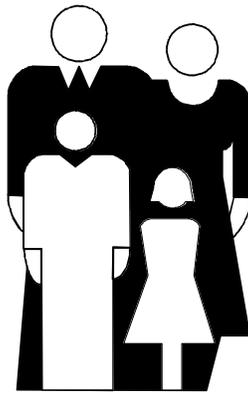


SECTION TWO: Population and Demographics



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Perhaps the most critical function of this Growth Plan is to determine what Catawba County's population and demographic profile will look like in 10 years and in 20 years. In most places, decisions regarding local government services are made based on these kinds of projections. This section explores these trends and provides projections.

Sources of Data and Projections

Several sources were used to generate the projections contained in this Report. Each of these sources are credited at the end of this Report. Among the most heavily used was information obtained from Woods & Poole Economics, Inc., located in Washington, D.C. This firm is widely considered one of the best sources for demographic data and projections. Users of their published data include local agencies and companies such as Duke Power, Bell South, Gaston County Schools and the City of Charlotte. National firms such as The New York Times, J.C. Penney, Coca Cola, and Nationwide Insurance are also customers.

All Woods & Poole projections are updated annually and heavily utilize county models that take into account specific local conditions as well as regional and national considerations. The projections are based on historical data from 1969 to 1995 (1996 for population). All data beyond 1995 (1996 for population) is projected.

Data and projections from the N.C. State Office of Planning were also used. Comparisons between State projections and projections from Woods & Poole reveal substantial compatibility in general trends although there are some differences in actual numbers.

Of course, U.S. Census Bureau data was used where appropriate. However, most Census data is nearly ten years old, thus making population projections less reliant on that information.

Regional Approach to Projections

The population projections included in this Report are a function of both projected natural increase and migration due to a wide range of factors including economic conditions. Perhaps more important is the fact that the data for Catawba County has been generated in a much more comprehensive manner than most other local and statewide projections. Many of the projections provided by Woods & Poole included herein are part of a national database of *all* states, counties and metropolitan statistical areas. The Catawba County data takes into consideration trends in area counties and metropolitan areas as well as those across the nation in employment, population change and economic growth. Most locally generated projections do not have access to such an extensive database from which to formulate data.

Margin of Error

Although not an indicator of future accuracy, the Average Absolute Percent Error (AAPE) for Woods & Poole’s 10-year total population projections has historically been 13.9% for counties across the nation. Projections for counties with populations over 100,000 (including Catawba) have had far lower AAPEs: 7.4% for eight year projections.

It is important to understand that future populations can only be projected using historical trends and a good understanding of surrounding economic forces. Population forecasts do not account for the unexpected 2,000 lot subdivision, the 1,000 unit apartment complex or the plant expansion that will facilitate 1,000 new jobs. These are occurrences that ‘buck the trend’ and could always make population projections appear in hindsight too conservative. Conversely, in making local government decisions, it is important to understand that speculatively accounting for unusual growth patterns that may never occur will likely result in over-planning, over-building and over-spending.

Population Growth

The 1990 County population based on the U.S. Census was 118,412. The estimate for 2000 is 132,100. This represents a 10.9% increase over the past ten years. Projections for 2010 and 2020 are 139,440 and 147,690 respectively, therefore the next two decades will see continued steady growth, but slower than the current decade produced.

**Table 2.1
Population Projections (Woods and Poole) - All Ages; Catawba County; 1990-2020**

	1990	1995	2000	2005	2010	2015	2020
Population	118,412	126,470	132,100	135,660	139,440	143,540	147,690
Actual Increase	--	+8,058	+5,630	+3,560	+3,780	+4,100	+4,150
Percent Increase	--	6.8%	4.5%	2.7%	2.8%	3.0%	2.9%

Source: Woods & Poole Economics, Inc., 1998.

By comparison, the N.C. Office of State Planning has projected 1990 through 2020 populations for Catawba County at a slightly higher growth rate (see Table 2.2) than the Woods and Poole figures. Both are reputable and accurate sources of population data and therefore either could be used with a reasonable degree of confidence. *For a variety of reasons, the projections and much of the other demographic data for this Report uses Woods and Poole Economics. Most notable reasons include the firm’s extensive amount of available data, its well-documented references and its reasonably accurate history in projecting demographic information. In fact, the N.C. State Office of Planning also supplements its data*

with projections supplied by Woods & Poole.

Table 2.2
Population Projections (NC Office of State Planning) - All Ages; Catawba County; 1990-2020

	1990	1998	2000	2005	2010	2015	2020
Population	118,412	131,256	134,287	140,124	146,488	151,801	157,650
Actual Increase	--	+12,844	+8,378	+5,506	+6,364	+5,313	+5,849
Percent Increase	--	10.8%	2.3%	4.3%	4.5%	3.6%	3.9%

Source: N.C. Office of State Planning, 1998.

Urbanization

Over the next few years, Catawba County is poised to become what many term an ‘urban county.’ 1997 estimates indicate that the municipal population (60,960) comprises nearly half (47.06%) of the total population of 129,540 (68,580 non-municipal population). Those figures rank Catawba as the 21st most urban (or ‘municipal’) county in the State. As would be expected, the counties of Mecklenburg (96.42% municipal), Guilford (77.14%), Durham (81.14%), Forsyth (75.3%), and Wake (74.07%) are the most statistically urban counties. Counties such as Pitt (59.22%), Orange (59.06%), Cabarrus (64.87%) and Gaston (58.28%) make up part of the second tier of urban counties. Nearby Iredell County is only 36.25% municipal. Catawba County’s neighbor to the north, Alexander County (7.42%), is the 6th least urban county in the State.

