

# Data Book 2016

April 2017

Department of City Planning



## Chapter 1: Introduction

The Raleigh 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>

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 Raleigh Data Book is published online in late winter 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 31<sup>st</sup> whenever possible. All figures and tables are for the city of Raleigh corporate limits unless otherwise specified.



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## Chapter 2: Demographics and Household Trends

With a population increase of 63% from 2000 to 2015, 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.

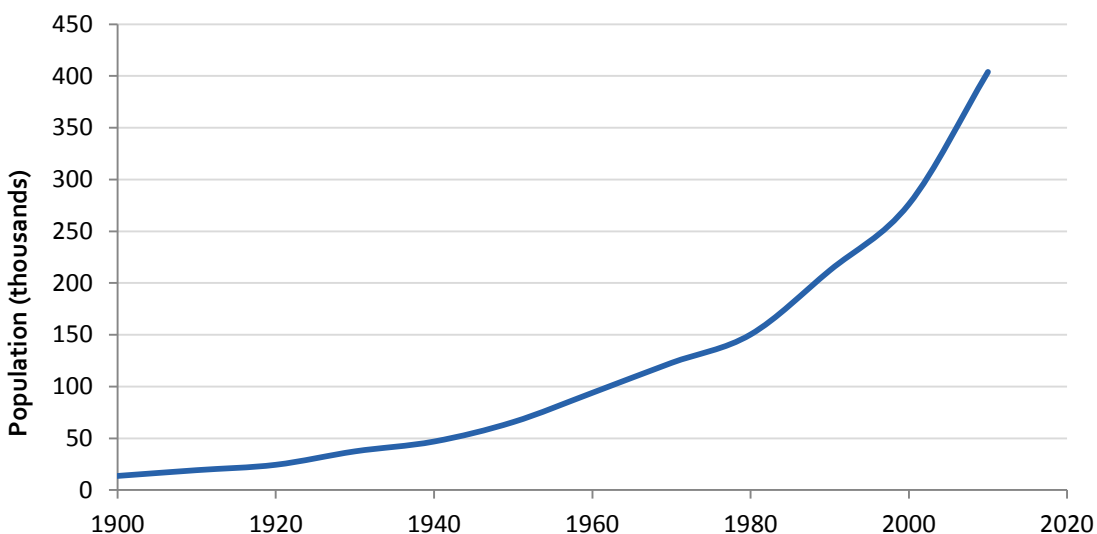
The data presented in this chapter have been drawn from a variety of sources. The decennial census count numbers provide the baseline for household and population estimates released in the intervening years. The American Community Survey (ACS) of the U.S. Census Bureau provides detailed demographics, summarized over time from sample data. The U.S. Census Bureau's Population Estimates Program provides population estimates between the census years.

ACS data is best used for obtaining population characteristic distributions (percentages, means, medians, and rates) while the decennial census and the Population Estimates Program is best for population totals and basic characteristics (sex, race, age, Hispanic origin, and homeowner status.) ACS data should only be compared with basic characteristics from the 2010 census since more detailed information was not asked. In addition to Census data, building permit data is also used to give 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 2015 Raleigh was estimated to have a population of 451,066, a 2.5% increase from the previous year (see Table 2.1). The number of housing units has also grown in 2015, with an estimate of 195,293 units, representing an increase of 1.4% from 2014 (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).

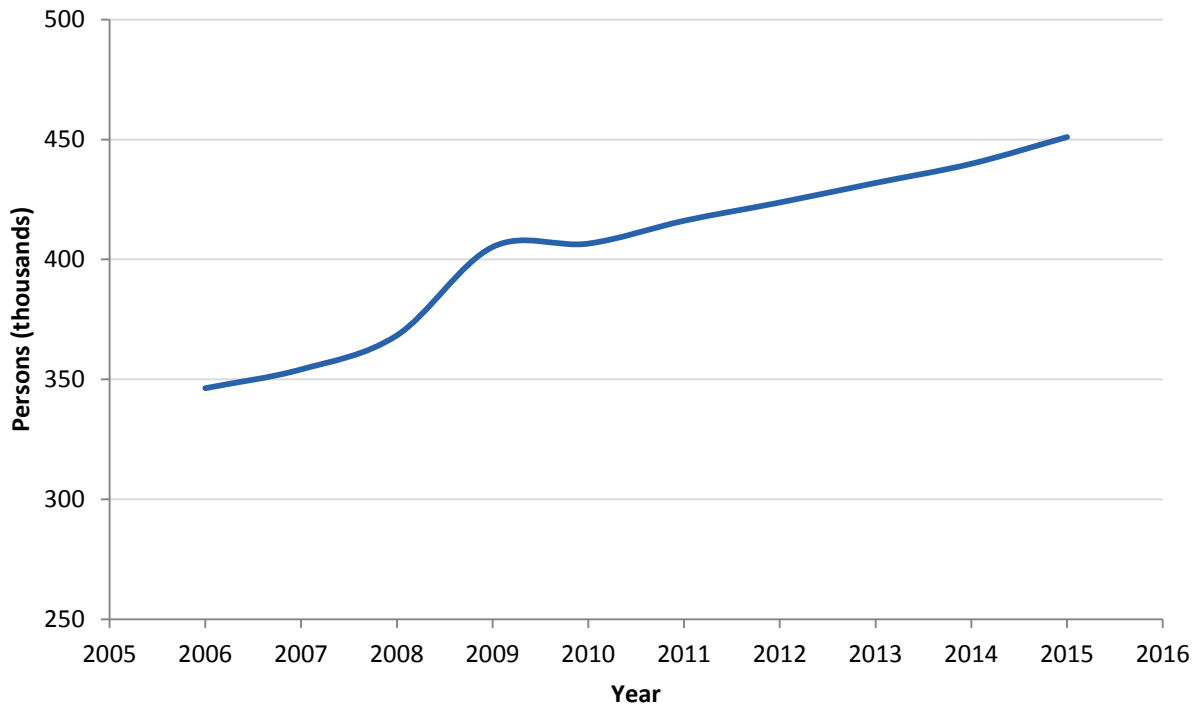
Figure 2.1 Census Population Count



Source: U.S. Census Bureau, Decennial Data

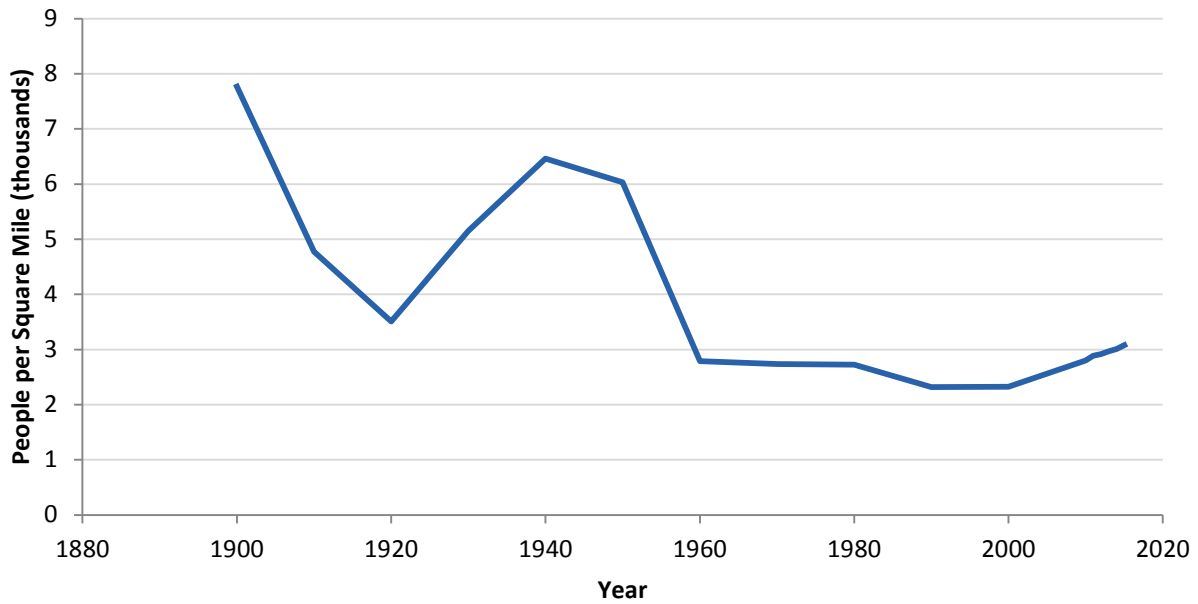


**Figure 2.2 Census Population Count and Estimates**



Sources: U.S. Census Bureau, Decennial Data (1990, 2000, 2010), Population Estimates Program (July, 1991-2015)

**Figure 2.3 Population Density**



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





**Table 2.1 Population, Growth Rate, and Density**

Year	Population	Annual Growth Rate	Land Area in Miles <sup>2</sup>	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
2014	439,896	1.9%	146.30	3,007
2015	451,066	2.5%	146.52	3,078

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

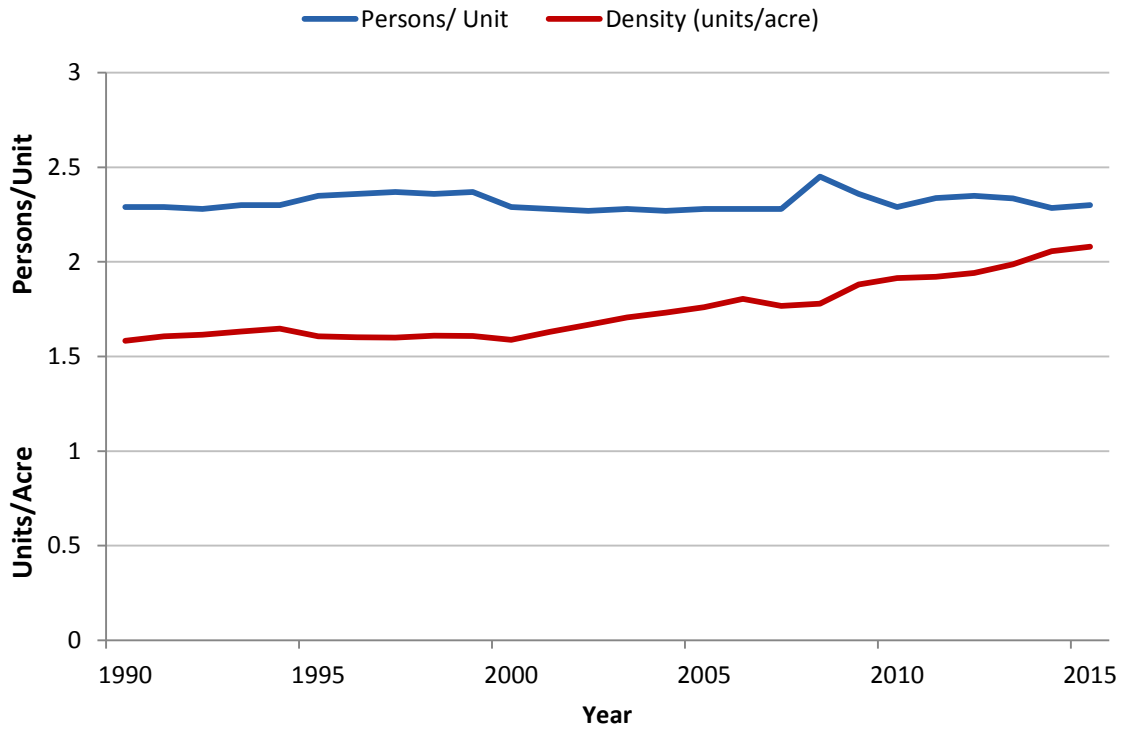
**Table 2.2 Housing Units, Growth Rate, and Unit Density**

Year	Housing Units	Annual 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
2014	192,504	4.1%	93,632	2.06
2015	195,293	1.4%	93,775	2.08

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

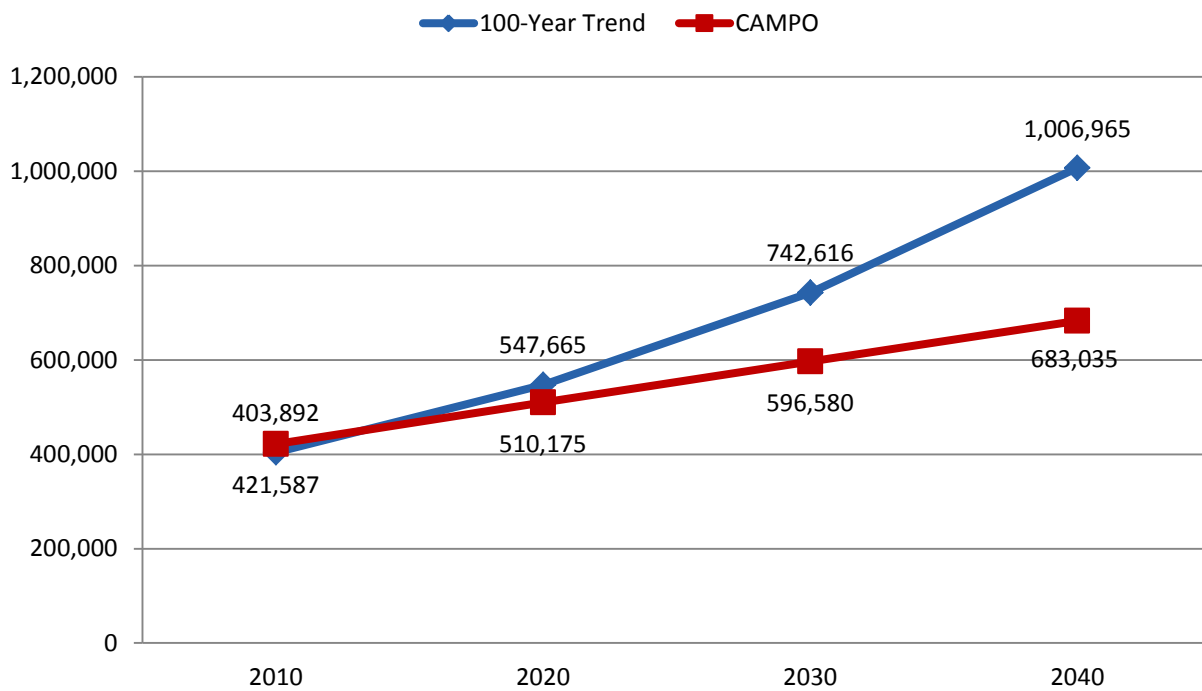


Figure 2.4 Dwelling Unit Densities, 1990 – 2015



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

Figure 2.5 Raleigh Population Projections



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



## 2.2 Residential Development

Single family detached dwelling units comprise 47.4% of housing in Raleigh based on 2015 American Community Survey data (see Table 2.3). Multi-family apartments come in second at 36.4%, followed by townhouses (12.4%), duplexes (2.1%), and mobile homes (1.5%) (see Figure 2.6). From 2010 to 2016, apartments made up 62% of all issued residential building permits. In 2016, apartments comprised the largest share – 61.5% - of residential building permits issued in Raleigh (see Figure 2.8 and Table 2.7). Single family homes came in second at 22%.

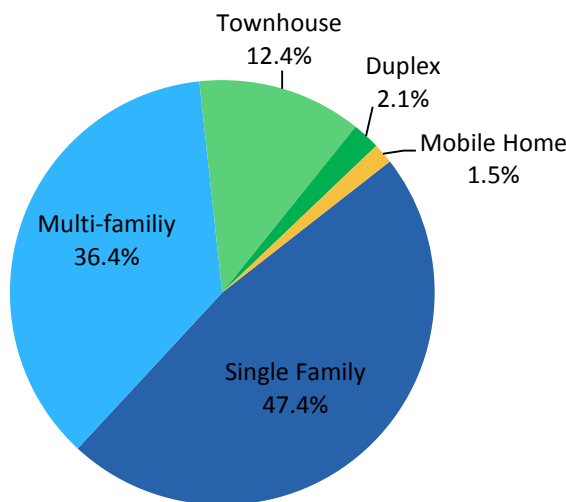
Raleigh’s housing stock is relatively young, with approximately 84.7% of its housing units built in the last 45 years (see Table 2.4). The overall household vacancy rate (homeowners and renters) is 6.7%, which is down from a high of 11.3% in 2010. The homeownership rate stands at 51.4%, a slight decrease from 53.5% in 2010 (see Table 2.5 and Figure 2.7).

