of persons in the 18-34 year age group grew by 5,846 persons, an increase of 5.5 percent.

### Education

In 2000, 83 percent of Guilford County adults had a high school diploma or higher. Over thirty percent of Guilford County adults had a bachelor's degree or higher.

### Income

According to the 2000 Census, median family income in Greensboro was only higher than the North Carolina comparison areas of Winston-Salem and High Point. Median family income in Greensboro was also higher than all of the out-of-state comparison cities.

### Housing

In 2000, 65.1 percent of Guilford County's residents lived in homes they owned, while 34.9 percent rented the homes they lived in. Among all White heads of household, 75.3 percent lived in homes they owned, while 57.8 percent of all Asian heads of household lived in homes they owned. American Indian and Alaska Native heads of household lived in homes they owned at a rate of 52.6 percent, followed by Black heads of household, at 46.3 percent.

In the same year, among those who reported themselves as being of Hispanic Origin (an ethnic distinction, so the person can be of any race), 24.7 percent lived in homes they owned.

Geographically, homeownership rates were found to be highest in Census Tracts in the north-western quadrant of Greensboro, and in Guilford County itself outside of the cities of Greensboro and High Point (see map in Demographics chapter entitled 2000 Percentage of Owner Occupied Dwellings by Census Tract, Guilford County, NC).

### Poverty

According to the 2000 Census, 12.3 percent of all persons in the City of Greensboro lived in poverty, of which 20.6 percent were between 5 and 17 years of age. The Census also reported that 21.5 percent of the City's minority population designated as Other and 18.4 percent of the Black population were living below the poverty level. Those of Hispanic/ Latino

origin reported a poverty rate of 20.5 percent.

Of the 12.3 percent of Greensboro residents living in poverty in 2000, 38.1 percent were families with preschool-aged children. 34.1 percent were female householders with preschool-aged children.

Several factors distinguish the remainder of Greater Greensboro from its poorest zip code. Conditions in the poorest zip code include a lower home ownership rate, a higher percentage of minorities, an unemployment rate nearly three times higher, and a higher number of people with less than a high school education.

## ECONOMY

### Per Capita Income

Guilford County's per-capita income, when compared to selected areas for 2000, was lower (\$30,372) than that of Forsyth (\$32,291), Mecklenburg (\$37,737), and Wake (\$36,581). Guilford County's per-capita income was higher than the remainder of the comparison areas of Alamance, Durham, Randolph, Rockingham, the state of NC, and the US. Per-capita income will be the true measure of how the community endures this transition. Unemployment, median family income, wage rates, and population all influence per capita income.

### Investment and Jobs

On a regional level, Guilford County led comparison counties in investments and jobs by expanding and new firms, a total of more than \$1.4 billion investment dollars and 10,130 jobs between 1998 and 2001. Forsyth County ranked second with \$480 million investment dollars and second in jobs, with 3,667. During this same time period, jobs and investments have been increasing in Randolph and Rockingham Counties. In Alamance and Forsyth Counties, the numbers of jobs have increased. Between 2000 and 2001, Guilford County had a 193 percent increase in investments and a 55 percent decrease in jobs.

### Employment and Income

The US and nearly all states, regions, and municipalities have experienced high unemployment rates recently due in part to ailing national, state, and local economies. In 2000, Guilford County employment in the manufacturing sector compared to the service sector was 55,205 versus 74,470, respectively. Geographically, 2000 unemployment rates were greatest in census tracts located on the east side of Greensboro. Average annual unemployment rates for Greensboro increased between 1995 and 2000, from 3.8 percent to 4.7 percent. However, more recent data revealed that unemployment in Greensboro went from 6.2 percent in November 2001 to 6.4 percent in October 2002.

### Cost of Living

Among the comparison cities in 2002, the Greensboro/Winston-Salem area had the lowest cost of living in North Carolina, slightly below the national standard. Knoxville, TN had the

lowest cost of living of all cities examined. Raleigh had a cost of living higher than the national standard and had the highest cost of living among all comparison cities. Greensboro's health care costs were lowest among the comparison cities.

### Tourism

From 1995-2001, Guilford County has led the region in the four indicators relating to the impact of tourism: expenditures, payroll dollars, employment and local tax receipts. In 2001, the County had \$829 million in expenditures, \$299 million in payroll, over 14,000 persons in employment and nearly \$21 million in tax receipts.

