City of Raleigh Data Book 2014

Chapter 1: Introduction

The Data Book is an annual publication of updated community information collected by City of Raleigh Department of City Planning staff. The Data Book builds upon the larger, more comprehensive "Community Inventory Report: Background Studies for the Comprehensive Plan" published in 2008. The Community Inventory Report remains the analytical basis for the City of Raleigh's 2030 Comprehensive Plan and is accessible on-line: http://www.raleighnc.gov/cp

Annual Updates

The City of Raleigh 2030 Comprehensive Plan, adopted in November 2009, provides implementation instructions regarding the monitoring of existing conditions (Action Item IM 3.3). More specifically, Action Item IM 3.4, "Data Book Updates", states that data in the report will be updated every year.

The Data Book is published annually on-line in conjunction with population estimates conducted by city staff that occur in July and January of each year. It focuses on topical areas of the Community Inventory Report which have been reviewed through comprehensive planning initiatives during the previous calendar year, with a data benchmark point of December 31st whenever possible. All figures and tables are for the city of Raleigh corporate limits unless otherwise specified. The Data Book updates and/or accompanies the Community Inventory Report chapters, listed below and correlated to 2014 Data Book chapters.

Community Inventory Chapter **Page**

List of Figures and Tables (next page) provides links to data within the 2014 Raleigh Data Book

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Chapter 2: Demographics and Household Trends

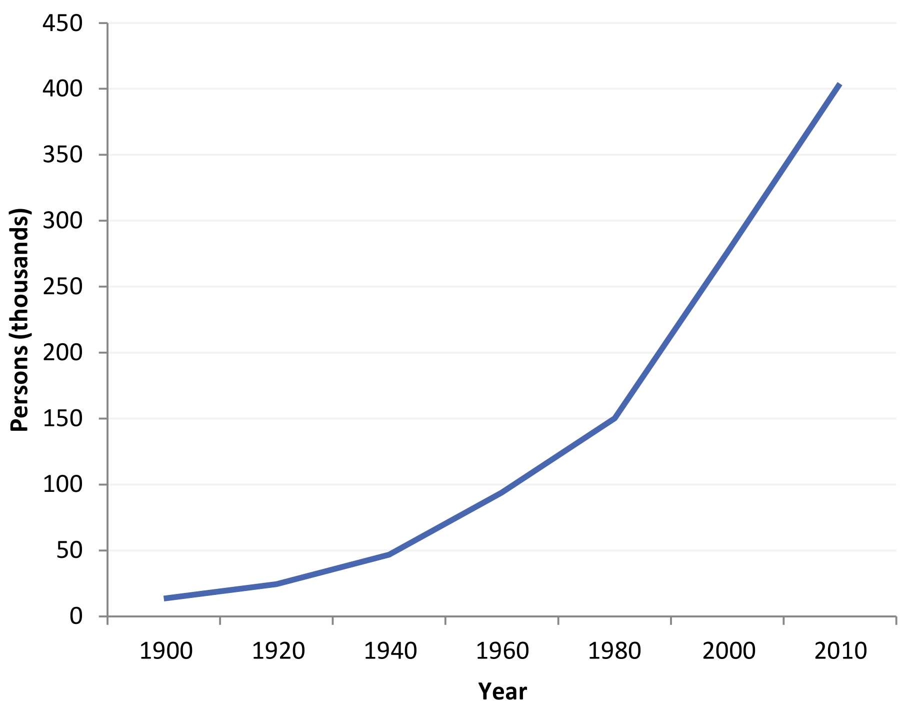
With a population increase of 56% from 2000 to 2013, Raleigh is one of the fastest-growing cities in the country. This chapter provides the most up-to-date data available for understanding the characteristics of the individuals and households that make up the population of Raleigh.

The data presented in this chapter have been drawn from a variety of sources. The decennial census count numbers provide the baseline for household and population estimates released in the intervening years. The American Community Survey of the U.S. Census Bureau provides detailed demographics, summarized over time from sample data. The U.S. Census Bureau's Population Estimates Program provides population estimates between the census years. Building permit data also gives an overview of recent trends in housing construction.

2.1 City Population & Household Trends

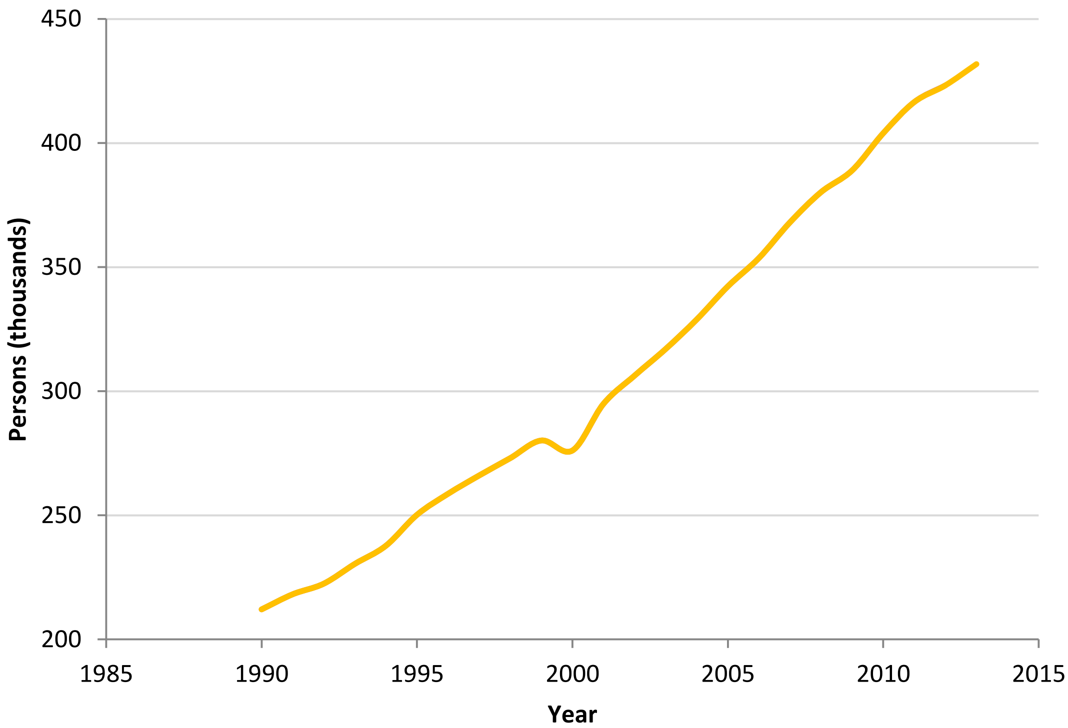
The most recent Census population estimates reflect Raleigh's continued growth (see Figures 2.1 and 2.2). In 2013, Raleigh was estimated to have a population of 431,746– a 2.0% increase from the previous year (see Table 2.1). The number of housing units has also grown, with an estimate of 184,844 units in 2013 representing an increase of 2.6% from 2012 (see Table 2.2). Population and housing unit density has also increased slightly continuing the upward trend seen over the last few years (see Figure 2.4).

Figure 2.1 Census Population Count, 1900 – 2010



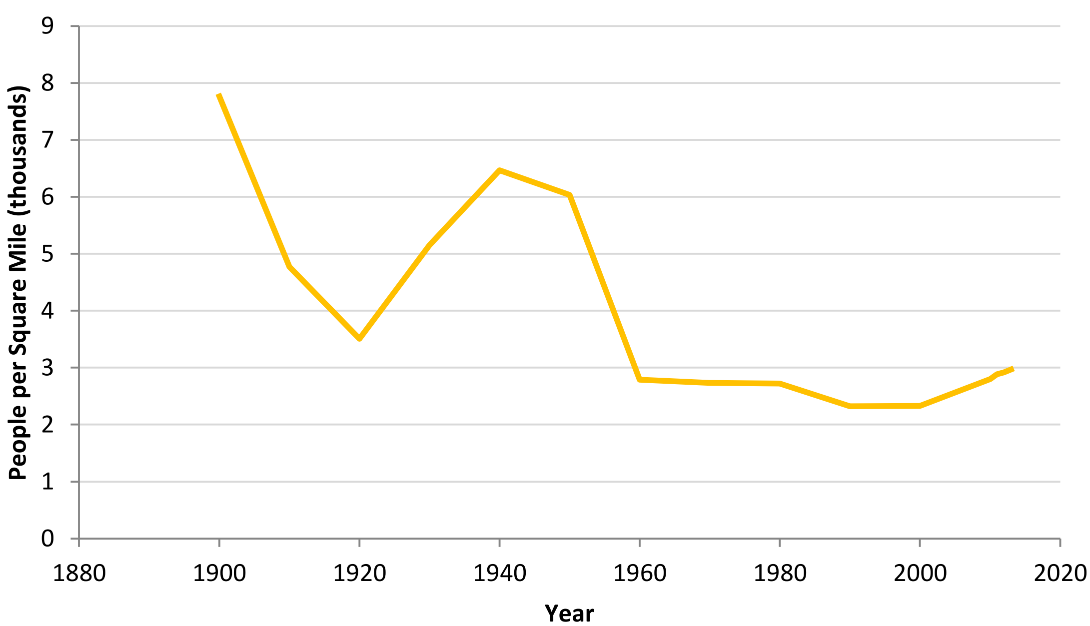
Source: U.S. Census Bureau, Decennial Data

Figure 2.2 Census Population Count and Estimates, 1990 – 2013



Sources: U.S. Census Bureau, Decennial Data (1990, 2000, 2010), Population Estimates Program (July, 1991-2013)

Figure 2.3 Population Density, 2000 – 2013



Source: U.S. Census Bureau, Decennial Data; Raleigh Department of City Planning

Table 2.1 Population, Growth Rate, and Density, 1900 – 2013

Year	Population	Annual Percent Growth Rate	Land Area in Miles^2	Population Density (people per square mile)
1900	13,643	--	1.76	7,765
1910	19,218	3.5%	4.03	4,773
1920	24,418	2.4%	6.96	3,508
1930	37,379	4.3%	7.25	5,153
1940	46,879	2.3%	7.25	6,463
1950	65,679	3.4%	10.88	6,035
1960	93,931	3.6%	33.67	2,790
1970	122,830	2.7%	44.93	2,734
1980	150,255	2.0%	55.17	2,724
1990	212,092	3.5%	91.40	2,321
2000	276,093	2.7%	118.71	2,326
2010	403,892	3.9%	143.77	2,809
2011	416,468	3.1%	144.87	2,875
2012	423,179	1.6%	145.06	2,917
2013	431,746	2.0%	145.38	2,970

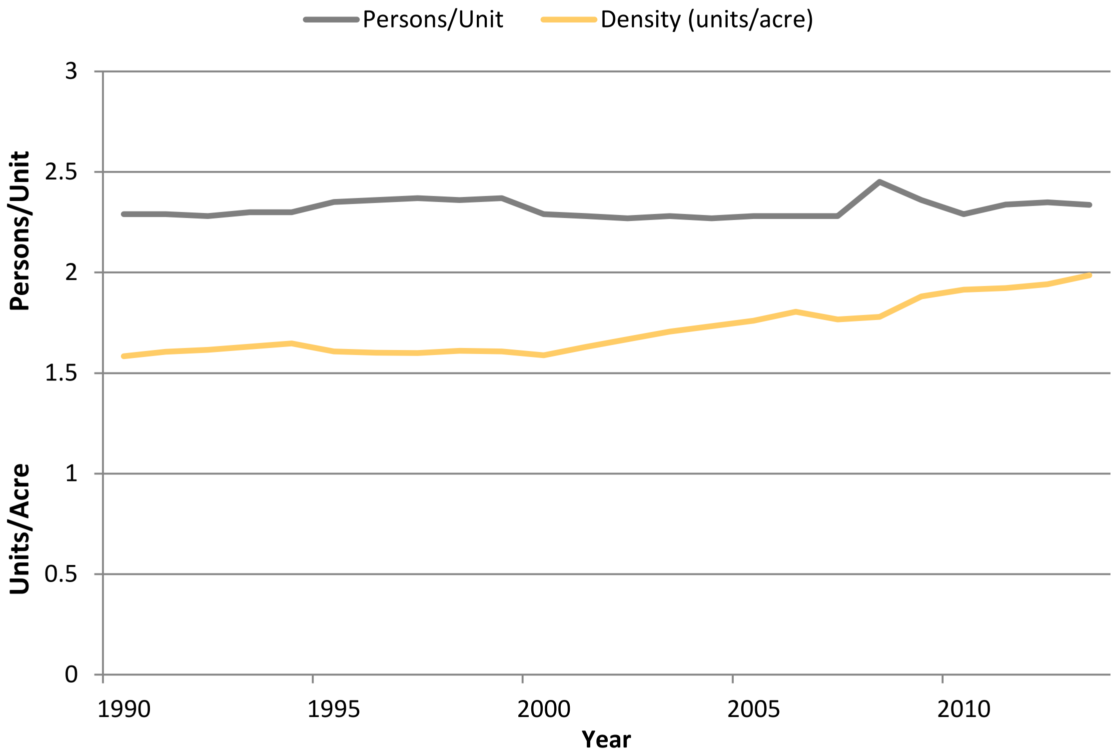
Source: U.S. Census Bureau, Decennial Data & Population Estimates; Land Area by Raleigh Dept. of City Planning

Table 2.2 Housing Units, Growth Rate, and Unit Density, 1970 – 2013

Year	Housing Units	Annual Percent Growth Rate	Land Area in Acres	Housing Density (units/acre)
1970	38,464	--	28,755	1.34
1980	57,866	4.2%	35,309	1.64
1990	92,643	4.8%	58,496	1.58
2000	120,699	2.1%	75,974	1.59
2010	176,124	2.5%	92,013	1.91
2011	178,203	1.2%	92,717	1.92
2012	180,196	1.1%	92,838	1.94
2013	184,844	2.6%	93,047	1.99

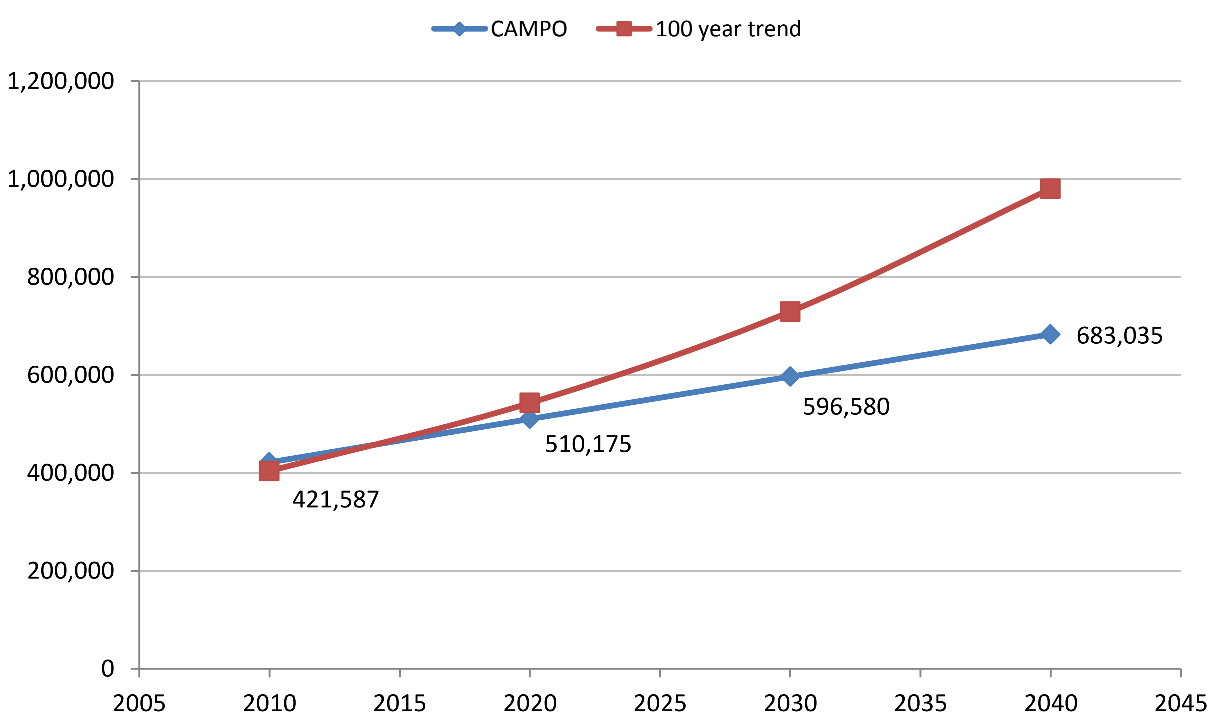
Source: U.S. Census Bureau, Decennial Data; Non-Decennial Year Housing Unit Estimates and Land Area by Raleigh Department of City Planning

Figure 2.4 Dwelling Unit Densities, 1990 – 2013



Source: U.S. Census Bureau, Decennial Data; Raleigh Department of City Planning

Figure 2.5 Raleigh Population Projections, 2010-2040



Source: Capital Area Metropolitan Planning Organization (CAMPO); Raleigh Department of City Planning

2.2 Residential Development

Single family detached dwelling units comprise 47% of housing in Raleigh based on 2013 American Community Survey data (see Table 2.3 and Figure 2.5). Multi-family apartments come in second at 36%, followed by townhouses (14%), duplexes (2%), and mobile homes (1%). Recent building trends in Raleigh suggest a change in the proportion depicted in Figure 2.6, although the change has yet to show up in the overall housing share numbers. From 2010 to 2014, apartments made up 61% of all issued residential building permits. In 2014, apartments comprised the largest share – 68% - of residential building permits issued in Raleigh (see Figure 2.7 and Table 2.7). Single family homes came in second at 18%.