**Table 2.3 Total Housing Units by Number in Structure, 2015**

Units in Structure	Number	Percent
1-unit, detached	92,613	47.4%
1-unit, attached	24,410	12.4%
2 units	4,094	2.1%
3 or 4 units	8,828	4.5%
5 to 9 units	14,798	7.6%
10 to 19 units	23,242	11.9%
20 or more units	24,124	12.4%
Mobile home	3,033	1.5%
<b>Total units</b>	<b>195,293</b>	<b>100%</b>

Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimate

**Figure 2.6 Housing Share by Building Type, 2015**



Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimate



**Table 2.4 Housing Units by Year Built, 2015**

Year Built	Number	Percent
1939 or earlier	6,157	3.2%
1940 to 1949	4,126	2.1%
1950 to 1959	9,344	4.8%
1960 to 1969	15,639	8.0%
1970 to 1979	22,129	11.3%
1980 to 1989	33,410	17.1%
1990 to 1999	39,753	20.4%
2000 to 2009	52,929	27.1%
2010 or later	11,806	6.1%
<b>Total</b>	<b>195,293</b>	<b>100.0%</b>

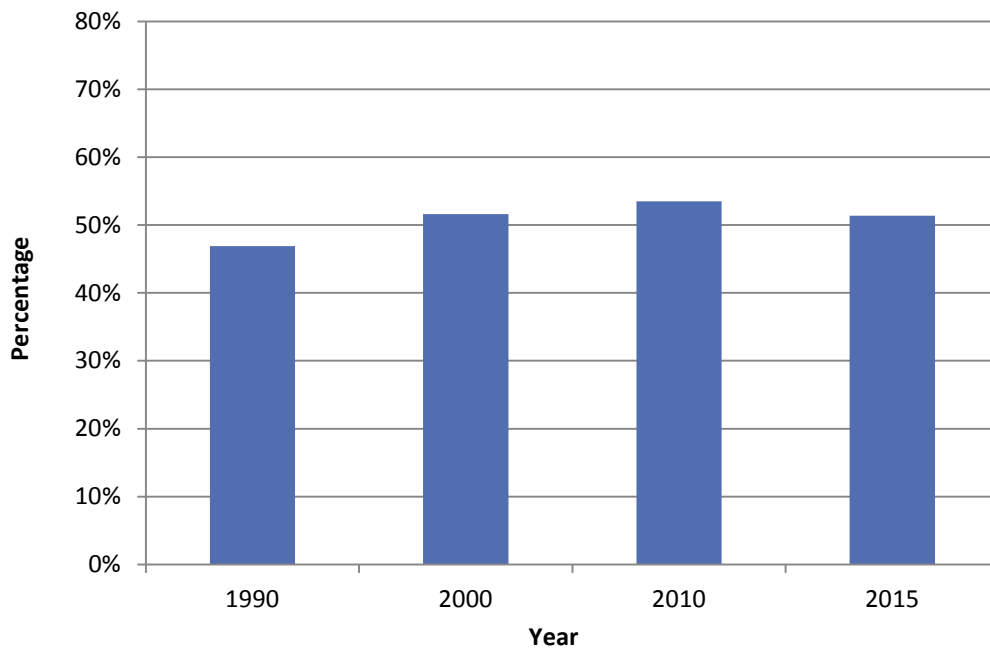
Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimate

**Table 2.5 Occupancy by Tenure, 2015**

Total housing units	195,293
Occupied housing units	178,316
Vacant housing units	16,977
Overall vacancy rate	6.7%
Homeowner vacancy rate	1.3%
Rental vacancy rate	5.4%

Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimate

**Figure 2.7 Homeownership Rate**



Source: U.S. Census Bureau, Decennial Data (1990, 2000, 2010); 2015 American Community Survey, 1-year Estimate

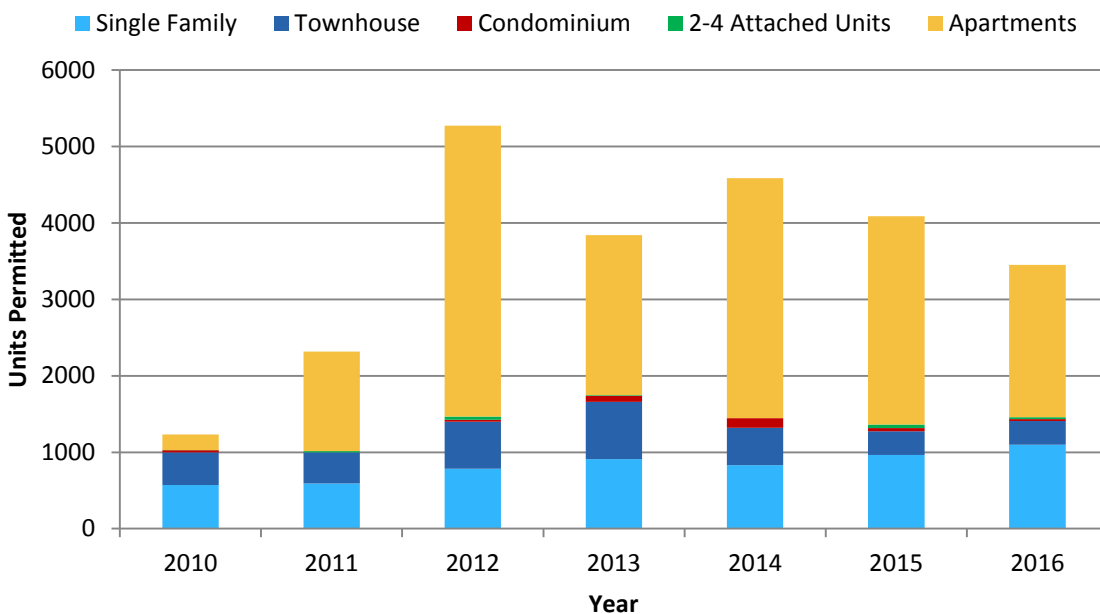


**Table 2.6 Housing Tenure for Occupied Units**

	2000		2010		2015	
	Number	Percent	Number	Percent	Number	Percent
Owner-occupied	58,079	51.6%	87,284	53.5%	91,632	51.4%
Renter-occupied	54,529	48.4%	75,715	46.5%	86,684	48.6%
<b>Total occupied units</b>	<b>112,608</b>	<b>100.0%</b>	<b>162,999</b>	<b>100.0%</b>	<b>178,316</b>	<b>100.0%</b>

Source: U.S. Census Bureau, Decennial Data (2000, 2010); 2015 American Community Survey, 1-year Estimates

**Figure 2.8 Residential Units Permitted**



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<sup>a</sup>**

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	3,843
2014	829	491	125	0	3,140	4,585
2015	965	308	42	49	2,723	4,087
2016	1,097	312	24	26	1,991	3,450
<b>7-year total</b>	<b>5,745</b>	<b>3,311</b>	<b>350</b>	<b>149</b>	<b>15,260</b>	<b>24,814</b>
<b>Percent of Total</b>	<b>23.2%</b>	<b>13.3%</b>	<b>1.41%</b>	<b>0.6%</b>	<b>61.5%</b>	<b>100%</b>
<b>7-year average</b>	<b>957</b>	<b>552</b>	<b>58</b>	<b>25</b>	<b>2,543</b>	<b>4,135</b>

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

<sup>a</sup> This includes all units from the specified calendar year that have been permitted; it does not indicate construction.



## 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 as well as 15 to 44 year-olds (see Figure 2.9). Raleigh's age distribution has changed somewhat from 2000 to 2015 with the percentage of 20 to 44 year-olds declining as a share of the overall population. In contrast, the percentage of 45 to 84 year-olds has seen small but significant gains (see Figure 2.10).

In terms of population by race, both the share of white and African-American populations has decreased from 2000 to 2015 (see Table 2.8). The Asian population has grown from 3.4% in 2000 to an estimated 4.6% in 2015. The Hispanic/Latino population defined by the census bureau as an ethnic group and not a race grew by 168% from 2000 to 2015, increasing its share of the total population from 7% to 11.4% (see Table 2.9).

In terms of educational attainment, Raleigh has a higher percentage of residents with a high school degree or higher (90.9%) and residents with a bachelor's degree or higher (49.1%) than the state of North Carolina and the nation (see Table 2.11). Approximately 1 in 6 people in Raleigh (17.4%) holds a graduate or professional degree, which is 70% 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 2.12). In 2010, the percentage of people in poverty peaked at an estimated 18.4% before falling to 15.6% in 2015. For families, the percentage decreased from 13.9% in poverty in 2010 to 11.5% in 2015.

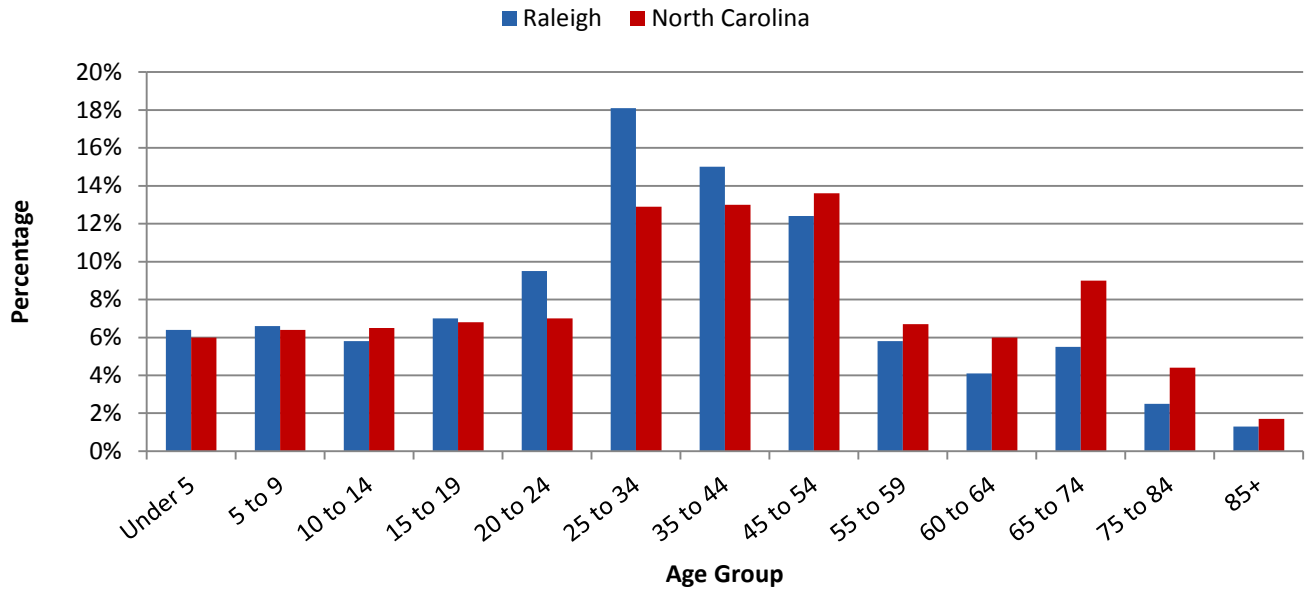
Median household incomes and per capita incomes have experienced converse trends during the last two decades. After peaking in 2000, median household incomes have seen a steady decline, reaching its lowest level of \$53,475 in 2015 (see Table 2.12). While per capita incomes also peaked in 2000, and experienced a decline between 2000 and 2010, the most recent Census figures indicate they have increased slightly since then to \$32,476 in 2015.

The share of different types of households has also changed slightly during the last two decades (see Table 2.13 and Figure 2.11). Single parent households have increased the most (up approximately 3%), with other family households coming in second (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 2015 (see Table 2.13).

Commuting modes in Raleigh have remained steady over the past five years with a large majority of people driving to work alone (77.7% in 2015) and approximately 42.6% of the remainder that commutes carpooling to work (9.5%) (see Table 2.14). The rest either take public transit (1.9%), walk (1.5%), use other means (1.5%), or forgo a commute and work at home (6.7%). Raleigh's rate of driving remains much higher than other comparable U.S. cities (see Figure 2.12).

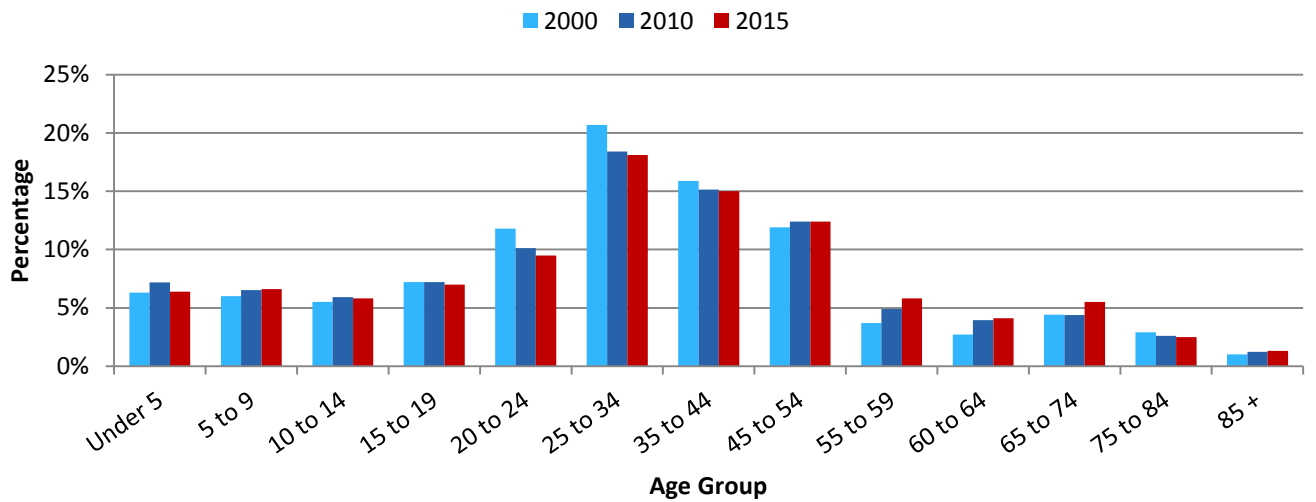


Figure 2.9 Population Distribution by Age Group in Raleigh and North Carolina, 2015



Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimates

Figure 2.10 Age Distribution



Source: U.S. Census Bureau Decennial Data (2000, 2010); 2015 American Community Survey, 1-year Estimates



**Table 2.8 Population by Race**

	<u>2000</u>		<u>2010</u>		<u>2015</u>	
	Number	%	Number	%	Number	%
White	174,786	63.3	225,705	59.0	264,843	58.6
Black or African American	76,756	27.8	111,948	29.5	133,153	29.5
American Indian & Alaska Native	981	0.4	1,114	0.3	1,681	0.4
Asian or Pacific Islander	9,445	3.4	16,935	4.4	20,499	4.6
Some other race	14,125	5.1	20,371	5.3	20,227	4.5

Source: U.S. Census Bureau Decennial Data (2000, 2010); 2015 American Community Survey, 1-year Estimates

**Table 2.9 Growth in Hispanic Population**

	Number	Percent of Total Population
2000 Hispanic/Latino Population	19,308	7.0%
2015 Hispanic/Latino Population	51,786	11.4%
Percent Increase	168.2%	

Source: U.S. Census Bureau Decennial Data (2000); 2015 American Community Survey, 1-year Estimate

**Table 2.10 Components of Hispanic Population, 2015**

	Number	Percent of Total Population	Percent of Hispanic Population
Mexican	26,972	6.0%	52.1%
Puerto Rican	4,306	1.0%	8.3%
Cuban	1,631	0.4%	3.2%
Other Hispanic or Latino	18,877	4.2%	36.4%
Hispanic or Latino (of any race)	51,786	11.4%	100.0%

Source: U.S. Census Bureau Data; 2015 American Community Survey, 1-year Estimate

**Table 2.11 Educational Attainment Population 25 and Over**

	<u>2000</u>			<u>2015</u>		
	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%	90.9%	49.1%	17.4%
North Carolina	78%	23%	7%	86.5%	29.5%	10.6%
United States	79%	24%	9%	87.2%	30.6%	11.6%

Source: U.S. Census Bureau Decennial Data (2000); 2015 American Community Survey, 1-year Estimates





**Table 2.12 Poverty, Income, and Employment Indicators**

	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2015</b>
<b>Percent of persons below poverty</b>	11.8%	11.5%	18.4%	15.6%
<b>Percent of families below poverty</b>	9.0%	7.1%	13.9%	11.5%
<b>Median Household Income (2015 \$)</b>	\$59,916	\$66,308	\$54,208	\$56,910
<b>Median Per Capita Income (2015 \$)</b>	\$32,296	\$35,730	\$30,456	\$32,635
<b>Unemployment Rate</b>	4.0%	3.8%	7.5%	4.9%
<b>Labor Force Participation Rate</b>	66.4%	72.7%	69.9%	69.4%

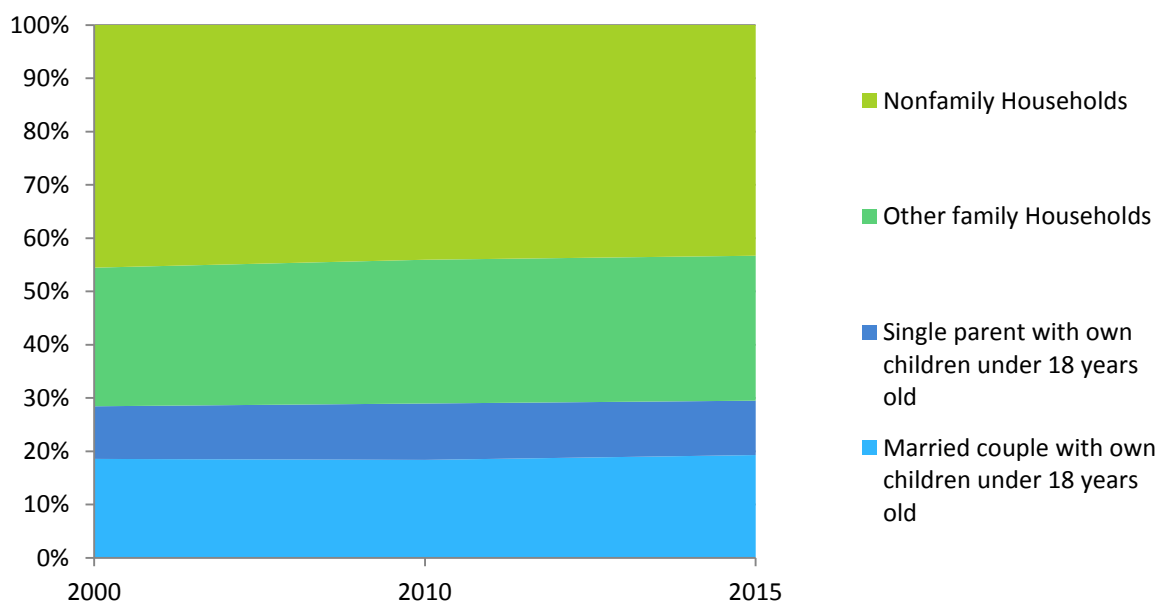
Source: U.S. Census Bureau, Decennial Censuses (1990, 2000); 2010, 2015 American Community Survey 1-yr Est.