## ZONING AND LAND USE

### Land Use

Land use for everything from the city center to the water/sewer boundary was examined in a portion of the Comprehensive Planning process that was completed in July 2002. The map of existing land use shows a well-defined City center, with major highways radiating in various directions. Identified as its own unique land use category, Downtown is surrounded by older, mixed-use neighborhoods, university and college campuses and other institutions, and some of the City's oldest industrial areas. Beyond lies low-density, single-family residential areas, the predominant pattern in the City. Highway access influence is shown by commercial uses which line older highway corridors such as Battleground Avenue and High Point Road, and in major concentrations such as the I-40 interchanges at West Wendover Avenue and High Point Road. A similar pattern can be seen with industrial uses.

Single-family residential is the largest single land use category, occupying nearly 31% of the City's land area. Multi-family housing at 6% brings the proportion of residential use to 37%. Over 41% of the City is undeveloped, consisting of parks, golf courses, open space (public and private), woods, agriculture, rights of way, and water. Some of this land gives the City potential for infill development.

At the City limits, especially along the eastern fringe, the land use pattern changes, as the City's urban and suburban development encounters the County's largely rural/agricultural lands. Although there are a few sizeable areas of industrial use, the fringe area lacks significant proportions of commercial use, owing to the absence of major concentrations of population. Present land use in the fringe area is largely (54%) undeveloped; with roughly similar proportions of land in agricultural use and in "woods" or "open" categories.

### Zoning

In July 2002, the Greensboro city limits encompassed approximately 114 square miles, consisting of 72,887 acres. Approximately 68.1 percent of the city limits was zoned for residential uses, approximately 31.4 percent was zoned for office, commercial, industrial or public/institutional uses, and 0.4 percent was zoned agriculture. Approximately 3,479 acres (4.8 percent) were in designated parks (see chapter 15, Parks and Recreation).



Residential zoning comprised the greatest proportion of zoning acreage, approximately 68.1 percent, or 49,628 acres (single-family, multi-family, traditional neighborhood, and planned unit developments). Of these types of residential zoning, mixed use planned development (PUD) constituted only 4.6 percent, or 3,344 acres. These mixed use PUDs usually include a portion of commercial and/or office uses within their boundaries and are thus not always entirely residential in nature. Industrial acreage covered the second highest amount of zoned land, with 18 percent or 13,151 acres. The industrial category includes land zoned as corporate park, light, and heavy.

### Development

Development patterns in Guilford County during the 1990s reveal that industrial growth was occurring primarily around Piedmont Triad International Airport (PTIA), interstates, and in south High Point. Commercial and/or office development followed or clustered around major thoroughfares.

Thirteen growth areas where substantial residential and/or commercial activity is occurring have been identified in Greater Greensboro. These areas include the PTIA vicinity, Jefferson, Wendover and I-40, Grandover, Green Valley, Four Seasons, Downtown, East Market, Morningside (Hope VI), Reedy Fork, Rock Creek Dairy, North Elm/Lake Jeanette, and Highway 68.

The City of Greensboro Development Ordinance, often referred to as the Unified Development Ordinance (UDO), contains the procedures and regulations which pertain to land development within the city limits (please see the Greensboro Planning Department's Web site for the online version of the UDO at <http://www.ci.greensboro.nc.us/planning/ordinance/index.htm>). Among other elements, the UDO contains zoning regulations, which provide the principal legal tool for implementing the land use plan of a community. There are 34 zoning districts within the City that govern the permitted uses, dimensional standards, off-street parking, landscaping, and signage requirements for residential, office, commercial, industrial, institutional, and planned unit development land uses.

## RESIDENTIAL AND COMMERCIAL DEVELOPMENT

### Type and Tenure

In 1990, according to the United States Census Bureau, there were 80,411 dwelling units in Greensboro, with a population of 183,894. According to the 2000 Census, there were 99,305 dwelling units for a population of 223,891. According to the 2000 Census, 86 percent of Greensboro's dwelling units have been built since 1950, with approximately 54 percent built between 1970 and 1998.

In 2000, four room housing units were 31 percent of the rental market, (13,882 units) while seven and larger room units comprised 42.6 percent of the owner occupied units (20,759).

## Housing Sales

In Greensboro, zip code 27401 in the Southeast had the lowest sales price of homes in 2002 (\$93,188). However, when compared countywide, zip code 27260 in High Point had the lowest average sales price (\$50,083). The Lake Jeanette area (27455) had the highest average sales prices within Greensboro (\$237,761), as compared to the highest average sales price in Northwest Guilford County, which was Summerfield (\$318,432), zip code 27358.