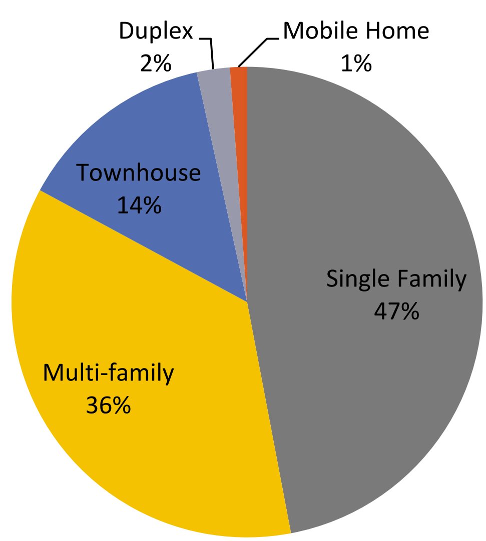
Raleigh's housing stock is relatively young, with over 80% of its housing units built in the last 45 years (see Table 2.4). The overall household vacancy rate (homeowners and renters) is 8.0%, which is down from a high of 11.3% in 2010. The homeownership rate stands at 52%, a slight decrease from 53.5% in 2010 (see Table 2.5 and Figure 2.7).

Table 2.3 Total Housing Units by Number in Structure, 2013

Units in Structure	Number	Percent
1-unit, detached	87,122	47.0%
1-unit, attached	25,343	13.7%
2 units	4,206	2.3%
3 or 4 units	9,908	5.3%
5 to 9 units	14,792	8.0%
10 to 19 units	20,921	11.3%
20 or more units	20,862	11.3%
Mobile home	2,163	1.2%
Total units	185,317	100%

Source: U.S. Census Bureau, 2013 American Community Survey, 1-year Estimate

Figure 2.6 Housing Share by Building Type, 2013



Source: U.S. Census Bureau, 2013 American Community Survey, 1-year Estimate

Table 2.4 Housing Units by Year Built, 2013

Year Built	Number	Percent
1939 or earlier	5,541	3.0%
1940 to 1949	4,140	2.2%
1950 to 1959	10,629	5.7%
1960 to 1969	16,233	8.8%
1970 to 1979	19,772	10.7%
1980 to 1989	34,978	18.9%
1990 to 1999	38,067	20.5%
2000 to 2009	50,434	27.2%
2010 or later	5,523	3.0%
Total	185,317	100.0%

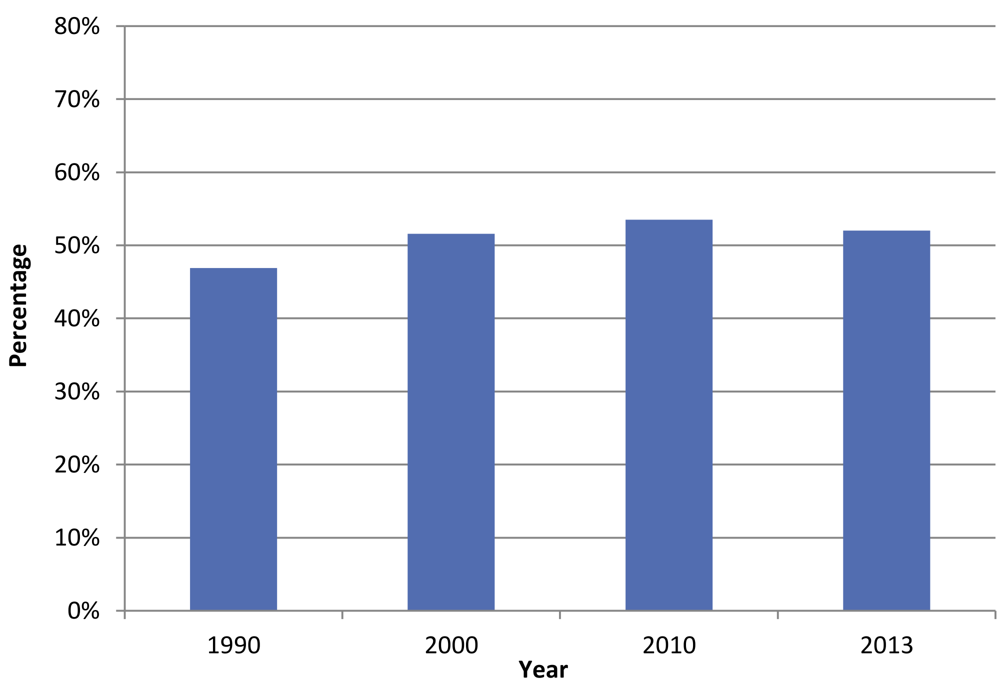
Source: U.S. Census Bureau, 2013 American Community Survey, 1-year Estimate
**The 5-year trend shows no statistically significant change in the number of units built pre-1970*

Table 2.5 Occupancy by Tenure, 2013

Total housing units	185,317
Occupied housing units	170,554
Vacant housing units	14,763
Overall vacancy rate	8.0%
Homeowner vacancy rate	2.3%
Rental vacancy rate	4.6%

Source: U.S. Census Bureau, 2013 American Community Survey, 1-year Estimate

Figure 2.7 Homeownership Rate, 1990 – 2013



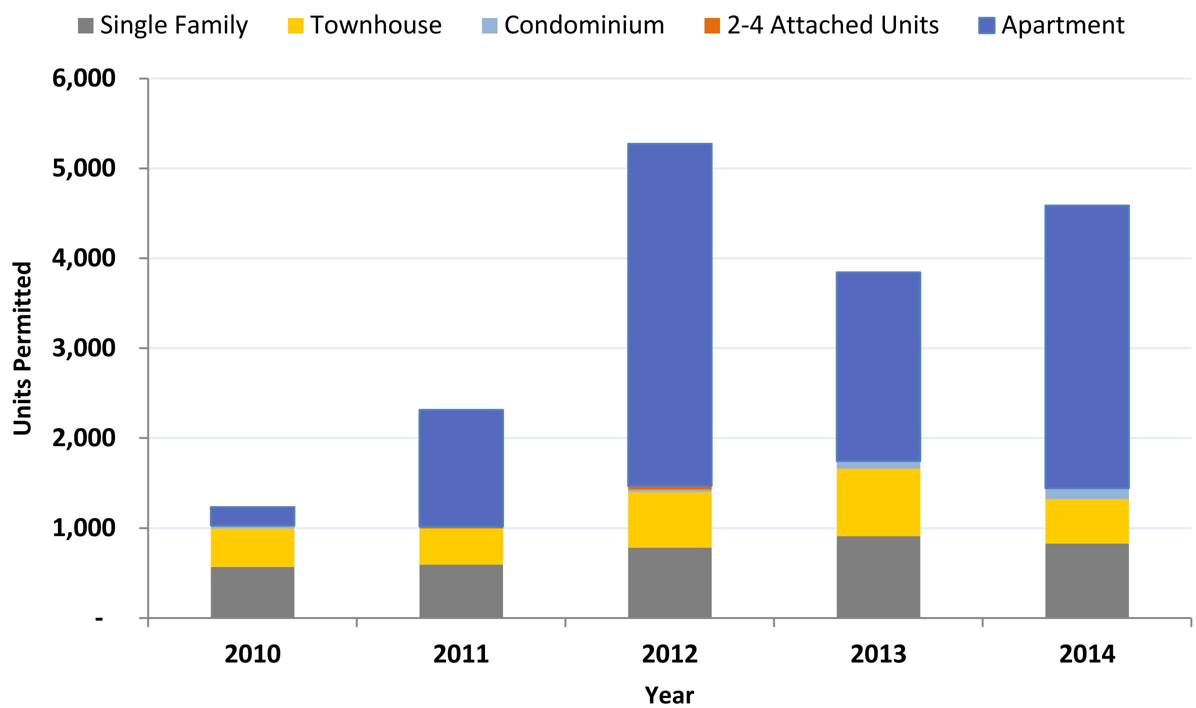
Source: U.S. Census Bureau, Decennial Data (1990, 2000, 2010); 2011-2013 American Community Survey, 3-year Estimates

Table 2.6 Housing Tenure for Occupied Units, 2000, 2010, 2013

	2000		2010		2013	
	Number	Percent	Number	Percent	Number	Percent
Owner-occupied	58,079	51.6%	87,284	53.5%	86,807	52.4%
Renter-occupied	54,529	48.4%	75,715	46.5%	78,813	46.7%
Total occupied units	112,608	100.0%	162,573	100.0%	165,620	100.0%

Source: U.S. Census Bureau, Decennial Data (2000, 2010); 2011-2013 American Community Survey, 3-year Estimates

Figure 2.8 Residential Units Permitted, 2010 - 2014



Source: City of Raleigh Inspections Department and Department of City Planning

**Refer to Table 5.8 for information on square feet and construction value of residential building activity*

Table 2.7 Residential Units Permitted[a], 2010 – 2014

Year	Single Family	Townhouse	Condominium	2-4 Attached Units	Apartments	Totals
2010	570	427	56	2	205	1,260
2011	592	405	0	20	1,299	2,316
2012	783	618	23	43	3,806	5,273
2013	909	750	80	8	2,096	3,851
2014	829	491	125	-	3,140	4,585
5-year total	3,683	2,691	284	73	10,546	17,277
Percent of Total	21%	16%	1.5%	0.5%	61%	100%
5-year average	737	538	57	15	2,109	3,456

Source: City of Raleigh Inspections Department and Department of City Planning

[a] This includes all units from the specified calendar year that have been permitted; it does not indicate construction.

Table 2.8 Net Residential Absorption, 2008 – 2014

Year	Units Constructed[a]	Demolished Units	Net Absorption
2008	5,076	-151	4,925
2009	2,672	-68	2,604
2010	1,999	-100	1,899
2011	2,653	-577	2,076
2012	2,293	-310	1,983
2013	3,636	-196	3,440
2014	3,920	-179	3,741
Total	22,249	-1,581	20,668
5-year average	2,900	-272	2,628

Source: City of Raleigh Inspections Department and Department of City Planning

[a] This includes all units from the specified calendar year that have passed final building inspection. The permit for the unit may or may not have been issued in the same year. For example, a unit may have been permitted in 2008, but could have then been constructed and passed final inspection in 2009 or later. This helps explain inconsistencies when comparing the numbers for units permitted in Table 2.7 and units constructed in Table 2.8.

2.3 City Profile

Looking at population distribution by age group, Raleigh is younger than North Carolina as a whole with higher percentages of children under 5 and 15 to 44 year-olds (see Figure 2.8). Raleigh's age distribution has changed somewhat from 2000 to 2014 with the percentage of 20 to 34 year olds declining as a share of the overall population. In contrast, the share of groups on either end of the spectrum (those under 14 years old and those from age 55-74) have seen small but significant gains (see Figure 2.9).

In terms of population by race, the white population share has decreased from 2000 to 2014, while the African-American population percentage has increased slightly (see Table 2.10). The Asian population share has grown from 3.4% in 2000 to an estimated 4.5% in 2013, as has the Hispanic/Latino population which grew by 140% from 2000 to 2013, increasing its share of the total population from 7% to 10.7% (see Table 2.11).

In terms of educational attainment, Raleigh has a higher percentage of residents with a high school degree or higher (90%) and residents with a bachelor's degree or higher (47%) than the state of North Carolina and the nation (see Table 2.13). Approximately 1 in 6 people in Raleigh (16%) holds a graduate or professional degree, which is 60% higher than the statewide average.

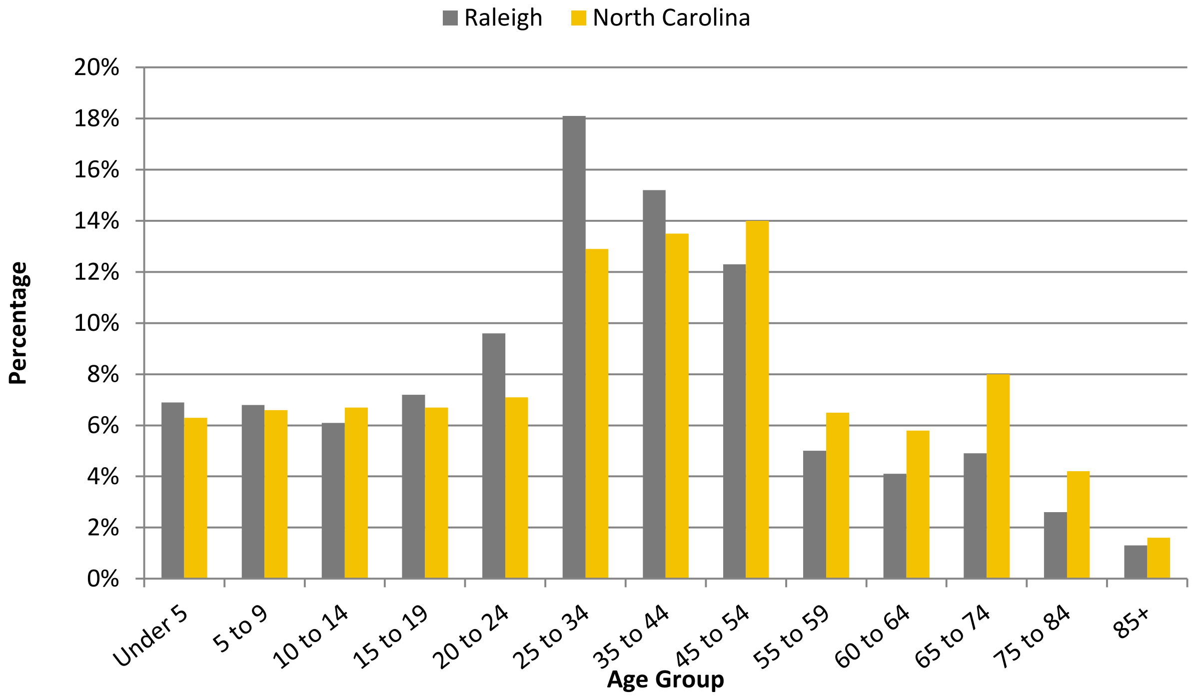
After peaking in 2010, the percentage of people and families living below the poverty level has dropped significantly (see Table 2.14). In 2010, the percentage of people in poverty peaked at an estimated 18.4% before falling to 15.1% in 2013. For families, the percentage decreased from 13.9% in poverty in 2010 to 10.4% in 2013.

Median household income and per capita income have also followed similar trajectories. They reached their lowest levels in 2010 and 2011 (see Table 2.14) with median household incomes at $53,340 in 2010 and per capita incomes at $30,450 in 2011 (adjusted for inflation). The most recent Census figures indicate they have increased slightly since then with median household incomes rising to $55,170 and per capita incomes to $31,145 in 2013. Even so, measured in 2013 dollars, the median household income for Raleigh went down by approximately $4,500 from 1990 to 2013 while the per capita income decreased by approximately $1,300.

The share of different types of households has also changed slightly during the last two decades (see Table 2.15 and Figure 2.11). The share of single parent households has increased the most (up approximately 2%). Married couple households with children have decreased slightly (approximately 1%). Persons per household – as measured by the population in households divided by the total number of households – has trended upward from 2000 to 2013 (see Table 2.15).

Commuting modes in Raleigh have remained steady over the past five years with a large majority of people driving to work alone in a personal vehicle (77.6% in 2013) and approximately half of the remainder carpooling to work (10.5%). The rest either take public transit (2.5%), walk (2.4%), work at home (5.4%) or use other means (1.6%). Raleigh's rate of driving remains much higher than other comparable U.S. cities (see Figure 2.12).

Figure 2.9 Population Distribution by Age Group in Raleigh and North Carolina, 2013



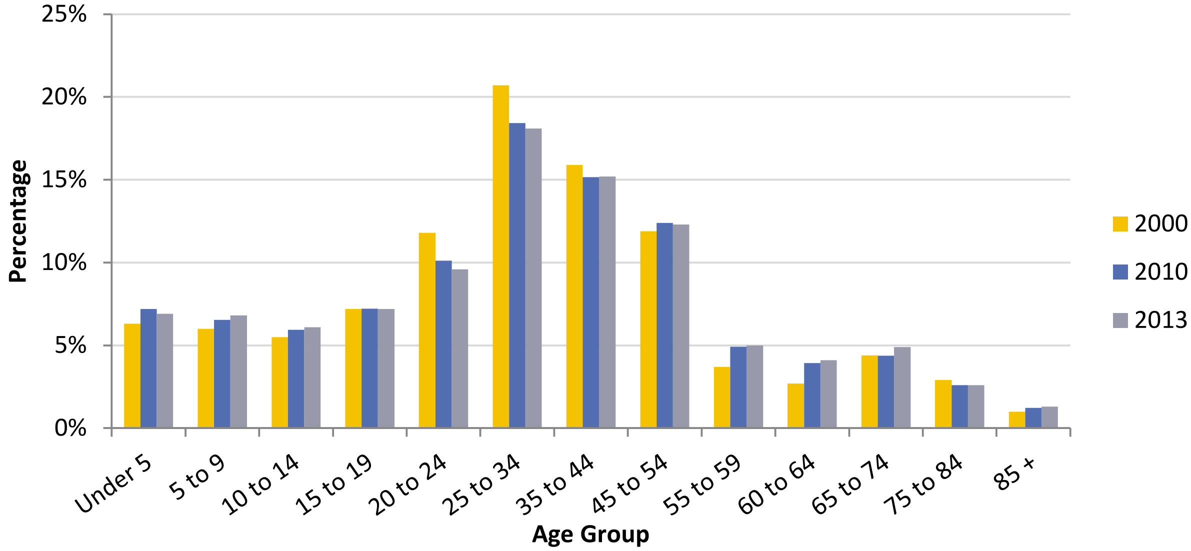
Source: U.S. Census Bureau, 2011-2013 American Community Survey, 3-year Estimates

Table 2.9 Age Groups, 2000, 2010, 2013

	2000		2010		2013	
Age Groups	**Numbers**	**%**	**Numbers**	**%**	**Numbers**	**%**
Under 5	17,461	6.3%	29,027	7.2%	29,228	6.9%
5 to 9	16,444	6.0%	26,366	6.5%	28,666	6.8%
10 to 14	15,254	5.5%	23,957	5.9%	25,641	6.1%
15 to 19	19,864	7.2%	29,151	7.2%	30,426	7.2%
20 to 24	32,458	11.8%	40,864	10.1%	40,457	9.6%
25 to 34	57,105	20.7%	74,420	18.4%	76,401	18.1%
35 to 44	43,826	15.9%	61,216	15.2%	64,383	15.2%
45 to 54	32,984	11.9%	50,034	12.4%	52,110	12.3%
55 to 59	10,308	3.7%	19,845	4.9%	21,197	5.0%
60 to 64	7,394	2.7%	15,874	3.9%	17,148	4.1%
65 to 74	12,025	4.4%	17,687	4.4%	20,929	4.9%
75 to 84	8,143	2.9%	10,497	2.6%	11,196	2.6%
85 +	2,827	1.0%	4,954	1.2%	5,416	1.3%