Population Density

The County was (in 1980) and is estimated to be (in 1995) one of the more densely populated counties in the State. These estimates show that the 1995 persons-per-square mile figure of 315.6 is high enough to rank 9th in the State (the 1980 figure was also ranked ninth). The new 1997 population density is 323.8. The overall State population density is 147.7 persons-per-square mile.

The Unifour

Catawba County is part of the Hickory-Morganton-Lenoir Metropolitan Statistical Area (commonly called the Unifour). This area, as a whole, has experienced twenty (20) percent growth during the 1970's, eight (8) percent growth during the 1980's and will ultimately see nearly thirteen (13) percent growth during the 1990's. Population figures for Catawba County are very similar to that of the entire region, averaging just higher than the region as a whole. However, two counties in the region, Alexander and Burke will grow by a higher percentage

by the year 2000 than Catawba County, and will grow at an overall faster rate than the Unifour area. Table 2.3 compares the growth trends of each county in the Unifour.

**Table 2.3
Population Growth & Estimates - Unifour (1980-2000)**

County	'70-'80 Change	Change	'80-'90 Change	Change	'90-'97 Change	Change	'90-'00 Change	Change
Catawba	14,335	15.8%	13,204	12.5%	11,128	9.4%	16,206	13.6%
Alexander	5,533	28.4%	2,545	10.2%	3,532	12.8%	5,185	18.8%
Burke	12,140	20.1%	3,236	4.4%	7,406	9.8%	10,783	14.2%
Caldwell	11,047	15.8%	2,963	4.3%	4,020	5.7%	5,788	8.1%
The Unifour	43,055	18.9%	21,948	8.1%	26,086	8.9%	37,962	12.9%

Source: Western Piedmont Council of Governments

Charlotte Region

Even though Catawba County is the hub County of the Unifour, it is sometimes considered part of the overall 'Charlotte Region.' Catawba has seen a more rapid rate of growth than much of the State - however, its growth over the past ten years (12.8%) has been slower than Mecklenburg (25.2%) and the Charlotte region as a whole (18.3%) and much slower than those counties which have become bedroom communities for Charlotte (e.g., Cabarrus, York, Union and Iredell). There are no indications that this growth distribution will change over the coming years. However, growth in the entire Charlotte region is expected to slow from 2000-2010 (13.5%). Only York County is expected to see a higher growth rate during the next decade. Catawba County's steady, but not explosive growth rate is an indicator of balanced growth (residential, employment, commercial investment, etc.). Counties such as Cabarrus, with limited non-residential tax bases are struggling to the extremes in meeting the needs of its burgeoning residential population. Evidence of this can be found in Cabarrus' \$0.70 tax rate, one of the higher rates in the State and perhaps the highest among the urban, 'wealthy' counties.

Table 2.4
Population Growth of Charlotte-Area
Counties, 1990-2020.

	Percent Growth 1990-2000	Percent Growth 2000-2010
Union	31.83%	19.30%
Mecklenburg	25.19%	18.34%
York	22.51%	23.28%
Iredell	22.07%	12.83%
Cabarrus	21.76%	13.89%
Lincoln	14.69%	9.82%
Rowan	14.69%	9.82%
Catawba	12.81%	8.51%
Cleveland	9.40%	3.00%
Stanley	7.44%	5.27%
Gaston	3.63%	2.37%
Charlotte Region	18.36%	13.53%

Source: U.S. Census; N.C. State Office of Planning; Catawba Regional Council.
Note: Due to different sources, and a rounding factor, Catawba County figures are slightly different than those found elsewhere in this document.

Age Distribution

The percent of the total population in the age group 0-19 is expected to decrease from 27.1% in 1990 to 25% in 2020. The percent of the total population in the age group 20-64 is expected to decrease from 60.9% in 1990 to 57.1% in 2020. The percent of the total population in the age group 65+ is expected to increase from 11.9% in 1990 to 17.8% in 2020. Of the projected population increase of 29,278 from 1990 to 2020, 41.5% (12,160), are projected to be of persons aged 65 and over.

The school age population group (age 5-19) is expected to increase from 24,290 in 1990 to 27,430 in 2000, decrease to 27,190 in 2010 and increase to 27,830 in 2020. Age groups 5-9 and 10-14 are projected to decrease from 2000 to 2010 then increase by 2020. Age group 15-19 is expected to increase from 2000 to 2010 and decrease from 2010 to 2020.

Table 2.5
Population Projections - Age 0-19; Catawba County, 1990-2020

	1990	1995	2000	2005	2010	2015	2020
Population (Woods & Poole)	30,380	32,640	34,040	34,160	33,930	34,350	35,290
Population (State Office of Planning)	30,258	34,020	33,100	33,846	34,491	33,976	35,165
Percent of Total (Woods & Poole)	25.6%	25.8%	25.8%	25.2%	24.3%	23.9%	23.9%

Source: U.S. Census Bureau, 1990; Woods & Poole Economics, Inc., 1998, Office of State Planning. *Note: 1990 census figures shown above are slightly higher for Woods & Poole due to a rounding factor used in historical data computations.*

Table 2.6
Population Projections - Age 19-64; Catawba County, 1990-2020

	1990	1995	2000	2005	2010	2015	2020
Population (Woods & Poole)	74,250	78,010	81,280	83,770	82,330	88,230	86,050
Population (Office of State Planning)	74,050	NA	83,478	87,114	90,253	92,541	93,484
Percent of Total (Woods & Poole)	62.5%	61.7%	61.5%	61.7%	59%	61.5%	58.3%

Source: U.S. Census Bureau, 1990; Woods & Poole Economics, Inc., 1998, Office of State Planning. *Note: 1990 census figures shown above are slightly higher for Woods & Poole due to a rounding factor used in historical data computations.*