According to the Housing Opportunity Index: First Quarter 2002 Report, the Greensboro-Winston-Salem-High Point, NC MSA had a larger share of affordable homes for households earning the area's median family income than both the Charlotte-Gastonia-Rock Hill, NC-SC and the Raleigh-Durham-Chapel Hill, NC MSAs.

## Historic Districts

There are two types of historic districts: Local Historic Districts and National Register Historic Districts; both are found in Greensboro. Local Districts and Guilford County Landmark Properties are overlay-zoning districts that require a Certificate of Appropriateness prior to making any exterior changes. Exterior changes must adhere to design guidelines.

National Register Historic Districts, Landmarks, and Properties are listed on the National Register of Historic Places. A National Register listing places no restrictions on private property but it does make owners of historic properties eligible for federal and state rehabilitation tax credits.

Greensboro currently has three Local Historic Districts and 11 National Register Historic Districts. Charles B. Aycock, College Hill, and Fisher Park are both Local and National Register districts. However, Local and National Register boundaries are different, and the official name of the National Register district in the Charles B. Aycock neighborhood is the Summit Avenue Historic District.

## Office and Industrial Space

### Office

Between 1997 and 2001, the office vacancy rate increased from 11.86 percent in 1997 to 17.76 percent in 2001. Geographically over the period, Greensboro's Central Business District (CBD), or Downtown, had more vacant office space than the other county regions in every year except 2001. In 1999 and 2000, the highest percentages of vacant space occurred in Southwest Greensboro and Southeast Greensboro, respectively, while in 2001 High Point became the leader.

### Industrial

Between 1997 and 2000, the percentage of vacant square feet declined from 24.53 percent to 14.70 percent, then rose in 2000 to 21.71 percent. Geographically during the years 1997-

2001, Northeast Greensboro had a higher industrial vacancy rate than the other county regions. From 1998-2001, rentable industrial space was not available in Northwest Guilford County.

## NATURAL ENVIRONMENT

Greensboro's water quality and supply is controlled in large part by the geography of the area. The City contains multiple streams and lakes, but no major river or other natural water source. Due to Greensboro's geographical location at the headwaters of the Cape Fear River Basin (the "top of the hill"), with most water flowing from the City toward nearby rivers. Absorption into groundwater is limited by paved and other impervious surfaces, and runoff is accelerated by development in upstream areas.

Greensboro monitors water quality in surface streams and in the City's three water supply lakes to the north. Water quality is, for the most part, similar to that found in other urban areas. Water quality in Greensboro exceeds some state and federal standards for water quality during the hot summer months, but this is typical for many southern cities. Most pollution in our streams and lakes is non-point-source; that is, contaminants are washed into the water from streets, lawns, parking lots, and roofs, rather than being directly discharged from industry. Non-point-source pollution is difficult to control, and will require education, changes in stream maintenance, Best Management Practices (BMPs – buffer areas, vegetation, etc.), and large-area planning to control water runoff. A side benefit of these changes will be expanded habitat in and along stream basins, which are relatively barren now.

### Water Supply/ Watershed

As a result of a series of state mandates, cities and counties within North Carolina have adopted ordinances with regulations that place additional restrictions on development that occurs within the drainage area for all state designated water supply watersheds. All watershed areas are not state designated water supply watersheds. A state designated water supply watershed is the entire area contributing drainage (stormwater flow) to the designated water supply reservoir or intake. These watersheds are the source of our drinking water and by limiting the amount of development we are reducing the amount of pollutants that enter into them. The minimum state standards to be enforced for each reservoir are based on a state's designation for that water supply watershed. The designation is based on the existing development pattern within the drainage area of the intake or reservoir.

The regulations concentrate on the effects of stormwater runoff on the quality of water at the intake or within the reservoir. The condition of the stormwater runoff that flows from a site to the intake or reservoir depends on the quantity of runoff and how quickly the stormwater runoff flows from the site to the intake or reservoir. These factors are directly related to the amount of built upon area (BUA) constructed on the site and the distance the stormwater must travel to get to the intake or reservoir.

There are eight state designated water supply watershed basins located within Guilford County. Each one of these watershed basins crosses two or more municipal boundaries. The regulations vary from city to county and watershed-to-watershed but must contain the

minimum state standards. The watersheds located in Guilford County are classified as either WS-III or WS-IV. The regulations associated with WS-III, which are watersheds that contain an existing development pattern that is not as urban as WS-IV, are more restrictive than the WS-IV classification.

