

October 13, 2014 Draft

Comprehensive Plan Five-Year Review (proposed deletions shown as strikethroughs; proposed additions shown as red text)

Chapter 3.5 Population Element

3.5.1: OVERVIEW

Purpose and Intent

*The purpose and intent of the following population data and recommendations is to identify **analysis of historic, current, and future population trends included in this Element identifies the changing needs and preferences of residents of the County. This information is intended to the demographics of the current and future population of the County to help guide policy decisions, forecast population growth through the lifespan of this Plan (2020) to establish benchmarks for the functionality of help shape the Future Land Use Plan, and to identify future service needs of the population which can be addressed through this the Comprehensive Plan update.***

3.5.2: BACKGROUND AND INVENTORY OF EXISTING CONDITIONS

Assembling population estimates and forecasts for the update of this Plan prompts several challenging questions. Eight years have elapsed since the 2000 Census, so what source(s) provide the best estimate for the population in the County today? How are municipal boundaries that reflect the most recent annexations taken into account in estimating the population in the

County's municipalities today? What growth forecasts explicitly address in-migration for employment opportunities? Growth variables for the unincorporated and incorporated portions of the County may be different — how are those variables addressed? Miley, Gallo, and Associates prepared a *Demand Analysis* that addresses these issues and also considered any potential conflicts this study could have with plans of adjacent jurisdictions and found that this study was consistent with the plans and trends of adjacent jurisdictions. Data used in the *Demand Analysis* was compiled from:

- Berkeley-Charleston-Dorchester Council of Governments (BCDCOG)
- Charleston Metro Chamber of Commerce
- Charleston Regional Development Alliance (CRDA)
- S.C. Office of Research and Statistics (ORS)
- S.C. Employment Security Commission
- S.C. Department of Commerce
- S.C. Department of Labor
- U.S. Bureau of Labor Statistics (BLS)
- U.S. Bureau of Economic Analysis (BEA)
- Woods & Poole Economics, Inc.
- Environmental Systems Research Institute, Inc. (ESRI)

Based on research performed on the Region's projected growth, it was determined that the econometric model used by Woods & Poole Economics, Inc. (W&P) would be very useful in this analysis. W&P produces a well-respected database containing more than 900 economic and demographic variables for every county in the U.S. for every year from 1970 to 2030. Regional projection techniques are used by W&P to link counties together to capture regional flows and constrain the results to a projected U.S. control total. This methodology avoids common pitfalls in regional projections.

Selecting a credible data source for spatially generated, small area population forecasts was also necessary since determining appropriate municipal population and employment capture ratios, based on current municipal boundaries, are key assumptions in the demand analysis produced as support for the development of the Comprehensive Plan update. ESRI, founded in 1969 as Environmental Systems Research Institute, Inc., is a privately held consulting firm that specializes in land-use analysis and Geographic Information System (GIS) software projects. Using the ESRI database, current estimates and five-year demographic projections can be obtained for states, census tracts, places, county subdivisions;

ZIP codes, or any user-defined site, circle or polygon.⁷ The information contained in this element includes historical Census data as well as estimates and forecasts based analysis of data from the sources listed above. The demographic information listed below includes estimates and/or forecasts for population, municipal capture rates, age composition, racial composition, and household size. Other demographics that could impact future development such as education levels, income levels and poverty levels are difficult to predict; therefore, only historical data related to these demographics are included in this plan. As part of the 2008 *Comprehensive Plan Update*, Miley, Gallo, and Associates prepared a *Demand Analysis* that addressed population and growth forecasts, municipal boundaries and annexations in regards to population, and growth variables. The *Demand Analysis* was an adequate substitution for the lack of available, current U.S. Census Bureau data at the time and was also helpful in planning for future years. The findings of the *Demand Analysis* included:

- Based on an assumed annual growth rate of 1.7 percent, Charleston County could expect a population of 425,000 residents by 2020 (approximately 85,000 new residents).
- Based on the municipal population capture analysis, 70 percent of new residents, or 60,000 people, were expected to live in the incorporated areas of the County, and 30 percent of new residents, or 25,000 people, were expected to live in the unincorporated areas. Municipalities were expected to grow annually by 1.54 percent, while unincorporated areas would grow at a higher annual rate, 2.24 percent. If annexation activity increased significantly, the esti-

mates would shift accordingly.