**Table 2.13 Household Trends**

	<u>Number</u>			<u>Percent</u>		
	<b>2000</b>	<b>2010</b>	<b>2015</b>	<b>2000</b>	<b>2010</b>	<b>2015</b>
<b>Family Households</b>	61,327	91,186	101,127	54.5%	55.9%	56.7%
Married couple with own children under 18 years old	20,194	29,973	34,507	18.6%	18.4%	19.3%
Single parent with own children under 18 years old	11,122	17,245	18,154	9.9%	10.6%	10.2%
Other family households	29,291	41,077	48,466	26.0%	27.0%	27.2%
<b>Nonfamily Households</b>	51,281	71,813	77,189	45.5%	44.1%	43.3%
<b>Total Households</b>	<b>112,608</b>	<b>162,999</b>	<b>178,316</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Persons per Household</b>	<b>2.30</b>	<b>2.36</b>	<b>2.42</b>			

Source: U.S. Census Bureau Decennial Data (2000, 2010); 2015 American Community Survey 1-year Estimates

**Figure 2.11 Household Share by Type**



Source: U.S. Census Bureau Decennial Data (2000, 2010); 2015 American Community Survey, 1-year Estimates

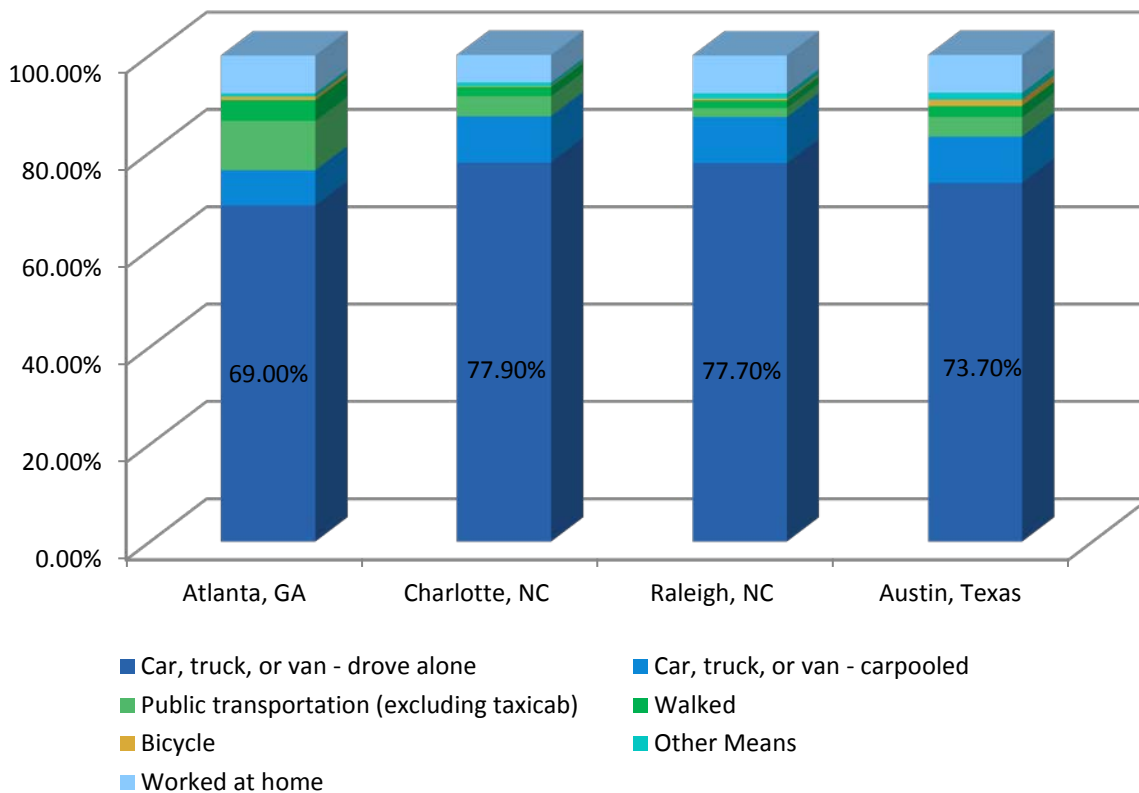


**Table 2.14 Journey to Work, 2015**

	Number	Percent
Car, truck, or van - drove alone	182,443	77.7%
Car, truck, or van - carpooled	22,306	9.5%
Worked at home	18,314	7.8%
Walked	3,522	1.5%
Bicycle	939	.40%
Public transportation (excluding taxicab)	4,461	1.9%
Other means	3,521	1.5%

Source: U.S. Census Bureau, 2015 American Community Survey, 1-year Estimates

**Figure 2.12 Journey to Work – Comparison with Similar Cities, 2015**



Source: U.S. Census Bureau, 2015 American Community Survey, 1-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 state enabling statute, the Comprehensive Plan is also the foundation for zoning.

While the Comprehensive Plan is a policy guide, the Unified Development Ordinance is law. This code provides the regulatory framework for particular land uses and how those uses interact with each other. It addresses 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. Adopted in 2013, the Unified Development Ordinance (UDO) encourages mixed-use and pedestrian-friendly development. In order to fully implement the UDO, the city engaged in a multi-year remapping process whereby commercial and high-density residential districts were rezoned from the old code's legacy districts to new UDO zoning districts. The vast majority of those properties were rezoned in November 2015 with an effective date February 14, 2016. Sixty-five parcels totaling approximately 490 acres were reviewed separately by City Council and rezoned to UDO zoning districts in April and May of 2016.

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, which will only be addressed generally in this chapter, currently consist primarily of undeveloped land, farm fields, and low- density residential uses.

For further information see:

The 2030 Comprehensive Plan for the City of Raleigh  
<http://www.raleighnc.gov/cp>

Raleigh Zoning  
<http://www.raleighnc.gov/zoning>



### 3.1 Land Use and Zoning Allocation

Zoning that primarily accommodates residential uses make up 63% of total land area in Raleigh’s planning jurisdiction and those districts that primarily accommodate commercial uses – the mixed-use districts - make up 25% of total land area (see Table 3.1 and 3.2). Breaking those shares down further, mixed-use zones that primarily accommodate retail (NX-, CX-, and DX-) comprise 5.8% of total land area, those that are considered industrial are 8.4% (IX-), and those that primarily accommodate office uses (OX- and OP-) make up 7.8%. In addition to the residential and mixed-use zones, there are also six special districts, which are meant for land conservation, specialized uses (heavy industry), and flexible uses (campus and planned developments). These special districts account for approximately 11% of Raleigh’s total land area (see Table 3.3). Overlay zoning districts (historic overlay districts, special highway overlay districts, etc.) cover 29.5% of total land area (see Table 3.4).

**Table 3.1 Residential Zoning Allocation**

Zoning District	Acres	Percent of Total Land Area
Residential-1 (R-1)	4,879	4.2%
Residential-2 (R-2)	2,031	1.7%
Residential-4 (R-4)	40,294	34.6%
Residential-6 (R-6)	17,243	14.8%
Residential-10 (R-10)	9,388	8.1%
<b>Total Residential</b>	<b>73,835</b>	<b>63.4%</b>

**Table 3.2 Mixed-Use Zoning Allocation**

Zoning District	Acres	Percent of Total Land Area
Residential Mixed Use (RX)	3,802	3.3%
Office Park (OP)	530	0.5%
Office Mixed Use (OX)	8,435	7.3%
Neighborhood Mixed Use (NX)	759	0.7%
Commercial Mixed Use (CX)	5,755	4.9%
Downtown Mixed Use (DX)	582	0.5%
Industrial Mixed Use (IX)	9,750	8.4%
<b>Total All Mixed-Use Zones</b>	<b>29,613</b>	<b>25%</b>

Source: City of Raleigh Department of City Planning, 2016



**Table 3.3 Special Districts Zoning Allocation**

Zoning District	Acres	Percent of Total Land Area
Conservation Management (CM)	2,072	1.8%
Agricultural Productive (AP)	1,959	1.7%
Heavy Industrial (IH)	3,281	2.8%
Manufactured Housing (MH)	820	0.7%
Campus (CMP)	0	0.0%
Planned Development (PD)	4,843	4.2%
<b>Total All Special District Zones</b>	<b>12,975</b>	<b>11.1%</b>

Source: City of Raleigh Department of City Planning, 2016

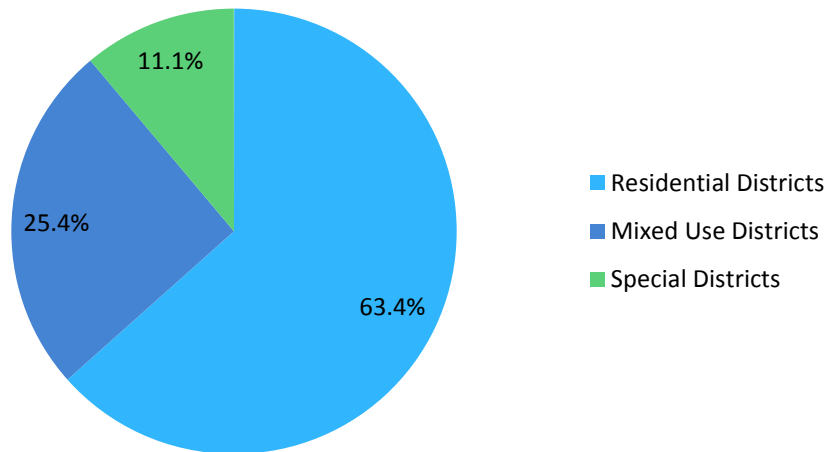
**Table 3.4 Overlay Zoning District Allocation**

	Acres	Percent of Land Area
Airport Overlay District (AOD)	2,166	1.9%
Historic Overlay District (HOD)	393	0.3%
Metro-Park Protection Overlay District (MPOD)	1,450	1.3%
Neighborhood Conservation Overlay District (NCOD)	2,920	2.4%
Special Highway Overlay District 1 (SHOD-1)	7,989	6.9%
Special Highway Overlay District 2 (SHOD-2)	5,098	4.4%
Special Residential Parking Overlay District (SRPOD)	8,231	7.1%
Transit Oriented Development Overlay District (TOD)	0	0%
Watershed Protection Area Overlay District (WPOD)	9,534	8.2%
<b>Total Overlay Districts (not accounting for overlap)</b>	<b>37,782</b>	<b>32.5%</b>
<b>Total Overlay Districts (accounting for overlap)</b>	<b>34,382</b>	<b>29.5%</b>

Source: City of Raleigh Department of City Planning, 2016



**Figure 3.1 Generalized Zoning Allocation**



Source: City of Raleigh Department of City Planning, 2016

A property’s zoning district controls for the range of uses that are allowable on the property. The table below shows the actual uses that properties in Raleigh exhibit. As can be seen in Table 3.5, parcels that account for 44.3% of total acreage in Raleigh have Residential as their primary use, and in particular Single-Unit Living is the predominant use in this category (34.4%). Other significant uses include Public and Institutional (18.2%), Commercial (10.6%), and Industrial (5.6%). Properties that account for approximately 20% of Raleigh’s land area are considered vacant, meaning that there is no discernible use of the property.

**Table 3.5 Land Use Allocation**

Land Use Category	Parcels	Acreage	Percent
<b>Residential</b>	<b>117,517</b>	<b>44,349.9</b>	<b>44.3%</b>
Household Living: Single-Unit Living	88,960	34,408.7	34.4%
Household Living: Townhouse Living	24,527	1,488.6	1.5%
Household Living: Two-Unit Living	1,922	714.8	0.7%
Household Living: Manufactured	24	429.4	0.4%
Household Living: Multi-Unit Living	1,979	6,464.6	6.5%
Group Living	71	213.1	0.2%
Social Service	34	630.7	0.6%
<b>Public and Institutional</b>	<b>3,690</b>	<b>18,238.7</b>	<b>18.2%</b>
Civic	476	5,264.3	5.3%
Parks, Open Space, and Greenways	3,134	12,538.9	12.5%
Utilities	80	435.6	0.4%



**Table 3.5 Land Use Allocation (cont.)**

<b>Land Use Category</b>	<b>Parcels</b>	<b>Acreage</b>	<b>Percent</b>
<b>Commercial</b>	<b>3,509</b>	<b>10,662.3</b>	<b>10.6%</b>
Day Care	93	157.0	0.2%
Indoor Recreation	100	441.8	0.4%
Medical	135	365.4	0.4%
Office	1,240	3,779.0	3.8%
Outdoor Recreation	114	2,033.4	2.0%
Overnight Lodging	80	210.7	0.2%
Parking	313	343.3	0.3%
Passenger Terminal	10	15.1	0.0%
Personal Service	158	145.1	0.1%
Restaurant/Bar	348	310.1	0.3%
Retail Sales	762	2,371.4	2.4%
Vehicle Sales/Rental	156	489.9	0.5%
<b>Industrial</b>	<b>1,421</b>	<b>5,637.7</b>	<b>5.6%</b>
Heavy Industrial	133	1,800.4	1.8%
Light Industrial	296	690.2	0.7%
Light Manufacturing	68	146.7	0.1%
Research & Development	10	106.5	0.1%
Self-Service Storage	59	265.9	0.3%
Vehicle Service	333	365.8	0.4%
Warehouse & Distribution	294	1,230.2	1.2%
Waste-Related Service	6	424.0	0.4%
Wholesale Trade	222	607.9	0.6%
<b>Open</b>	<b>18</b>	<b>1,473.9</b>	<b>1.5%</b>
Agriculture	14	1,084.4	1.1%
Resource Extraction	4	389.5	0.4%
<b>Mixed Use</b>	<b>115</b>	<b>123.6</b>	<b>0.1%</b>
<b>Vacant</b>	<b>8,990</b>	<b>19,655.9</b>	<b>19.6%</b>
<b>Grand Total</b>	<b>135,260</b>	<b>100,142.0</b>	<b>100.0%</b>

Source: City of Raleigh Department of City Planning, 2015



### 3.2 Land Capacity, Annexation, and Growth Potential

The last land capacity estimate was completed in 2014 and was based on Raleigh Code of Ordinances Part 10 zoning districts ("Part 10 Code") rather than the newly adopted Unified Development Ordinance (UDO) districts. With the implementation of the UDO in 2016, all Part 10 districts were rezoned to UDO districts. Because of this change, the estimates found in Table 3.6 do not reflect development entitlements presently in effect.

**Table 3.6 Land Capacity Estimates by Zoning District**

Zone	Total 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
<b>Totals</b>	<b>16,671*</b>	<b>52,327,256</b>	<b>85,851</b>

(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





In 2015, the city added 343 acres through annexation (see Table 3.7). Changes in state laws restricting city-initiated annexations have resulted in petition-only annexations, usually of smaller parcels by individual owners. The total future annexation potential for Raleigh is 41,065 acres (see Table 3.8). This includes both ETJ areas and Urban Services Areas (USA). Combined with the city's current acreage of 93,642, the total potential city limits acreage is 134,706 acres.

**Table 3.7 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	129
2013	93,047	208
2014	93,306	262
2015	93,652	343
2016	93,775	123

Source: City of Raleigh Department of City Planning, 2016

**Table 3.8 Future Growth Potential of Raleigh City Limits**

Geography	Acres
Current City Limits	93,775
Potential ETJ Growth Area	22,305
Potential USA Growth Area	18,649
<b>Total Future Annexation Potential</b>	<b>40,955</b>
<b>Total Potential City Limits</b>	<b>134,730</b>

Source: City of Raleigh Department of City Planning, 2016



## Chapter 4: Economic Development & Employment Trends

One of the nation's fastest growing regions, the Research Triangle is benefiting from its long-time investment in major educational and healthcare institutions as well as the Research Triangle Park. The expanding base of technology industries continues to generate new jobs and 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. 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 employment base 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 growing job base, aiding in the recovery from the 2008 recession. The county's employment dichotomy is changing however, as technology, retail, and service jobs replace manufacturing and agricultural jobs that have declined as a share of the market historically. In 2000 there were 28,238 manufacturing jobs which contracted to 19,116 in 2010. Since 2010 the county has added back 5,876 additional manufacturing jobs, an important figure considering that this sector accounts for much of the county and region's overall economic output.

In terms of real Gross Domestic Product (GDP) growth, the Raleigh-Cary Metropolitan area grew by 7% ranking 7th in terms of growth out of the nation's 382 metropolitan areas in 2015 (Table 4.1). The Finance, Insurance, and Real Estate sector contributed 31.7% to real GDP growth, and manufacturing accounted for 25.5% of real GDP growth. These two sectors accounted for more than half of the real GDP growth in the metropolitan area. Slight declines occurred in real GDP growth for Natural Resources and Mining, Transportation and Utilities, and the Public Administration Sectors.

Within Raleigh, the state government, North Carolina State University, other educational institutions, and major health care centers have a higher proportion 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 are supporting 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 GDP Growth & Employment by Industry

Overall, jobs in the service-providing sector account for a larger share of Wake County's employment than the goods-producing sector. Currently roughly 9-in-10 jobs are service-providing versus only 1-in-10 in goods-producing industries. This is similar to the United States as a whole which has a slightly higher proportion of good producing jobs than Wake County. In the last 5 years goods-producing jobs – such as those in agriculture, construction, and manufacturing – have grown at a 3.6% annual rate versus 2.8% for service-providing industries (see Tables 4.1 and 4.2). Higher growth in the goods producing sector can be primarily attributed to jobs added in the manufacturing industry.

Despite that growth, the top three industries in terms of jobs in 2015 continue to be in the service-providing industry: Professional and Business Services; Leisure and Hospitality, and; Trade, Transportation, & Utilities. Utilities saw the largest annual percent change in employment (+9.5 %) from 2010-2015, other industries also saw large gains including Administrative and Waste Services (+4.7%), Professional and Technical Services (+4.6 %), and Manufacturing (+4.6 %).

Using the latest data from the 2010-2015 American Community Survey (ACS), Raleigh has a higher percentage of jobs in Arts/Entertainment, Accommodation, and; Finance, Insurance, and 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 public administration, professional, scientific, management, and administrative; and information jobs.