In general, the regulations become more restrictive the closer the development occurs to the intake or the edge of the water contained in the reservoir. Two overlay districts cover designated water supply watersheds. These overlay districts serve to restrict development, so as to limit the amount of pollution that enters into our reservoirs.

It is interesting to note that the majority of the City is located in the Buffalo Creek watershed (a non-state designated water supply watershed), which drains to the Haw River and is not a part of Greensboro's water supply. Greensboro's water supply comes from three City-owned lakes on the north side of the City. The water drains into the City's lakes from the west. A large portion of the Greensboro water supply watershed is within the town limits of Summerfield.

For further information on water supply and demand, please see Water and Sewer, chapter eight.

### Air Quality

Ground level ozone, a colorless, odorless gas, is the pollutant that is most likely to lower air quality in North Carolina. Ozone is a problem in many areas across the United States. In 1999 and 2000, North Carolina was one of the top ten states in the country (ranking third, only behind California and Texas) in emissions of ground level ozone. It is a pollutant that is unhealthy and even harmful to breathe (especially for sensitive persons, such as children, the elderly, and those who have asthma), and it can cause damage to plant life.

Greensboro and many other cities are required to monitor air quality to meet state standards. Since 1997, the Triad region has exceeded state ozone standards multiple times. The exceedances are measured and recorded by unmanned monitors that take multiple readings per hour. An exceedance occurs when the standard is surpassed. The standard is averaged over an eight hour period, and is 0.08 parts per million.

Ozone data in this chapter are from measurements conducted at six sites in Forsyth, Guilford, and Rockingham Counties: Hattie Avenue, Pollirosa, Shiloh Church, and Union Cross in Forsyth, McLeansville in Guilford, and Bethany in Rockingham. The measurements were conducted from 1997 to 2002. Exceedances, which indicate the number of occurrences above the state standard, were highest (20) in Guilford County in 2002 at the McLeansville site, where 18 exceedances were recorded in 1998 and in 1999. The Union Cross site in Forsyth County registered exceedances of 18 in 1998.

### Endangered and Threatened Species

In 2000, the federal and state lists showed only one Endangered species in Guilford County, the Bald Eagle. However, on the state list, there were 14 species listed as Significantly Rare

or Of Special Concern, meaning that state or federal action could be possible in the future, and six habitats listed as Special Natural Communities. Guilford County listed a lower number of Endangered, Threatened, or "Special Concern" species than any of the other counties in the study area, except for Alamance, a county smaller in size. This was perhaps due to the urbanization of the county.

## WATER AND SEWER

### Water Capacity and Demand

Greensboro's water capacity is limited by its geography. As stated in the Natural Environment chapter (7), Greensboro is located at the headwaters (or "top of the hill") of the Cape Fear River Basin. In addition, permitting requirements and other federal regulations make it difficult to increase capacity.

### Water Supply

In the last 3 years, Greensboro has significantly expanded its ability to acquire water from other cities (up to 3 mgd from Winston-Salem and 6 mgd from Reidsville). These options will generate an increase in the City's safe yield of available water above current and projected average demand levels to 2005.

The addition of the Randleman Reservoir, which was permitted in April 2001, and is scheduled to be completed by 2005-06, will increase Greensboro's water capacity by 28 mgd or approximately 75 percent. This capacity should meet Greensboro's water needs for the next 25-35 years.

### Sewer Capacity and Demand

For the same geographical reason that the water capacity is limited, the wastewater discharge capacity is limited. In fact, long-term, the City's wastewater capacity is more problematic than its water capacity, since the approval of the Randleman Dam.

In addition, by 2002, based on recent decisions to invest in the expansion of the Osborne Plant, Greensboro had 56 mgd of sewage treatment capacity. Under current growth rates, this capacity will likely last approximately 12-15 years.

### Water/ Sewer Resources

Historically, until 1998, Greensboro followed a policy of extending water and sewer service essentially wherever it was requested and feasible. Since 1998, however, the City has adopted a policy of extending water and sewer service only to areas outside the City within a limited boundary. This change is in keeping with the clear need to more effectively manage Greensboro's limited water and sewer treatment resources. [See Water and Sewer Services Area map for boundary line.]

Since 1995, Greensboro has spent or budgeted for expenditures of \$127 million in badly

needed capital improvements for water and sewer. These investments have necessitated large increases in water and sewer rates during that same period, ranging from 47% for low volume users to 278% for high volume users. Despite these increases, Greensboro's water and sewer rates remain below the average for the 13 largest cities in North Carolina.