Table 2.7
Population Projections - Age 65+; Catawba County, 1990-2020

	1990	1995	2000	2005	2010	2015	2020
Population (Woods & Poole)	14,200	15,810	16,780	17,730	19,600	22,890	26,360
Population (Office of State Planning)	14,104	NA	17,709	17,152	21,744	25,284	29,001
Percent of Total (Woods & Poole)	11.9%	12.5%	12.7%	13.1%	14.1%	15.9%	17.8%

Source: U.S. Census Bureau, 1990; Woods & Poole Economics, Inc., 1998, Office of State Planning. *Note: 1990 census figures shown above are slightly higher for Woods & Poole due to a rounding factor used in historical data computations.*

Several major statistical trends have been occurring in Catawba County over the past 20 years or more regarding the gain and loss of population in certain age groups. Some of these trends are projected to continue for the next twenty years as well. They are described in the following sections

An Aging Population

One trend is simply that the County's population is aging and this pattern will become more significant over the coming years. In fact, from 2010 to 2020 it is projected there will be a net population *gain* of persons age 60 and over of 8,260. This figure is significant when compared to the projected net *loss* of 120 persons under age 60 during the same ten year

period. In 1995, it is estimated only 12.5% percent of Catawba County residents were elderly (over age 65). According to the State Office of Planning, the 1995 elderly population percentage ranked Catawba County 76th in the State (84th in 1980). However the projected 20 year trend suggests that a significant increase in elderly population in Catawba County will occur. An aging population in Catawba County is not unlike the direction the rest of the nation is taking. Most of this change will be due to natural aging with some in-migration of older persons.

School Age Population

A second significant trend will be somewhat temporary but will have a significant effect on school and youth-related services. From both sources used in this Report, it is projected from 2000 through 2010, Catawba County will experience a much slower gain in children than in the previous 10 years (see Tables 2.8 and 2.9). *As shown on Table 2.6, the net loss of an estimated 2,690 child bearing adults (aged 20-29) from 1990-2000 will have some lasting impact on growth of school aged children in the coming decade.* The growth in school aged children will likely rebound slowly from 2010 to 2020. However, it does not appear that the County will experience another massive increase in school age population similar to the current decade (1990-2000) for some time.

**Table 2.8
Historical and Projected Gain or Loss of
Population, Catawba County, 1980-2020.**

Age Group	1980-1990	1990-2000	2000-2010	2010-2020
0-9	-140	1,440	-50	1,270
10-19	-1,300	2,020	120	-80
20-29	710	-2,690	2,040	190
30-39	3,730	480	-3,800	2,320
40-49	4,780	4,470	-400	-3,800
50-59	780	4,680	3,790	-20
60-69	1,870	300	4,210	3,860
70-79	1,790	1,460	310	3,730
80+	1,120	1,120	1,110	770
Totals	13,340	13,280	7,330	8,240

Source: U.S. Census Bureau, 1980-1990; Woods & Poole Economics, Inc., 1998.

Table 2.9
Historical and Projected Gain or Loss of
Population, Catawba County, 1980-2020

Age Group	1990-2000	2000-2010	2010-2020
0-5	908	-123	775
6-13	2,243	-165	261
14-18	-309	1,679	-362
19-44	1,334	-921	1,367
45-64	8,094	2,926	1,864
65+	3,605	4,035	7,257
Totals	17,865	9,431	11,162

Source: N.C. Office of State Planning.

Student Enrollment

In the 1990s, Catawba County has experienced significant growth in both the general population and its school age population. From the five year period 1991-92 through 1996-97, enrollment in the Catawba County system increased 1,731 students (13.4%). The Hickory system increased by 174 students (4.2%). In the three years since the 1996-97 school year, the Catawba County system has added an additional 772 students.

Table 2.10
Actual Enrollment, Catawba County, Hickory and Newton Conover Schools
1996-97, 1997-98 and 1998-99.*

	1996-97	1997-98	Change 96-97 to 97-98	1998-99	Change 97-98 to 98-99	Change 96-97 to 98-99
Hickory	4,271	4,464	+193	4,346	-108	+85
Catawba County	14,608	14,884	+276	15,380	+496	+772
Newton-Conover	2,696	2,763	+69	2,769	+6	+75
Totals	21,575	22,111	+538	22,495	+394	+932

Source: Hickory, Catawba County and Newton Conover School Systems, 1998. * Actual membership is derived differently by each district therefore these figures are for general information and not intended to be uniformly calculated.

Newton-Conover has experienced a decrease of 190 students (-6.6%) from 1991-92 through 1996-97. However, it has gained 75 students over the past three years. The average impact per year from 1991-92 through 1998-1999 has been an additional 312 students in Catawba and 32 students in Hickory and a decrease of 14 students in Newton-Conover. These historical patterns are consistent with the statistics described in other parts of this section. The historical pattern reveals that the school age population (ages 5-17) grew by 12.8% from 1991-96.

The actual 1996-97 public school enrollment represented only 92.4% of the total school age population. This is not uncommon for a number of factors: 1) some five-year olds are not yet in school; 2) some older children have graduated or dropped out and; 3) some children are in private school or are home schooled. Considering these factors, the historical school age population and the actual enrollment are relatively compatible numbers. During the 1991-96 period, the total population in Catawba County grew by 7.5%.

Table 2.11
School Age Population and School Enrollment;
Catawba County; 1991-96 and 1996-2005.

	1991-1996 actual	Change	1996-2005 projected	Change
Ages 5-17	+2,640	+12.8%	+760	+3.3%
School Enrollment ²	+1,715	+8.6%	+2,666	+12.4%
Total Population ¹	+8,980	+7.5%	+6,570	+5.1%

Sources: 1 - Woods & Poole Economics, 1998 (figures are for all of Catawba County);
 2 - Pro Ed Fact Finding Study, 1997 (figures are for all three *public* systems).