Source: U.S. Census Bureau Decennial Data (2000, 2010); 2011-2013 American Community Survey, 3-year Estimates

Figure 2.10 Age Distribution, 2000, 2010, 2013



Source: U.S. Census Bureau Data Decennial Data (2000, 2010); 2011-2013 American Community Survey, 3-year Estimates

Table 2.10 Population by Race, 2000, 2010, 2013

	2000		2010		2013	
	Number	%	Number	%	Number	%
White	174,786	63.3%	225,705	59.0%	255,389	60.3%
Black or African American	76,756	27.8%	111,948	29.5%	125,403	29.6%
American Indian & Alaska Native	981	0.4%	1,114	0.3%	951	0.2%
Asian or Pacific Islander	9,445	3.4%	16,935	4.4%	19,116	4.5%
Some other race	14,125	5.1%	20,371	5.3%	13,587	3.2%

Source: U.S. Census Bureau Decennial Data (2000, 2010); 2011-2013 American Community Survey, 3-year Estimates

Table 2.11 Growth in Hispanic Population, 2000 – 2013

	Number	Percent of Total Population
2000 Hispanic/Latino Population	19,308	7.0%
2013 Hispanic/Latino Population	46,387	10.7%
Percent Increase	140.2%	

Source: U.S. Census Bureau Decennial Data (2000); 2013 American Community Survey, 1-year Estimate

Table 2.12 Components of Hispanic Population, 2013

	Number	Percent	Percent of Hispanic
Mexican	23,684	5.5%	51.1%
Puerto Rican	3,022	0.7%	6.5%
Cuban	1,740	0.4%	3.8%
Other Hispanic or Latino	17,941	4.2%	38.7%
Hispanic or Latino (of any race)	46,387	10.7%	100.0%

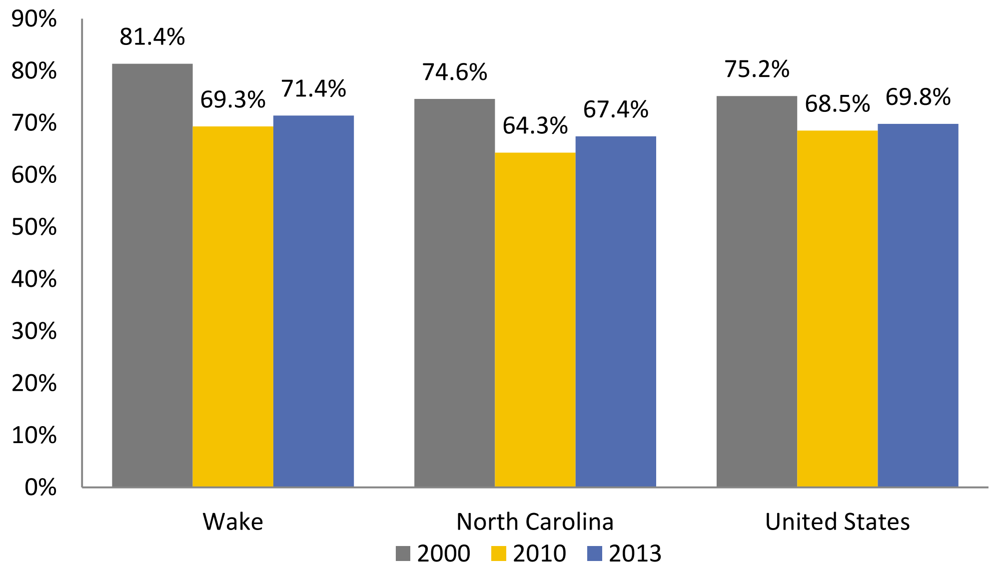
Source: U.S. Census Bureau Data; 2013 American Community Survey, 1-year Estimate

Table 2.13 Educational Attainment, 2013

	2000			2013		
	High School Grad or higher	Bachelor's Degree or higher	Graduate/ Professional Degree	High School Grad or higher	Bachelor's Degree or higher	Graduate/ Professional Degree
Raleigh	89%	45%	14%	90%	47%	16%
North Carolina	78%	23%	7%	85%	28%	10%
United States	79%	24%	9%	86%	29%	11%

Source: U.S. Census Bureau Decennial Data (2000); 2011-2013 American Community Survey, 3-year Estimates

Figure 2.11 Employment/Population Ratio for Civilians 16-64*, 2000, 2010 & 2013



Sources: NC Office of State Management and Budget, County Population Estimates; U.S. Census Bureau, Population Estimates Program; U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics (County and State Employment) and Current Population Survey (National Employment)

* The percentages above may be slightly high since the population base includes only 16-64 year olds, while the employment numbers from the Bureau of Labor Statistics include all civilians 16 years and older. Including people 65 and older in the population base, however, would also skew the numbers and result in percentages that are likely much lower than the true employment/population ratio.

Table 2.14 Poverty, Income, and Employment Indicators, 1990, 2000, 2010, 2013

	1990	2000	2010	2013
Percent of persons below poverty	11.8%	11.5%	18.4%	15.1%
Percent of families below poverty	9.0%	7.1%	13.9%	10.4%
Median Household Income (2013 $)	$58,960	$65,250	$53,340	$55,170
Per Capita Income (2013 $)	$31,780	$35,160	$29,970	$31,145
Unemployment Rate	4.0%	3.8%	7.5%	5.6%
Labor Force Participation Rate	66.4%	72.7%	69.9%	72%

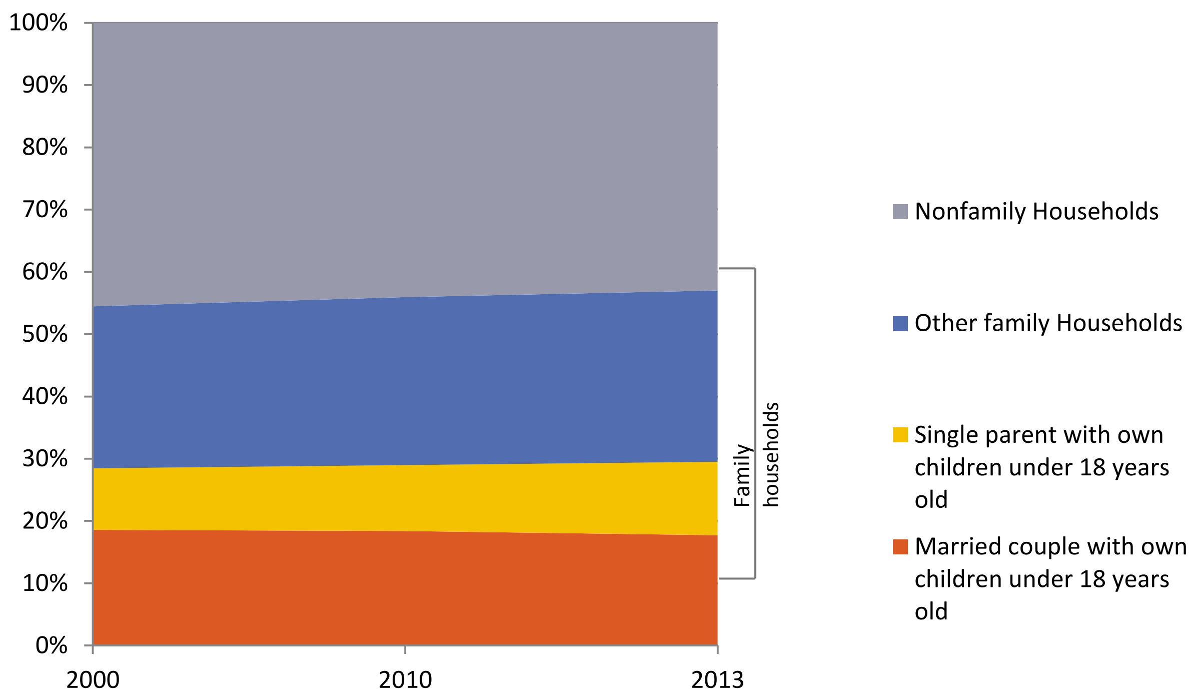
Source: U.S. Census Bureau, Decennial Censuses (1990, 2000); 2010, 2013 American Community Survey 1-yr Est.

Table 2.15 Household Trends, 2000, 2010, 2013

	Number			Percent		
	2000	**2010**	**2013**	**2000**	**2010**	**2013**
Family Households	61,327	91,186	94,411	54.5%	55.9%	57.0%
Married couple with own children under 18 years old	20,194	29973	29,337	18.6%	18.4%	17.7%
Single parent with own children under 18 years old	11,122	17,245	19,518	9.9%	10.6%	11.8%
Other family households	29,291	41,077	45,556	26.0%	25.2%	27.5%
Nonfamily Households	51,281	71,813	71,209	45.5%	44.1%	43.0%
Total Households	**112,608**	**162,999**	**165,620**	**100.0%**	**100.0%**	**100.0%**
Persons per Household	**2.30**	**2.36**	**2.43**			

Source: U.S. Census Bureau Decennial Data (2000, 2010); 2011-2013 American Community Survey 3-year Estimates

Figure 2.12 Household Share by Type, 2000, 2010, 2013



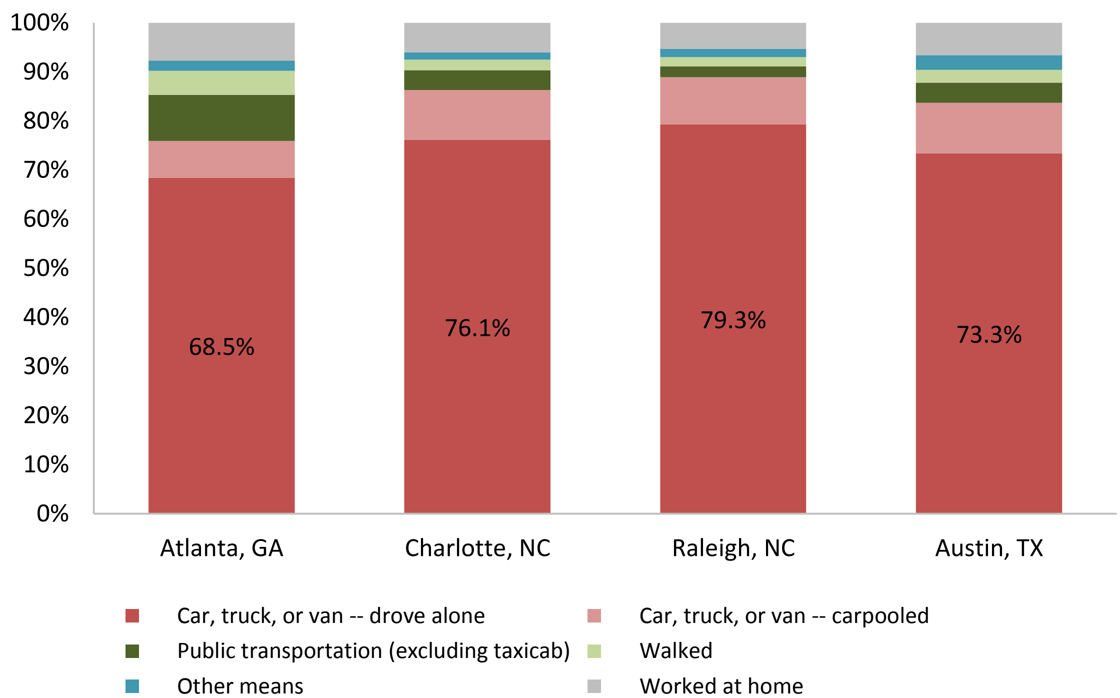
Source: U.S. Census Bureau Decennial Data (2000, 2010); 2011 - 2013 American Community Survey, 3-year Estimates

Table 2.16 Journey to Work, 2013

	Number	Percent
Car, truck, or van—drove alone	169,125	79.3%
Car, truck, or van—carpooled	20,395	9.6%
Worked at home	11,378	5.3%
Walked	4,156	1.9%
Public transportation (excluding taxicab)	4,612	2.2%
Other means	3,562	1.7%

Source: U.S. Census Bureau, 2011-2013 American Community Survey, 3-year Estimates

Figure 2.13 Journey to Work – Comparison with Similar Cities, 2013



Source: U.S. Census Bureau, 2011-2013 American Community Survey, 3-year Estimates

Chapter 3: Land Use & Zoning

Land use is fundamental to the physical form and function of the city. The Comprehensive Plan is the primary policy guide that municipalities use to guide land use and the physical development and growth of the city. As set forth in the state enabling statute, the Comprehensive Plan is also the foundation for zoning.

While the Comprehensive Plan is a policy guide, the zoning ordinance and the site plan and subdivision regulations are law. These codes provide the regulatory framework for particular land uses and how the uses interact with each other. They address not only the prescribed use of property, but also the scale, massing and placement of buildings, site design and landscaping, and the quantity of off-street parking required.

The City of Raleigh currently exercises planning and zoning authority within its incorporated limits (its taxing and service area) as well as its Extra-Territorial Jurisdiction (ETJ), an area outside of the incorporated limits where the City has been granted land use authority by Wake County for the purposes of providing for the orderly development of areas programmed for future annexation in the short term. This chapter primarily addresses the land area within the ETJ boundary (i.e. incorporated limits plus ETJ), as this is the area where the City currently has the power to plan and zone. It is also the area for which detailed land use data are available. All references to the ETJ in this chapter refer to the full area within the ETJ boundary line.

The City also has annexation agreements with Wake County and adjacent municipalities delineating areas outside the current ETJ that are programmed for eventual annexation. These are divided into Short- and Long-Range Urban Service Areas (USAs), depending upon the anticipated time horizon for utility extension. These areas currently consist primarily of undeveloped land, farm fields, and low-density residential uses, and are only addressed generally in this chapter.

For further information see:

The 2030 Comprehensive Plan for the City of Raleigh
http://www.raleighnc.gov/business/content/PlanLongRange/Articles/2030ComprehensivePlan.h tml

Raleigh Zoning Code
http://www.raleighnc.gov/zoning

3.1 Land Use and Zoning Allocation

Single-family zones make up 63.1% of all residential zoning in Raleigh's planning jurisdiction (42.5% of total land area), and multi-family zones make up 36.9% of residential zoning and 24.9% of total land area (see Table 3.1). In terms of non-residential zoning, commercial zoning comprises 11.4% of total land area, industrial is 10.5%, office and institutional makes up 7.0%, and conservation is 3.5% (see Table 3.2). Overlay zoning districts (historic overlay districts, special highway overlay districts, downtown overlay district, etc.) cover 37.7% of total land area not accounting for overlap of different types of districts (see Table 3.3).

Table 3.1 Residential Zoning Allocation

Zoning District	Acres	Percent of Residential Zoning	Percent of Total Land Area
Single-Family Zones			
R-1: Residential-1	5,049	6.4%	4.3%
R-2: Residential-2	2,034	2.6%	1.8%
R-4: Residential-4	41,517	53.0%	35.7%
R-6: Residential-6	16,914	21.6%	14.6%
MH: Manufactured Home	826	1.1%	0.7%
Total Single-Family	66,340	84.7%	57.1%
Multi-Family Zones			
R-10: Residential-10	9,236	11.8%	8.0%
R-15: Residential-15	1,308	1.7%	1.1%
R-20: Residential-20	1,178	1.5%	1.0%
R-30: Residential-30	138	0.2%	0.1%
SP R-30: Special Residential-30	75	0.1%	0.1%
Total Multi-Family	11,935	**15.3%**	**10.3%**
Total All Residential Zones	**78,275**	**100.0%**	**67.4%**

Source: City of Raleigh Department of City Planning, 2014

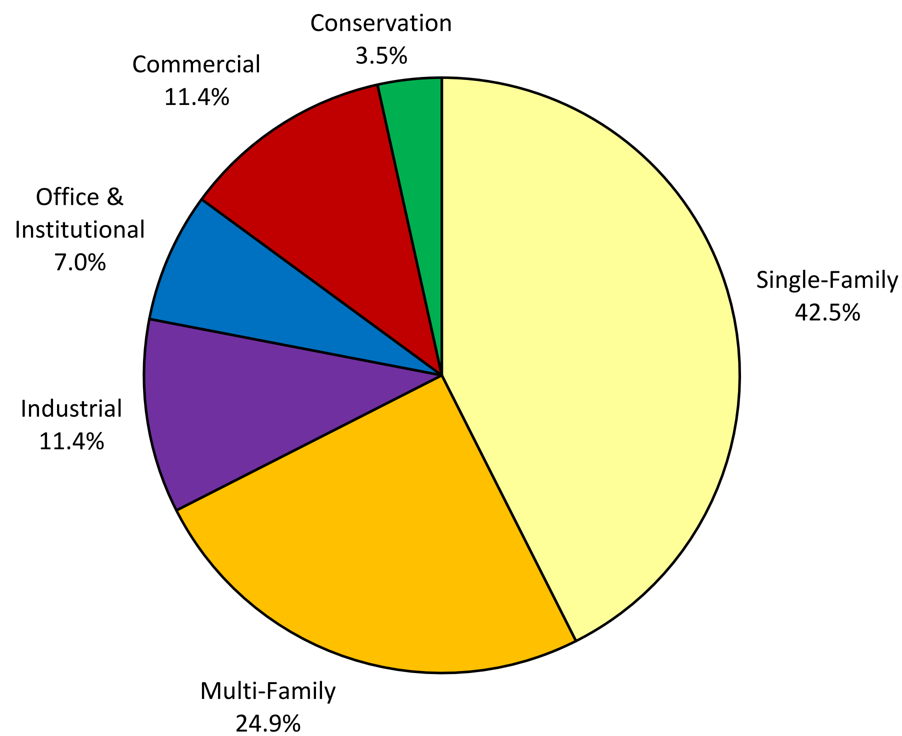
Table 3.2 Non-Residential Zoning Allocation