**Table 4.1 Raleigh –Cary MSA Real GDP Growth**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>GDP in Current Dollars (Millions of Dollars)</b>	59,734	60,640	61,374	63,631	68,087
<b>Rank: GDP in current dollars Among Metro Areas</b>	49	49	47	47	44
<b>GDP Percentage Growth</b>	2.7%	1.5%	1.2%	3.7%	7.0%
<b>Rank: GDP Percentage Growth Among Metro Areas</b>	93	144	159	55	7

*Source: Bureau of Economic Analysis: GDP by Metropolitan Area 2015*



**Table 4.2 Raleigh –Cary MSA Percentage Growth by Sector**

<b>Goods Producing</b>	<b>2.09%</b>
Natural resources and mining	-0.04%
Construction	0.34%
Durable-goods manufacturing	1.74%
Nondurable- goods manufacturing	0.05%
<b>Service-Providing</b>	<b>4.91%</b>
Trade	1.03%
Transportation and utilities	-0.26%
Information	0.82%
Finance, insurance, real estate, rental, and leasing	2.22%
Professional and business services	0.76%
Educational services, health care, and social assistance	0.22%
Arts, entertainment, recreation, accommodation, and food services	0.12%
Public Administration	-0.05%
Other services, except government	0.05%
<b>Total GDP Growth by Percentage</b>	<b>7.00%</b>

*Source: Bureau of Economic Analysis: GDP by Metropolitan Area 2015*



**Table 4.3 Wake County Employment Growth by Industry 2010-2015**

	2010	Percent of Total	2015	Percent of Total	Annual Change 2010 to 2015
<b>Goods-Producing</b>	<b>44,226</b>	<b>10.2%</b>	<b>54,792</b>	<b>10.7%</b>	<b>3.6%</b>
Natural Resources and Mining	1,032	0.2%	1084	0.2%	0.8%
Agriculture Forestry					
Fishing & Hunting	770	0.2%	868	0.2%	2.0%
Mining	263	0.1%	215	0.0%	-3.3%
Construction	24,078	5.6%	28,717	5.6%	3.0%
Manufacturing	19,116	4.4%	24,992	4.9%	4.6%
<b>Service-Providing</b>	<b>387,348</b>	<b>89.8%</b>	<b>456,749</b>	<b>89.3%</b>	<b>2.8%</b>
Trade, Transportation & Utilities	80,011	18.5%	94,149	18.4%	2.7%
Utilities	1,394	0.3%	2400	0.5%	9.5%
Wholesale Trade	18,192	4.2%	22,189	4.3%	3.4%
Retail Trade	49,775	11.5%	59,105	11.6%	2.9%
Transportation & Warehousing	10,652	2.5%	10,456	2.0%	-0.3%
Information	16,333	3.8%	19,500	3.8%	3.0%
Financial Activities	25,666	5.9%	27,584	5.4%	1.2%
Finance & Insurance	17,971	4.2%	18,751	3.7%	0.7%
Real Estate and Rental and Leasing	7,695	1.8%	8,833	1.7%	2.3%
Professional & Business Services	81,028	18.8%	104,472	20.4%	4.3%
Professional	37,086	8.6%	48,673	9.5%	4.6%
Management of Companies & Enterprises	9,613	2.2%	10,598	2.1%	1.6%
Administrative and Waste Services	34,329	8.0%	45,202	8.8%	4.7%
Education & Health Services	84,394	19.6%	96,201	18.8%	2.2%
Educational Services	38,959	9.0%	42,841	8.4%	1.6%
Health Care and Social Assistance	45,435	10.5%	53,360	10.4%	2.7%
Leisure and Hospitality	45,801	10.6%	58,754	11.5%	4.2%
Arts, Entertainment & Recreation	8,831	2.0%	10,822	2.1%	3.4%
Accommodation and Food Services	36,970	8.6%	47,933	9.4%	4.4%
Public Administration	40,553	9.4%	40,622	7.9%	0.0%
Other Services exc. Public Administration	13,293	3.1%	15,456	3.0%	2.5%
Unclassified	269	0.1%	-	-	0%
<b>TOTAL</b>	<b>431,571</b>	<b>100.0%</b>	<b>511,541</b>	<b>100.0%</b>	<b>2.9%</b>

\* No data available

Source: North Carolina Division of Employment Security



**Table 4.4 Wake County Employment by Industry by Year**

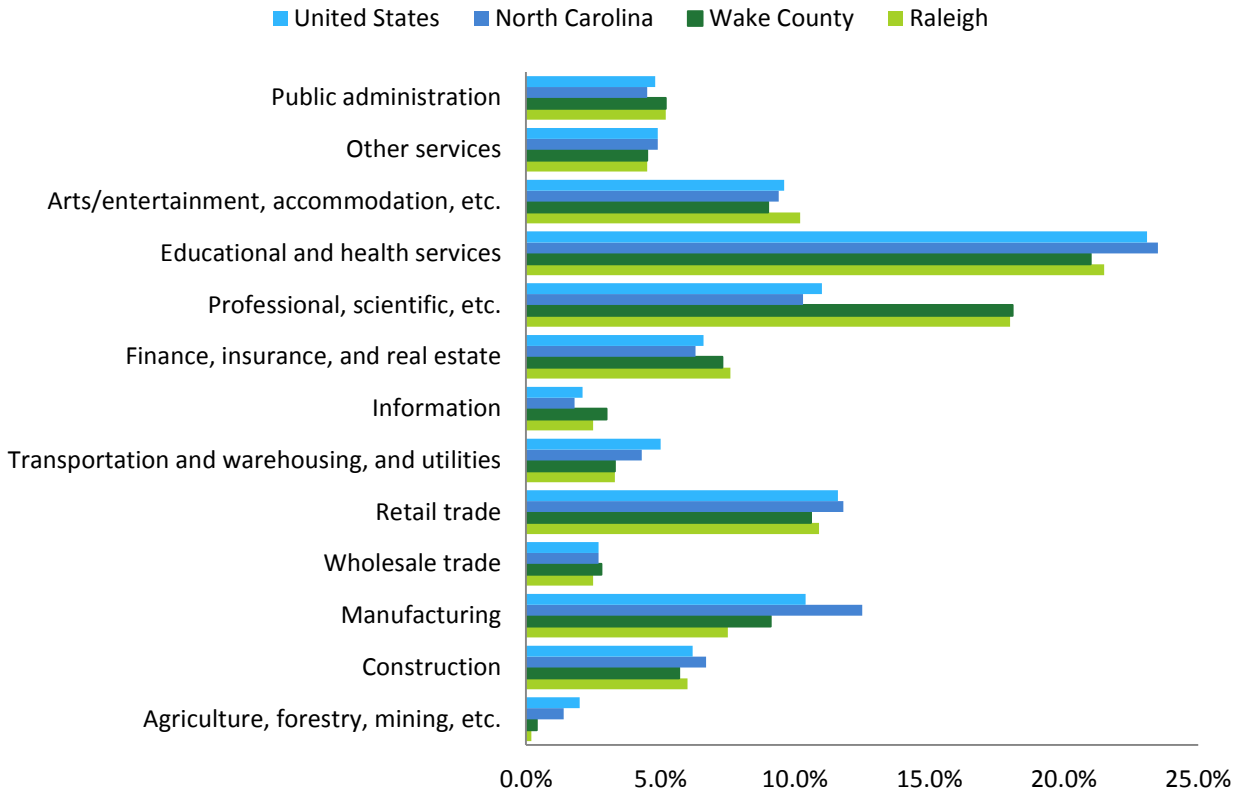
	2009	2010	2011	2012	2013	2014	2015
<b>Goods-Producing</b>	47,434	44,226	44,837	44,795	49,414	50,919	54,792
Natural Resources and Agriculture Forestry Fishing & Hunting	1,447	1,032	1,007	1,028	1126	1089	1084
Mining	899	770	749	788	881	858	868
Construction	548	263	258	240	245	231	215
Manufacturing	25,267	24,078	24,506	25,204	25,763	27,223	28,717
<b>Service-Providing</b>	20,720	19,116	19,324	18,563	22,525	22,607	24,99
Trade, Transportation & Utilities	385,001	387,348	397,025	411,023	424,555	439,54	456,
Utilities	80,066	80,011	82,110	84,710	84,631	89,439	94,149
Wholesale Trade	1,363	1,394	1,397	*	*	2327	2400
Retail Trade	18,563	18,192	19,152	20,990	20,540	21,009	22,189
Transportation and Warehousing	49,435	49,775	51,037	52,040	53,622	56,105	59,105
Information	10,708	10,652	10,524	10,468	9,594	9,998	10,45 6
Financial Activities	16,461	16,333	16,963	17,447	17,664	18,433	19,500
Finance & Insurance	25,375	25,666	25,142	25,030	24,952	25,513	27,584
Real Estate and Rental and Leasing	17,250	17,971	17,463	17,298	17,010	17,373	18,751
Professional and Business Services	8,125	7,695	7,680	7,732	7,942	8,140	8,833
Professional and Technical Services	78,473	81,028	85,987	91,441	99,455	102,82 6	104, 472
Management of Companies & Enterprises	36,852	37,086	39,563	42,177	45,296	47,185	48,673
Administrative and Waste Services	9,553	9,613	10,232	10,142	10,660	10,277	10,598
Education & Health Services	32,068	34,329	36,192	39,122	43,499	45,364	45,202
Educational Services	85,467	84,394	85,780	88,177	90,081	92,437	96,201
Health Care and Social Assistance	39,575	38,959	39,388	40,420	40,715	42,062	42,841
Leisure and Hospitality	46,989	45,435	46,392	47,758	49,366	50,375	53,360
Arts, Entertainment & Recreation	45,285	45,801	47,918	50,765	53,180	55,501	58,754
Accommodation and Food Services	8,847	8,831	9,105	9,293	9,892	9,973	10,82 2
Public Administration	36,439	36,970	38,813	41,473	43,288	45,528	47,933
Other Services exc. Public Administration	39,551	40,553	39,491	38,789	39,768	40,138	40,62
Unclassified	13,066	13,293	13,634	14,659	14,820	15,256	15,456
<b>TOTAL</b>	1257	269	*	5	*	*	*
	432,430	431,571	441,859	455,814	473,96	490,46	511,

\* No data available

Source: North Carolina Division of Employment Security



Figure 4.1 Jobs by Industry Comparison, 2015



Source: 2010 - 2015 American Community Survey, 5-year Estimates

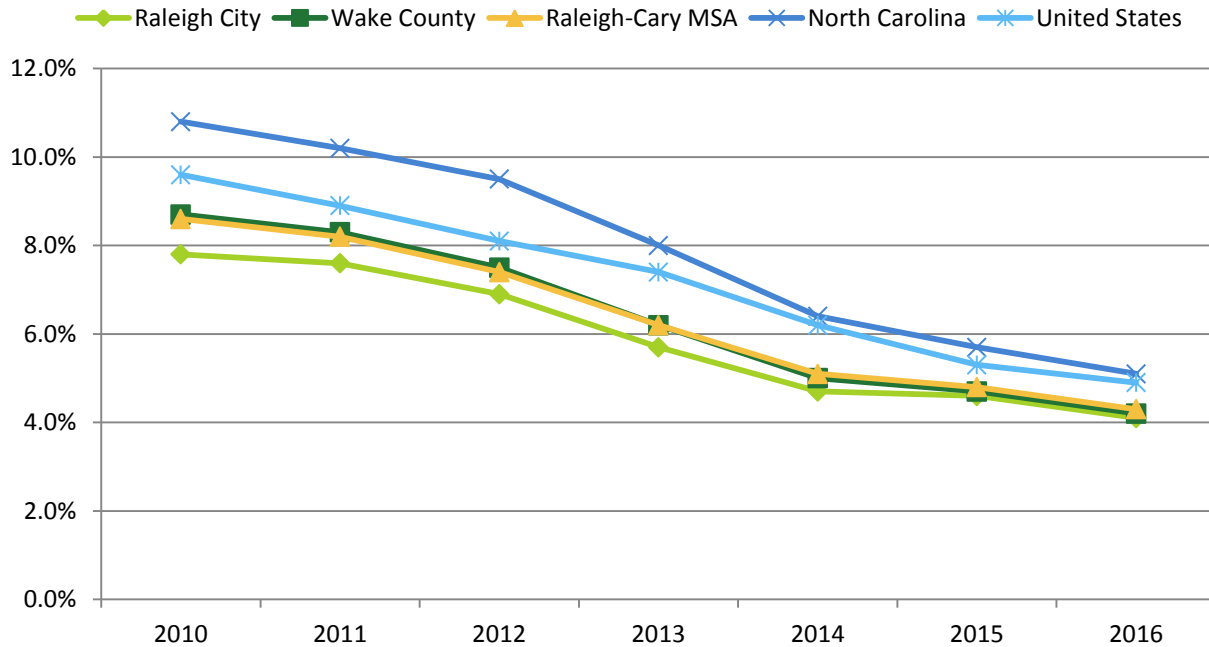
## 4.2 Unemployment Rates and Employment Projections

In Raleigh, the unemployment rate peaked in 2010, reaching a high of 7.8%. Since then unemployment rates have steadily declined as economic recovery continues to take place after the Great Recession. The current unemployment rate is 4.1% for Raleigh, the lowest rate since 2007. From 2010 to 2016, Raleigh’s unemployment rate remained lower than Wake County, the Raleigh-Cary MSA, North Carolina, and the U.S. Over the last two years unemployment numbers within Raleigh, Wake County and the MSA differed by only a few tenths of a percentage point, indicating a healthy job market for the entire region (see Figure 4.2).

According to a model created 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). Wake County is expected to add the most jobs in the region in terms of raw numbers; however several exurban counties are projected 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 projected to be 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 4.6). More information on the employment projection model can be found here: <http://www.campo-nc.us/planning-for-the-future>.



Figure 4.2 Average Annual Unemployment Rates



Source: North Carolina Division of Employment Security

\*Raleigh-Cary MSA data does not include December 2015 data due to data not being released at time of publication

Table 4.5 Triangle Region Interim Employment Projections

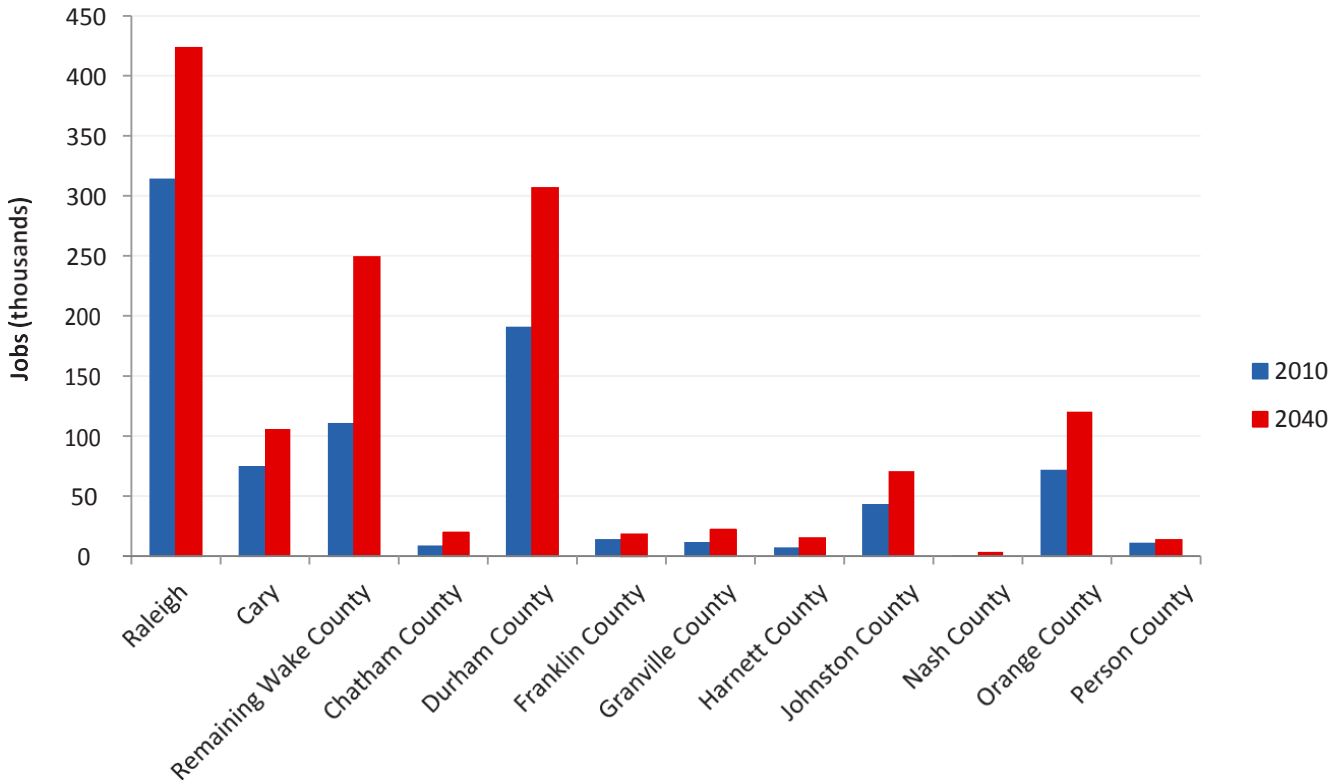
Place	2010	2020	2030	2040	Average Annual Growth 2010 to 2040
Raleigh	313,538	344,590	380,921	423,245	1.0%
Cary	74,112	83,111	93,619	105,872	1.2%
Wake County	497,634	577,053	669,927	778,175	1.5%
Chatham County	8,775	11,610	15,142	19,533	2.7%
Durham County	190,134	222,344	260,827	306,524	1.6%
Franklin 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 4.6 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. The ten largest individual employers in Raleigh include the State, Wake County Public Schools, and WakeMed Hospitals; together these ten organizations account for approximately 80,000 jobs.

In 2016, 45 major companies announced either new operations or expansions of present operations in Raleigh creating 2,795 new jobs, and additional investment of 224 million dollars in capital costs, facilities, and payroll (see Table 4.8).