A 1997 Study - Fact Finding Study with Organizational Options by Pro-Ed, Inc. - projected a growing school enrollment over the coming nine years, especially in the County system.

Table 2.12
Projected Change in Student Membership by School System; Catawba
County; Fact Finding Study (Pro-Ed, Inc.); 1996-97 through 2005-06.

Catawba County	% change	Hickory	% change	Newton- Conover	% change
2,578	17.6	241	5.6	-153	-5.7

Source: A Fact Finding Study: A Study with Organizational Options for the Catawba County, Hickory and Newton-Conover Schools, Pro Ed, Inc., Fall 1997.

The Pro-Ed Study forecasts a slower growth rate than has been experienced over the past decade. The Study used statistics from the NC Department of Instruction which used a Revised Cohort Survival Method similar to the method used for the other population

projections included this section.

Table 2.13
Projected Student Membership by School System; Catawba County;
Fact Finding Study (Pro-Ed, Inc.); 1996-97 through 2005-06.

Year	Catawba County	% change	Hickory	% change	Newton- Conover	% change
1996-97	14,608		4,271		2,696	
1997-98	14,960	2.4	4,326	1.2	2,652	-1.7
1998-99	15,342	2.5	4,357	0.7	2,623	-1.0
1999-00	15,717	2.5	4,398	0.9	2,597	-2.8
2001-02	16,377	2.0	4,459	0.4	2,566	-0.6
2002-03	16,698	2.0	4,500	0.9	2,579	-0.5
2003-04	16,901	1.2	4,517	0.3	2,565	-0.5
2004-05	17,082	1.1	4,516	-.02	2,560	-0.2
2005-06	17,186	0.6	4,512	-.09	2,543	-0.7

Source: A Fact Finding Study: A Study with Organizational Options for the Catawba County, Hickory and Newton-Conover Schools, Pro Ed, Inc., Fall 1997.

The finding that there will be a slower growth rate is consistent with the other findings of this Report. However, there are some significant discrepancies between the Pro-Ed Study and this Report. First, each study agrees that the estimated 2000 population will be around 132,100. Second, each study agrees that the rate of school age growth (or school membership) will be slowing over the next ten years. The Pro-Ed Study also predicted growth to the north and east of Hickory, Newton and Conover; in the 321 Freeway corridor; and in the Lake Norman area. These findings are all reasonable and consistent with other findings in this section.

The primary area where the two studies have conflicting findings concerns the projected rate at which the school population will grow. The following explanation is somewhat difficult to follow but is necessary to reach a reasonable conclusion regarding future school populations. As described in previous sections, the total school enrollment in 1996-97 was only 92.4% of the total school age population. Based upon that being correct, the Pro Ed Study's 2005-06 projection would result in the school enrollment being greater than this Report's projected school age population (100.6%).

However, the primary conflict between the two studies can be found in the percent of total population figures. In 1991 the school enrollment represented 16.5% of the total population. In 1996 this figure climbed to 16.7% of the total. These are historical figures with a small

margin of error. In the Population and Demographics Section of this Report, it is projected that the 2005 total population for Catawba County will be 135,660. Based upon both study's agreement of a 2000 population of around 132,100, this projection seems reasonable.

Using those figures, this Report projects an increase in *total population* from 1996-2005 of between 5.1 and 8.4% (using Woods and Poole Economics and the N.C. State Office of Planning as the primary sources). The Pro Ed Study projects a 12.4% increase in *school enrollment alone* from 1996-2005. If this school population growth projection were accurate and the total population growth was even comparable, the Pro Ed projection would result in a 2005 population of well over 145,000, a figure that is five to ten thousand more than the other reliable projections used in this Report.

Finally, it is evident from all sources, that the younger population will *not* be growing faster than the general population, nor will its percentage of the total population grow over the next five years. Over the next few years there will likely be no major shift in the percentages of total population. However, it is clear that the County population is slowly beginning to get older and the population under age 19 will no longer dominate the growth trends.

In summary, the County's school population will continue to grow during the coming ten years, but not at the overwhelming pace that has occurred over the past few decades.

Summary of Population Growth Trends

Historical Trends from 1980 to 1990:

- ◆ Only 22% of the population growth was under age 40.
- ◆ 40% of the population growth was over age 50.
- ◆ There was a net loss of 1,400 persons under age 20 (school years).

Projected Trends from 1990-2000:

- ◆ There will be a net loss of 440 persons under age 40.
- ◆ There will be a net loss of 2,690 persons aged 20-29 (child bearing years).
- ◆ 65% of the population growth will be over age 60.

Projected Trends from 2000-2010:

- ◆ Catawba County will see a net loss of 2,090 persons under age 50.
- ◆ There will be a net loss of 4,200 persons aged 30-49 (prime workforce years).
- ◆ Nearly 80% of the population growth will be age 60 or older.

Projected Trends from 2010-2020:

- ◆ There will be a net gain of 3,700 persons under age 40.
- ◆ There will be a net loss of 3,820 persons aged 40-59 (financial growth years).

- ◆ Fifty-three percent of the County’s population growth will be over age 70.

Racial Distribution

Race and ethnicity are often very difficult to quantify and such statistics, by nature, are sometimes very inaccurate. Therefore, the following figures and projections should be used with caution when making growth related decisions that have racial and/or ethnic implications.

The 1990 racial breakdown of persons in Catawba County is not unlike many other Piedmont and western North Carolina counties: White (90.02%), Black (9.07%) and Other Races (0.91%). The 1990 Census-reported Hispanic population was 0.78% (Note: the U.S. Census Bureau defines “Hispanic” as an ethnic group and not a race). Statewide, Catawba County ranks 30th in the percentage of Whites, 6th in the percentage of Blacks, and 42nd in the percentage of Hispanics.