Zoning District	Acres	Percent of Non-Residential Zoning	Percent of Total Land Area
Industrial Zones			
IND-1: Industrial-1	9,255	24.6%	8.0%
IND-2: Industrial-2	2,953	7.8%	2.5%
Total Industrial	**12,209**	**32.4%**	**10.5%**
Office & Institution Zones			
O&I-1: Office & Institutional-1	6,333	16.8%	5.5%
O&I-2: Office & Institution-2	1,550	4.1%	1.3%
O&I-3: Office & Institution-3	279	0.7%	0.2%
Total Office & Institution	**8,162**	**21.6%**	**7.0%**

<u>Conservation Zones</u>			
AP: Agricultural Productive	2,052	5.4%	1.8%
CM: Conservation Management	1,964	5.2%	1.7%
Total Conservation	**4,016**	**10.6%**	**3.5%**
<u>Commercial Zones</u>			
BC: Buffer Commercial	27	0.1%	0.0%
BUS: Business	229	0.6%	0.2%
NB: Neighborhood Business	1,086	2.9%	0.9%
RB: Residential Business	74	0.2%	0.1%
SC: Shopping Center	2,421	6.4%	2.1%
TD: Thoroughfare District	9,459	25.1%	8.1%
Total Commercial	**13,295**	**35.3%**	**11.4%**
Total Non-Residential Allocation	**37,682**	**100.0%**	**32.4%**

Source: City of Raleigh Department of City Planning, 2014

Figure 3.1 Generalized Zoning Allocation



Source: City of Raleigh Department of City Planning, 2014

Table 3.3 Overlay Zoning District Allocation

Zoning District	Acres	Percent of Land Area
AOD – Airport Overlay District	2,214	1.9%
DOD – Downtown Overlay District	598	0.5%
HOD – Historic Overlay District	317	0.3%
MPOD – Metro-Park Protection Overlay District	1,451	1.2%
NCOD – Neighborhood Conservation Overlay District	2,825	2.4%
PBOD – Pedestrian Business Overlay District	223	0.2%
PDD – Planned Development Conditional Use Overlay District	4,889	4.2%
SHOD-1 – Special Highway Overlay District 1	7,936	6.8%
SHOD-2 – Special Highway Overlay District 2	5,214	4.5%
SHOD-3 – Special Highway Overlay District 3	203	0.2%
SHOD-4 – Special Highway Overlay District 4	107	0.1%
SRPOD – Special Residential Parking Overlay District	8,231	7.1%
WPOD – Watershed Protection Area Overlay District	9,585	8.3%
Total Overlay Districts (not accounting for overlap)	**43,794**	**37.7%**
Total Overlay Districts (accounting for overlap)	**38,509**	**33.2%**

Source: City of Raleigh Department of City Planning, 2014

3.2 Land Capacity, Annexation, and Growth Potential

The latest land capacity estimates completed in 2014 show Residential-4 as the zoning district with the largest amount – in acres (5,505) – of undeveloped land followed by Residential-6 (2,330 acres) and Thoroughfare District (1,522 acres) (see Table 3.4). Thoroughfare districts are also projected to have the highest number of dwelling units.

Industrial-1 and Thoroughfare Districts show the largest projected square footage growth of non-residential space. As a flexible zoning designation that allows higher density residential and all other uses except for industrial, Thoroughfare Districts figure prominently in land capacity estimates. However, with the implementation of the new Unified Development Ordinance (UDO), the Thoroughfare District and all districts except R-2 through R-10, conservation districts, and overlay districts will be remapped into new UDO districts. A more up-to-date analysis of land capacity will likely be carried out in concert with this remapping.

In 2014, the city added 259 acres through annexation (see Table 3.5). As also shown in 2011, changes in state laws restricting city-initiated annexations has resulted in petition-only annexations, usually of smaller parcels by individual owners. The total future annexation potential for Raleigh is 41,540 acres (see Table 3.6). This includes both ETJ areas and Urban Services Areas (USA). Combined with the city's current acreage of 93,306, this brings the total potential city limits acreage to 134,846 acres.

Table 3.4 Land Capacity Estimates by Zoning District

Zone	Total Area (acres) of Undeveloped Land	Projected Square Feet Non-Residential	Projected Dwelling Units
CM	410	0	0
AP	455	0	227
R1	1,203	0	853
R-2	444	0	613
R-4	5,505	0	15,961
R-6	2,330	0	11,307
R-10	646	0	6,286
R-15	346	0	5,177
R-20	63	0	1,180
SP R-30	3	0	60
R-30	1	0	22
MH	212	0	1,249
RB	3	21.265	12
O&I-1	282	4,603,033	2,749
O&I-2	217	4,723,683	2,953
O&I-3	36	516,841	0
BC	10	63,008	44
SC	405	2,644,192	4,497
NB	103	670,013	456
BUS	1	135,090	31

TD	1,522	9,945,877	22,735
IND-1	1,450	18,945,777	0
IND-2	243	3,172,522	0
Totals	**16,671***	**52,327,256**	**85,851**

(For purpose of this analysis, general and conditional use districts have been treated the same, and are aggregated together in this table for simplicity.)

*Totals do not include underdeveloped land.

*Zoning Districts with residential and commercial types have been allocated at a 50/50 split.

Source: City of Raleigh Department of City Planning and GIS Division, 2014

Table 3.5 Annexation, Growth of the City of Raleigh

Year	Acres in City Limits	Acres Added
1792	400	-
1857	1,124	724
1907	2,577	1,453
1920	4,455	1,878
1941	6,940	2,485
1951	6,974	34
1960	21,548	14,574
1970	28,755	7,207
1980	35,305	6,550
1990	58,493	23,188
2000	75,972	17,479
2010	92,435	16,463
2011	92,710	275
2012	92,838	128
2013	93,047	208
2014	93,306	259

Source: City of Raleigh Department of City Planning, 2013

Table 3.6 Future Raleigh City Limits Growth Potential

Geography	Acres
Current City Limits	93,306
Potential ETJ Growth Area	22,752
Potential USA Growth Area	18,788
Total Future Annexation Potential	**41,540**
Total Potential City Limits	**134,846**

Source: City of Raleigh Department of City Planning, 2014

Chapter 4: Economic Development & Employment Trends

One of the nation's most rapidly growing regions, the Research Triangle is benefiting from its long-time investment, especially towards major educational institutions and the Research Triangle Park. The expanding base of technology industries continues to generate new jobs and to attract skilled workers to fill them. The area's highly touted quality of life provides regional employers with a competitive advantage for attracting and retaining qualified workers. Protecting that quality of life into the future is critical to the region's ability to continue flourishing. The Triangle's jurisdictions are increasingly connected as employees cross-commute, new businesses develop to serve companies throughout the region, and existing industry spins off new businesses. In conjunction with the region as a whole, Raleigh's economy has shifted to one that is more technology-based and less reliant on government and manufacturing.

Wake County has shared in the region's economic health with a steady job base, leading a recovery from the recession that began in 2007. The county's economic base is changing, however, as technology, retail and service jobs replace jobs lost in manufacturing and agriculture. Key economic sectors include government, educational services, professional and technical services, information, and health care.

Within Raleigh, the state government, North Carolina State University and other educational institutions, and major health care centers have a more significant portion of the employment base. Job growth projections point to a major expansion of jobs in the City by 2040 with even faster growth in the balance of the county. University research and the growing technology sectors within Raleigh support even greater business development in emerging industries. This section evaluates employment trends for the county, identifies key economic sectors and major employers, and provides projections for Raleigh's future employment based on regional land use coordination efforts.

4.1 Employment by Industry

In line with national trends, Wake County's employment in goods-producing industries has decreased (-2.6%) and employment in service-providing industries has increased (+2.6%) over the last 5 years (see Tables 4.1 and 4.2). The top three industries in both 2007 and 2013 were: Professional and Business Services; Education and Health Services, and; Trade, Transportation, & Utilities. The Leisure and Hospitality industry saw the largest annual percent change in employment (+3.7%) during this period.

Using the latest data from the 2009-2013 American Community Survey (ACS), Raleigh has a higher percentage of jobs in public administration; arts/entertainment, accommodation, and; finance, insurance, real estate than the percentages for Wake County, North Carolina, and the U.S (see Figure 4.1). Raleigh is also ahead of the state and the nation in percentage of professional, scientific, management, and administrative jobs and is just behind Wake County.

Table 4.1 Wake County Average Annual Employment by Industry, 2007 to 2013 (condensed)

	2007	Percent of Total	2013	Percent of Total	Annual Change 2007 to 2013
Goods-Producing	**58,499**	**13.0%**	**49,414**	**10.4%**	**-2.8%**
Natural Resources and Mining	1,489	0.3%	1,126	0.2%	-4.6%
Agriculture Forestry Fishing & Hunting	893	0.2%	881	0.2%	-0.2%
Mining	596	0.1%	245	0.1%	-13.8%
Construction	34,021	7.6%	25,763	5.4%	-4.5%
Manufacturing	22,989	5.1%	22,525	4.8%	-0.3%
Service-Providing	**391,089**	**87.0%**	**424,551**	**89.6%**	**1.4%**
Trade, Transportation & Utilities	85,333	19.0%	84,631	17.9%	-0.1%
Utilities	1,390	0.3%	*	n/a	n/a
Wholesale Trade	20,397	4.5%	20,540	4.3%	0.1%
Retail Trade	51,096	11.4%	53,622	11.3%	0.8%
Transportation & Warehousing	12,451	2.8%	9,594	2.0%	-4.3%
Information	16,203	3.6%	17,664	3.7%	1.4%
Financial Activities	24,521	5.5%	24,952	5.3%	0.3%
Finance & Insurance	15,767	3.5%	17,010	3.6%	1.3%
Real Estate and Rental and Leasing	8,755	1.9%	7,942	1.7%	-1.6%
Professional & Business Services	83,755	18.6%	99,455	21.0%	2.9%
Professional and Technical Services	37,650	8.4%	45,296	9.6%	3.1%
Management of Companies & Enterprises	10,480	2.3%	10,660	2.2%	0.3%
Administrative and Waste Services	35,625	7.9%	43,499	9.2%	3.4%
Education & Health Services	82,388	18.3%	90,081	19.0%	1.5%
Educational Services	37,845	8.4%	40,715	8.6%	1.2%
Health Care and Social Assistance	44,546	9.9%	49,366	10.4%	1.7%
Leisure and Hospitality	42,847	9.5%	53,180	11.2%	3.7%
Arts, Entertainment & Recreation	6,543	1.5%	9,892	2.1%	7.1%
Accommodation and Food Services	36,304	8.1%	43,288	9.1%	3.0%
Public Administration	38,646	8.6%	39,768	8.4%	0.5%
Other Services exc. Public Administration	15,012	3.3%	14,820	3.1%	-0.2%
Unclassified	2,384	0.5%	*	n/a	n/a
TOTAL	**449,589**	**100.0%**	**473,965**	**100.0%**	**1.1%**

* No data available

Source: North Carolina Division of Employment Security

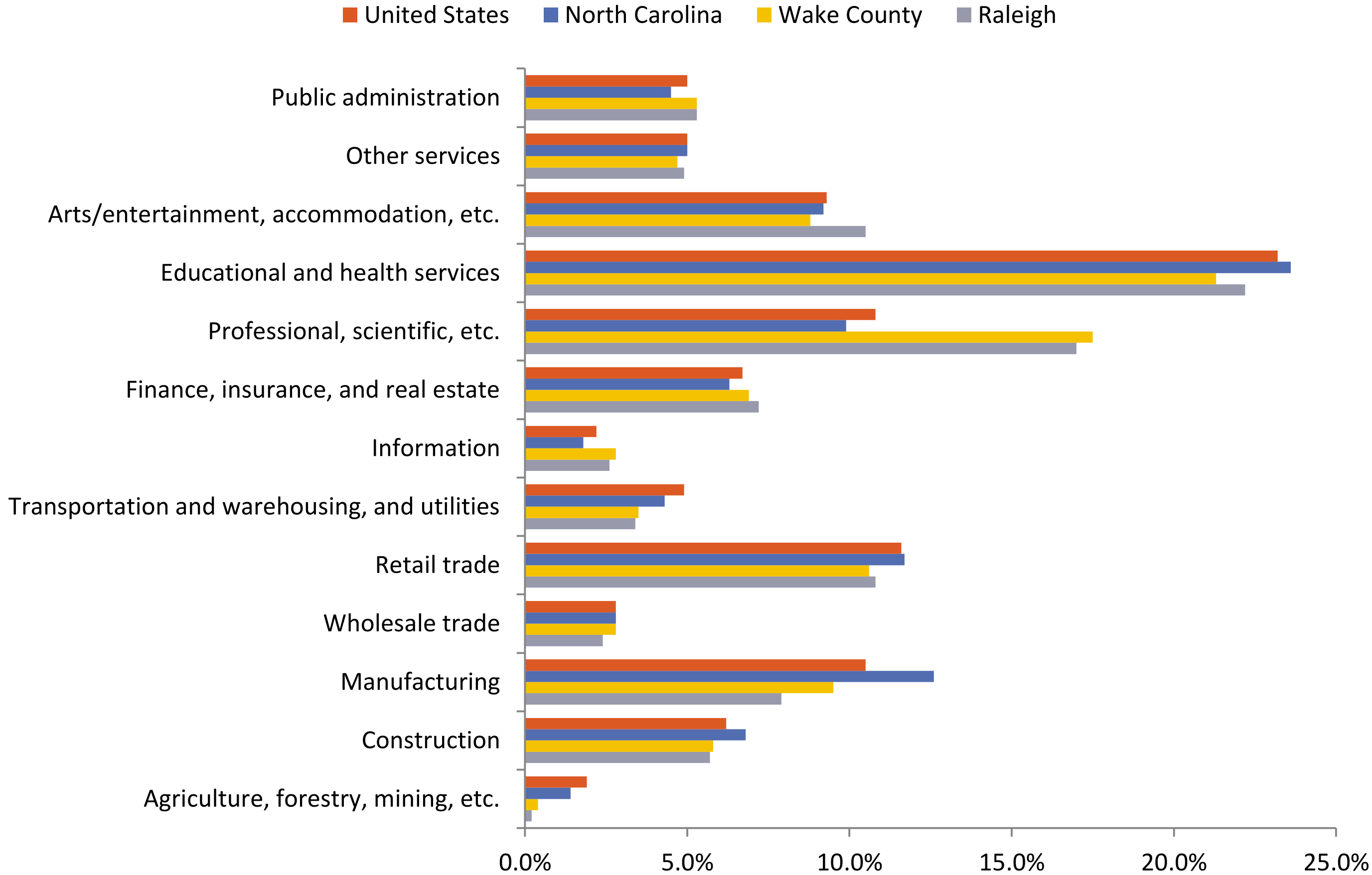
Table 4.2 Wake County Annual Average Employment by Industry, 2007 to 2013

	2007	2008	2009	2010	2011	2012	2013
Goods-Producing	**58,499**	**57,004**	**47,434**	**44,226**	**44,837**	**44,795**	**49,414**
Natural Resources and Mining	1,489	1,453	1,447	1,032	1,007	1,028	1126
Agriculture Forestry Fishing & Hunting	893	881	899	770	749	788	881
Mining	596	572	548	263	258	240	245
Construction	34,021	31,870	25,267	24,078	24,506	25,204	25,763
Manufacturing	22,989	23,681	20,720	19,116	19,324	18,563	22,525
Service-Providing	**391,089**	**395,587**	**385,001**	**387,348**	**397,025**	**411,023**	**424,551**
Trade, Transportation & Utilities	85,333	84,187	80,066	80,011	82,110	84,710	84,631
Utilities	1,390	1,397	1,363	1,394	1,397	*	*
Wholesale Trade	20,397	19,898	18,563	18,192	19,152	20,990	20,540
Retail Trade	51,096	51,633	49,435	49,775	51,037	52,040	53,622
Transportation and Warehousing	12,451	11,258	10,708	10,652	10,524	10,468	9,594
Information	16,203	16,527	16,461	16,333	16,963	17,447	17,664
Financial Activities	24,521	25,660	25,375	25,666	25,142	25,030	24,952
Finance & Insurance	15,767	16,958	17,250	17,971	17,463	17,298	17,010
Real Estate and Rental and Leasing	8,755	8,702	8,125	7,695	7,680	7,732	7,942
Professional and Business Services	83,755	82,125	78,473	81,028	85,987	91,441	99,455
Professional and Technical Services	37,650	38,808	36,852	37,086	39,563	42,177	45,296
Management of Companies & Enterprises	10,480	10,089	9,553	9,613	10,232	10,142	10,660
Administrative and Waste Services	35,625	33,228	32,068	34,329	36,192	39,122	43,499
Education & Health Services	82,388	85,914	85,467	84,394	85,780	88,177	90,081
Educational Services	37,845	39,921	39,575	38,959	39,388	40,420	40,715
Health Care and Social Assistance	44,546	45,993	46,989	45,435	46,392	47,758	49,366
Leisure and Hospitality	42,847	43,939	45,285	45,801	47,918	50,765	53,180
Arts, Entertainment & Recreation	6,543	6,892	8,847	8,831	9,105	9,293	9,892
Accommodation and Food Services	36,304	37,047	36,439	36,970	38,813	41,473	43,288
Public Administration	38,646	39,588	39,551	40,553	39,491	38,789	39,768
Other Services exc. Public Administration	15,012	15,146	13,066	13,293	13,634	14,659	14,820
Unclassified	2,384	2,501	1,257	269	*	5	*
TOTAL	**449,589**	**452,587**	**432,430**	**431,571**	**441,859**	**455,814**	**473,964**