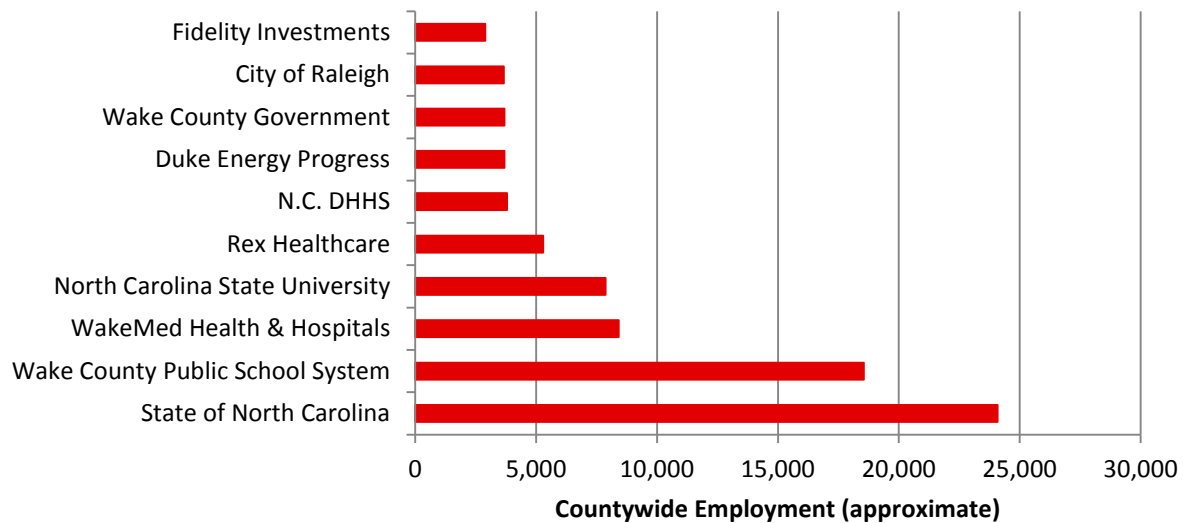


**Table 4.7 Major Employers located in Raleigh, 2015**

Rank	Name	Countywide 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	WakeMed Health & Hospitals	8,422	Education & Health Services	Yes
4	North Carolina State University	7,876	Education & Health Services	Yes
5	Rex Healthcare	5,300	Education & Health Services	Yes
6	N.C. DHHS	3,800	Public Administration	Yes
7	Duke Energy Progress	3,700	Trade, Transportation & Utilities	Yes
8	Wake County Government	3,692	Public Administration	Yes
9	City of Raleigh	3,673	Public Administration	Yes
10	Fidelity Investments	2,900	Financial Activities	Yes

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

**Figure 4.4 Largest 10 Employers located in Raleigh, 2015**



Source:

Greater Raleigh Chamber of Commerce/Wake County Economic Development



Table 4.8 New & Expanding Companies Raleigh, 2016

Name	New Jobs	Investment (\$ millions)	New or Expanding	Industry
Acorn Applications	5	n/a	Expanding	Software/IT
Ateb	n/a	\$3,000,000	Expanding	Other
AX Control Inc.	n/a	n/a	Expanding	Software/IT
BDO	84	n/a	Expanding	Financial Services
Campbell University Law School	n/a	n/a	Expanding	Educational
Citrix	n/a	n/a	Expanding	Software/IT
Cohera Medical	50	n/a	New	Advanced Medical
Distil Networks	n/a	n/a	Expanding	Software/IT
Do Supply Inc.	n/a	n/a	Expanding	Other
FilterEasy	20	n/a	Expanding	Start-up
First Tennessee Bank	n/a	n/a	Expanding	Financial Services
Foundation Medicine	170	\$11,900,000	New	Advanced Medical
FUJIFILM Diosynth Biotechnologies	n/a	n/a	Expanding	Software/IT
Hall, Render, Killian, Health & Lyman	3	n/a	New	Law Firm
HomeTrust Bank	n/a	n/a	Expanding	Financial Services
Improved Nature	150	New	\$3,000,000	Food Processing
Industrious	n/a	n/a	Expanding	Co-Working Group
Inform Systems Technologies	n/a	n/a	New	Software/IT
Infusion	n/a	n/a	Expanding	Software/IT
Kellogg's Snacks	n/a	\$19,500,000	Expanding	Food
La Farm Bakery	n/a	n/a	Expanding	Bakery
Lassiter Distilling Company	n/a	n/a	New	Beverage Processing
LexisNexis	150	n/a	Expanding	Software/IT
Mann + Hummel	n/a	n/a	Expanding	Smart Grid
McGuireWoods	3	n/a	Expanding	Law Firm
MGA Business Consulting	9	n/a	New	Professional Services
Microsoft	n/a	n/a	New	Software/IT
Netsertive	n/a	n/a	Expanding	Software/IT



**Table 4.8 New & Expanding Companies Raleigh, 2016 (cont.)**

<b>Name</b>	<b>New Jobs</b>	<b>Investment (\$ millions)</b>	<b>New or Expanding</b>	<b>Industry</b>
North Carolina Department of Agriculture and Consumer Services	200	\$94,000,000	Expanding	Life Sciences
Peak 10 Inc.	n/a	n/a	Expanding	Data/Call Centers
PeriGen	51	n/a	New	Advanced Medical
Relias Learning	450	\$43,500,000	Expanding	Software/IT
Scientific Games	n/a	n/a	New	Interactive Digital Media/Gaming
Sokal Media Group	80	n/a	Expanding	Automotive Advertising
Southern First Bank	n/a	n/a	New	Financial Services
Strategic Behavioral Health, LLC	30	\$2,200,000	Expanding	Healthcare
Sugar Euphoria	n/a	n/a	Expanding	Bakery
TEKSystems	n/a	n/a	Expanding	Software/IT
The Sembler Co.	n/a	n/a	New	Developer
UNC Health Care	1,000	n/a	Expanding	Healthcare
Valencell	10	n/a	Expanding	Software/IT
Wake Technical Community College	n/a	\$47,000,000	Expanding	Education
WalkMe	100	n/a	New	Software/IT

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



## 4.4 Non-Residential Building Activity

After a robust year of non-residential building in 2015, Raleigh continues to see strong activity in non-residential development. Permits issued are up by 201 from the previous year. The amount of overall square footage permitted gained 340,820 sq ft year-to-year. The value of total construction decreased from the previous year by nearly \$109 million or 26.2%. This can be mainly attributed to lower commercial and institutional building activity. Raleigh saw the lowest amount of commercial building activity in the last 10 years of building permit data. Office construction, on the other hand, saw the highest construction value since 2010 and the second highest amount of square footage permitted behind only the 2014 figures. The majority of this new office space is permitted for the Dillon, a new mixed-use development under construction in the Warehouse District downtown. Industrial building activity saw the highest square footage and construction value in the last 10 years, primarily from a flurry of new self-service storage construction.

**Table 4.9 Raleigh Commercial Building Activity**

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
2015	23	709,735	\$100,908,455
2016	17	210,008	\$21,380,365
<b>TOTAL</b>	<b>268</b>	<b>6,570,033</b>	<b>\$815,283,198</b>

Source: City of Raleigh Inspections Department

**Table 4.10 Raleigh Office Building Activity**

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
2015	15	947,374	\$123,938,256
2016	14	1,325,832	\$133,437,403
<b>TOTAL</b>	<b>239</b>	<b>10,362,052</b>	<b>\$1,025,560,032</b>

Source: City of Raleigh Inspections Department



**Table 4.11 Raleigh Industrial Building Activity**

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
2015	16	395,375	\$20,555,006
2016	39	1,256,019	\$56,523,605
<b>TOTAL</b>	<b>149</b>	<b>3,226,038</b>	<b>\$163,886,961</b>

Source: City of Raleigh Inspections Department

**Table 4.12 Raleigh Institutional Building Activity**

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
2015	23	749,370	\$121,194,803
2016	14	296,309	\$21,368,840
<b>TOTAL</b>	<b>316</b>	<b>5,209,044</b>	<b>\$876,969,098</b>

Source: City of Raleigh Inspections Department

\*Includes uses such as hospitals, schools, community centers, community clubhouses, and retirement homes

**Table 4.13 Raleigh Other\* Building Activity**

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
2015	122	1,049,419	\$49,226,608
2016	117	1,103,925	\$74,132,590
<b>TOTAL</b>	<b>1,139</b>	<b>10,884,986</b>	<b>\$636,514,990</b>

Source: City of Raleigh Inspections Department

\*Includes parking garages, out buildings, cell phone towers, etc

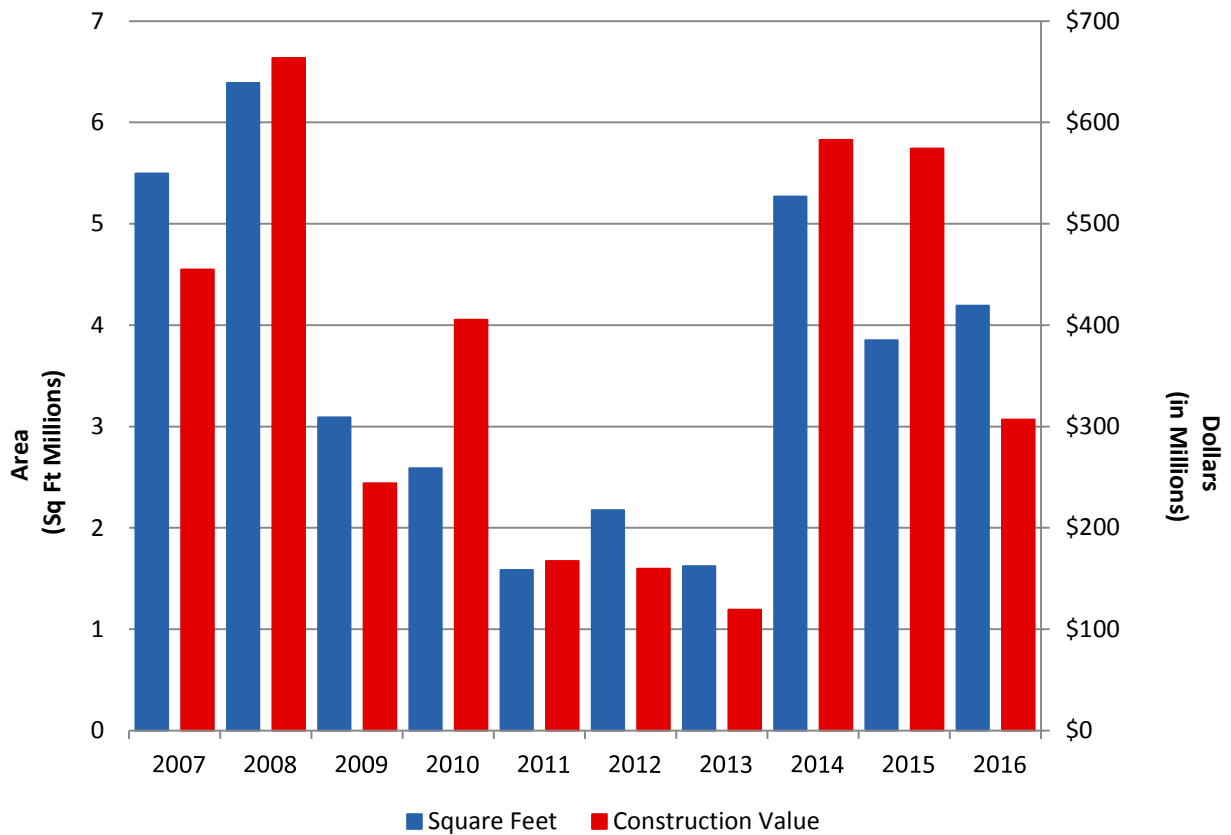


**Table 4.14 Raleigh Total Building Activity**

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
2015	199	3,851,273	\$415,822,608
2016	201	4,192,093	\$306,842,803
<b>TOTAL</b>	<b>2111</b>	<b>36,252,164</b>	<b>\$3,619,213,759</b>

Source: City of Raleigh Inspections Department

**Figure 4.5 Raleigh All Non-Residential Building Activity**



Source: City of Raleigh Inspections Department



## 4.4 Cost of Living

Founded in 1961, the Council for Community and Economic Research (C2ER) has been conducting city-to-city cost-of-living comparisons for over 50 years. Their 2016 Cost of Living Index assessed Raleigh as having a lower composite cost of living score than peer cities such as Atlanta, GA, Charlotte, NC, and Austin, TX (see Table 4.13). Significantly, Raleigh had a very low cost of housing score as compared to the national average, and it ranked as the third lowest cost city among the country's largest 40 metropolitan areas.

**Table 4.15 Metro Area Cost of Living Index Comparison, 2016 Annual Average Data**

	100% Composite Index	Grocery Items	Housing	Utilities	Transportation	Health Care	Misc. Goods & Services
Raleigh, NC	92.7	109	67.6	96.5	93.6	102	104.7
Atlanta, GA	98.2	104.9	86.8	105.2	102.3	107.5	100.4
Austin, TX	94.3	86.3	92.7	99.5	95.4	102.3	95.7
Charlotte, NC	94.9	93.4	82.9	92.3	99	101.8	104.2
Nashville- Franklin, TN	93.5	95.0	84.5	91.6	91.9	82.7	103.1
Orlando, FL	93.8	101.0	88.2	96.4	96.5	86.3	94.8
Charleston, SC	104.3	102.6	97.5	123.6	93.5	101.0	108.7

*Source: Council for Community and Economic Research (C2ER), Cost of Living Index, 2016 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. values lower than 100 indicate a lower cost living compared to the national average, and costs over 100 means the cost of living exceeds the national average. 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 administers several programs to increase the supply of affordable housing and to 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 2015 American Community Survey (ACS), 47% of Raleigh’s renter households pay more than 30% of their income in housing costs compared to 22% 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 affordability gaps of varying magnitude (see Table 5.2). The City of Raleigh funds and/or operates several programs to alleviate housing need in the community (Table 5.3).

**Table 5.1 Raleigh Households Below \$50,000 Annual Income with 30%+ Cost Burden, 2015**

Renters Annual Income Category	Total Renter Households	Number of Burdened Households	Percent of Burdened Households
Less than \$10,000	8,569	6,283	73%
\$10,000 to \$19,999	10,569	9,131	86%
\$20,000 to \$34,999	18,929	16,318	86%
\$35,000 to \$49,999	16,319	6,133	38%
<b>All Households &lt;\$50,000</b>	<b>54,386</b>	<b>37,865</b>	<b>70%</b>
\$50,000 or more	32,298	3,091	10%
<b>All Households</b>	<b>86,684</b>	<b>40,956</b>	<b>47%</b>

Owners Annual Income Category	Total Owner Households	Number of Burdened Households	Percent of Burdened Households
Less than \$20,000	4,310	3,919	91%
\$20,000 to \$34,999	9,821	6,571	67%
\$35,000 to \$49,999	10,250	4,576	45%
<b>All Households &lt;\$50,000</b>	<b>24,381</b>	<b>15,066</b>	<b>62%</b>
\$50,000 or more	66,880	5,031	8%
<b>All Households</b>	<b>91,261</b>	<b>20,097</b>	<b>22%</b>

Source: 2015 American Community Survey 1-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	8,569	\$250 (based on \$10,000)	\$774	(\$524)
\$10,000 to \$19,999	10,569	\$375 (based on \$15,000)	\$774	(\$399)
\$20,000 to \$34,999	18,929	\$687 (based on \$27,500)	\$774	(\$87)
<b>All Households ≤ \$34,999</b>	<b>38,067</b>			

\*This figure is for the Raleigh-Cary Metropolitan Statistical Area (MSA).

Source: 2015 American Community Survey, 1-year Estimates; U.S. Department of Housing and Urban Development, FY2015 Fair Market Rent Documentation System

**Table 5.3 Number of Assisted Affordable Housing Units**

City of Raleigh Affordable Rental Units	195
Raleigh Housing Authority Units	1,444
Rental Units with Funding from HUD (HOME and CDBG)	1,133
Low-Income Housing Tax Credit (LIHTC) Units (no City funds)	3,164
Rental Units with Funding from City of Raleigh (Joint Venture)	3,380
Homeownership Units with Funding from City of Raleigh	498
Second Mortgages Provided by City of Raleigh	1,275
Raleigh Housing Authority Housing Choice Vouchers (Section 8)	3,869
<b>Total</b>	<b>14,958</b>

Source: City of Raleigh Department of Housing & Neighborhoods, 2016



## 5.2 Home Sales, Average Rent, Residential Building Activity

In constant dollars, the median sales price for single-family detached units has increased from 2009 to 2016 with fluctuations in the intervening years (see Table 5.4). Median sales prices for townhouses and condominiums both decreased over this time period, although there were yearly fluctuations. Single-family detached homes and townhouses both saw marginal increases in median sales price from 2015 to 2016. The median sales price for condominiums increased by more than \$10,000, recovering from the steep decline of the previous five years (see Table 5.5).

Looking at residential sales by price range, the highest number of single-family homes sold during 2016 had a price tag of over \$400,000, although sales of homes in the \$150,001 to \$200,000 and \$201,000 to \$250,000 ranges were not far behind (see Table 5.6). For townhouses, the price range with the highest number of sales was \$150,001 to \$200,000. Condominiums selling for \$100,001 to \$150,000 had the highest sales volume. 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 American Community Survey indicates that growth in median rents for the city of Raleigh has slowed moderately in 2015 after four years of slightly faster increase (see Table 5.7). In 2015, median gross rent in the city was estimated to be \$926.

Looking at residential permit activity for 2016, apartments represented the largest category in terms of dwelling unit numbers. There were 1,991 apartment units permitted, comprising 58% of all permitted dwelling units. Single family construction had the largest share of square footage, at 54%, and construction value, with 62% (see Table 5.8). The single-family share of dwelling units permitted increased from 24% to 32% between 2015 and 2016. This increase helps to explain why total dwelling units per year fell by 15.6%, yet the total value of permitted construction increased by 2.7%

**Table 5.4 Median Sales Price by Unit Type (in 2016 dollars)**

	2010	2011	2012	2013	2014	2015	2016
<b>Single-Family Detached</b>	\$245,187	\$227,644	\$240,174	\$239,911	\$236,727	\$250,623	\$254,000
<b>Townhouse</b>	\$178,118	\$157,680	\$163,945	\$167,524	\$165,252	\$172,399	\$175,000
<b>Condominium</b>	\$147,330	\$140,449	\$140,972	\$125,385	\$127,742	\$125,565	\$136,000

Source: Wake County Revenue Department

**Table 5.5 Percent Change in Median Sales Price by Unit Type (in 2016 dollars)**

	2010 to 2011	2011 to 2012	2012 to 2013	2013 to 2014	2014 to 2015	2015 to 2016
<b>Single-Family Detached</b>	-7.2%	5.5%	-0.1%	-1.3%	5.9%	1.3%
<b>Townhouse</b>	-11.5%	4.0%	2.2%	-1.4%	4.3%	1.5%
<b>Condominium</b>	-4.7%	0.4%	-11.1%	1.9%	-1.7%	8.3%

Source: Wake County Revenue Department



**Table 5.6 Numbers of Residential Sales by Price Range and Type of Unit, 2016**

Price Range of Sales	Single Family	Townhouse	Condo	All Units
\$25,000 - \$100,000	98	116	191	405
\$100,001 - \$150,000	544	679	309	1,532
\$150,001 - \$200,000	1,062	782	86	1,930
\$200,001 - \$250,000	921	367	72	1,360
\$250,001 - \$300,000	751	223	40	1,014
\$300,001 - \$350,000	479	72	73	624
\$350,001 - \$400,000	370	32	38	440
over \$400,000	1,097	69	50	1,216
<b>Total</b>	<b>5,322</b>	<b>2,340</b>	<b>859</b>	<b>8,521</b>

Source: Wake County Revenue Department

**Table 5.7 Raleigh Annual Median Gross Apartment Rent**

Year	Gross Rent
2011	\$855
2012	\$875
2013	\$897
2014	\$914
2015	\$926

Source: 2007-2011, 2008-2012, 2009-2013, 2010-2014, and 2011-2015 American Community Survey 5-year Estimates

**Table 5.8 Raleigh Residential Building Activity, 2016**

Residential Type	No. of Units Permitted	Square Feet	Construction Value
Single Family	1,097	3,737,651	\$381,110,337
Townhouse	312	641,761	\$36,898,697
2-4 Attached Units	26	45,167	\$3,231,414
Condominium	24	47,115	\$358,602
Apartment	1,991	2,477,700	\$194,028,461
<b>TOTAL</b>	<b>3,450</b>	<b>6,949,394</b>	<b>\$615,627,511</b>

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 Context

The performance of the transportation system is a major factor impacting a community's economic prosperity and quality of life. The transportation system provides for accessibility to employment, services, goods, entertainment, and other daily needs. It also provides longer-distance mobility of people and goods, and 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 streets and highways, public transportation systems, bicycle network, pedestrian network, and greenway trail network. Together, all of these modes of transportation provide accessibility and mobility in support of desired land use patterns, community form, and sense of place.