Long term (15 years for sewer, 25-35 years for water), Greensboro will likely have reached its limit of conventional water and wastewater treatment resources. If the City is to continue to grow, alternative methods of increasing these resources will be necessary in order to service demand. Likely alternatives would involve such measures as interbasin transfers, indirect potable reuse of treated effluent (recycling), and additional (and more stringent) conservation measures.

## TRANSPORTATION

### Operations

The Greensboro Department of Transportation provides services to Greensboro citizens through five divisions: Business/ Parking, Public Transportation, Engineering, Planning, and Operations. Services include traffic signals and signs, transportation planning, parking, the storm drainage system, street lighting, street repair and cleaning, loose-leaf removal, snow and ice removal, sidewalks, bikeways, and public transit.

### Public Transit

The Greensboro Transit Authority (GTA) provides Fixed Route, Specialized Community Area Transit (SCAT) for the disabled, Flex Route, and Auxiliary Programs. Public transit ridership has increased by 34.3 percent between FY 1997-1998 and FY 2001-2002.

### Downtown Parking

The parking system of the City provides both on- and off-street parking in the central business district (CBD). On-street parking is provided on both a metered and a time zone restricted basis. Surface lots and four parking garages provide off-street parking. Greensboro's Transportation Department maintains approximately 4,300 parking spaces in the CBD.

### Street System

The City of Greensboro is responsible for the maintenance, expansion, and improvement of the local street system. As of June 30, 2000, the local street system included 873 miles of paved streets and 3 miles of unpaved streets. The City of Greensboro receives funds annually to maintain, expand and improve city streets from a proportion of the state gasoline tax called the Powell Bill fund.

The North Carolina Department of Transportation (NCDOT) is responsible for the maintenance, expansion and improvements of primary and secondary State system routes within the City of Greensboro. The NCDOT is responsible for 236 miles of streets in Greensboro,

including the Interstate system, US-routes, and major State Routes.

The citizens of Greensboro recently passed a \$73.75 million bond package for street improvements in Greensboro to be spent over the next ten years, including \$51.5 million for roadway expansions and widening. Many of the roadway expansion and/or widening projects included in the bond package are State system streets that NCDOT does not plan to improve in the near future. See map for City and State roadway improvements planned through 2025.

### Traffic Congestion

Heavily traveled intersections, arterial streets (corridors), and freeways are evaluated periodically to assess the traffic carrying capacity of those facilities. As shown on the 1990 Traffic Congestion map, Greensboro had 21 intersections that the Department of Transportation considered highly congested, and eight miles of congested arterial streets during the a.m. and p.m. peak travel times. As shown on the 2000 Traffic Congestion map, Greensboro had 98 intersections that rated as congested or highly congested and 40 miles of congested arterial streets during the a.m. and p.m. peak travel times.

### Mode Share

In 2000, driving alone was the principal mode of travel to work in Greensboro, followed by carpooling and walking. Greensboro citizens were also driving alone at the same rate as the nation. Citizens used public transportation at a level much lower than that of the United States, but higher than North Carolina overall. Traffic congestion is a major quality of life issue in most communities, including Greensboro. Increased multi-modal use, flexible work schedules, telecommuting, and infill development, in combination with roadway widening will be needed to maintain an overall level of traffic congestion that is acceptable to the citizens of Greensboro.

### Airport

The City of Greensboro's transportation needs are also served by the Piedmont Triad International Airport (PTIA). Aircraft operations and the number of passengers flying out of PTIA increased from 1996-2000, by 5.6 percent and 7.5 percent respectively. Total cargo poundage carried (US mail, and express/ freight) declined 7.0 percent.

The average number of flights per day at the Piedmont Triad International Airport began with 65 in 1993 and increased steadily to the peak year of 1994 (149). Then a steady decline began until 1999, when another increase started, peaking with 98 flights per day in 2001. An average of 77 flights per day was seen in 2002. The diminishing number of flights was caused mainly by the loss of the hubs of various airlines including Continental, Tradewinds and Eastwinds, with other potentially negative effects being the ailing economy and repercussions from the terrorist attacks of September 11, 2001.

## SOLID WASTE

In Guilford County, there are two permitted municipal solid waste disposal facilities; the Kersey Valley Landfill, which is located in the southwestern part of the County, and the White Street Landfill, which is located in the northeastern part of the County. The Kersey Valley Landfill is owned and operated by the City of High Point. The White Street Landfill is owned and operated by the City of Greensboro.