* No data available

Source: North Carolina Division of Employment Security

Figure 4.1 Jobs by Industry Comparison, 2013



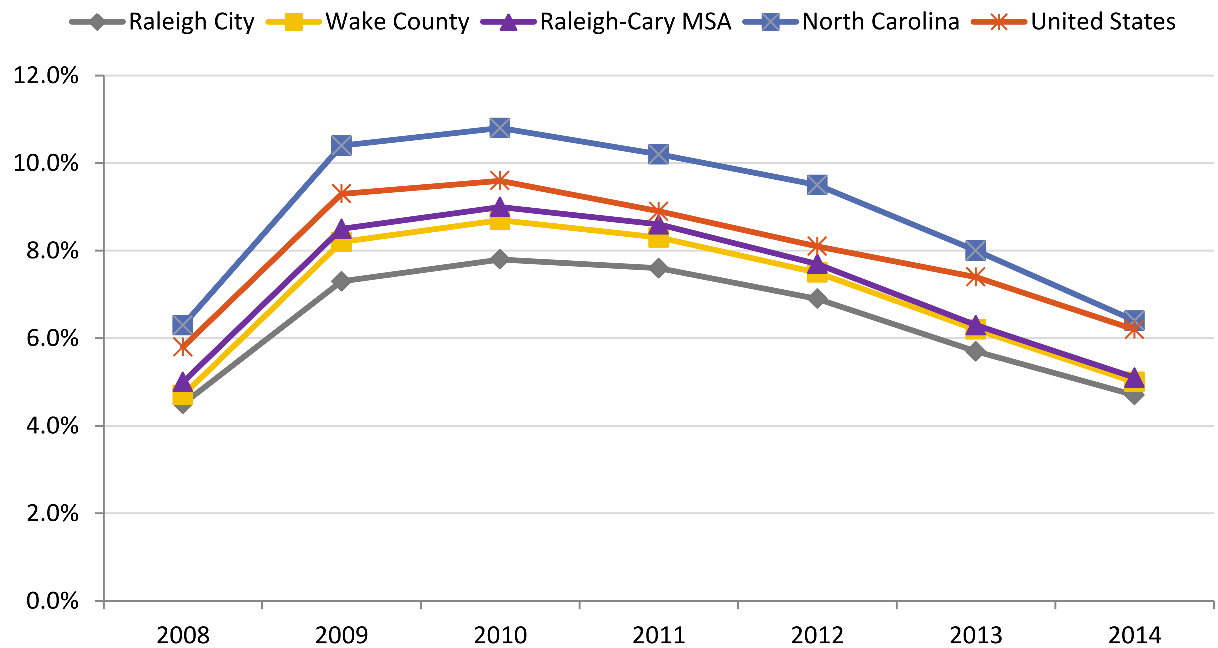
Source: 2009 - 2013 American Community Survey, 5-year Estimates

4.2 Unemployment Rates and Employment Projections

From 2008 to 2014, Raleigh's unemployment rate remained lower than Wake County, the Raleigh-Cary MSA, North Carolina, and the U.S (see Figure 4.2). In Raleigh, the unemployment rate climbed from 4.5% in 2007 to a high of 7.8% in 2010; the 2014 average unemployment rate fell to 4.7%.

According to a model put together by the Capital Area Metropolitan Planning Organization (CAMPO) with input from municipalities across the Triangle region, Raleigh is expected to add over 100,000 jobs from 2010 to 2040, an average increase of 1% every year (see Table 4.4 and Figure 4.3). Although Raleigh is expected to add the most jobs in the region in terms of raw numbers, several counties are expected to have higher annual job growth rates, including Chatham County, Granville County, Nash County, and Harnett County. Looking at the types of projected new jobs, the model shows the following breakdown for new jobs created in Raleigh during the 2010-2040 time period: 66% in the service sector, 16% in office, 7% in retail, 6% in industrial, and 5% in highway (see Table 4.4). More information on the employment projection model can be found here: http://www.campo-nc.us/population-employment-forcast.html.

Figure 4.2 Average Annual Unemployment Rates, 2008 to 2014



Source: North Carolina Division of Employment Security

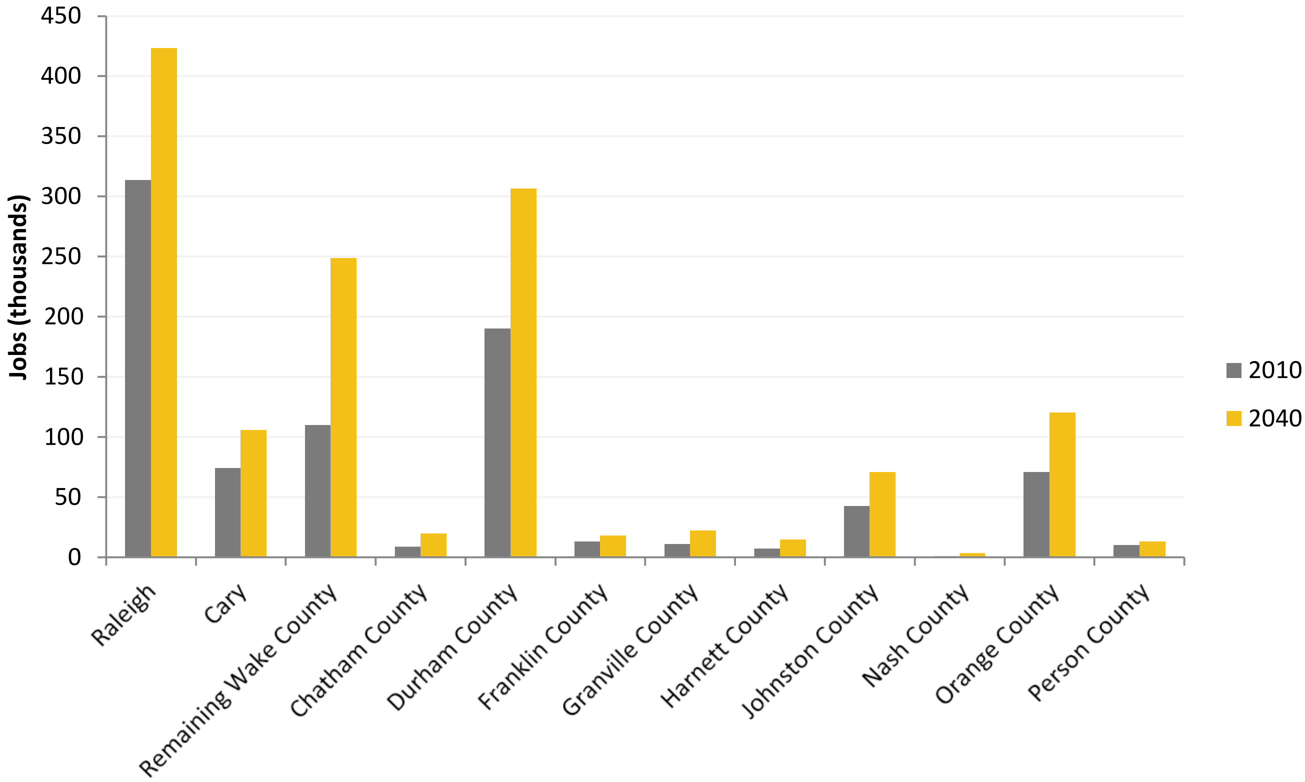
**Raleigh-Cary MSA data does not include December 2014 data due to data not being released at time of publication*

Table 4.3 Triangle Region Interim Employment Projections, 2010 to 2040

Place	2010	2020	2030	2040	Average Annual Growth 2010 to 2040
Raleigh	313,538	344,590	380,921	423,245	1.0%
Cary	74,112	83,111	93,619	105,872	1.2%
Wake County	497,634	577,053	669,927	778,175	1.5%
Chatham County	8,775	11,610	15,142	19,533	2.7%
Durham County	190,134	222,344	260,827	306,524	1.6%
Franklin County	13,164	14,486	16,039	17,868	1.0%
Granville County	10,870	14,059	17,730	21,954	2.4%
Harnett County	7,139	9,144	11,616	14,650	2.4%
Johnston County	42,345	49,486	58,687	70,730	1.7%
Nash County	705	1,362	2,204	3,261	5.2%
Orange County	70,984	84,064	100,225	120,274	1.8%
Person County	10,352	11,147	12,060	13,093	0.8%

Source: Capital Area Metropolitan Planning Organization (CAMPO)

Figure 4.3 Triangle Region Employment Projections, 2010 and 2040



Note: Remaining Wake County excludes Raleigh and Cary

Source: Capital Area Metropolitan Planning Organization (CAMPO)

Table 4.4 Sector Share of Projected New Jobs, 2010-2040

Place	Industrial	Office	Service	Retail	Highway	Total
Raleigh	6%	16%	66%	7%	5%	100%
Unincorporated Wake County	10%	9%	71%	4%	6%	100%
Other jurisdictions	9%	11%	64%	7%	10%	100%
Countywide Total	8%	13%	65%	7%	8%	100%

Source: Capital Area Metropolitan Planning Organization (CAMPO)

4.3 Major Employers and New & Expanding Companies

The major employers in Wake County are concentrated in the following industries: public administration; education & health services; professional and business services; information, and; trade, transportation, and utilities (see Table 4.4).

In 2012, 44 major companies announced either new operations or expansions of present operations in Raleigh with an estimated dollar investment of over $205 million and at least 1,445 new jobs added to the workforce (see Table 4.5).

Table 4.5 Wake County Major Employers, 2014

Rank	Name	Employment (approximate)	Industry	Location in Raleigh
1	State of North Carolina	24,083	Public Administration	Yes
2	Wake County Public School System	18,554	Education & Health Services	Yes
3	IBM Corporation	10,000	Professional & Business Services, Information	No
4	WakeMed Health & Hospitals	8,422	Education & Health Services	Yes
5	North Carolina State University	7,876	Education & Health Services	Yes
6	Cisco Systems, Inc.	5,500	Professional & Business Services, Information	No
7	Rex Healthcare	5,300	Education & Health Services	Yes
8	SAS Institute, Inc.	5,232	Information	No
9	GlaxoSmithKline	4,950	Professional & Business Services	No
10	N.C. DHHS	3,800	Public Administration	Yes
11	Duke Energy Progress	3,700	Trade, Transportation & Utilities	Yes
12	Wake County Government	3,692	Public Administration	Yes
13	City of Raleigh	3,673	Public Administration	Yes
14	Fidelity Investments	2,900	Financial Activities	Yes
15	Wake Technical Community College	2,547	Education & Health Services	No
16	RTI International	2,200	Professional & Business Services	Yes (call center)
17	Lenovo	2,100	Professional & Business Services, Information	No

Source: Greater Raleigh Chamber of Commerce/Wake County Economic Development

Table 4.6 New & Expanding Companies in Raleigh, October 2013 – July 2014

Name	New Jobs	Investment ($ millions)	New or Expanding	Industry
Aloft Hotels	n/a	n/a	New	Hospitality
ATI Industrial Automation	n/a	n/a	Expanding	Manufacturing
Clintrax Global	10	n/a	New	Biotech/Pharma
SunTrust Bank	n/a	n/a	Expanding	Financial Services
Baxano Surgical	n/a	n/a	Expanding	Advanced Medical Technologies
DataStaff, Inc.	75	n/a	Expanding	Software/IT
Mann + Hummel	60	n/a	New	Smart Grid
UberConference	20	n/a	New	Software/IT
The Greer Group	4	n/a	Expanding	Employment Services
Prometheus Group	55	n/a	Expanding	Software/IT
TriMark Digital	10	n/a	Expanding	Software/IT
Teradata	20	n/a	Expanding	Software/IT
AT&T	23	n/a	Expanding	Telecommunications
Complete Delivery Solution	n/a	n/a	New	Transportation
Entigral	10	n/a	Expanding	Software/IT
Expion	35	n/a	Expanding	Software/IT
Mead & Hunt	n/a	n/a	New	Architecture and Engineering
Valencell	10	n/a	Expanding	Software/IT
i-Cubed	25	n/a	Expanding	Software/IT
Longistics	60	n/a	Expanding	Logistics
Nickelpoint Brewing Company	n/a	n/a	New	Brewery
Workday	8	n/a	Expanding	Software/IT
Bryant International Law & Tax Group	5	n/a	New	Law
Cushman & Wakefield/Thalhimer	n/a	n/a	Expanding	Real Estate
Red Hat, Inc.	50	n/a	Expanding	Software/IT
Rex Healthcare	n/a	200	Expanding	Healthcare

Distil Networks	10	n/a	New	Software/IT
Local Government Federal Credit Union	n/a	n/a	Expanding	Financial Services
Newmark Grubb Knight Frank	4	n/a	New	Real Estate
Advanced Auto Parts	600	5	New	Automotive Retailer
Centrifuge Media	n/a	n/a	Expanding	Media Production
Ranpak Corp.	n/a	n/a	Expanding	Software/IT
RevGen	9	n/a	New	Software/IT
Sensus	30	n/a	Expanding	Smart Grid/Cleantech
Stockton Graham & Co.	5	n/a	Expanding	Beverage
Tyton BioEnergy Systems	20	n/a	New	Biotech/Pharma
Merz North America	250	n/a	New	Biotech/Pharma
Boss Key Productions	20	n/a	New	Interactive Digital Media/Gaming
Charles Schwab	n/a	n/a	Expanding	Financial Services
Equity Resources	7	n/a	New	Financial Services
Kilpatrick Townsend & Stockton	3	n/a	Expanding	Law
Medfirst Medical Center	n/a	n/a	New	Healthcare
Statera	n/a	n/a	New	Software/IT
Teague Campbell Dennis & Gorham, LLP	7	n/a	Expanding	Law
Total:	**1,445**	**$205**		

Source: Greater Raleigh Chamber of Commerce/Wake County Economic Development

4.4 Non-Residential Building Activity & Cost of Living

After a half-decade of comparatively low non-residential building activity, Raleigh saw a resurgence of development in 2014. Every single category improved year-over-year compared to 2013, with Institutional and “Other” development posting especially strong numbers. Institutional development recorded the highest number of permits (36) since 2008 and the resulting $273 million construction value exceeds the cumulative total of the previous five years.

At 198, the overall number of permits recorded in 2014 is also the highest since 2008. Compared to the previous three years, the 5.26 million square feet of construction permitted is roughly three times larger than the 3-year average and the $582.6 million development value is approximately four times larger.

Looking at the Council for Community and Economic Research's (C2ER) 2013 Cost of Living Index, Raleigh has a lower composite cost of living score than peer cities such as Atlanta, GA Charlotte, NC, and Richmond, VA (see Table 4.12). Raleigh had a very low cost of housing score as compared to the national average; among its peer cities, only Nashville-Franklin, TN had a lower housing cost score than Raleigh.

Table 4.7 Raleigh Commercial Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	56	1,357,355	$190,443,492
2008	47	1,494,755	$150,132,467
2009	30	691,702	$101,233,024
2010	25	669,286	$99,136,446
2011	20	317,563	$30,390,667
2012	10	277,020	$28,680,914
2013	16	246,234	$27,798,301
2014	24	596,375	$65,179,067
TOTAL	228	5,817,108	$692,994,378

Source: City of Raleigh Inspections Department

Table 4.8 Raleigh Office Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	55	1,073,572	$81,385,165
2008	48	2,269,863	$178,803,437
2009	30	517,432	$44,230,191
2010	11	1,077,530	$237,682,996
2011	18	398,962	$38,756,590
2012	19	686,796	$52,249,057
2013	9	363,100	$26,180,658
2014	20	1,701,591	$109,896,279
TOTAL	210	8,088,846	$769,184,373

Source: City of Raleigh Inspections Department

Table 4.9 Raleigh Industrial Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	40	659,898	$37,177,945
2008	12	151,908	$9,270,036
2009	9	141,810	$7,789,500
2010	7	170,680	$10,182,575
2011	7	33,913	$1,276,400
2012	5	124,327	$5,485,533
2013	5	149,230	$7,017,000
2014	9	142,889	$8,609,361
TOTAL	94	1,574,655	$86,808,350

Source: City of Raleigh Inspections Department

Table 4.10 Raleigh Institutional Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	56	592,216	$80,695,549
2008	68	482,000	$158,807,201
2009	27	697,327	$59,053,672
2010	29	415,985	$49,697,344
2011	30	280,692	$72,245,736
2012	14	104,310	$13,953,376
2013	19	239,599	$26,949,240
2014	36	1,351,236	$273,003,337
TOTAL	279	4,163,365	$734,405,455

Source: City of Raleigh Inspections Department
**Includes uses such as hospitals, schools, community centers, community clubhouses, and retirement homes*

Table 4.11 Raleigh Other* Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	171	1,813,719	$65,301,239
2008	135	1,989,683	$166,667,759
2009	76	1,040,954	$31,560,301
2010	72	255,093	$8,686,844
2011	108	553,061	$24,449,866
2012	128	980,698	$59,194,918
2013	101	623,262	$31,359,616
2014	109	1,475,172	$125,935,249
TOTAL	900	8,731,642	$513,155,792