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 regional planning, capital improvement planning
- **North Carolina Department of Transportation (NCDOT):** Long range planning on some major streets, capital improvement planning, construction/implementation on some major streets
- **Raleigh Department of City Planning:** Long range planning, capital improvement planning
- **City of Raleigh Public Works Department:** Construction, implementation, and operation of the transportation system
- **GoTriangle:** Long range regional transit planning, capital improvement planning, construction and implementation

### 6.2 Capital Improvement Program

The following is excerpted from the City of Raleigh Capital Improvement Plan (CIP) for fiscal years 2015 through 2019:

“The transportation capital program includes major street construction, street improvements, pedestrian and bicycle projects, downtown parking improvements, and transit projects. Total proposed funding for the five-year program is \$150.6 million with \$53.3 million planned for FY2015. The CIP programs the \$75 million transportation bond passed by voters in October 2013. The General Fund budget includes a 1.02 cent 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.

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. Lastly, the CIP includes \$3.2 million for maintenance and improvements at downtown parking decks."

Table 6.1 shows the allocation of CIP funds in greater detail.

**Table 6.1 Transportation Capital Improvement Program**

Project Category	FY2015	FY2016	FY2017	FY2018	FY2019	5 Year Total
Major Street Projects	\$26.2 M	\$23.5 M	\$17.4 M	\$500,000	\$484,000	\$68.1 M
Street Improvement Program	\$20.9 M	\$10 M	\$9.83 M	\$10.1 M	\$10 M	\$60.9 M
Bicycle and Pedestrian Improvements	\$3.25 M	\$2.73 M	\$740,000	\$670,000	\$826,000	\$8.21 M
Studies and Planning Projects	\$335,000	\$100,000	\$500,000	\$250,000	\$100,000	\$1.29 M
Transit	\$1.93 M	\$1.73 M	\$1.73 M	\$1.73 M	\$1.73 M	\$8.85 M
Parking	\$670,000	\$630,000	\$660,000	\$640,000	\$640,000	\$3.24 M
<b>Total Transportation Capital Improvement Program</b>	<b>\$53.3 M</b>	<b>\$38.8 M</b>	<b>\$30.9 M</b>	<b>\$13.9 M</b>	<b>\$13.8 M</b>	<b>\$150.6 M</b>

The City of Raleigh's fiscal year is from July 1 to June 30; FY2017 corresponds to the year beginning July 1,

*Source: Raleigh Department of City Planning, Office of Transportation Planning*



## 6.3 Federal Funding

In addition to municipal bonds and the General Fund, federal grants are a significant source of funding for transportation improvements. These grants come from a variety of sources and serve distinct goals. City officials choose to accept federal grants based on their alignment with existing transportation policies and initiatives. Table 6.2 shows the amounts and uses of grants awarded for the period between 2012 and 2017.

**Table 6.2 Federal Grant Allocations for Transportation Projects, 2012 – 2017**

Project Description	STP-DA	CMAQ	TIGER
Wake Forest/Blount/Person Complete Streets	\$1.27 M		
Walnut Creek Greenway Trail – Trailwood Segment		\$680,000	
Crabtree Creek Greenway Trail West		\$1.55 M	
Lake Wheeler Road Improvements	\$1.72 M		
Creedmoor Road Sidewalk Improvements	\$1.20 M		
I-40 Overpass Pedestrian Retrofits/Improvements		\$2.54 M	
Capital Boulevard Improvements	\$860,000		
Six Forks Road Sidewalk Improvements		\$510,000	
Downtown Pedestrian Safety Improvements	\$0.12 M		
Citywide Bicycle Improvement Projects		\$480,000	
Union Station Phase 1			\$38 M
Capital Boulevard/Peace Street Bridge Replacement	\$5 M		
New Bern Avenue Pedestrian/Transit Improvements		\$1.75 M	
Leesville Road Safe Routes to School	\$450,000		
Raleigh Bikeshare Implementation		\$1.67 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: Raleigh Department of City Planning, Office of Transportation Planning

Transportation Projects can be tracked with the Transportation Project Map, available in the Resources section on this page:

<http://www.raleighnc.gov/business/content/PlanDev/Articles/TransPlan/TransportationPlanning.html>



## Chapter 7: Public Utilities

The City's public utilities are regional in nature. The City of Raleigh Public Utilities Department (CoRPUD) has merged with all the municipal utilities in eastern Wake County including Garner, Rolesville, Wake Forest, Knightdale, Wendell, and Zebulon. Furthermore, the Towns of Fuquay-Varina and Holly Springs periodically rely on the City for potable water supply. Planning the infrastructure of the entire water system must be with the perspective of the entire region.

### 7.1 Water Supply

The majority of Raleigh's water supply comes from Falls Lake in the northernmost part of Wake County. Lake Benson, which is just south of Garner, provides a secondary source of raw water for the Public Utilities Department. These two reservoirs combined can support up to 77.3 million gallons per day (MGD) of withdrawals. The available raw water supply from each of these sources is shown in Table 7.1 below.

**Table 7.1 Raw Water Supply and Demand for 2015**

<b>Reservoir</b>	<b>Average Daily Withdrawal (MGD)</b>	<b>Maximum Daily Withdrawal (MGD)</b>	<b>Available Raw Water Supply (MGD)</b>
Falls Lake	40.5	62.9	66.1
Lake Benson	9.8	13.0	11.2

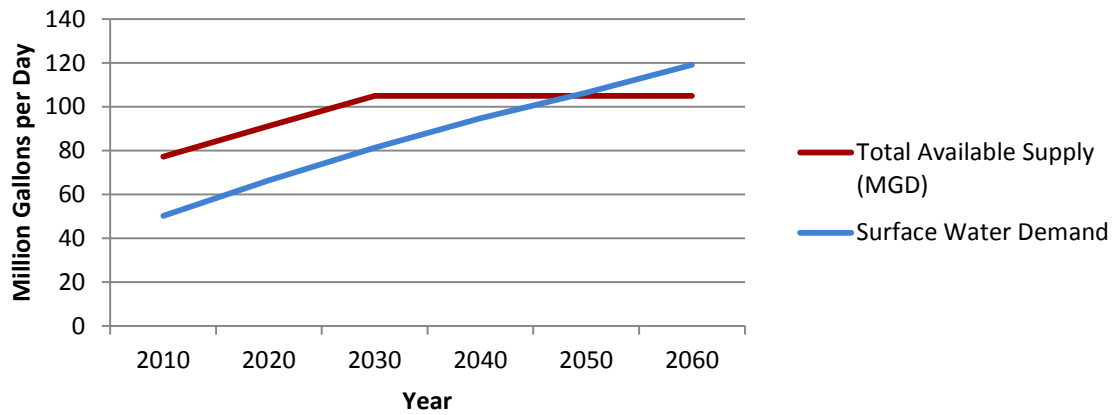
*Source: NC Division of Water Resources*

In 2015, the City used a little over 50 MGD to serve its regional customer base of around 180,000 metered customers. The demand for treated water is projected to exceed the existing raw water supply by the year 2030 (Figure 7.1). The City of Raleigh and Wake County are considering a series of options to expand the supply of raw water in time to meet the projected demand. These improvements, creating an estimated 27.7 MGD of new supply, will enable the City to meet demand until close to the year 2050. Treatment capacity is not expected to be a limiting factor as the E. M. Johnson treatment plant is currently permitted to treat up to 86 MGD. A planned expansion, to be completed by 2025, will increase capacity at E. M. Johnson to 120 MGD.





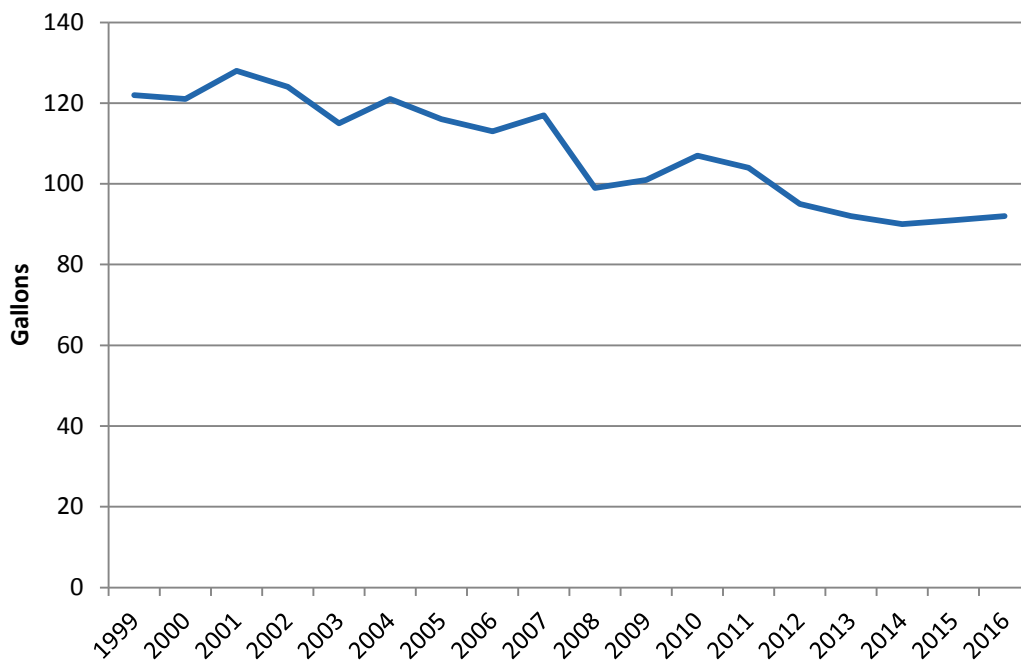
**Figure 7.1 Water Supply and Demand Projections**



Source: NC Division of Water Resources

Total water demand is growing in Wake County, but this increase is the result of population growth rather than greater demand per person. Daily water demand per capita in Raleigh has been on a downward trend for over 15 years (Figure 7.2).

**Figure 7.2 Daily Treated Water Demand Per Capita**



Source: City of Raleigh Public Utilities Department



## 7.2 Wastewater Treatment

The City of Raleigh operates three wastewater treatment plants (WWTPs) as well as a residuals management facility at Wrenn Road. The treatment capacities for the three WWTPs are shown in Table 7.2. Treatment capacity at the Neuse River facility will be expanded to 75 MGD by 2018.

**Table 7.2 Wastewater Treatment Capacity**

Treatment Plant	Maximum Capacity
Neuse River RRF	60.00 MGD
Little Creek WWTP	1.85 MGD
Smith Creek WWTP	3.00 MGD

*Source: NC Division of Water Resources*

The Neuse River Resource Recovery Facility is the largest WWTP serving Wake County. As its name suggests, the operations of the plant have expanded beyond the treatment of wastewater to include the treatment of biosolids for land application and the production of biofuel. In conjunction with these efforts, the City of Raleigh has created a Mobile Biofuel Processor that can produce biofuel from feedstock on-site at any location.

**Table 7.3 Wastewater Treatment Plant Average Daily Throughput by Year**

Year	Neuse River RRF (MGD)	Little Creek WWTP (MGD)	Smith Creek WWTP (MGD)
2000	36.16	0.853	1.330
2001	35.61	0.757	1.331
2002	37.39	0.816	1.399
2003	44.30	0.930	0.442
2004	45.50	0.715	0.691
2005	46.20	0.580	0.713
2006	44.80	0.591	1.026
2007	42.01	0.552	1.040
2008	40.87	0.592	1.105
2009	42.46	0.664	1.206
2010	43.84	0.692	1.233
2011	41.59	0.616	1.293
2012	41.91	0.625	1.326
2013	43.96	0.742	1.479
2014	45.04	0.804	1.685
2015	46.41	0.851	1.809

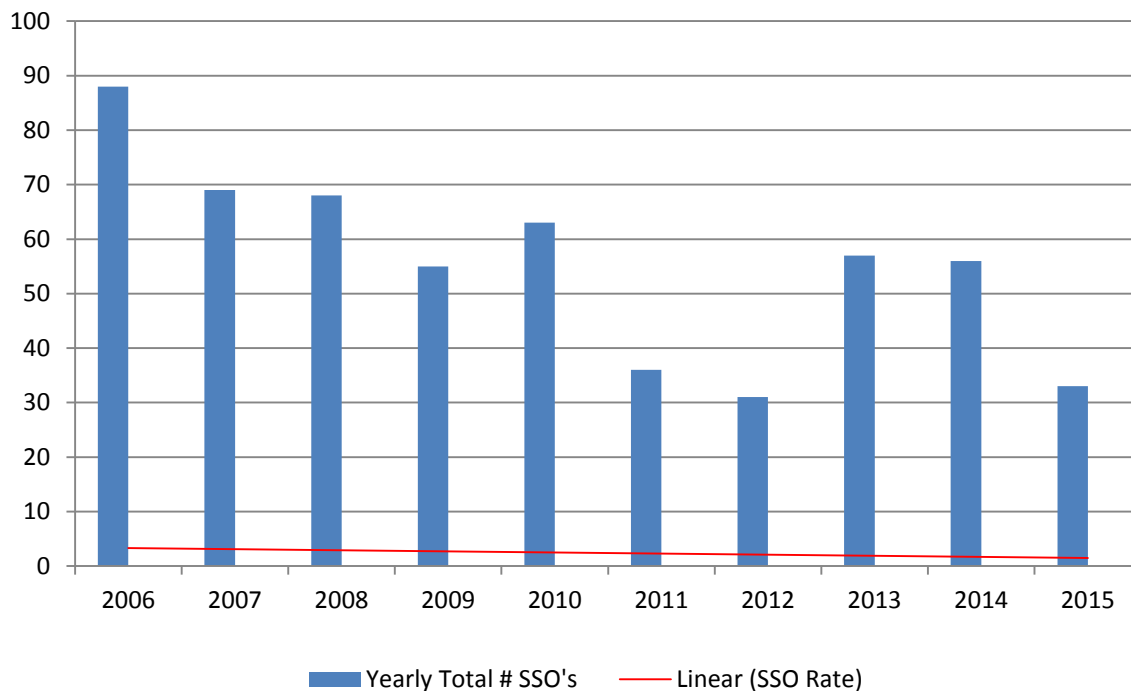
*Source: City of Raleigh Public Utilities Department*



The City of Raleigh Public Utilities served 169,277 sewer connections with 2,500 miles of wastewater pipeline and 113 public pumping stations in 2015. Table 7.3 on the preceding page shows the amount of wastewater being treated at the City’s three WWTPs. Throughput in 2015 was about 71% of the total capacity, and this figure has been stable or declining for over ten years. Even so, the City has been awarded a permit to expand the capacity at the Neuse River RRF by 15 MGD to 75 MGD. Expansion of the facility is in progress and is expected to be completed by 2018. Additional upgrades will enable the plant to produce methane for electricity generation, reducing its operating costs and environmental impact.

In addition to treating our water supply and wastewater, CoRPUD also maintains thousands of miles of pipes to transport each of these types of water. When wastewater pipes are used beyond their designed capacity or if they have a structural failure, a sanitary sewer overflow (SSO) can occur. SSOs can be dangerous and disruptive to human activities and environmental quality. If SSOs release a large enough volume of wastewater, the local utility may be fined by the state. For these reasons, CoRPUD carefully tracks SSOs and tries to minimize their frequency and magnitude. Figure 7.4 shows the annual number of SSOs for CoRPUD and the long term trend line of SSOs per 100 miles of pipe. Not only has the overall number of SSOs declined by over 50% in ten years, but also the rate of SSOs has dropped well below the national average. Raleigh’s rate of SSOs in 2015 was 1.3 compared to the national average of 4.5.

**Table 7.4 Sanitary Sewer Overflow (SSO) Count and Rate by Year**



Source: City of Raleigh Public Utilities Department



## 7.3 Capital Improvement Program

The City has funded several capital projects to ensure that utility infrastructure continues to produce a high level of service as additional ratepayers are added to the system. The following is a selection of the utility projects funded in the 2015-2019 Capital Improvement Program:

- Begin construction of the Crabtree Basin Wastewater System Conveyance Improvement Project Phase II
- Begin construction of the Wake Forest Richland and Smith Creek Interceptor Improvements
- Continue construction of the Neuse River Resource Recovery Facility Expansion to 75 MGD Phase III and design and bidding of Phase IV.
- Complete the Dempsey E. Benton Water Treatment Plant Backwash Waste Recycle Facility project.
- Update the Water Distribution System Master Plan
- The addition of nearly \$200M in water and wastewater asset management related projects. Projects include the assessment and rehabilitation/replacement of our water and sanitary sewer pipelines.
- Acceleration of design funds for the Neuse River Resource Recovery Facility Anaerobic Digester project.
- Addition of Big Branch Pump Station Improvements to address wet weather flow compliance.
- Addition of a Raw Water Reservoir at Dempsey E. Benton Water Treatment Plant.



## 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, greenhouse gas emissions, and solid waste management.

### 8.1 Existing Watershed Conditions

All of Raleigh's incorporated area, along with most of Wake County, is located in the Neuse River basin which includes Falls Lake. The Neuse River basin is the total land area that drains into the Neuse River. Within the Neuse River Basin there are tributaries that drain smaller areas called watersheds. Raleigh's watersheds are named after the creeks that collect their runoff. For example, the Walnut Creek watershed drains into Walnut Creek. Because watersheds collect rainwater from a large land area (as much as 20 square miles), any pollutants deposited in that area are likely to be transported by rainwater to the local creek and eventually to the Neuse River. If this pollution builds up, the health of local water bodies may be threatened.