### Landfilled and Managed Waste: Greensboro

The White Street Landfill consists of approximately 900 acres, nearly all of which is owned by the City. Approximately 94 acres of the landfill site is owned by Guilford County and is leased to the City. Phase I of the landfill was closed in 1978. Phase II of the landfill was closed in December 1997 in accordance with state regulations. In May 1997, the City issued \$16 million in special obligation bonds to finance construction of the first two cells of Phase III of the landfill, of which the first cell was completed in 1997. Cell two, constructed in the fall of 2000, began accepting waste in June of 2001. Cell three will be constructed in 2003 and is scheduled to begin filling in 2004. The life expectancy for all three cells is estimated to be 9.75 years (1998-2008).

The White Street Landfill provides disposal services for municipal solid waste, land clearing and inert debris, and for construction and demolition waste. White Street is currently the only permitted construction and demolition waste site in the County. By contract with a private company, the City provides facilities for material recovery, yard waste processing, and household hazardous waste collection. The landfill and these facilities accept waste from private haulers and individuals from within Guilford County jurisdictional boundaries. The amount of landfilled waste generated increased by 35.5 percent between FY 1997-1998 and FY 1999-2001.

The City of Greensboro provides weekly curbside solid waste, recycling, bulk trash, white goods, and yard waste collection services to nearly all single-family, housing units. In addition to the residential collection program, the city provides commercial garbage collection services to approximately 2,500 businesses, multi-family dwellings (apartments, town homes, and condominiums). The commercial recycling program provides collection services to more than 1,150 businesses. Private waste hauling companies provide collection services for waste not collected by the City, primarily commercial and industrial waste, private residential communities and waste outside the city limits of Greensboro.

*Of the waste generated in fiscal year 2000-2001, 6.9 percent was managed or kept out of the landfill, mainly through yard waste and recycling programs. The amount of landfilled waste has increased from 88.4 percent in 1997-1998 to 93.1 percent in 2000-2001. The majority of this was due to the significant increase in construction and demolition waste. The amount of solid waste actually decreased from 58.3 percent in FY 1997-1998 to 44.4 percent in FY 2000-2001. In FY 2000-2001, 5.2 percent of the city's waste was recycled, down from a high of 6.3 percent in 1998-1999.*

Between FY 1997-1998 and FY 1999-2000, Greensboro accounted for an average of 85.9 percent of the waste deposited at the White Street Landfill.



## Waste Diversion Goals: Guilford County

According to the Guilford County Solid Waste Management Division, between FY 1994-1995 and FY 1999-2000, the percent of the municipal solid waste tons diverted from the landfill have gone from a high of 15.09 percent in FY 1995-1996 to a low of 11.60 percent in FY 1998-1999. FY 1999-2000 showed an increase to 12.43 percent and estimates show the percentage should increase to an all-time high of 15.16 percent by FY 2009-2010.

The overall tons of managed waste that was diverted from the landfill in all of Guilford County increased by 4.7 percent between FY 1994-1995 and FY 1999-2000. It is estimated that the amount diverted will increase by another 40 percent by FY 2009-2010.

Between FY 1994-1995 and FY 1999-2000, the per capita municipal solid waste reduction for the entire County went from a high of 16.89 percent in FY 1995-1996 to a low of 8.78 percent in fiscal years 1998-1999 through 2000-2001. Estimates show that this percentage should increase to 10.81 percent by 2009-2010.

## POLICE

### Greensboro Crime Statistics

The Greensboro Police Department adheres to principles of community policing, highly valuing active community participation, partnerships and innovation. The department's five-year strategic plan promotes accountability at all levels and it was the blueprint for creating an infrastructure that placed as many resources as possible in a small geographic area – a trend that is expected to continue through the coming decades. The primary goal of the Police Department is to be proactive in the prevention of criminal activity and the enforcement of the law, in order to solve problems within the community.

The Total Index Crimes, a combination of total violent crimes and total property crimes, increased by 2.6 percent between 1990 and 2000 in Greensboro. From 1990-2000, the lowest number of violent crimes occurred in 1990 (1,822) and the highest number in 1993 (2,224). Total violent crimes for 2000 were 1,976. During this ten-year period, total property crimes varied between a low of 12,816 and a high of 15,921. Total property crimes in 2000 totaled 13,041.

### Greensboro Police Staffing

A staff of 675 managed 234,956 calls for service in the year 2000. By 2025, those numbers are expected to reach 1,275 and 341,161, respectively.