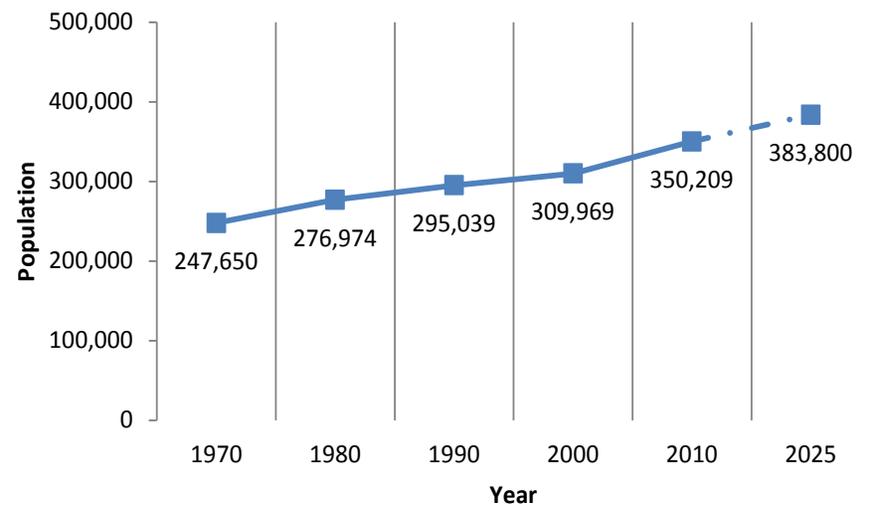
- The expected population growth was anticipated to stimulate the housing demand in Charleston County, resulting in the need for approximately 42,000 new housing units by 2020 - 30,000 new units in municipalities and 12,000 new units in unincorporated areas.
- Assuming no change in housing preferences, 70 percent of the new units (30,000 units) were expected to be single-family residences.
- Although Charleston County's annual employment growth rate was projected to be 1.9 percent a year, the majority of the demand for new commercial square footage was expected to likely occur within the municipalities.

Since the adoption of the *Comprehensive Plan Update* in 2008, changing conditions have greatly im-

acted the nation and made the findings of the *Demand Analysis* somewhat outdated. In late 2008, some major financial institutions collapsed, and the housing market was drastically affected as home foreclosure and eviction rates skyrocketed. Unemployment rates and poverty levels increased due to prolonged uncertainty in the market. The effects of the financial crisis affected all groups of people, as evidenced by the data available in this Element. After six long years, in 2014, the economy is slowly recovering.

In addition, the release of the 2010 Decennial Census data and 2007-2011 Five-Year Estimates from the American Community Survey indicate large shifts in racial diversity and age trends at local, state, and national levels that need to be examined to better accommodate and plan for the needs and impacts of our current and future residents.

FIGURE 3.5.1: COUNTYWIDE POPULATION TRENDS AND PROJECTIONS, 1970-2025

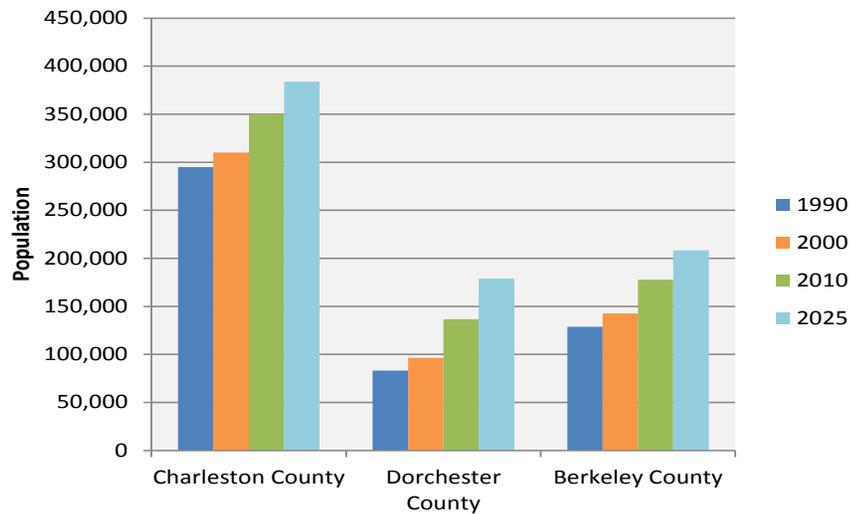


Sources: U.S. Census Bureau, 1970, 1980, 1990, 2000, 2010; BCDCOG via South Carolina Office of Research and Statistics, 2012. Note: 2025 projection provided by BCDCOG utilizing data from the South Carolina Office of Research and Statistics.