Table 2.14
Population Projections by Race and Ethnic Group, Catawba County, 1980-2010.

	1980	1990	change 1980-90	2000 projectio n	change 1990-00	2010 Projectio n	change 2000-10
White	95,430	106,970	12%	118,140	24%	123,890	5%
Black	9,740	10,689	10%	12,220	25%	13,360	9%
Hispanic*	370	930	251%	1,950	127%	2,200	13%
Other*	390	1,080	277%	1,740	46%	2,580	48%

Source: U.S. Census Bureau, 1980, 1990; Woods & Poole Economics, Inc., 1998.

Hispanic and Asian Populations

For the past 20 years, the County has seen a significant increase in both Hispanic and Asian populations. This was especially true during the 1980s with growth rates over 250% for both categories. It is projected that as this decade ends in a little over a year, the County will have experienced an additional 127% growth in the Hispanics population and a 46% increase in ‘Other’ populations (including Asians - Hmong, Vietnamese, etc.). This trend is projected to slow significantly from over the coming decade but these groups will still represent the fastest growth among all racial and ethnic groups in the County. In 1990 Hispanics represented 0.78% of the population (42nd in the State). It is projected that in 2010, the percentage will be 1.85% - higher but only ranked 61st in the State. Therefore, it appears that other parts of

the State will likely see higher Hispanic growth.

White and Black Populations

White and Black population distributions have not experienced any significant changes over the past 20 years. That trend will likely remain the same.

Birth Statistics

In 1995 Catawba County had a birth rate (13.8 - per 1,000 population) near the State average of 14.1. The County's State birth rate ranking was 54th in 1980. In 1995, eight percent of all Catawba County births were low-weight babies, near the State average but ranked 65th statewide. The average teenage pregnancy rate (1993-1995) for Catawba County (9.3) was almost identical to the State average.

Health Care

The average (1993-95) non-elderly death rate for Catawba County was 2.9, below the State average and ranked 81st statewide. This later figure reflects the relatively high level of accessibility to health care for Catawba County residents. The County has one of the lowest number of medicaid-eligible patients per 1,000 population in the State (123.2/1,000), ranked 90th statewide. This is a reflection of the County's wealth and higher income and low unemployment described later in this section. Perhaps the ultimate indicator of a community's health is how many people go to the hospital. In 1993, Catawba County had one of the lower number of hospital discharges per 1,000 population (100.8) in the State (ranked 71st). This is an improvement from 1980 when Catawba County was ranked 5th statewide.

Labor Force and Commuting Patterns

The 1995 estimated total resident labor force was 72,810. The County is consistently ranked in the top 10 statewide in the size of its labor force. However, this labor force only represents a portion of the total County employment. In 1995, total County employment was 106,100. The estimated *employed* resident labor force was 69,720. This results in what amounts to 36,380 non-Catawba County residents commuting into Catawba County to work (in 1995). In other words, more than one-third of all persons employed in Catawba County live elsewhere. In 1990 the 'Commuting Ratio' (county employment divided by resident employment) was 1.3 - ranked third in the State. Based upon the above described estimates, the 1995 Commuting Ratio is now even higher at 1.5.

In some respects, Catawba County relies on Charlotte for certain things such as entertainment and shopping alternatives and for attracting new business investment. However, Catawba County does not rely on Charlotte for significant employment opportunities. In 1990, of the eleven Charlotte Region counties, Catawba County was 10th in the number of commuters

traveling to Mecklenburg County to work. Only Cleveland County had a smaller number. Distance plays a significant part in this pattern, however the strong Unifour economy is also a factor in keeping the labor force local. In fact, Hickory and Catawba County are similar, albeit smaller, to Charlotte and Mecklenburg County in serving as a regional entertainment and employment hub. These issues are described further in the ‘Transportation and Traffic Circulation’ section of this Report.

Job Distribution

The percent of jobs in manufacturing is projected to decrease from 43% in 1990 to 35.3% in 2020. Despite the projected decrease in manufacturing employment, Catawba County will long have a significant manufacturing base as part of its economy. In 1990, the County ranked 6th in the State in the percent of employment in manufacturing. The percent of jobs in services is projected to increase from 14.4% in 1990 to 19.2% in 2020. Non-farm employment is estimated at 111,030 in 2000 and projected to 133,230 by 2020. Farm employment is currently less than one (1) percent of total employment in Catawba County (ranked 91st in the State). A trend of continual decline in farm employment is expected through 2020. Other, more detailed employment and economic data is included in the ‘Economic Development’ section of this Report.

Table 2.15
Job Distribution Projections; Catawba County, 1990-2010

	1990	2000	2010
Manufacturing	42,370/ 43%	44,060/ 39%	46,180/ 37%
Services	14,200/ 14%	19,110/ 17%	22,530/ 18%

Source: Woods & Poole Economics, Inc., 1998.

Unemployment

Current unemployment in Catawba County is not as low as it is in the three largest metro areas of North Carolina (all less than 2.5%). However, the Hickory-Morganton-Lenoir MSA (the Unifour) ranks 4th in N.C. right behind the Triad in December 1997 unemployment rates (3.2%). This low unemployment rate is generally a positive statistic and does indicate a vibrant and healthy economy. However, sustained low unemployment means that certain labor-intensive economic investments may come at a more cautious pace due to the lingering question of worker availability.