### Crime Statistics for Selected Cities

*In 2000, Charlotte led in the number of total index crimes at 49,413 (7,515 violent crimes and 41,948 property crimes), while Greensboro ranked sixth as compared to all comparison cities.*

## FIRE

### Department Statistics

The National Insurance Services Office rates local fire departments on a scale from 1 to 10, with 1 being the best rating and 10 indicating no fire protection at all. Since 1991, the Greensboro Fire Department has maintained a Class 1 designation. Greensboro is the only community in North Carolina with a Class 1 designation, and one of only 30 such cities in the country.

*From 1994-2000, average response time per call increased from 4.32 minutes to 4.41, down from 5.29 minutes in 1999. During the same period, average response time for emergency medical calls (Emergency Medical Services, or EMS) increased from 4.12 minutes to 5.11 minutes.*

*Between 1994 and 2000, the average response time for calls increased by 2.1 percent. There was a dramatic increase of 43 percent between 1998 and 1999, due mainly to the required change in calculating response times. Starting in 1999, response times were calculated from the time the incident was reported to the time the fire apparatus was on the scene. Prior to 1999, response times were calculated from time of dispatch to on-scene. The same holds true for EMS calls.*

### Firefighter Comparison in Selected Municipalities

Greensboro has the highest resident-to-firefighter ratio of all the comparison cities. The average of fire calls per thousand population for all of the comparison cities was 79; Greensboro had 84.7.

## SCHOOLS

### School System Statistics

The Guilford County School System is the county's largest employer, with over 7,500 employees. It is the third largest school system in North Carolina and one of the top 60 in the nation. The School System includes 280 buildings, eight million square feet of space, more than 2,800 acres of land, and 660 Buses that provide transportation for students. The System includes 97 schools: 62 elementary, 18 middle, 14 high, and 3 special schools.

### Enrollment

Guilford County's school enrollment is expected to increase significantly over the next ten years, from 62,426 in 2000-2001, to 66,168 in 2008-2009, an increase of 6%. During the same time period, projected enrollment growth within each grade level varies greatly: elementary school should have a slight decrease of 1.8 percent, middle school should experience an increase of 8.4 percent, and high school should see the highest increase, 17.7 percent. Schools will also experience significant racial diversity as a result of the increasing minority migration into Greensboro and High Point.

Between FY 1995-1996 and FY 1999-2000, full time staff declined by eight positions, while professional staff remained fairly constant.

## PARKS AND RECREATION

### Greensboro Parks and Recreation

A citizen driven Master Plan, completed in 1998, guides the Greensboro Parks and Recreation Department.

The five departmental divisions provide facilities, services, and programs on approximately 3,500 acres of parkland and over 60 miles of trails. Greensboro's long time lead in the ratio of parkland to population has now been met or exceeded by Raleigh and High Point.

The recently completed master plan includes recommendations to expand existing parkland through the addition of six community parks, 16 neighborhood parks, and 20 miles of new trails and greenways over the next fifteen years. The master plan also recommends program expansion to meet the needs of the growing City by adding 36 ball fields, five swimming pools, two recreation centers, and a community center.

Strong citizen approval of the master plan was evident during the November 2000 bond referendum in which citizens approved \$34.2 million to improve Greensboro parks and recreation facilities.

### Guilford County Parks and Open Space Inventory

The Guilford County Open Space Committee compiled an inventory of existing parkland and open space in 1999. The inventory did not include common property owned by residential associations, remaining parcels from highway construction, and utility rights of way. *The most recent calculations of major open space and parkland acreage, includes 7,042 acres of parkland, 5,380 acres of surface water, 5,274 acres of watershed land, 900 acres of farmland, and 784 acres of flood plain or open space.*

The inventory indicated that 4.7 percent of the total acreage within Guilford County is protected by some type of government ownership or conservation easement. Guilford County has a total of 417,308 land acres, of which 19,561 (including 5,380 acres of surface water) are currently protected.

## FINANCIAL CONDITIONS

The City of Greensboro has received very favorable evaluations of credit worthiness from nationally recognized credit rating agencies on its General Obligation debt issues. Standard and Poor's (S&P) and Moody's Investors Service (Moody's) have given the City of Greensboro's debt instruments their highest and second highest rating, AAA and Aa1, respectively.

The City of Greensboro's current debt burden as a percentage of the legally allowed debt limit is at the lower end of the state limit. The North Carolina limit is eight percent of the

City's total property assessed valuation. In FY 1999-2000, the City's net debt percentage was 1.5 percent.