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FIGURE 3.5.2: TRI-COUNTY POPULATIONS, 1990-2025

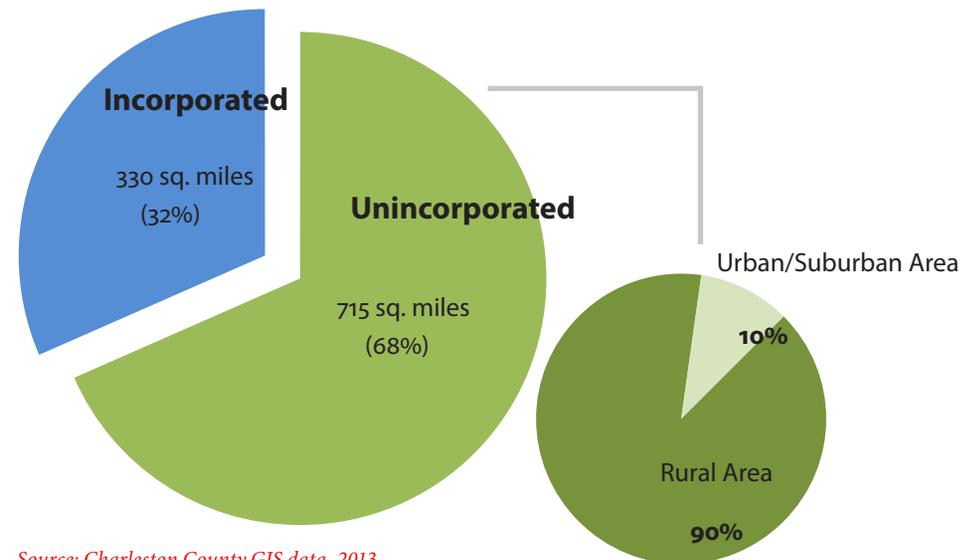


Sources: U.S. Census Bureau, 1990, 2000, 2010; BCDCOG via South Carolina Office of Research and Statistics, 2012. Note: 2025 projection provided by BCDCOG utilizing data from the South Carolina Office of Research and Statistics.

Population Estimates, and Trends, and Forecasts

At the time of drafting of this Plan Update, the 2000 U.S. Census was the most recent Census information available. According to the 2000 U.S. Census, Charleston County had a population of approximately 309,969 people, representing a 5.1 percent increase over the 1990 population. The U.S. Census Bureau estimated the Charleston County population to be 342,973 on July 1, 2007. The Demand Analysis completed as part of this Plan Update estimated an annual population growth rate of 1.7 percent for Charleston County for 2007 through 2020. Based on that growth rate, it is estimated that the Charleston County population increased by approximately 9.5 percent between 2000 and 2007, with an estimated 2007 population of 339,516. The population forecast for 2010 shows an increase of fifteen percent over the 2000 population, with a population forecast of 357,127. Of all the regions in the United States, the South has consistently seen the most growth in recent decades. By 2030, over half of the American population (approximately 52 percent) is expected to live in the South, according to the U.S. Census Bureau population projections. Figure 3.5.1: *Countywide Population Trends and Projections* illustrates the County's growing population. From 2000 to 2010, the population increased by 13 percent (40,240 new residents). From 2010 to 2025, the County's population is projected

FIGURE 3.5.3: CHARLESTON COUNTY LAND AREA, 2013



Source: Charleston County GIS data, 2013

to increase by 9.6 percent to 383,800 residents (33,591 new residents). Similar to Charleston County, Berkeley and Dorchester Counties' populations have continued to increase and are projected to increase into 2025, as demonstrated in Figure 3.5.2: *Tri-County Populations, 1990-2025*. Charleston County can also reasonably expect 85,000 new residents during the span of this plan (2007 through 2020), resulting in a 2020 population of 425,000. Table 3.5.1: *Countywide Population Trends and Estimates* illustrates the historical population trends as well as the estimated 2007 population, and 2010 and 2020 population forecasts.

Figure 3.5.1 illustrates the historic and projected population growth trends for both incorporated and unincorporated areas in Charleston County. Charleston County has a much higher population than the adjacent counties, as shown in Figure 3.5.2, accounting for its historically lower growth rate.