The health of our local streams is important for the living organisms in those streams. It also affects our recreational options like swimming, fishing, and other watersports. Finally, poor stream health can lead to increased water treatment costs for Raleigh as well as for other municipalities downstream. One way to judge the quality of local streams is through the presence of wildlife. Table 8.1 provides 2005, 2010, and 2016 bioassessment data for selected streams within Wake County. The NC Division of Water Resources assessed these sites based on the health of their fish populations. Overall, the bioassessment rating has declined throughout survey years for all streams except Smith Creek. The highest performing streams tend to be located in less urbanized areas on the Raleigh's periphery.

**Table 8.1 Bioassessment for Streams in Wake County’s Portion of the Neuse River Subbasin**

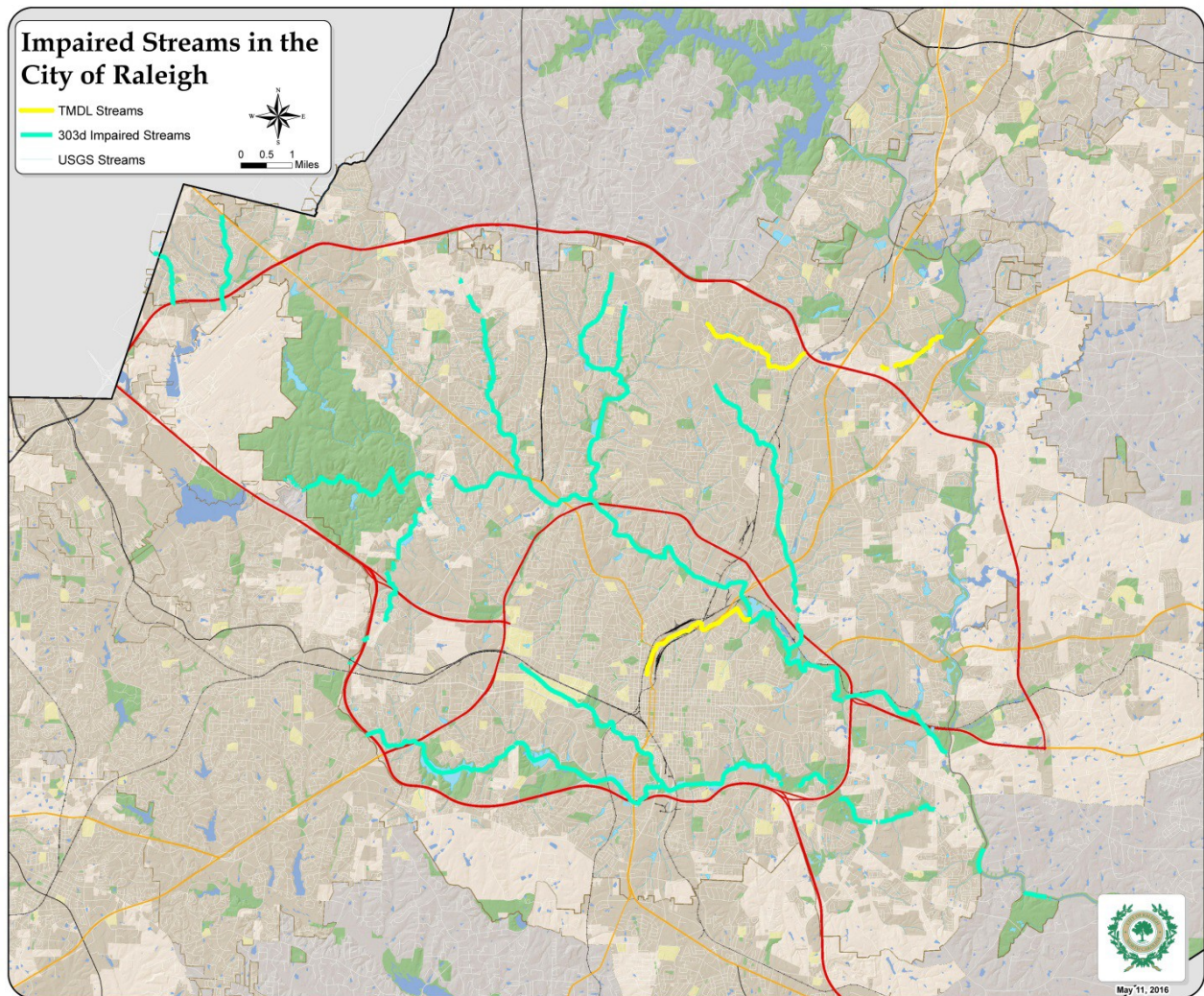
<b>Water Body</b>	<b>Monitoring Location</b>	<b>2005</b>	<b>2010</b>	<b>2016</b>
Crabtree Creek	Ebenezer Church Rd	Excellent	Excellent	Fair
Little River	SR 2224	Good	Good	Good-Fair
Middle Creek	SR 1375	Excellent	Good-Fair	Good-Fair
New Light Creek	SR 1911	Good	Good	Good-Fair
Richland Creek	US 1	Excellent	Good-Fair	Good-Fair
Smith Creek	SR 2045	Fair	Good	Fair
Swift Creek	SR 1152	Not Sampled	Good-Fair	Fair
Terrible Creek	SR 2751	Good	Good	Fair
Upper Barton Creek	NC 50	Good	Good-Fair	Fair
Walnut Creek	South State	Not Sampled	Fair	Poor
Walnut Creek	SR 2544	Good-Fair	Good-Fair	Fair

Source: North Carolina Department of Environment and Natural Resources, Division of Water Resources



Fish populations are not the only measure of stream quality. The EPA requires states to monitor the concentrations of various pollutants in water bodies under federal jurisdiction. The most common pollutants in Raleigh's streams are nutrients like nitrogen and phosphorous. Polychlorinated biphenyl (PCB) is a carcinogenic industrial chemical that is also found in streams in Raleigh. PCB concentrations in local waters tend to be very low. Danger may arise from consuming fish that has accumulated PCB during its lifetime in contaminated waters.

A water body that has pollutant (usually nutrient) concentrations exceeding the statutory limit is placed on the 303(d) list, named after a section of the Clean Water Act. A consistently and acutely impaired stream can be assigned a total maximum daily load (TMDL) of pollutants which the local government is charged with enforcing. Figure 8.1 shows the streams in Raleigh that have been placed on the 303(d) list as well as those with TMDLs.



Source: City of Raleigh Stormwater Division

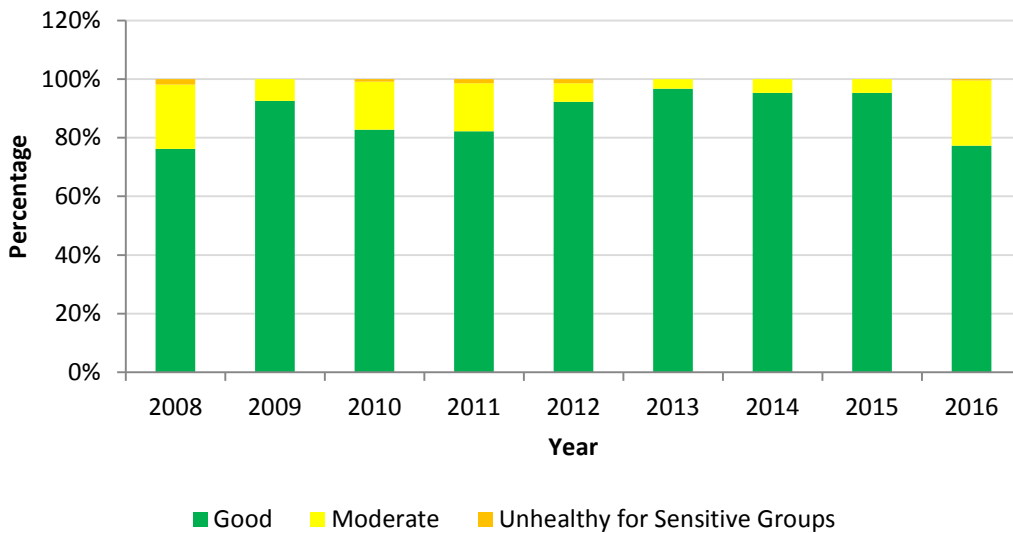


## 8.2 Air Quality

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. Air quality improved steadily from 2008 to 2015 only to return to 2008 levels in 2016 (see Figure 8.1 and Table 8.2).

Raleigh's streak of three consecutive years without recording a single day categorized as "unhealthy for Sensitive Groups" was broken in 2016. 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, Millbrook Monitor**

	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy
<b>2008</b>	163	47	4	0
<b>2009</b>	198	16	0	0
<b>2010</b>	177	35	2	0
<b>2011</b>	176	35	3	0
<b>2012</b>	191	13	3	0
<b>2013</b>	207	7	0	0
<b>2014</b>	204	10	0	0
<b>2015</b>	203	10	0	0
<b>2016</b>	156	45	1	0

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

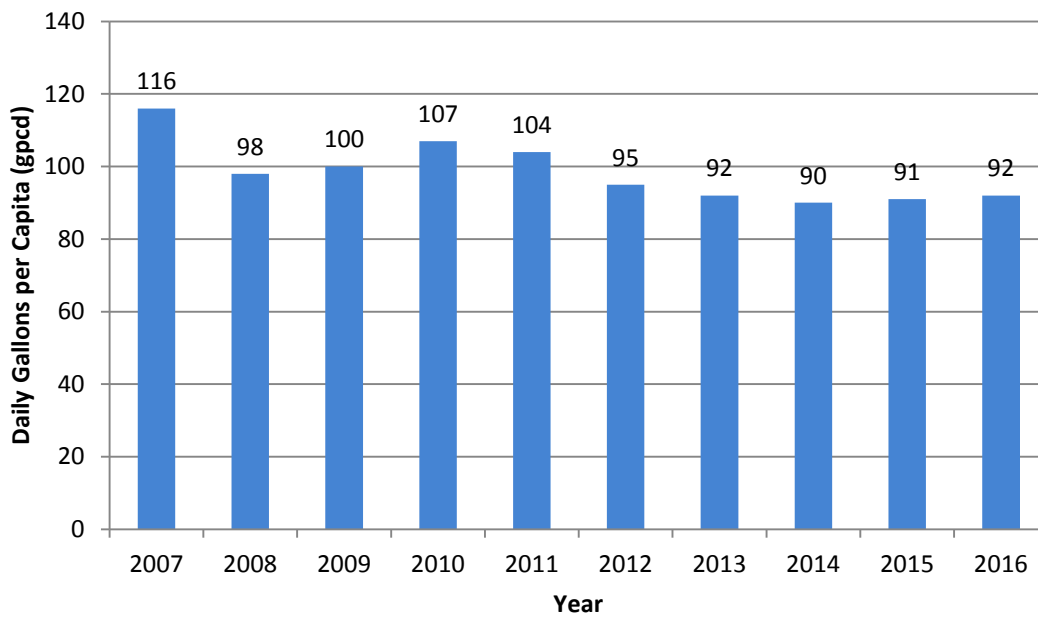
\*Data reported only during ozone forecast season, April-September



### 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, 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 costs associated with the treating and distributing water. Water consumption as measured in daily gallons per capita (gpcd) trended downward from 116 gpcd to 92 gpcd between 2007 and 2013 and has stabilized at around 90 gpcd since then (see Figure 8.2).

Figure 8.2 Daily Water Consumption Aggregated by City Population



Source: City of Raleigh Public Utilities Department





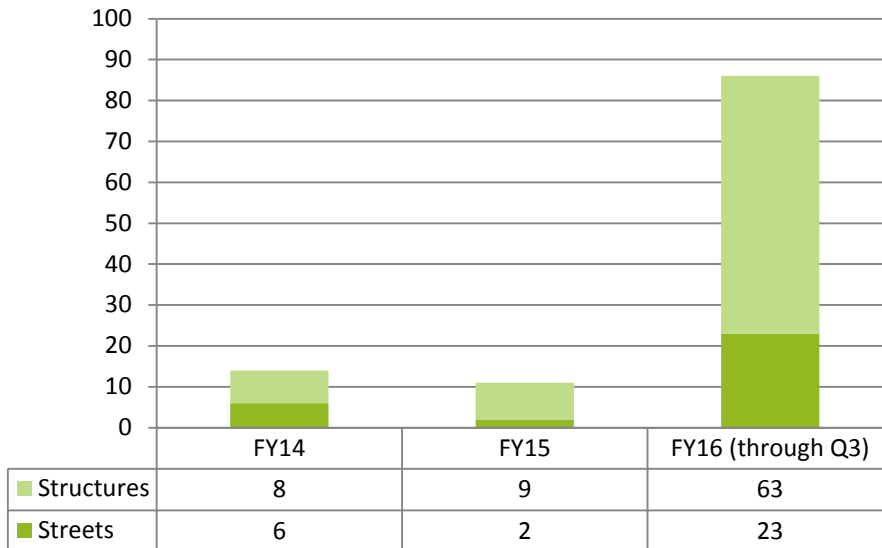
## 8.4 Stormwater Management

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 drainage and water quality assistance programs, capital stormwater projects, and the water quality program mandated by the Clean Water Act. In addition, they review and inspect private developments for conformance to stormwater, soil erosion, and floodplain requirements, maintain the drainage system inventory, and respond to citizen inquiries concerning these functions.

The Stormwater Division has recently begun to aggressively monitor the results of its operations. While historic data is limited, evidence from recent years shows how investments in stormwater management are protecting life and property, reducing pollution, and beautifying local waterways.

New construction on formerly natural areas increases the amount of runoff entering the drainage system. Regular improvements insure that this excess water does not have a chance to collect and threaten the safety and property of citizens. Potential risks of uncontrolled runoff include flooding and erosion. Stormwater projects completed in Fiscal Year 2016 reduced the risk posed by runoff for 63 structures and 23 streets, as shown in Figure 8.3.

**Figure 8.3 Reduction in structures and streets affected by excess runoff by fiscal year**



Source: City of Raleigh Stormwater Division



Stormwater management cannot eliminate the threat of dangerous floods. The National Flood Insurance Program (NFIP), run by the Federal Emergency Management Agency (FEMA), provides a way for homeowners in flood hazard areas to be better financially prepared if flood damage occurs. The Stormwater Division is responsible for informing homeowners of the risks they face and ways the NFIP can help them. In 2016, there were 1,728 NFIP policyholders in Raleigh insuring nearly \$500 million in property. The combined premiums of these policyholders amount to \$1.15 million per year.

FEMA evaluates the quality of these educational efforts as well as overall floodplain management and awards points using the Community Rating System (CRS). Attainment of CRS points is rewarded with lower NFIP premiums for homeowners. Raleigh received the lowest CRS rating in 2016, a nine on a scale of one to nine. However, the Stormwater Division is actively assisting homeowners in the floodplain to acquire elevation certificates. The Division expects to have recorded the necessary certificates to achieve a rating of seven within the next year.

Another goal of the Stormwater Division is to limit the amount of nutrients entering local waterways. The nutrients nitrogen and phosphorous are ingredients in most fertilizers used for lawn maintenance and landscaping. Fertilizer that isn't absorbed by the soil is washed into stormdrains and can have negative impacts on stream ecosystems. Stormwater Control Measures (SCMs) are required for all commercial and multi-family residential developments in Raleigh. SCMs reduce the intensity of runoff leaving a site during a rain event by capturing it for a certain period of time. They also treat the runoff to remove nutrients. The City is augmenting the use of SCMs in private development with publicly funded control measures. Figure 8.4 shows the benefits in nutrient reduction that are being achieved through stormwater management.

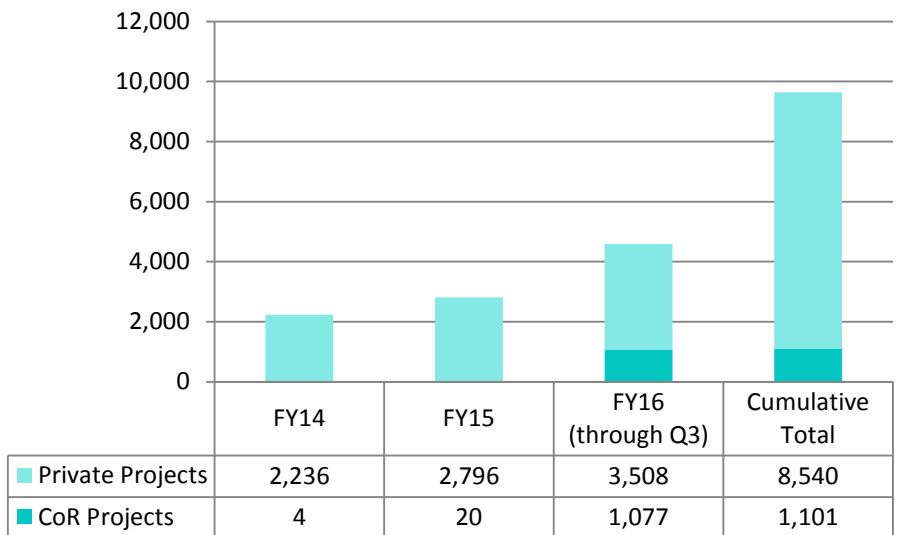
Stormwater management often takes the form of engineered infrastructure projects, but the natural world also gives us valuable resources for preventing floods and cleaning our water. Proper conservation of wetlands, streams, and riparian vegetation can generate a significant return on investment in terms of runoff control and water quality. As an added bonus, healthy waterways offer recreational, educational, and cultural benefits that can increase property values and make Raleigh a more desirable place to live. The Stormwater Division facilitates several popular volunteer programs for maintaining these valuable natural resources. For each of the past three years, individuals and organizations have given over 1,500 hours of volunteer labor to programs such as:

- Adopt-A-Stream
- Foster-A-Stream
- Stream monitoring
- Storm drain marking

Not only do these efforts put tens of thousands of dollars of labor towards improving our infrastructure and environment, they also help citizens connect with each other and feel invested in their communities.



**Figure 8.4 Reduction in Total Nitrogen load by fiscal year**



Source: City of Raleigh Stormwater Division

Even with SCMs and stream maintenance, a growing city requires proactive investment in stormwater infrastructure to effectively transport runoff to the stream network. The following list shows some of the Stormwater Division’s projects funded by the 2015-2019 Capital Improvement Program:

- Supplemental funding of \$1.8 million for the construction of the high priority Lower Longview Dam and restoration of Albemarle Avenue. This project will upgrade the dam and spillway capacity, reducing hazards to property owners and allowing traffic to resume on Albemarle Avenue.
- Continued funding totaling \$550,000 for water quality retrofit projects and the water quality cost share program.
- Continued funding totaling \$750,000 for the significantly growing drainage petitions program. This program includes cost-share projects to reduce structural flooding and stabilize severely eroding stream banks.
- \$1,000,000 in funding for continued neighborhood drainage system improvement projects.