The City of Greensboro's current net bonded debt per capita has remained relatively stable during the period from FY 1994-1995 to 1998-1999, ranging from a low of \$643 in FY 1996-1997 to a high of \$822 in FY 1997-1998.

The City has maintained an undesignated fund balance (funds set aside for emergencies and to provide working capital) of nine percent of the adopted General Fund budget. The North Carolina Local Government Commission recommends that local governments maintain a fund balance of at least eight percent of the adopted General Fund budget.

### CAPITAL IMPROVEMENTS PROGRAM

The six-year Capital Improvement Plan (CIP) includes funds for projects that will be undertaken during 2001-2007. These projects will be funded primarily with the proceeds of authorized or proposed bond sales, state and federal grants, and enterprise fund revenues.

#### Capital Improvement Projects Completed or in Progress

Bond-financed and other major capital projects completed, or in progress, include street and bridge projects, fire station replacement, water and sewer system upgrades, renovations of existing facilities, and landfill expansion.

- Fire Station Number 16 (merger is near completion and expected to be occupied in August 2001, at an estimated cost of \$2.5 million. In addition, a \$14.5 million Public Safety Training Facility is being funded from general obligation bond proceeds issued in 1998. This project is under construction and has an anticipated completion date of 2002.
- Renovations of existing City facilities are underway, including \$2.1 million for heating and lighting upgrades and remodeling of current office space. In addition, the City acquired a property in its southeastern section to be used for expansion of the Municipal Service Center and other operations. Water Resources staff will move to the new site, which is also a potential site for a new police substation and fire station. Work has also begun on upgrades to the Historical Museum's heating and ventilation system at an estimated cost of \$1.3 million.
- Three new police service centers are planned in support of the police service district concept. The first center on Maple Street opened in FY 1999-00. The other two were included in the 2000 bond referendum.
- Over \$7.5 million in signal improvements and roadway and bridge projects were accomplished during FY 1999-2000. Completed projects include street widening and improvements on Lake Brandt Road and Lawndale Drive to the City limits, Horsepen Creek Road at Drawbridge Parkway, Stanley Road, and Hilltop Road. Four additional transportation-related projects, including widening on New Garden Road, were au-

thorized and planned for construction. The New Garden Road project began construction in January 2001.

- Expansion of the Osborne Wastewater Treatment plant, estimated at a total cost of \$40 million, was completed in June 2001 for an additional 10 million gallons per day (mgd). The project has increased the plant's sewage treatment capacity to 30 mgd. Phase IV will increase the plant's sewage treatment capacity to 40 mgd and is expected to be completed in February 2003.
- Improvements to the Lake Daniel Reservoir, at an estimated cost of \$5.7 million are now complete. A water tank feeder main on Battleground Avenue was also completed and will improve water availability and distribution. Pursuant to the City's agreement with the City of Reidsville to purchase up to 5 mgd of water, construction of a new water main in the northern corridor is complete and improvements to the Reidsville Water Treatment plant are underway.
- In accordance with state regulations, the City's Phase II landfill site on White Street was closed and capped in December 1997. The City concurrently opened a new 25-acre lined cell as part of the Phase III expansion. Cell two began accepting waste in June 2001 and cell three is scheduled to begin filling in 2005. This expansion is being financed by \$16 million of Special Obligation Bonds issued in May 1997. The City intends to increase various fees and charges related to the operation of its solid waste system over the next few years to provide a source of funds to pay the related debt service.

### Bond Referendum

In November 2000, the citizens of Greensboro approved eight bond issues. These issues included \$71.8 million for street improvements, \$2 million for public transportation, \$2.8 million for neighborhood redevelopment, \$34.2 million for parks and recreation facilities, \$9.6 million for fire stations, \$7.1 million for law enforcement facilities, \$5 million for library facilities, and \$3.5 million for the Natural Science Center.

### **Conclusion**

The Greensboro City Data Book will be an annual community snapshot that is compiled and maintained as an invaluable source for comprehensive planning in the City. It will also fill a need in evaluating the impact of key issues at the county and regional levels.

Specifically, the 2001 City Data book provides Greensboro's first comprehensive examination of regional perspectives, demographic characteristics, economic conditions, zoning and land use factors, residential and commercial development and natural environment trends. Principal organizational data is provided regarding the following functions: water and sewer, transportation, solid waste, police, fire, libraries and parks and recreation. A description of the Guilford County School System is also included. Finally, data regarding financial conditions and future capital improvements programming is discussed.