Per Capita Income

Catawba County is one of the wealthier, more affluent counties in North Carolina. The trend over the next 10 years will be for the County to become wealthier and for incomes to steadily

increase. Currently, Catawba County ranks 11th out of 100 counties in the State in per capita income (\$23,480 in 1996). By comparison, Iredell County and Johnston County had significantly lower per capita incomes (1996 per capita income of \$21,713 and \$20,236, respectively) with Iredell showing a trend of slower income growth. This ranking is expected to improve slightly through 2020 to 9th position. From 1990-1996, Catawba County has enjoyed the largest percent increase in per capita income (48.7%) in the Charlotte-region. This increase was greater than Mecklenburg County (45.5%). Catawba County's 1996 per capita income is second only to Mecklenburg in the twelve Charlotte-region counties.

Table 2.16
Per Capita Income Projections;
State Rank for Catawba County
and Comparison Counties, 1990-2010

	Catawba	Johnston	Iredell
1990	11	32	20
2000	10	26	21
2010	10	27	22
2020	9	26	32

Source: Woods & Poole Economics, Inc., 1998.

The previous table compares Catawba County with two counties that are similar in population and which are experiencing high growth and the residual effects and problems this development brings. Iredell County is growing at a very high rate due to its proximity to Charlotte. This growth has brought school overcrowding, water and sewer line extension requests, and traffic problems. However, Iredell is also experiencing the economic development bonuses and increased tax base that also follows this growth. These factors have allowed the Iredell County Board of Commissioners to keep the tax rate low. Johnston County is also experiencing high growth. However, due to attractive commercial and manufacturing sites elsewhere, and its designation as an overall bedroom community to Raleigh, Johnston County is not benefitting in the same ways as Catawba and Iredell. This lack of non-residential development has caused Johnston County to levy one of the highest tax rates in the State to pay for school improvements and other related growth problems. Therefore, this comparison (and several that follow) is important to show Catawba County in relation to similar, but altogether distinct counties, which are facing similar growth issues.

Wealth

Similar to the growth trend in income, Catawba County is expected to become wealthier than the average United States county by 2010. Wealth can be determined by a 'Wealth Index' which is a measure of income that is heavily weighted for incomes derived from dividends,

investments and rental income. The figures are shown as either above or below the national wealth benchmark of 100. Comparison counties, Johnston and Iredell, will continue to remain well below the national average, with Iredell actually becoming less wealthy.

Table 2.17
Wealth Index; Catawba County and Comparison Counties, 1990-2010

	Catawba	Johnston	Iredell
1990	97.6	79.9	87.7
2000	99.7	83.0	88.2
2010	100.7	82.4	87.1
2020	101.8	81.9	84.8

Source: Woods & Poole Economics, Inc., 1998. Note: USA = 100.

Poverty

The percent of households with very low incomes (less than \$10,000) in Catawba County is among the lowest in the State. This trend will continue such that by 2020 Catawba County will experience a nearly four-fold decrease in households with very low incomes. Catawba County also had the *lowest* poverty rate (7.1%) in the State in 1989 (the most recent year such figures are available).

Table 2.18
Percent Households with Incomes less than \$10,000; Catawba County and Comparison Counties, 1990-2010

	Catawba	Johnston	Iredell
1990	12.1	21.2	14.7
2000	9.3	15.8	11.7
2010	7.0	12.4	9.6
2020	4.6	9.0	7.5

Source: Woods & Poole Economics, Inc., 1998. Note: Figures reflect 1990 dollars.

Retail Sales

Catawba County and the Unifour are fortunate to have a very diverse and healthy economy. One segment of the economy where the Unifour and Catawba County have grown is in retail sales. Catawba County ranks 6th in the State in retail sales per household. This trend is projected to improve slightly over the next 10 years then hold steady until 2020. Of all Metropolitan Statistical Areas in the State, Catawba County ranks 6th in median household

Effective Buying Income (“disposable” or “after tax income”) at \$30,727. This ranking is ahead of the Asheville, Greenville and Wilmington MSA’s.

Table 2.19
Specific Economic Indicator Rankings - Selected Regions 1997

Region/MSA	Effective Buying Income	Retail Sales per Household
Charlotte-Gastonia-Rock Hill	1	1
Raleigh-Durham	2 (tie)	2
Greensboro-Winston-High Point	2 (tie)	3
Fayetteville-Cumberland	4	5
Hickory-Morganton-Lenoir	5	4
Wilmington-New Hanover	6	7
Asheville-Buncombe	7	6
Jacksonville-Onslow	8	8

Source: Western Piedmont Council of Governments

Effective Buying Power

Nationally, the Unifour ranks in the top half of 320 metropolitan areas in the areas of Effective Buying Income (155th), the Buying Power Index, “the ability to buy” expressed as a percentage of the total US market (154th) and Total Retail Sales (154th). As would be expected, the Unifour is ranked highest in Furniture/Home Furnishings/Appliance Sales (ranked 115 of 320).

Note: Other retail sales and economic data are included in the ‘Economic Development’ section of this Report.

Education - Varied Indicators

Catawba County’s rankings in the area of education are significantly varied, with both positive and negative rankings. For instance, the 1994 high school drop out rate (6.3%) was among the lowest in the State (ranked 9th). However, the County’s 1995 total per pupil expenditures of \$4,637 is among the lower levels in the State (ranked 69th). However, it is important to note that Catawba County’s per pupil local expenditures for education (\$961 for current expenses) ranks very high (29th in the State). When local expenditures for capital and

debt service expenses are added to the current expenses - resulting in a total of \$1,863 - Catawba County ranks even higher (12th in the State).

Catawba County residents are completing higher levels of education than in past years. In 1990, more than fourteen percent of County residents had completed four years of college (69% increase from 1970). However, during the same time frame, Johnston and Iredell counties experienced bigger increases in levels of higher education (164% and 103% respectively).