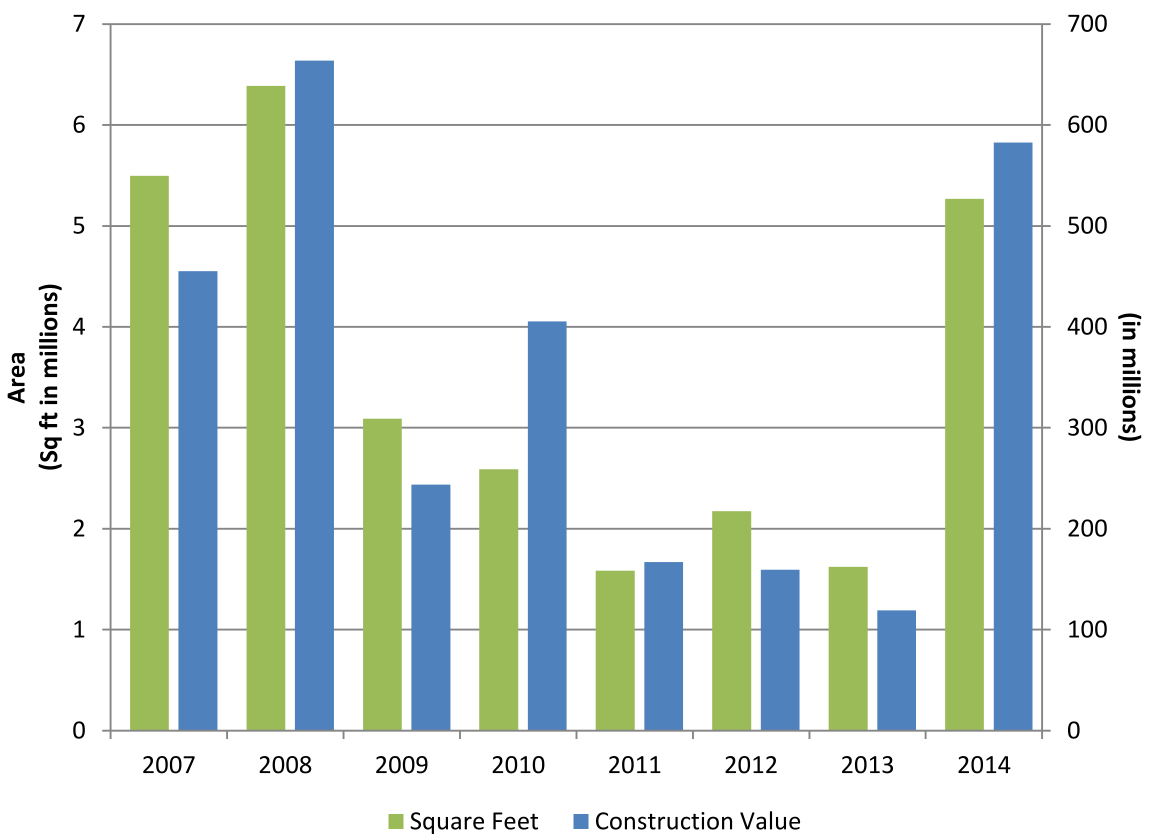
Source: City of Raleigh Inspections Department
**Includes parking garages, out buildings, cell phone towers, etc*

Table 4.12 Raleigh All Non-Residential Building Activity, 2007 to 2014

Year	No. of Permits	Square Feet	Construction Value
2007	378	5,496,760	$455,003,390
2008	310	6,388,209	$663,680,900
2009	172	3,089,225	$243,866,688
2010	144	2,588,574	$405,386,205
2011	183	1,584,191	$167,119,259
2012	176	2,173,151	$159,563,798
2013	150	1,621,425	$119,304,815
2014	198	5,267,263	$582,623,293
TOTAL	**1,711**	**28,208,798**	**$2,796,548,348**

Source: City of Raleigh Inspections Department

Figure 4.4 Raleigh All Non-Residential Building Activity, 2007 to 2014



Source: City of Raleigh Inspections Department

Table 4.13 Metro Area Cost of Living Index Comparison, 2013 Annual Average Data

	100% Composite Index	Grocery Items	Housing	Utilities	Transpor-tation	Health Care	Misc. Goods & Services
Raleigh, NC	93.3	101.7	76.1	105.7	97.8	101.7	96.6
Atlanta, GA	94.9	91.2	87.1	92.0	102.0	102.5	99.6
Austin, TX	92.9	84.0	86.0	91.1	97.2	99.4	99.8
Charlotte, NC	95.4	101.6	83.7	106.6	98.4	98.2	97.0
Jacksonville, FL	94.9	95.2	83.3	105.7	104.7	85.1	98.4
Nashville-Franklin, TN	87.3	87.8	74.3	87.0	94.1	81.4	95.8
Orlando, FL	96.0	96.7	78.6	104.4	98.5	99.3	105.6
Richmond, VA	101.4	98.2	89.4	107.6	99.7	106.5	110.1
Rochester, NY	101.6	94.9	98.9	95.1	109.9	101.6	105.2

Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2013 Annual Average Data

Each quarter C2ER collects data and publishes cost of living information for participating Metro-Micro Urban Areas in the United States. To determine overall cost of living, the relative affordability of certain items (groceries, housing, utilities, transportation, health care, and miscellaneous goods and services) are indexed and a composite figure is calculated and then compared to the national average of 100. Since the index does not measure inflation and each quarterly report is a "snap shot" of a single point in time, index data from different quarters should not be compared.

Chapter 5: Housing and Neighborhoods

The City of Raleigh carries out several programs to increase the supply of affordable housing and stabilize and improve older neighborhoods that need additional resources. Many of these programs have been successful due to the City's partnership with other governmental entities, for profit and nonprofit organizations, and local residents.

The ultimate goal of housing programs is to increase housing opportunities for existing and future residents and to create diverse neighborhoods of choice that attract new investment and which do not exclude residents due to housing costs or discriminatory practices.

5.1 Housing Affordability

Based on the 2009-2013 American Community Survey, 48% of Raleigh's renter households pay more than 30% of their income in housing costs compared to 26% for owner households (see Table 5.1). Households with annual income of less than $50,000 – both renter and owner – are particularly burdened by housing costs. Comparing the fair market rent for a 1-bedroom apartment in the Raleigh metro area to affordable housing costs (30% of income) for renter households making less than $35,000 reveals a significant affordability gap (see Table 5.2).

Table 5.1 Raleigh Households Below $50,000 Annual Income with 30%+ Cost Burden, 2013

Renters Annual Income Category	Total Renter Households	Number of Burdened Households	Percent of Burdened Households
Less than $10,000	8,594	6,792	79%
$10,000 to $19,999	12,591	11,449	91%
$20,000 to $34,999	17,609	13,626	77%
$35,000 to $49,999	13,781	4,038	29%
All Households <$50,000	**52,575**	**35,875**	**68%**
$50,000 or more	26,238	1,350	5%
All Households	**78,813**	**37,225**	**47%**

Owners Annual Income Category	Total Owner Households	Number of Burdened Households	Percent of Burdened Households
Less than $20,000	4,602	3,990	87%
$20,000 to $34,999	7,470	4,896	66%
$35,000 to $49,999	10,401	5,748	55%
All Households <$50,000	**22,473**	**14,634**	**65%**
$50,000 or more	63,915	6,474	10%
All Households	**86,388**	**21,108**	**24%**

Source: 2011 - 2013 American Community Survey 3-year Estimates, Table B25074, Household Income by Gross Rent as a Percentage of Household Income; Table B25106, Tenure by Housing Costs as a Percentage of Household Income

Table 5.2 Comparison of Renter Household Income, Affordable Housing Costs, and Fair Market Rent

Annual Income Category	Total Renter Households	Affordable Housing Costs at 30% of Income	Fair Market Rent for 1 Bedroom Apartment*	Affordability Gap
Less than $10,000	8,594	$250 (based on $10,000)	$741	($491)
$10,000 to $19,999	12,591	$375 (based on $15,000)	$741	($366)
$20,000 to $34,999	17,609	$687 (based on $27,500)	$741	($54)
All Households ≤ $34,999	**38,794**			

** This figure is for the Raleigh-Cary Metropolitan Statistical Area (MSA).*
Source: 2011 - 2013 American Community Survey,35-year Estimates; U.S. Department of Housing and Urban Development, FY2013 Fair Market Rent Documentation System

Table 5.3 Number of Assisted Affordable Housing Units

City of Raleigh Affordable Rental Units	194
Raleigh Housing Authority Units	1,445
Rental Units with Funding from HUD (e.g. Section 202)	1,133
Low-Income Housing Tax Credit (LIHTC) Units (no City funds)	2,966
Rental Units with Funding from City of Raleigh (Joint Venture)	2,874
Homeownership Units with Funding from City of Raleigh	482
Second Mortgages Provided by City of Raleigh	944
Raleigh Housing Authority Housing Choice Vouchers (Section 8)	3,869
Total	13,907

Source: City of Raleigh Community Development Department, 2014

5.2 Home Sales, Average Rent, Residential Building Activity

In constant dollars, the median sales price for single-family detached units has slightly decreased from 2008 to 2014 with fluctuations in the intervening years (see Table 5.4). Median sales prices for townhouses and condominiums both decreased more significantly over this time period, although, again, there were yearly fluctuations. Single-family detached homes and townhouses both saw decreases in median sales price from 2013 to 2014, while the median sales price for condominiums rose by $2,325 after seeing large declines between 2012 and 2013 (see Table 5.5).

Looking at residential sales by price range, the highest number of single family homes sold during 2012 had a price tag between $150,001 and $200,000, although sales of homes over $400,000 was not far behind (see Table 5.6). For both townhouses and condominiums, the price range with the highest number of sales was $100,001 to $150,000. For all residential units combined, the largest number of sales was in the $150,001 to $200,000 category.

Cost of living data from the Council on Community and Economic Research indicates that average rents for the Raleigh metro area increased slightly after having steadily decreased over the previous 6 years (see Table 5.7). In 2013, average rent in the area was estimated to be $649.

Looking at residential permit activity for 2014, apartments represented the largest category in terms of permit numbers (3,140 units permitted, or 68% of all residential building permits issued), square footage (4,096,470), and construction value ($276,365,805) (see Table 5.8).

Table 5.4 Median Sales Price by Unit Type, 2008 – 2014 (in 2014 dollars)

	2008	2009	2010	2011	2012	2013	2014
Single-Family Detached	$234,753	$236,441	$241,844	$224,540	$236,900	$236,640	$233,500
Townhouse	$173,541	$171,957	$175,689	$155,530	$161,710	$165,240	$163,000
Condominium	$157,066	$149,911	$145,322	$138,535	$139,050	$123,675	$126,000

Source: Wake County Revenue Department

Table 5.5 Percent Change in Median Sales Price by Unit Type, 2008-2014 (using 2014 dollars)

	2008 to 2009	2009 to 2010	2010 to 2011	2011 to 2012	2012 to 2013	2013 to 2014
Single-Family Detached	1%	2%	-5%	3%	-0.1%	-1.3%
Townhouse	-1%	2%	-10%	2%	2.2%	-1.4%
Condominium	-5%	-3%	-3%	-2%	-11%	1.9%

Source: Wake County Revenue Department

Table 5.6 Numbers of Residential Sales by Price Range and Type of Unit, 2014

Price Range of Sales	Single Family	Townhouse	Condo	All Units
$25,000 - $100,000	138	169	169	**476**
$100,001 - $150,000	557	640	215	**1,412**
$150,001 - $200,000	821	573	72	**1,466**
$200,001 - $250,000	690	257	50	**997**
$250,001 - $300,000	474	128	51	**653**
$300,001 - $350,000	309	67	37	**413**
$350,001 - $400,000	234	46	17	**297**
over $400,000	758	65	45	**868**
Total	**3,981**	**1,945**	**656**	**6,582**

Source: Wake County Revenue Department

Table 5.7 Raleigh-Cary Metropolitan Area Annual Average Apartment Rent, 2007 to 2013

Year	Average Rent (constant 2013 dollars)
2007	$826
2008	$765
2009	$756
2010	$719
2011	$677
2012	$641
2013	$649

Source: Council for Community and Economic Research (C2ER), Cost of Living Index, Annual Average Data

Table 5.8 Raleigh Residential Building Activity, 2014

Residential Type	No. of Units Permitted	Square Feet	Construction Value
Single Family	829	2,804,245	$270,697,594
Townhouse	491	1,056,231	$60,367,907
Condominium	125	211,553	$11,728,323
Apartment	3,140	4,096,470	$276,365,805
TOTAL	**4,585**	**8,168,499**	**$619,159,629**

Source: City of Raleigh Inspections Department
**Refer to Figure 2.8 for a multi-year comparison of residential units permitted*

Chapter 6: Transportation

This section provides an overview of existing and planned transportation investments and identifies the primary challenges facing the City of Raleigh's transportation system within a regional context.

6.1 Regional Context

The performance of the transportation system is a major factor for a community's economic prosperity and quality of life. Not only does the transportation system provide for the mobility of people and goods, but over the long term, it influences patterns of growth and the level of economic activity. The Comprehensive Plan as well as adopted specialized transportation plans and studies helps Raleigh guide future development of its roads and highways, public transportation systems, and bicycle and pedestrian networks. Together, all of these modes of transportation provide mobility and accessibility in support of the desired land use patterns and community form.

The City of Raleigh depends on several organizations for transportation planning and implementation. The key organizations involved with transportation planning and implementation are:

- **Capital Area Metropolitan Planning Organization (CAMPO):** Long range planning, capital improvement planning
- **North Carolina Department of Transportation (NCDOT):** Long range planning, capital improvement planning, construction/implementation
- **City of Raleigh Planning Department:** Long range planning, capital improvement planning
- **City of Raleigh Public Works Department:** Construction/implementation
- **Triangle Transit:** Long range planning, capital improvement planning, construction and implementation

6.2 Current Projects

The transportation capital program includes major street design and construction, street improvements, pedestrian and bicycle projects, downtown parking improvements, and transit projects. Total proposed funding for the five-year transportation program is $150.7 million, with $53.3 million planned for FY 2015.

The FY 2015 Capital Improvement Program (CIP) completes the implementation of the $40 million Transportation Bond approved by Raleigh residents in October 2011 and programs the $75 million transportation bond passed by voters in October 2013. The General Fund budget includes a 1.02¢ tax increase to fund the debt service and operating costs for the referendum. The CIP also programs the remaining budget from the 2011 transportation bond. All capital projects are consistent with the adopted goals of the 2030 Comprehensive Plan and incorporate "Complete Streets" principles, integrating bicycle, pedestrian and transit system elements into each project (see Table 6.2 for current projects).

The CIP includes matching city funds for several projects planned by the North Carolina Department of Transportation (NCDOT), which include two bridge replacements in 2016 (Wade Avenue and Peace Street bridge replacements on Capital Boulevard) and two highway improvement projects (widening of the I-440 Beltline in southwest Raleigh, and improvements to the US 70 Corridor from Duraleigh Road to I-540).

The CIP also invests $8.9 million in the city's transit system, including facility maintenance and equipment replacement. This is roughly a 30% increase in planned investments in the transit system, allowing the city to leverage additional federal funds for transit improvements. The bicycle and pedestrian program includes $8.2 million for sidewalk construction, maintenance, repair, streetlight installations, and bicycle facility improvements, and includes implementation of the City's 1st cycle track on Gorman Street to connect the Reedy Creek Trail at Meredith College to the Rocky Branch Greenway through the NC State Campus. Lastly, the CIP includes $3.2 million for maintenance and improvements at downtown parking decks.

Bond proceeds will also fund renovations at the City's Moore Square Station. The parking improvements element includes $3.2 million for security improvements and maintenance for the downtown parking decks. In addition to bond proceeds, transportation projects are funded with facility fees, construction-related assessments, and the local share of the state gasoline tax (Powell Bill). In FY 2014, selected projects are funded with one-time transfers from the General Fund. This includes $3 million for Union Station, as well as funding for sidewalk repair and transit facilities.

Table 6.1. Federal Grant Allocations for Transportation Projects, 2006 – 2014

Project Description	STP-DA	CMAQ	TIGER
Falls of Neuse Road Realignment & Widening	$16.14 M		
Sidewalk Improvement Projects		$0.55 M	
Wade Avenue Improvements	$0.55 M		
Priority Bike Striping	$0.12 M		
Lake Wheeler Road Improvements	$1.72 M		
Creedmoor Road Sidewalk Improvements	$1.20 M		
I-40 Overpass Pedestrian Retrofits/Improvements		$1.64 M	
Capital Boulevard Improvements	$1.27 M		
Six Forks Road Sidewalk Improvements	$0.39 M		
Downtown Pedestrian Safety Improvements	$0.12 M		
Citywide Bicycle Improvement Projects		$0.89 M	
Union Station Phase 1			$21.00 M

STP-DA: Surface Transportation Program - Direct Allocation
CMAQ: EPA Congestion Mitigation and Air Quality Improvement Program
TIGER: USDOT Transportation Investment Generating Economic Recovery

Source: City of Raleigh Transportation Planning

Table 6.2 Selected Current Transportation Projects

Project Name	From	To	Description
Street Projects			
Buck Jones Rd. Widening	Farm Gate Rd.	Xebec Way	Widen to 3 lanes with curb & gutter and sidewalks on both sides
Lenoir St./South St. Two-way Conversion	Wilmington St./ S Saunders St.	East St.	Convert from multi-lane one way to two-way street
New Bern Ave. Pedestrian Improvements	Tarboro St.	Sunnybrook Rd.	Construct sidewalks or multi-use paths on both sides
Mitchell Mill Rd. Widening	US 401	Forestville Rd.	Widen to 4 lanes with median, curb & gutter and sidewalks
Blount St./Person St. Restriping (Phase I)	MLK Blvd.	Hoke St.	Convert to two lanes with bike lanes and on-street parking
Sandy Forks Rd.	Six Forks Rd.	Falls of Neuse Rd.	Widen to 3-lane with curb & gutter, sidewalks, & bike lanes
Fox Rd.	Spring Forest Rd.	Sumner Blvd.	Widen to 2-lane, with center lane, curb & gutter, & sidewalks
Annual Paving Projects			
Transylvania Ave.	Hertford St.	Beaufort St.	Widen to 27 feet with curb & gutter
Major Sidewalk Projects			
Rock Quarry Rd.	MLK Blvd.	Bart St.	Sidewalk, east side
Six Forks Rd.	Wake Forest Rd.	Coleridge Rd.	Sidewalk, north side
I-40 Bridges	Buck Jones, Avent Ferry, & Rock Quarry Rds.		Sidewalks, one or both sides
Capital Blvd.	Spring Forest Rd.	Old Wake Forest Rd.	Sidewalks, both sides
Raleigh Blvd.	Crabtree Creek	N of Yonkers Rd.	Sidewalk, one side
Millbrook/New Hope Rds.	Atlantic Ave.	Wallingford Dr.	Sidewalks, one or both sides
Spring Forest Rd.	McHines Pl.	Capital Blvd.	Sidewalks, both sides
Wake Forest Rd.	Creekside Dr.	Georgetown Rd.	Sidewalk, one side
Wade Ave.	Hobson Ct.	Daniels St.	Sidewalk, one side
Maywood Ave./ Lake Wheeler Rd.	S Saunders St.	Centennial Pwy.	Sidewalk, one side
Bike Projects			
Gorman St.	Hillsborough St.	Sullivan Dr.	Cycle track
Lumley Rd.	Brier Creek Pwy.	US 70	Multi-use Path
Westgate Rd.	US 70	Leesville Rd.	Bike lanes
Ebenezer Church Rd.	Westgate Rd.	Umstead Park	Bike lanes/multi-use path
Streetscape Projects			
Oberlin Rd.	Roberts St.	Groveland Ave.	Capital Program
Peace St. West	St. Mary's St.	West St.	Capital Program
Town & Country Dr.	Millbrook Rd.	Lead Mine Rd.	Neighborhood Program
Cross Link Rd.	Garner Rd.	Dandridge Dr.	Neighborhood Program
Currituck Dr.	Lassiter Mill Rd.	Yadkin Dr.	Neighborhood Program

Source: City of Raleigh Transportation Planning

Chapter 7: Public Utilities

The City's public utilities are regional in nature. The City has merged utilities with all the municipalities in eastern Wake County including Garner, Rolesville, Wake Forest, Knightdale, Wendell, and Zebulon. Further, the Towns of Fuquay-Varina and Holly Springs periodically rely on the City for potable water supply. It is obvious that planning the infrastructure of the entire water system must be with the perspective of the entire region in mind.