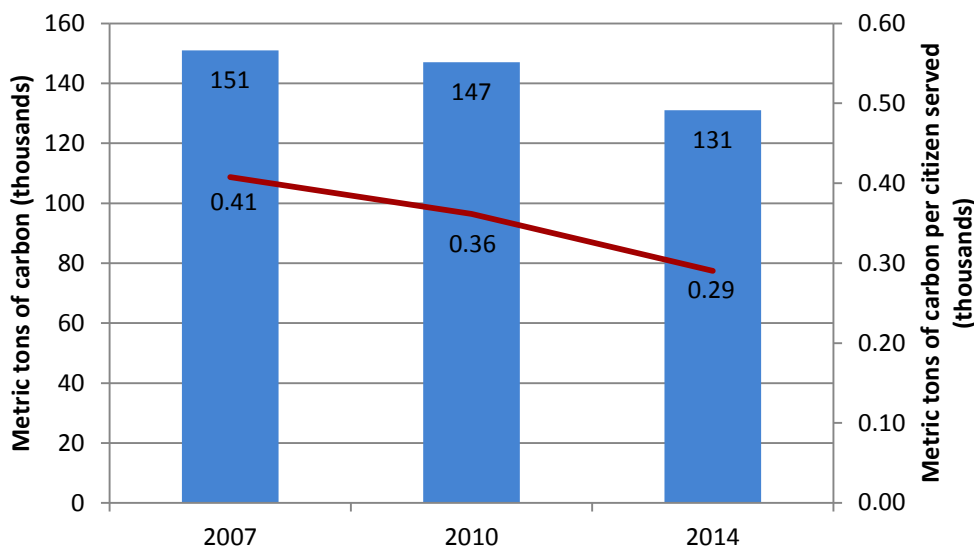
## 8.5 Greenhouse Gas Emissions

The City of Raleigh conducted greenhouse gas emissions inventories for municipal operations in 2010 and 2014. The base year selected for this emissions inventory was 2007. In that year, City operations emitted 151,479 metric tons of carbon (MTCO<sub>2</sub>E) into the atmosphere. Through implementation of a number of programs and projects, it is estimated that between 2007 and 2010, greenhouse gas emissions per citizen from City operations decreased by 11.3%. Greenhouse emissions per citizen served drop another 19.7% between 2010 and 2014 (see Figure 8.3). The effect of this increase in efficiency is the equivalent of taking more than 1,600 cars off the road for every year of the interval 2007-2014.

These reductions were 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 the energy-saving projects were already underway prior to completion of the Greenhouse Gas Emissions Inventory for Municipal Operations.

The City has built on this momentum by drafting a Clean Energy Action Plan to identify options for further reductions in GHG emissions. The plan evaluates a variety of actions across multiple City departments that have the potential to reduce GHG emissions per citizen served by an additional 20% over 2014 levels. The total costs of all actions in the plan is estimated at around \$100 million, but individual components range in costs from those that pay for themselves through energy cost savings to more ambitious steps that require significant expenditures to achieve reductions.

**Figure 8.3 Municipal Operations Greenhouse Gas Emissions**



Source: City of Raleigh Greenhouse Gas Emissions Inventory: Years 2007, 2010, and 2014

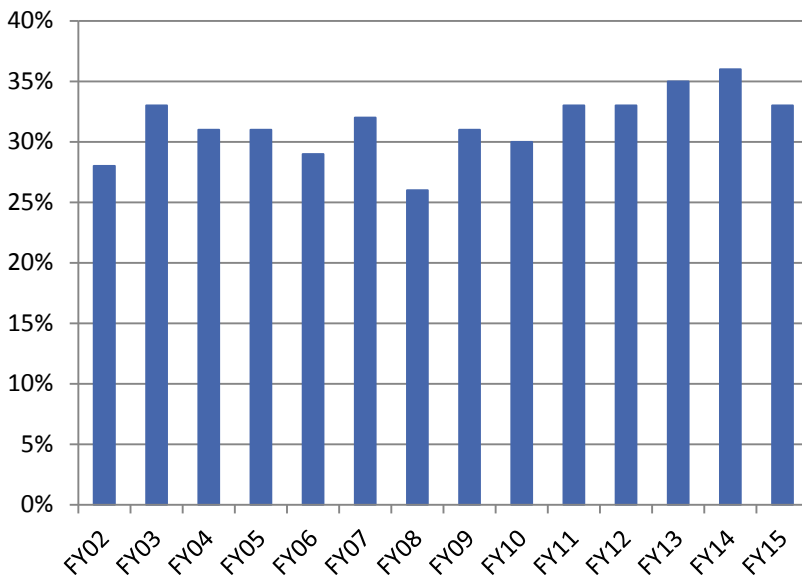


## 8.6 Solid Waste

The City of Raleigh provides curbside pickup services to residential customers for garbage, recycling, and yard waste through the Solid Waste Services division. The recycling program began in 1989, and the yard waste program started three years later in 1992. Collected yard waste is converted into wood chips, mulch, and compost for sale to the public. Solid Waste Services has also been offering curbside pickup for recycling to downtown commercial customers since 2006. There are now more than 130 businesses participating in this program.

Recycling and yard waste have become a regular and significant part of the city's solid waste stream. City residents, with the help of Solid Waste Services, have maintained a diversion rate of about 30% for over ten years (Figure 8.4). Diverting solid waste to the recycling and yard waste programs keeps that waste out of landfills. This in turn saves money for Wake County by delaying expenditures on decommissioning a full landfill and establishing a new one. Those savings can be passed on to customers through reduced operating costs for Solid Waste Services. Recycling consumer products and repurposing yard waste also reduces our impact on the environment.

Figure 8.4 Solid Waste Diversion Rate

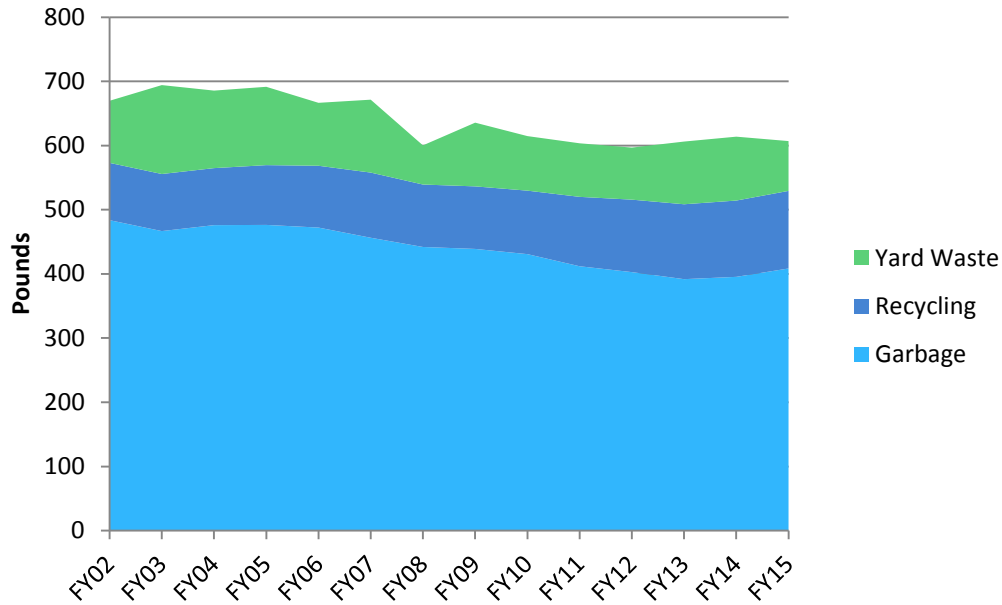


Source: City of Raleigh Solid Waste Services Division



In addition to diverting more waste, Raleigh citizens are also producing less waste per person (Figure 8.5). Between 2002 and 2015, garbage collection per resident dropped by more than 15%. Increased recycling accounts for almost half of this change, but the majority comes from residents simply throwing away less garbage.

**Figure 8.5 Solid Waste Collection Per Capita**



Source: City of Raleigh Solid Waste Services Division



## Chapter 9: Parks, Recreation and Cultural Resources

### 9.1 Existing PRCR System and Planning Framework

The City's parks, greenways and cultural resources are invaluable assets for cultural pursuits, natural conservation and active and passive lifestyle activities. The Raleigh system of parks, recreational facilities, and cultural resources has 6,169 acres of park land and 3,868 acres of greenway property. These acres contribute to providing the residents of Raleigh parks, greenways and cultural resources experiences at 148 parks and along 117 miles of greenway trail.

In addition to providing parks and facilities the public is provided with a variety of programs to meet their household's interests. 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.

To ensure the public has a voice for the planning of new facilities and experiences, the City Council adopted the Department's Public Participation Policy for Park Planning in 2012. This policy provides direction to ensure an effective and efficient process is used to fairly and equitably maximize citizen input and support for the planning and development of the park system.

The Parks, Recreation and Cultural Resources System Plan was adopted by City Council on May 6, 2014. The System Plan provides guidance on the design, development and delivery of facilities and services over the next 20 years. The System Plan supplements the City of Raleigh 2030 Comprehensive Plan.

Park and greenway planning and development projects can be tracked on-line through the following webpage:

<http://www.raleighnc.gov/home/content/PRecDesignDevelop/Articles/ParkAndGreenwayPlanningAndDevelopment.html>

### 9.2 Parks and Recreation Facilities

Raleigh has one of the most well developed park systems in the Southeastern United States. The City's parks system consists of a variety of experiences to fit user needs and preferences. Initiated by public input into the System Plan and as Action Items for Implementation, the department is developing a new classification system based on experiences.

During the System Plan process the public identified core neighborhood-based experiences desired within a walkable distance from their home. The activities in the core neighborhood-based experiences or all "at-will" activities include:

- Sitting outside, reading, contemplating, meeting friends (socializing);
- Going to a playground;
- Open play (may include and open lawn); and
- Walking or Riding a bike in a park or on a greenway trail.



Regional experiences were also identified during the System Plan process. These experiences are typically found at a larger park facility or are resource based. These experiences may require planning to attend or registering for a program, as well as, traveling out of your neighborhood to the experience. The activities included in the regional experiences include:

- Playing on an athletic field or court;
- Enjoying the outdoors or nature;
- Aquatic recreation;
- River or lake-related activities;
- Fitness;
- Enjoying cultural opportunities.

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.

### 9.3 Greenways

The Capital Area Greenway corridor system is supported by the 2030 Comprehensive Plan through the Future Land Use Map and other policies. It is generally based on the Neuse River and its watersheds, including the following creek systems: Crabtree, Walnut, Richland, and Harris. The City of Raleigh currently provides approximately 3,868 acres of greenway land through its community wide, Capital Area Greenway System. On January 6, 2015, the City Council adopted a new Capital Area Greenway Planning and Design Guide. The new guide incorporates existing City procedures with the standards and best practices of public agencies is designed to ensure that the Capital Area Greenway System continues to be a safe and accessible multi-use trail system providing recreation and transportation opportunities, while preserving thousands of acres of natural areas.

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.

More information is available at the following webpage:

<http://www.raleighnc.gov/home/content/PRecDesignDevelop/Articles/CapitalAreaGreenwayTrailSystem.html>





## 9.4 Future Park and Open Space Needs

The Parks, Recreation and Cultural Resources Department developed a new model for evaluating access to experiences provided by parks and open space. The Experience-Based System model uses distance based on the street network and demographics in the community to evaluate access to the closest park experience. Historically, the City of Raleigh has acquired and planned parks and recreation facilities according to the National Recreation and Parks Association's (NRPA) Level of Service (LOS) Standard, which include:

- Acres per Population,
- Facilities per Population,
- Quality of the Facilities, and
- Availability of Programs.

Equitable access to inherent experiences is not measured with these techniques. Incorporating a fifth measurement technique—Access Distance or Travel Time—can help progress the simple idea that every citizen should be able to access an inherent park, recreation or cultural experience within similar walking, bicycling, and/or driving distance. The creation of an experience-based model helps to better evaluate how parks, recreation, and cultural resource experiences offered by the City of Raleigh actually function as a dynamic system.

The specific metrics used for the Experience-Based System evaluation include distance to closest park, accessible parks per person, and accessible acres per person. The evaluation also calls for the use of census block centroids, park access points, and the Wake County road network. This model first identifies all parks offering core experiences, which includes opportunities for socializing, going to a playground, informal open play, and walking or riding a bike in a park or on a greenway trail. The Experienced-Based System model then uses the following measures to evaluate accessibility to the parks providing a core experience:

- The distance to the closest park measures the distance from each Census Block centroid to the closest park access point. This distance is calculated using the Wake County road network and does not take into account sidewalks, trails, walking paths, greenways, or any other connection type. Using this methodology, core experiences are accessible to a census block when the distance is less than or equal to 1.29 miles.
- The number of accessible parks per person is calculated by dividing each park by the total population of all of the surrounding Census Blocks within a distance of 1.29-miles to determine parks/person. Each Census Block receives the sum of the calculated number of parks/person for all parks within the 1.29-mile distance.
- The number of accessible park acres per person is calculated by dividing the park's acreage by the total population of all Census Blocks within a distance of 1.29-miles to determine acres/person. Each Census Block gets the sum of the acres/person values of all parks within a 1.29-mile distance.
- Once these three metrics are calculated, they are combined for each census block. The census block values are then aggregated up to census block groups and those values are weighted by population.



The Experience-Based System model will be used for targeting connections to existing parks and greenway trails, determining where to add amenities and identifying areas for land acquisition. As a first step to improving access the department is currently developing a new Neighborhood and Community Connections (N&CC) Program and Policy to identify areas of the city where communities are close to a park but have difficulty accessing it with the existing transportation networks. Using the existing experience-based system model, the N&CC Program will compare current service to potential service levels to assess which parks have the greatest need for accessibility improvements.



## 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 Raleigh Police Department Facilities**

Police Facility	Number of Staff	Number of Vehicles	Facility Sq. Ft.	Address
Headquarters and North	160	110	45,900	6716 Six Forks Road, 27615
Downtown	82	59	33,700	218 W. Cabarrus Street, 27602
Front Street	92	100	48,000	1221 Front Street, 27609
Southeast	93	100	10,594	1601-30 Cross Link Road, 27610
Southwest	72	75	14,400	601-104 Hutton Street, 27606
Atlantic Avenue	153	180	16,165	4501 Atlantic Avenue, 27604
Northeast	96	75	13,851	5220 Greens Dairy Road, 27616
Northwest	52	50	11,000	8016 Glenwood Avenue, 27612
The Academy	52	12	12,416	4205 Spring Forest Road, 27616
The Range	9	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 space)
The Range			260	Old cinder block range house
The Range			400	(4) storage sheds on property
The Range			320	Range 2-story garage
Interact	10	0	0	1012 Oberlin Rd
<b>Total:</b>	<b>871</b>	<b>782</b>	<b>224,546</b>	

Source: City of Raleigh Police Department

**Table 10.2 Raleigh Fire Department Service Metrics**

Performance Measures	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Projected FY 2017
Fire calls answered	1,077	1,133	1,227	1,079	1,200
Rescue and EMS calls answered	21,951	23,119	22,356	24,047	24,500
Fires investigated	258	265	251	291	290
Permits issued	1,272	1,738	1,730	2,961	2,650
Average hours per fire call (hrs)	0.92	0.55	0.57	1.05	1
Average hours per EMS call (hrs)	0.33	0.20	0.20	0.33	0.25
Average response time to emergency calls (min)	4.43	4.43	4.44	4.46	4.4
Percent citizens reached by public fire education	10%	10%	10%	9%	10%

Source: City of Raleigh Fire Department

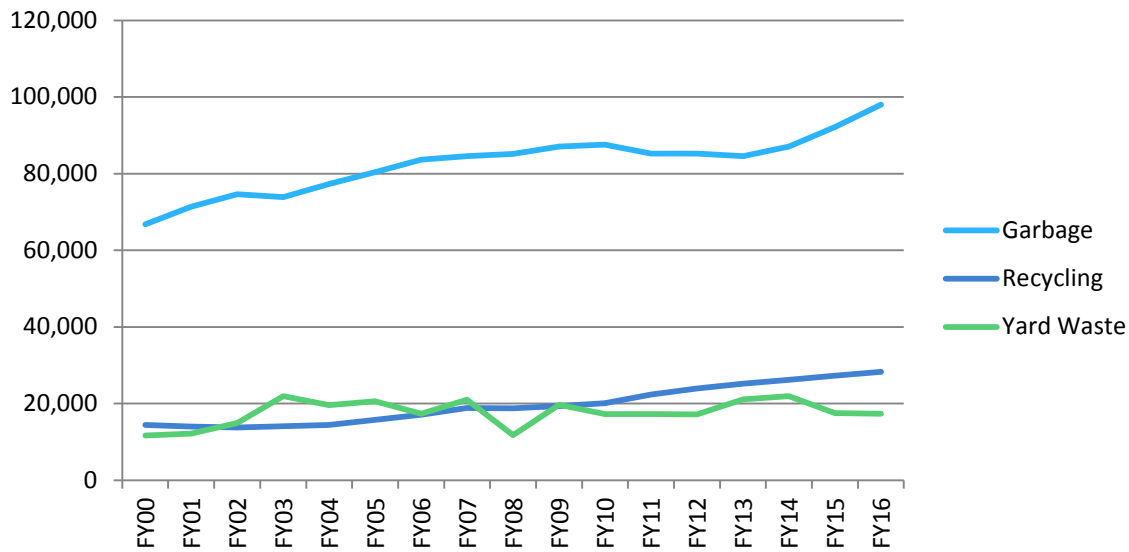


**Table 10.3 Solid Waste Services Equipment**

Number	Type
100	Large vehicles
53	Automated refuse collectors
40	Rear loader garbage and yard waste collectors
3	Split body rear loaders (collect garbage and recycling at same time)
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

**Table 10.4 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 established 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 economic driver 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 2016, preservation planning staff and the RHDC processed 191 COAs.

Raleigh currently has a total of 164 Local Historic Landmarks, 29 National Register Historic Districts, 7 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.