Table 2.20
Percent Population 25+ completing
four years of College or more; Catawba County
and Comparison Counties, 1970-1990

	Catawba	Johnston	Iredell
1970	8.4	4.2	5.8
1980	11.3	7.1	9.2
1990	14.2	11.1	11.8

Source: U.S. Census, 1970, 1980, 1990.

SAT Scores

Catawba County continues to excel in education performance as indicated by the average 1995 SAT score of 894 - good enough for a State ranking of 9th. When compared to Johnston County (61st) and Iredell County (45th) it becomes evident what a different county Catawba is. The 1996, 1997 and 1998 SAT statistics reveal even higher scores for Catawba County schools, most of which have been above the State average (see Table 2.21). In all three years, the seven Catawba County high schools (from all three systems) collectively scored higher than the State average. Three of the high schools in the County (Hickory, Fred T. Foard and St. Stephens) had average scores well over 1,000 in all three years (1996-98). *Note: The College Board (publisher of the SAT) and the N.C. Department of Public Instruction caution against comparing SAT scores when there are significant differences in the percent of students tested in a given year. The data collected for Catawba County and the State (1996-98) revealed a reasonably consistent percent tested (around 50% for most Catawba County schools, 60% for the State). However, a far higher percentage of Hickory High students took the SAT in these three years (more than 80%). With this one exception, these comparisons certainly appear to be valid and useful.*

Table 2.21
Scholastic Aptitude Test (SAT) Scores,
Catawba County, 1996, 1997 and 1998.

	1996	1997	1998
Bandys	1006	1020	972
Bunker Hill	995	938	952
Fred T. Foard	1010	1016	1039
Hickory	1026	1015	1034
Maiden	932	1002	884
Newton-Conover	954	954	956
St. Stephens	1059	1021	1044
Catawba County*	997	995	983
North Carolina	976	978	982

Source: N.C. Department of Public Instruction. * Avg. of scores from all three systems.

School facilities and capacities and other growth related issues involving schools are explored in the 'Schools' section.

Distribution of Housing Types

At the time of the 1990 U.S. Census, there were 49,192 housing units in Catawba County. Of those units, 32,988 (67%) were site built, single-family detached dwellings; 7,790 (16%) were mobile homes; and 8,414 (17%) were duplex, condominium or apartment units. An alarming trend of increasing mobile home permits has become evident in recent years. 1994 was the first year on record that the number of manufactured home permits was higher than stick built home permits. This began a trend that continued until 1997, when stick built homes out-gained manufactured homes. However, in 1998 the number of manufactured home permits again surpassed traditional stick built housing permits. This matter is explored in more detail in the 'Land Use and Development Section.'

The Catawba Valley MLS also reveals that a significant number of homes are being listed in an affordable price range. In the second quarter of 1997, 32% of all homes listed were listed with an asking price of between \$70,000 and \$110,000. An additional 30% were listed in the \$110,000 to \$150,000 range. This issue is explored further in the 'Land Use and Development Section.'

Population Distribution: Census Tracts and Planning Areas

The U.S. Census Bureau has divided Catawba County into 18 census tracts. Tracts 104, 105, 106, 107, 108, 109 and 110 are predominately in the City of Hickory. Tracts 112 and 113 include most of the City of Newton. The City of Conover is generally located in tracts 101, 102 and 113. The City of Claremont is located in tracts 101 and 114. Hickory also extends into tracts 103 and 111. Newton extends partly into tract 117 incorporating most of the Startown community.

Tract sizes vary from one-half square mile (tract 108) to 72.8 square miles (tract 115). To ease in the discussion and review of this information, Planning Areas (hereafter referred to as “P.A.”) with more descriptive names have been given to these tract numbers (see below). *It should be noted that the area typically associated with the Mountain View community is actually located in three Planning Areas (census tracts) and therefore may appear to be a slower growth area when the opposite is actually true.* Unfortunately this is a function of the limited amount of data available to accurately project future growth distribution patterns.

Table follows.

Table 2.22
Planning Area/Census Tract Size

Tract	Square Miles
101: Northeast (Oxford area & Riverbend Park)	36.40
102: North-Central (Clines, north & west Conover)	25.80
103: St. Stephens	18.00
111: West-Central (part of Mtn. View, part of 321 Freeway)	23.40
112: W. Newton	5.00
113: E. Newton	10.50
114: East-Central (part of Claremont, Murray's Mill area)	30.10
115: Southeast (Lake Norman, Sherrills Ford, Terrell)	72.80
116: South (east Maiden and southwestern side of Hwy. 16)	36.00
117: South-Central (west Maiden, part of 321 Freeway)	48.10
118: Southwest (part of Mtn. View, Jacobs Fork area)	69.70

* does not include Hickory Area Urban tracts

Methodology of Geographic Distribution Projections

For the purposes of this study, population projections by census tract have been made by allocating the projected county-wide population to the various census tracts based upon the share of residential building permit activity that occurred in the census tract during the period 1991-1997.

The City of Hickory issues its own building permits. Unfortunately, the City did not begin keeping building permit data by census tract until 1996. Therefore it is impossible to project

future population growth in a particular area of the Hickory Urban Area (including tracts 104, 105, 106, 107, 108, 109 and 110). According to the April 1998 Economic Indicators Newsletter (distributed by the Western Piedmont Council of Governments) much of the City of Hickory (tracts 104, 107, 108, 109 and 110) had no significant residential building activity during 1996 or 1997. However, over that two year period 56 permits were issued within Tract 105 and 28 permits were issued in Tract 106. These two tracts are in Northwest Hickory where there is still vacant land available for development. It is likely these are the areas where the City will experience most of its new growth. Due to the data limitations, projections for the Hickory Urban Area are not included in this Report.