Municipal Capture Rates

Since the 1970s, municipalities within Charleston County have experienced not only natural population growth but also substantial growth from the expansion of municipal boundaries by annexation. For example, in 1972 North Charleston had an area of 7 square miles. In 2007, North Charleston encompassed more than seven-

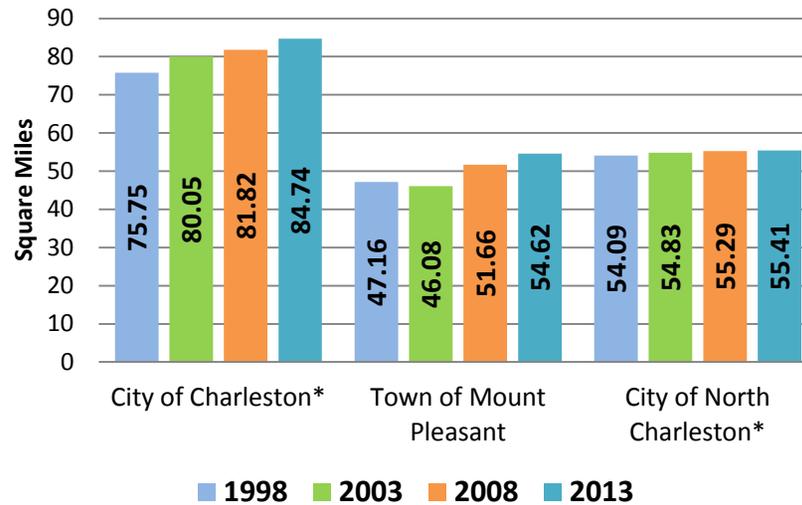
ty-three square miles. Similarly, the physical size of the City of Charleston increased from 16.7 square miles in 1975 to almost 104 square miles in 2007. The Town of Mount Pleasant's Planning Area, which includes both incorporated and unincorporated areas, increased from approximately 19.7 square miles in 1985 to approximately 51.7 square miles in 2007.

Figure 3.5.3: Charleston County Land Area demonstrates the proportions of unincorporated and incorporated land in the County. As evidenced, 68 percent of the County's land area (approximately 715 square miles) is unincorporated, and the majority of the unincorporated portion is located in the Rural Area. reflects the remarkable population shifts created by annexation policies over the last 30 years. Figure 3.5.4: Municipal Growth indicates the growth of municipalities as a result of annexation in recent years. The Cities of Charleston and North Charleston, as well as the Town of Mount Pleasant are illustrated as they are the largest municipalities in the County with more vigorous annexation policies. The historical data implies annexation activity peaked in the 1990s with incorporated/unincorporated capture ratios of 298 / - 198 percent (1990 - 2000). From 2000 to 2007, the capture ratio dramatically declined to 66/34 percent indicating population growth via annexation slowed considerably. Accordingly, net population gains resulted in the unincorporated areas of the County. It is important to note the ratio for 2000 through 2007 is based on the actual municipal boundaries in place during 2007, a distinct advantage of a spatial projection model. Based on the uploaded 2007 boundary files, the ESRI model predicts the capture ratio to settle at 70/30 percent during 2007 to 2012. This projection was fairly accurate, as actual municipal boundaries in place in January 2014 indicate a capture ratio of approximately 68/32 percent, as illustrated in Figure 3.5.3.

~~These trends fairly represent the growth patterns experienced in the County over the stated time frame. Furthermore, the seventy-percent/thirty-percent municipal capture ratio appears reasonable assuming relative stability in future annexation policies by the municipalities. However, more aggressive shifts in policy will materially affect future capture ratios.~~

Based on the municipal population capture analysis, seventy percent, or 60,000 people, will live in the incorporated areas of