7.1 Wastewater System and Water Demand & Treatment

The city of Raleigh operates four wastewater treatment plants. Table 7.1 shows the historical throughput – amount treated in millions of gallons per day (MGD) for each plant. The maximum capacity for these plants is as follows:

- Neuse River WWTP: 60 MGD
- Wrenn Road WWTP: 1.2 MGD
- Little Creek WWTP: 1.85 MGD
- Smith Creek WWTP: 2.4 MGD

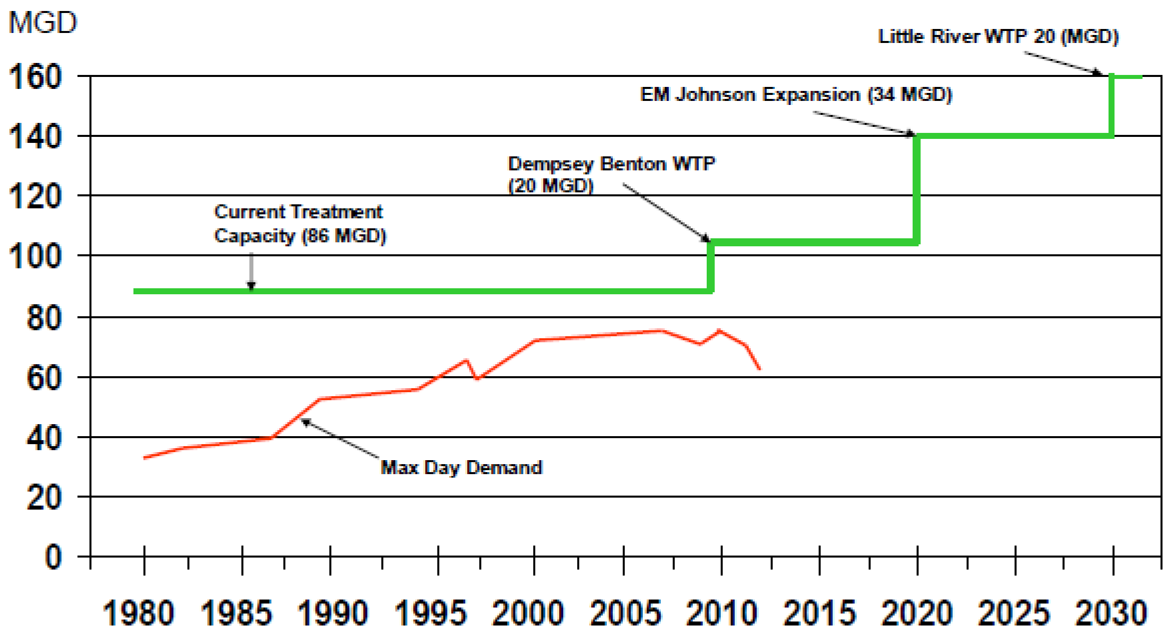
Table 7.1 Historical Wastewater Treatment Throughput, 2000 to 2014

Year/Facility	Neuse River WWTP (MGD)	Wrenn Rd WWTP (MGD)	Little Creek WWTP (MGD)	Smith Creek WWTP (MGD)
2000	36.16	-	0.853	1.330
2001	35.61	0.814	0.757	1.331
2002	37.39	0.911	0.816	1.399
2003	44.30	0.999	0.930	0.442
2004	45.50	0.846	0.715	0.691
2005	46.20	0.904	0.580	0.713
2006	44.80	0.978	0.591	1.026
2007	42.01	0.960	0.552	1.040
2008	40.87	0.564	0.592	1.105
2009	42.46	0.055	0.664	1.206
2010	43.84	0.692	0.692	1.233
2011	41.59	0.00	0.616	1.293
2012	41.91	0.00	0.625	1.326
2013	43.97	0.00	0.746	1.480
2014	43.05	0.066	0.831	1.685

Source: City of Raleigh Public Utilities Department

Figure 7.1 shows current water treatment capacity, future expansions for treatment facilities, and historical water demand.

Figure 7.1 Maximum Daily Demand & Treatment Capacity



Source: City of Raleigh Public Utilities Department

Chapter 8: Environmental Resources

This chapter addresses Raleigh's natural and environmental resources and the challenges that need to be addressed to protect these resources. It begins with a look at watershed conditions and then provides a snapshot of air quality, water consumption and conservation, and greenhouse gas emissions.

8.1 Existing Watershed Conditions

Table 8.1 provides 2005 and 2010 water quality information for the portions of the Neuse River within Wake County. The Neuse River is the most significant water system among the city's watersheds which include: Buffalo Creek, Crabtree Creek, Little River, Marks Creek, Middle Creek, Moccasin Creek, Swift Creek, and Walnut Creek.

Overall, about half of the stream sites (13 of 28) maintained the same bioclassification between 2005 and 2010. Of the remaining 15 sites, five improved and four showed decreased quality – the remaining six stream sites were not sampled in both years. In 2015, the State is scheduled to conduct another set of samples, which will provide an updated snapshot of stream health in Wake County.

Table 8.1 Bioclassification for Rivers & Streams in Wake County's Portion of the Neuse River Subbasin

Water Body	Monitoring Location	2005	2010
Crabtree Creek	NC 54	Poor	Not Sampled
Crabtree Creek	Umstead Park	Good-Fair	Good-Fair
Crabtree Creek	US 1	Fair	Not Sampled
Crabtree Creek	SR 1664	Excellent	Excellent
Little River	SR 2224	Good	Good
Little River	NC 96	Good-Fair	Not Sampled
Marsh Creek	Near US 1	Fair	Not Sampled
Middle Creek	SR 1375	Good-Fair	Good-Fair
Middle Creek	SR 1375	Excellent	Good-Fair
Neuse River	US 401	Good-Fair	Good
Neuse River	US 64	Good-Fair	Good-Fair
New Light Creek	SR 1912	Good-Fair	Good-Fair
New Light Creek	SR 1911	Good	Good
Perry Creek	SR 2006	Fair	Fair
Richland Creek	US 1	Excellent	Good-Fair
Smith Creek	SR 2045	Good-Fair	Fair
Smith Creek	SR 2045	Fair	Good
Swift Creek	SR 1152	Fair	Fair (2009)
Swift Creek	SR 1152	Fair/Good-Fair	Good-Fair
Toms Creek	SR 2044	Poor	Not Sampled
Terrible Creek	SR 2751	Good	Good
Upper Barton Creek	NC 50	Fair	Fair

Upper Barton Creek	NC 50	Good	Good-Fair
Walnut Creek	SR 2442	Fair	Fair
Walnut Creek	SR 1348	Poor (1995)	Fair
Walnut Creek	South State Street	----	Fair
Walnut Creek	SR 2544	Good-Fair	Good-Fair
Walnut Creek	SR 1348	Poor (1995)	Fair

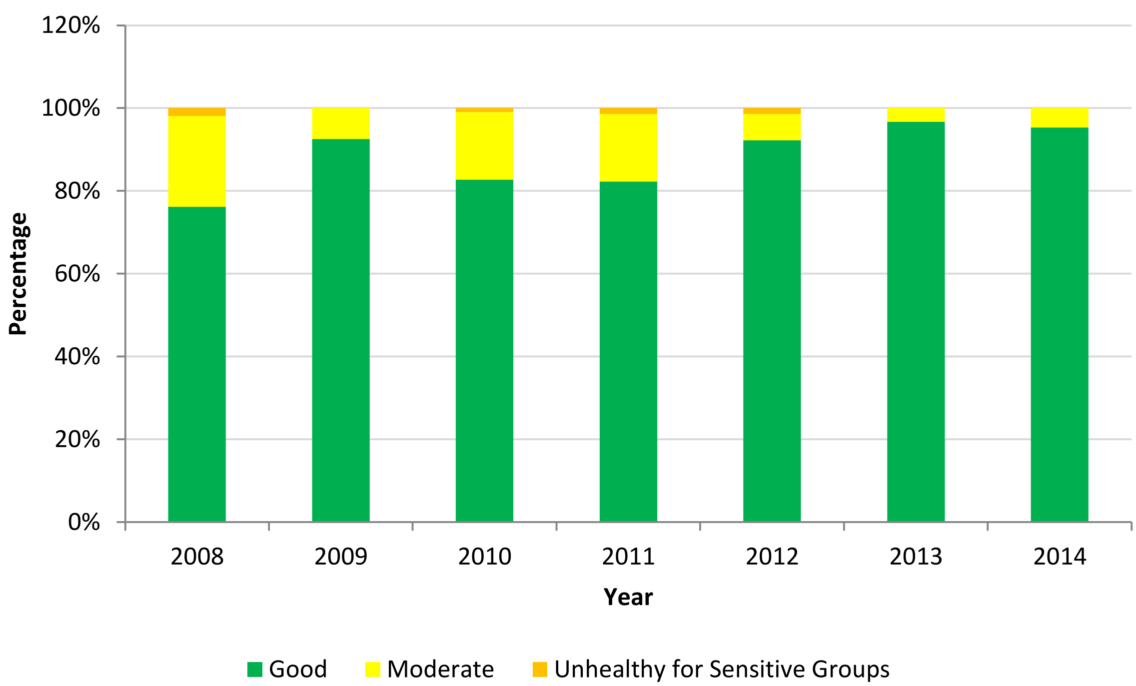
Source: North Carolina Department of Environment and Natural Resources, Division of Water Quality, Environmental Sciences Section, "Basinwide Assessment Report Neuse River Basin", January 2012

8.2 Air Quality

Two large air quality problems in North Carolina are ground-level ozone (the primary ingredient in "smog") and particulate matter. Both pollutants are caused by emissions from cars and trucks and from the fossil fuel burning power plants that supply most of our electricity. In 2008, 76% of recorded days were categorized at "good," while seven years later in 2014 95% of days were categorized as "good" (see Figure 8.1 and Table 8.2).

In addition, Raleigh has had two consecutive years without recording a single day categorized as "unhealthy for Sensitive Groups." These readings are from the Millbrook Monitor, the only reporting station within the City of Raleigh.

Figure 8.1 Ozone Category Days



Source: U.S. Environmental Protection Agency, NC Department of Environment and Natural Resources

Table 8.2 Number of Ozone Rating Days 2008 - 2014, Millbrook Monitor

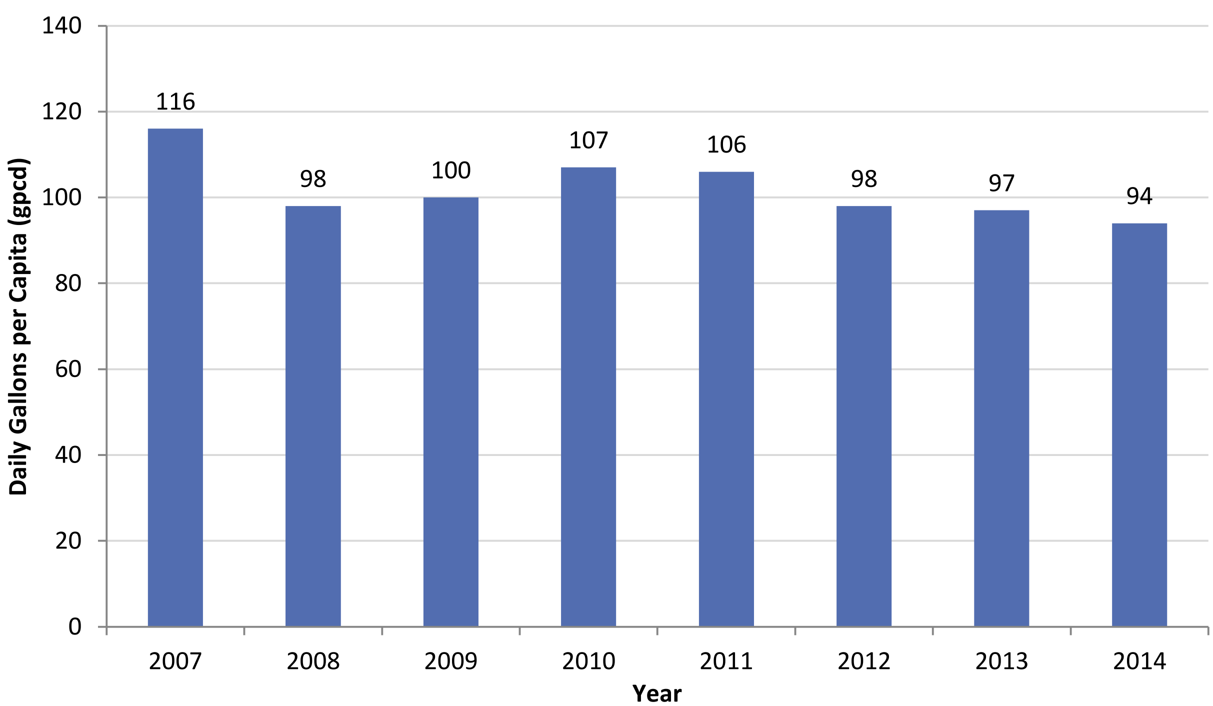
	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy
2008	163	47	4	0
2009	198	16	0	0
2010	177	35	2	0
2011	176	35	3	0
2012	191	13	3	0
2013	207	7	0	0
2014	204	10	0	0

Source: U.S. Environmental Protection Agency, NC Department of Environment and Natural Resources

8.3 Water Consumption and Conservation

The City of Raleigh has initiated several programs to help educate customers about the most water-efficient technologies and to understand the City's mandatory conservation measures. These programs include water efficiency tips, a WaterSense toilets rebate program, showerhead swap-out program, water conservation kit, and educational presentations, including the Sustainable Home Raleigh program. Efficiently using natural resources makes environmental sense and provides economic benefits by reducing energy costs in the treatment and pumping process of water. Water consumption as measured in daily gallons per capita (gpcd) has trended downward over the last 8 years from 116 gpcd in 2010 to 94 gpcd in 2014 (see Figure 8.2).

Figure 8.2 Daily Water Consumption Aggregated by City Population



Source: City of Raleigh Public Utilities Department

8.4 Stormwater Management

Stormwater management must address the quantity as well as the quality of runoff water, commonly associated with rainwater falling and moving along impervious surfaces. The Stormwater Division manages stormwater services provided to the citizens of Raleigh through the City's stormwater utility, which includes the drainage and water quality assistance programs, capital stormwater projects, the water quality program mandated by the Clean Water Act, review and inspection of private developments for conformance to stormwater, soil erosion, and floodplain requirements, the drainage system inventory, and citizen inquiries concerning these functions.

The following lists some of the Stormwater Division's projects from Fiscal Year 2013-2014:

- Continued inspection of all National Pollutant Discharge Elimination System (NPDES) permitted private industrial sites and city facilities to improve water quality under the permit requirements.
- Completed or closed out 9 stormwater projects at a cost of $8.5 million.
- More than 54 CIP projects at an estimated cost of over $28 million are currently in the design or construction phase.
- More than 70 drainage petition projects at an estimated cost of over $3.25 million are currently in the design or construction phase.
- Purchased Grove Park Apartment at a cost of $1.05 and it is in the Federal Emergency Management Agency's (FEMA) grant program for acquisition of repetitive flood loss properties. The area is to be returned to natural greenway after demolition.

Table 8.3 Stormwater Management Services

	FY 09-10 Actual	FY 10-11 Actual	FY 11-12 Actual	FY 12-13 Actual	FY 13-14 Actual
Projects designed/constructed	16	24	35	30	29
Projects reviewed	2,951	2,495	2,759	3,929	4,400
Inspections	8,729	9,165	8,392	7,832	9,000
Number of permits approved	1,626	1,787	1,050	1,033	1,200

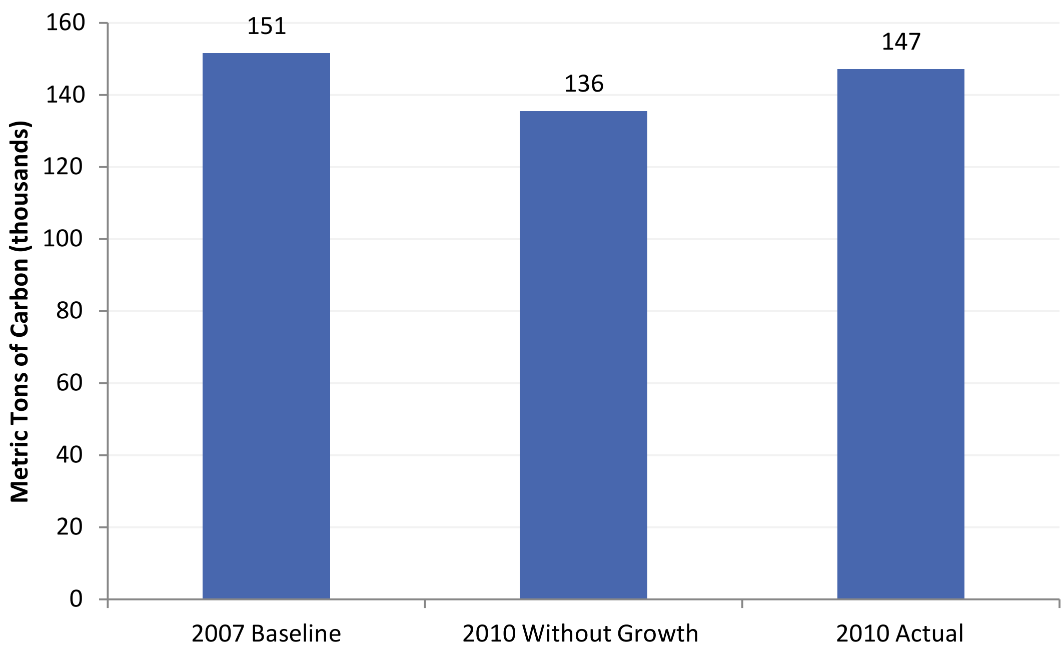
Source: Public Works, Stormwater Management Division

8.5 Greenhouse Gas Emissions

The City of Raleigh conducted a greenhouse gas emissions inventory for municipal operations in 2010. The base year selected for this emissions inventory was 2007. In that base year, City operations emitted 151,479 metric tons of carbon ($MTCO_2E$) to the atmosphere. Through implementation of a number of programs and projects, it is estimated that City operations reduced greenhouse gases emitted in 2010 by about 10% – an important achievement in the span of only a few years (see Figure 8.3).