It should be noted that from 1970 to 1990, the seven tracts in the Hickory Urban Area described above had combined population gains of 3,547 persons and losses of 3,225 persons for a total net gain of only 322 persons (or 1% growth over a twenty year period). Most of the losses in population were in the aging southern parts of Hickory (tracts 107-110). Tracts 104-106 all had healthy growth over the twenty year period. Table 2.23 shows these historical trends in the Hickory Urban Area.

Table follows.

Table 2.23
Population Change, Hickory Urban Area, 1970-1990.

Census Tract	Absolute Change 1970-80	Percent Change 1970-80	Absolute Change 1980-90	Percent Change 1980-90	Absolute Change 1970-1990	Percent Change 1970-1990
104	-58	-0.7%	1,947	23.9%	1,889	23.1%
105	366	8.1%	730	15.0%	1,096	24.3%
106	111	2.0%	393	6.9%	504	9.0%
107	-435	-14.0%	-251	-9.4%	-686	-22.1%
108	-398	-43.2%	-64	-12.2%	-462	-50.1%
109	-477	-9.1%	-434	-9.1%	-911	-17.4%
110	-494	-11.9%	-614	-16.7%	-1,108	-26.6%
Totals	-1,385	-4.4%	1,707	5.6%	322	1.0%

Source: U.S. Census Bureau, 1970-1990.

Historical & Projected Population of Planning Areas

In 1990, St. Stephens (tract 103) and Northeast Hickory (tract 104) were the largest in population. By 2000, St. Stephens (tract 103) with a population of 15,176 and the North-Central Planning Area (tract 102) with a population of 10,776 are projected to be the largest in population. St. Stephens (15,763) and North-Central (11,994) are again projected to be the largest in population in 2010. That trend is projected to continue to 2020 when St. Stephens will have a population of 16,423.

Population Growth of Planning Areas

The Southeast P.A. (tract 115) with a population increase of 2,313 and the North-Central P.A. (tract 102) with a population increase of 2,272 are projected to be the largest gainers in population between 1990 and 2000. The Southwest P.A. (Tract 118) will be third with an increase of 1,548. It is likely that most of the Southwest growth is attributed to new home building in the Mountain View community. The Southeast with a 2000-2020 gain of 2,636 and the North-Central with a 2000-2020 gain of 2,588 will lead in that category. The third highest gains in the 2000-2020 period will be the Southwest with 1,762 persons.

Table 2.24
Historical and Projected Population
by Census Tract, Catawba County, 1970-2020. (Continued on next page)

Tract	1970	1980	1990	2000	2010	2020
101: Northeast	4,329	5,740	7,034	8,375	9,094	9,903
102: North-Central	5,205	7,227	8,504	10,776	11,994	13,364
103: St. Stephens	8,981	12,110	14,081	15,176	15,763	16,423
111: West-Central	5,346	6,465	7,313	8,244	8,743	9,304
112: W. Newton	5,319	5,500	5,425	5,671	5,803	5,952
113: E. Newton	6,013	6,078	6,001	6,727	7,116	7,553
114: East-Central	3,286	4,800	6,035	6,993	7,501	8,084
115: Southeast	4,889	6,440	8,101	10,414	11,656	13,050
116: South	5,310	6,396	6,951	7,991	8,548	9,175
117: South-Central	5,355	7,048	8,508	9,726	10,379	11,113
118: Southwest	5,091	7,040	8,388	9,936	10,766	11,698
Totals	59,124	74,844	86,341	100,029	107,369	115,619

Source: Benchmark, Inc; Western Piedmont Council of Governments. *Note: Table does not include Hickory Urban Area.*

Table 2.25
Historical and Projected Percent Change in Population
by Census Tract, Catawba County, 1970-2020.

Tract	% Change 1970- 1980	% Change 1980- 1990	% Change 1990- 2000	% Change 2000- 2010	% Change 2010- 2020	% Change 1990- 2020
101: Northeast	32.59%	22.54%	19.06%	8.59%	8.90%	40.79%
102: North-Central	38.85%	17.67%	26.72%	11.30%	11.42%	57.15%
103: St. Stephens	34.84%	16.28%	7.78%	3.87%	4.19%	16.63%
111: West-Central	20.93%	13.12%	12.73%	6.05%	6.42%	27.23%
112: W. Newton	3.40%	-1.36%	4.53%	2.33%	2.57%	9.71%
113: E. Newton	1.08%	-1.27%	12.10%	5.78%	6.14%	25.86%
114: East-Central	46.07%	25.73%	15.87%	7.26%	7.77%	33.95%
115: Southeast	31.72%	25.79%	28.55%	11.93%	11.96%	61.09%

CURRENT CONDITIONS REPORT

116: South	20.45%	8.68%	14.96%	6.97%	7.34%	32.00%
117: South-Central	31.62%	20.72%	14.32%	6.71%	7.07%	30.62%
118: Southwest	38.28%	19.15%	18.45%	8.35%	8.66%	39.46%
Totals	15.36%	15.85%	7.34%	7.68%	33.91%	

Source: Benchmark, Inc; Western Piedmont Council of Governments. *Note: Table does not include Hickory Urban Area.*

Population Density of Planning Areas

Outside of the urban tracts of Hickory and Newton (104-110 and 112-113), St. Stephens and the North-Central are projected to be the most densely developed in the year 2020 with a persons per square mile figure of 912 and 518 respectively. 912 persons per square miles is the equivalent of 1.4 persons per acre and 518 persons per square miles is the equivalent or 0.8 persons per acre.

The largest gains in persons per square mile from 1990 to 2020 will be the North-Central P.A. with 188.4; Tract 113 (eastern part of the Newton Urban Area) with 147.8; and St. Stephens with 130.1.

Graph 2.1

Absolute & Projected Population Growth