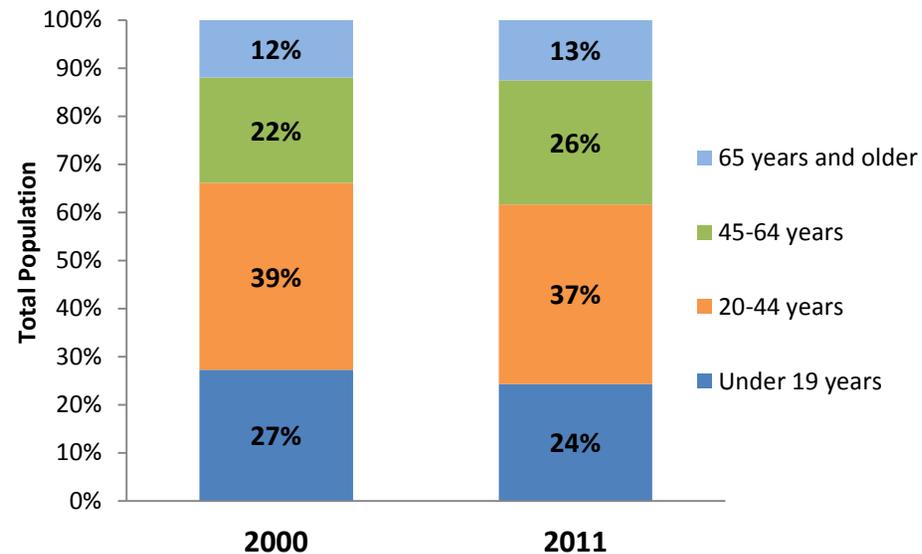
FIGURE 3.5.4: MUNICIPAL GROWTH OF LARGEST THREE MUNICIPALITIES



Source: Charleston County GIS data, 2013

*Note: Municipal size is reflective of portions of jurisdictions located within Charleston County only.

FIGURE 3.5.5: CHARLESTON COUNTY AGE PROFILE



Sources: U.S. Census Bureau, 2000; American Community Survey Five-Year Estimate, 2007-2011

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the County in 2020, and thirty percent, or 25,000 people, will live in the unincorporated areas. In terms of population growth rates, an annual rate of 1.54 percent is expected for the municipalities, whereas, a relatively higher annual rate of 2.24 percent is projected for the unincorporated areas. Again, if annexation activity increases significantly, these estimates will shift accordingly.

Population Composition

Recent Census Bureau data revealed that the United States population is diversifying in many ways. Racial and ethnic groups are increasing; generational gaps are more prominent; and lifestyle changes are resulting in more variety in household types. The County's population continues to diversify as well, and the shifting demographics will affect County policies and the provision of services. The following sections illustrate the County's changing population.

Age Distribution

Population trends seen in recent decades regarding the aging population, declining numbers of school age children and young adults, and decreasing household size continued through 2007 and are expected to continue through 2020. ~~Figures 3.5.4 and 3.5.5 illustrate the aging population trend that is expected to continue through 2012 as predicted by the ESRI and W&P models.~~ Charleston County's population is aging, a trend also seen in other parts of the country, as illustrated in *Figure 3.5.5: Charleston County Age Profile*. From 2000 to 2011, the percentage of residents age 45 years and older increased from 34 percent in 2000 to 39 percent in 2011 (by 28,391 residents). To plan for an increasing proportion of older residents, the County should be aware of changing transportation and housing needs. Access to public transportation and housing that is affordable to those on a fixed income and close to services will be crucial to serving this age group.

The ESRI model predicts a lower growth rate more heavily weighted in the middle-age segment, whereas, W&P assumes a higher growth rate more evenly distributed amongst all age segments.

In 2011, 37 percent (129,402 residents) of the County's population was between the ages of 20 and 44 years. This younger group, mostly Millennials (those born between the early 1980s and early 2000s) and Generation Xers (those born between the early 1960s and early 1980s), contains more college-educated residents. Charleston County's growth in knowledge-based industries will continue to draw younger generations to the Lowcountry. Lifestyle preferences are distinct among younger residents, as many prefer dense urban and suburban settings with opportunities for walkable communities and public transportation, which has implications for land use planning. Younger generations also prefer to communicate in different ways. The County should identify new mechanisms (such as social media outlets and innovative community workshops) to engage its younger population in the community planning process.

In 2011, 24 percent (84,110 residents) of the County's population was under the age of 19. Educational and employment opportunities should continue to be available for the County's youth, as the County strives to retain its young residents.