This reduction was accomplished with relatively low capital expenditures, few impacts on City or department operations or budgets, no increased cost to customers, and no reduction in level of service to customers. Many of these projects were already underway prior to completion of the Greenhouse Gas Emissions Inventory for Municipal Operations.

Figure 8.3 Municipal Operations Greenhouse Gas Emissions



Source: City of Raleigh Community-Wide Greenhouse Gas Emissions Inventory: Years 2007 and 2010

Chapter 9: Parks, Recreation and Cultural Resources

9.1 Existing Parks, Recreation and Cultural Resources System and Planning Framework

The Raleigh parks, recreation and cultural resources system has 5,750 acres of land providing 221 parks, open spaces and plazas and more than 3,800 acres of greenway property including 110 miles of existing greenway trails.

In 2004, Raleigh's Parks, Recreation and Cultural Resouces Department completed an update of the Parks and Open Space element of the Raleigh Comprehensive Plan, known as the Raleigh Parks Plan. In September of 2012 the Parks, Recreation and Cultural Resources Department began the process to create a new Parks, Recreation and Cultural Resources System Plan. The new System Plan was adopted by City Council on May 6, 2014. The new System Plan supplements the City of Raleigh 2030 Comprehensive Plan, which was adopted in 2009.

In May 2012, the City Council adopted enhancements to the Department's Public Participation in Park Planning Process, providing process guidance for the new System Plan and other department projects.

The City's parks and greenways are invaluable resources for cultural pursuits, natural conservation and active and passive lifestyle activities. The Parks, Recreation and Cultural Resources Department publishes the "Leisure Ledger" on a regular basis to provide a listing of the park, recreation and cultural resources program offerings and facilities available to the general public.

Park and greenway projects can be tracked on-line through the following webpage:
http://www.raleighnc.gov/home/content/PRecDesignDevelop/Articles/ParkAndGreenwayPlanningAndDevelopment.h tml

9.2 Parks and Recreation Facilities

Raleigh has one of the most well developed park systems in the Southeastern United States. The City's system's developed parks primarily consists of 46 neighborhood parks, 25 community parks, and 9 metro parks, encompassing approximately 4,300 acres of land. Initiated by public input into the System Plan and an Action Item for Implementation, the department is developing a new classification system based on experiences. The current park classification system is defined in the 2004 Raleigh Parks Plan as follows:

Neighborhood Park: Ranges in size from five to 25 acres and serves residents within a half-mile radius. The level of service guideline (LOS) is 2.6 acres per 1000 population.

Community Parks: Range in size from 30 to 75 acres and serves residents within a two mile radius. The LOS is 3.1 acres per 1000 population.

Metro Parks: Defined as providing a leisure or recreational opportunity, which, either by size, scale or theme, appeals to a majority of citizens. LOS is 4.2 acres per 1000 population.

Natural areas within Raleigh's parks are sub-classified in the following matter: 1) a Nature Preserve, an entire stand-alone park unit but captured above within "Metro Parks", 2) Protected Natural Areas; areas within the boundaries of other park units, or, 3) Greenway Corridor, a linear park feature typically associated with a stream or river system. The criteria for Nature Preserves and Protected Natural Areas include the presence of significant species or habitats, proximity to other conservation lands, and special considerations such as partnerships and deed constraints. Nature Preserves are similar to Metro Parks and have a regional focus. They have been carefully evaluated using adopted criteria and are found to be worth of protection due to their natural resource attributes. Because of their unique character, Preserves do not have a LOS, but due to their regional appeal their acreage is included in the summary of Metro Parks.

The City's park system, detailed in Table 9.1, is supplemented by an additional 137 special parks that range in size, theme and scale, and include small parcels of land along city streets, in neighborhoods, and linked to public buildings. Additionally, parks and recreation needs are met on a regional basis by Wake County, with several county parks located within Raleigh: Historic Oak View Park, Historic Yates Mill Park, and North Wake Landfill District Park.

Table 9.1 City Parks

Name	Park Type	Acres
Abbotts Creek	Community	29.12
Alvis Farm	Community	95.92
Anderson Point	Community	89.57
Baileywick	Community	50.16
Barwell Road	Community	54.47
Biltmore Hills	Community	46.67
Brier Creek	Community	9.98
Carolina Pines	Community	38.71
Green Road	Community	26.60
Halifax	Community	4.73
Hodges Mill Creek Property	Community	49.16
Jaycee	Community	24.85
John Chavis Memorial	Community	28.87
Lake Lynn	Community	51.99
Laurel Hills	Community	48.18
Leesville	Community	57.63
Leonard Tract	Community	83.60

Lions	Community	41.41
Marsh Creek	Community	110.61
Milburnie	Community	88.17
Millbrook-Exchange	Community	69.53
Optimist	Community	30.72
Thornton Road Property	Community	130.61
Watkins Road Property	Community	38.36
Worthdale	Community	36.14
	Community Total	**1,336**
Buffaloe Road Athletic	Metro	165.58
Forest Ridge	Metro	586.81
Forest Ridge Access	Metro	2.52
Lake Johnson	Metro	167.06
Lake Wheeler	Metro	873.92
Pullen	Metro	66.38
Shelley Lake - Sertoma	Metro	144.80
Walnut Creek North	Metro	104.84
Walnut Creek South	Metro	204.71
	Metro Total	**2,317**
Annie Louise Wilkerson, MD	Nature Preserve	157.60
Durant Nature	Nature Preserve	241.58
Horseshoe Farm	Nature Preserve	146.26
Lake Johnson	Nature Preserve	305.29
	Nature Preserve Total	**851**
Apollo Heights	Neighborhood	4.26
Brentwood	Neighborhood	19.16
Brookhaven	Neighborhood	25.92
Cedar Hills	Neighborhood	38.49
Chamberlain	Neighborhood	1.44
Charlotte H Green	Neighborhood	1.02
Drewry Hills #2	Neighborhood	18.43
Eastgate	Neighborhood	25.27
Eliza Pool	Neighborhood	6.24
Erinsbrook Drive Property	Neighborhood	18.27
Fallon	Neighborhood	10.33
Forestville Road Property	Neighborhood	26.29
Fred Fletcher	Neighborhood	21.36

Glen Eden	Neighborhood	20.41
Greystone Recreation Center	Neighborhood	0.22
Highhill Road Property	Neighborhood	6.43
Hill Street	Neighborhood	16.54
Honeycutt	Neighborhood	29.99
Isabella Cannon	Neighborhood	3.53
John P Top Greene	Neighborhood	1.32
Kaplan	Neighborhood	5.19
Kentwood	Neighborhood	14.63
Kingwood Forest	Neighborhood	4.18
Kiwanis	Neighborhood	24.14
Kyle Drive Property	Neighborhood	27.24
Longview	Neighborhood	6.91
Method	Neighborhood	8.32
North Hills	Neighborhood	31.92
Oakwood	Neighborhood	12.72
Peach Road	Neighborhood	6.96
Perry Creek Road Property	Neighborhood	26.46
Poole Road Property	Neighborhood	5.99
Powell Drive	Neighborhood	8.64
Ridge Road	Neighborhood	6.78
Roanoke	Neighborhood	1.62
Roberts	Neighborhood	7.20
Sanderford Road	Neighborhood	23.48
Sierra Drive Property	Neighborhood	2.45
Southgate	Neighborhood	8.84
Spring Forest Road	Neighborhood	21.81
Strickland	Neighborhood	36.10
Sunnybrook Road Property	Neighborhood	20.57
Tarboro Road	Neighborhood	3.18
Williams	Neighborhood	8.71
Windemere Beaver Dam	Neighborhood	14.77
Wooten Meadow	Neighborhood	20.50
	Neighborhood Park Total	**684**
Total Acres:		**5,157.34**

Source: City of Raleigh Parks, Recreation and Cultural Resources Department

9.3 Greenways

The Capital Area Greenway corridor system is a land use within the Comprehensive Plan. It is generally based on the drainage systems of the Neuse River and of the following creek systems: Crabtree, Walnut, Richland, and Harris. The City of Raleigh currently provides approximately 4,300 acres of greenway land through its community wide, Capital Area Greenway System. The City has a total of 26 separate greenway trails that span over 100 miles. On January 6, 2015, the City Council adopted a new Capital Area Greenway Planning and Design Guide. More information is available at the following webpage: http://www.raleighnc.gov/home/content/PRecDesignDevelop/Articles/CapitalAreaGreenwayTrailSystem.html

Although not part of the City's parks system, the 5,577-acre William B. Umstead State Park is a local and regional park resource that is managed by the North Carolina Division of Parks & Recreation. Residents from Triangle communities use the park for hiking, viewing wildlife, off-road biking, and other recreational pursuits. This park includes a 500 acre lake and 215 upland acres with an extensive trail system. Greenway trail access from Raleigh to Umstead Park also connects with the Town of Cary's greenway system and Lake Crabtree County Park.

9.4 Future Park and Open Space Needs

The following table addresses needs based on the 2004 Park Plan. The department is currently developing a new model to better define needs of the community to maintain a high level of service.

Table 9.2 City-Wide Current and Proposed Level of Service (LOS) Goals and Needs based on the 2004 Park Plan

Classification	Existing Acres	Existing Number of Parks	LOS Standard (Acres per 1,000 people)	Additional Acres Needed by 2030	Projected Park Size (Acres)	New Parks Needed to Meet 2030 LOS	Total Parks Needed by 2030
Neighborhood Parks	684	50*	2.6	824*	15	55	105**
Community Parks	1,336	25	3.11	468	60	8	33
Metro Parks	2,317	9	4.23	0	300	0	8
Nature Preserves	851	4	N/A	N/A	N/A	N/A	4
Special Parks	592	137	N/A	N/A	N/A	N/A	137
Greenway Corridors	4,300	N/A	N/A	1,118	N/A	N/A	N/A
Total	10,080	225	N/A	2,410	N/A	63	287

Source: City of Raleigh Parks, Recreation and Cultural Resources Department

* *Includes five school parks that are recognized as currently serving community needs as Neighborhood Parks*

** *Presumes six acres equivalent for each of five school parks currently functioning as Neighborhood Parks*

Chapter 10: Community Facilities

A community facility is established primarily for the benefit and service of the population of the community in which it is located. Uses include but are not limited to schools, community centers, libraries, police protection, fire stations, or government buildings.

The tables captured below represent data collected through comprehensive planning efforts that occurred during the past calendar year.

Table 10.1 Police Facilities

Police Facility	Number of Staff	Number of Vehicles	Facility Sq. Ft.	Address
Headquarters and North	193	143	45,900	6716 Six Forks Road, 27615
Downtown	118	59	33,700	218 W. Cabarrus Street, 27602
Front Street	103	133	48,000	1221 Front Street, 27609
Southeast	94	76	10,594	1601-30 Cross Link Road, 27610
Southwest	77	54	14,400	601-104 Hutton Street, 27606
Atlantic Avenue	104	161	16,165	4501 Atlantic Avenue, 27604
Northeast	68	54	13,851	5220 Greens Dairy Road, 27616
Northwest	61	46	11,000	8016 Glenwood Avenue, 27612
The Academy	8	10	12,416	4205 Spring Forest Road, 27616
The Range	10	21	9,260	8401 Battle Bridge Road (Total of all buildings)
The Range			7,000	Range Road (New Building)
The Range			1,280	2 old trailers (Used as office
The Range			260	Old cinder block range house
The Range			400	(4) storage sheds on property
The Range			320	Range 2-story garage
Total:	**836**	**757**	**224,546**	

Source: City of Raleigh Police Department

Table 10.2 Fire Services

Performance Measures	Actual FY 2012	Actual FY 2013	Actual FY 2014	Projected FY 2015
Fire calls answered	1,354	1,077	1,133	1,192
Rescue and EMS calls answered	21,912	21,951	23,119	24,349
Fires investigated	326	258	265	272
Permits issued	844	1,272	1,738	1,800
Average hours per fire call (hrs)	1.01	0.92	0.55	0.50
Average hours per EMS call (hrs)	.33	0.33	0.20	0.20
Average response time to emergency calls (min)	4.45	4.43	4.43	4.44
Percent citizens reached by public fire education	9%	10%	10%	10.0%

Source: City of Raleigh Fire Department

Table 10.3 Waste Management Service Program

The City of Raleigh Solid Waste Services Department collects waste, recyclables and yard waste. Collections take place within city limits, as captured here:

Residential Waste Collection	Commercial Waste Collection	Recyclables Collection	Yard Waste Collection	Bulky Waste Collection	Other
Weekly, Curbside	Open Market	Bi-weekly, Curbside[1]	Weekly, Curbside[2]	Curbside, By Appointment[3]	5 Drop off locations[4]

[1] Phasing in biweekly collection, using roll carts.
[2] Leaves are picked up seasonally. Drop off Yard Waste option (fee-based).
[3] No fee for items 4 cubic yards or less, up to 4 appointments a year. Fee for additional bulky items.
[4] Recyclables accepted including small business operations.

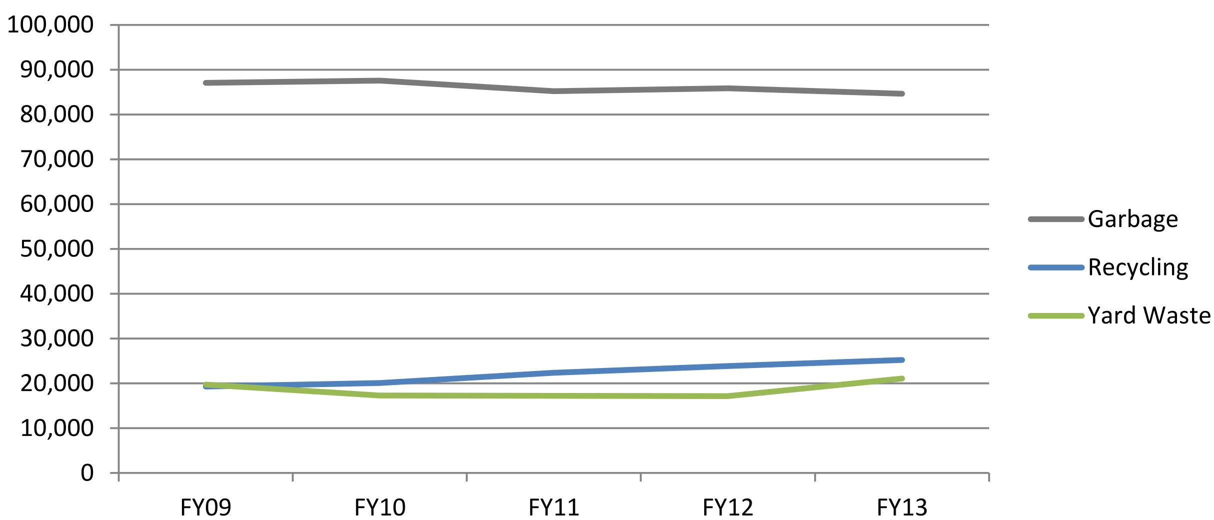
Source: City of Raleigh Solid Waste Services Department

Table 10.4 Solid Waste Services Equipment

Number	Type
94	Large vehicles
52	Automated refuse collectors
38	Rear loader garbage and yard waste collectors
13	Recycling trucks (compartmentalized for separation)
2	Rollout trucks (for recycling drop offs)
2	Knuckle Boom trucks (for bulky item and appliance pickup)

Source: City of Raleigh Solid Waste Services Department

Figure 10.1 Solid Waste Collections in Tons



Source: City of Raleigh Solid Waste Services Department

Chapter 11: Historic Resources

The City of Raleigh has a unique heritage. It was created in 1792 as the planned site for the capital city of North Carolina. Through more than two centuries of growth, Raleigh's capital city status has shaped its evolution. As a seat of biennial legislative government, growth was slow during the city's first one hundred fifty years. Raleigh's primary business for decades was state government and the services needed to support it. Raleigh came late to industrial development, and then only on a small scale. Having escaped destruction during the closing days of the Civil War, the city still enjoys the visual aspect of its original plan, parks, and built environment.

11.1 The City's Historic Preservation Program

The Raleigh City Council has supported historic preservation activities in the city through an appointed citizen committee since 1961—five years before the passage of the National Historic Preservation Act. The Raleigh Historic Development Commission (RHDC) is the successor organization to that committee. The RHDC assists in the planning and implementation of appropriate changes to Raleigh Historic Landmarks and local historic district properties through the Certificates of Appropriateness (COA) process. In 2014, preservation planning staff and the RHDC processed 196 COAs.

Raleigh currently has a total of 156 Local Historic Landmarks, 28 National Register Historic Districts, 6 Historic Overlay Districts, and 3 National Historic Landmarks. RHDC is Raleigh City Council's official historic preservation advisory body to identify, preserve, protect, and promote Raleigh's historic resources.