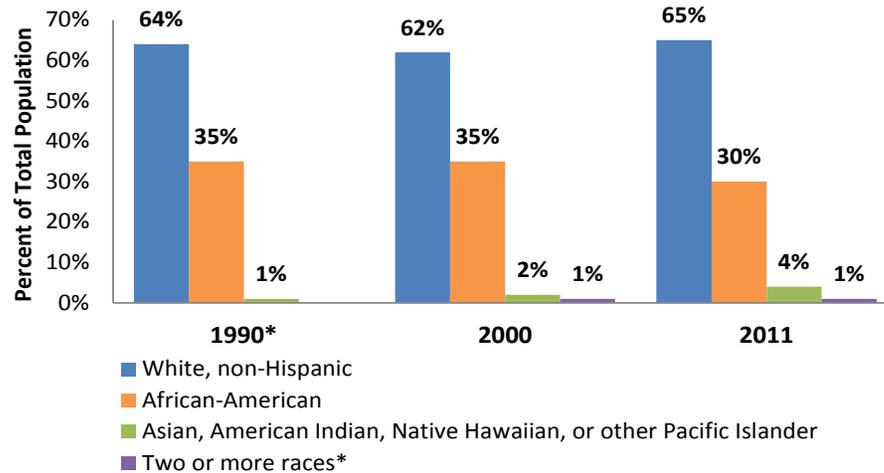
Racial Composition

Between 1970 and 2000, the total population in all race categories in Charleston County increased; however, the African American population and American Indian/Asian Pacific Islander/ Other/ Two or More Races populations comprised a larger percentage of the population in 2000 than in 1970 while the White population comprised a smaller percentage. This trend is projected to continue through 2012, as depicted in Figure 3.5.6 below displays the historic racial composition of the County. It is important to note that there is generally an under reporting of minorities and persons of Hispanic heritage in the Census numbers; however, local sources show this population is growing. From 2000 to 2011, the African-American population decreased five percent, while the Asian, American Indian, Native Hawaiian, or other Pacific Islander population increased two percent. Surprisingly, the White population increased three percent from 2000 to 2011, which does not parallel national trends. Figure 3.5.7 depicts the increases in the Hispanic population. Minority populations, specifically the Hispanic population, are expected to increase more rapidly in future years due to higher birth rates among this group and declining birth rates among the White population. The U.S. Census Bureau predicts that by 2043 there will actually be no majority race in the United States. The older population will continue to be predominately non-Hispanic white; however, the under-18 population is projected to be approximately 33 percent non-Hispanic white, resulting in a non-majority population.

Gender

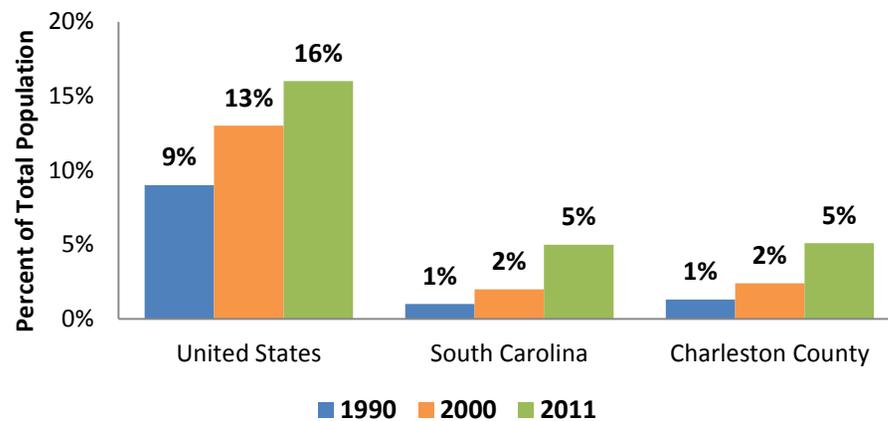
Between 1970 and 1990, there was a 1.7 percent increase in the percentage of females who compose the total County population and a corresponding increase in the percentage of males. In 2000, females outnumbered males in the County, comprising 51.7 percent of the population. In 2011, females comprised approximately 52 percent of the population.

FIGURE 3.5.6: CHARLESTON COUNTY RACIAL PROFILE, 1990-2011



Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011
 *Note: Identification as multiracial was not an option for citizens during the 1990 Decennial Census.

FIGURE 3.5.7: HISPANIC POPULATION IN CHARLESTON COUNTY, 1990-2011



Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011

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Education

The Charleston County population has generally achieved a higher level of education when compared to other counties in South Carolina. In ~~2000~~2011, ~~only 18.5~~approximately 12 percent of the population in the County over 25 years of age was not a high school graduate while approximately ~~thirty~~38 percent of the population in the County over 25 years of age held a Bachelor or Graduate Degree. ~~bachelor's degree or higher~~, as illustrated in Figure 3.5.8. The larger proportion of educated residents could be attributed to the influx of new residents drawn to knowledge-based career opportunities as well as the many higher educational institutions that are located in region. A significant proportion of the County's population is actively working towards meeting educational goals. In 2013, the total enrollment for all higher education institutions in the region was over 40,000 students. In addition, in 2013, the Charleston County School District enrolled just over 43,000 students in public schools. For more enrollment figures, please see Table 3.8.1 in the Community Facilities Element.

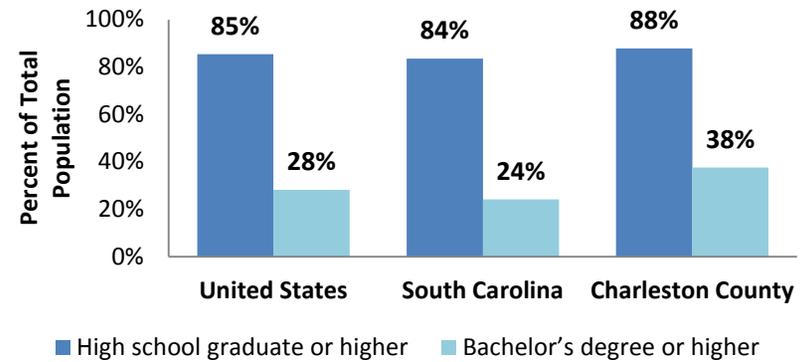
Household Size & Composition

Figures 3.5.79 and 3.5.10 illustrates the continued trends of decreasing household sizes and changing household composition in Charleston County. By 2012, the household size is predicted to be 2.14 persons per household. In 2011, the average household size had decreased to 2.41 persons per household from 2.42 persons per household in 2000. Family households (defined as a married couple or single parent and at least one child) comprised approximately 59 percent of the total households. The remaining 41 percent were non-family households, defined as single-person households or households of multiple unrelated individuals. The U.S. Census Bureau estimates that by 2025, single-person households will equal family households nationally, and by 2050, they will exceed the number of family households. Changing household sizes will have long-term implications on housing unit size, type, and location. Smaller, more energy-efficient homes may be more preferential.

Income Levels

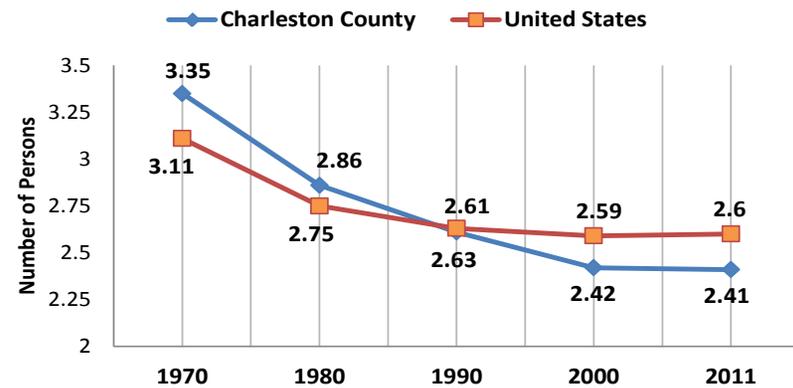
Since 2008, the local economy has been recovering from one of the worst recessions in recent years when unemployment rates increased nation-

FIGURE 3.5.8: CHARLESTON COUNTY EDUCATIONAL ATTAINMENT, 2011



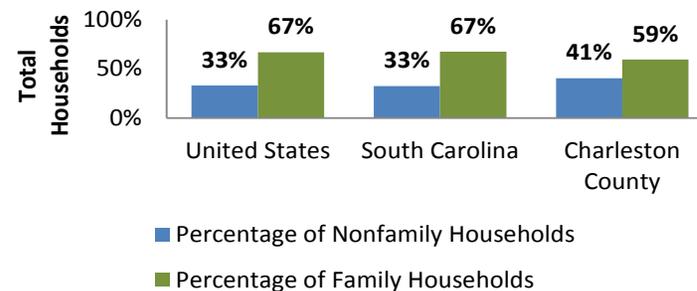
Source: American Community Survey Five-Year Estimate, 2007-2011

FIGURE 3.5.9: AVERAGE HOUSEHOLD SIZE, 1970-2011



Sources: U.S. Census Bureau, 1970, 1980, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011

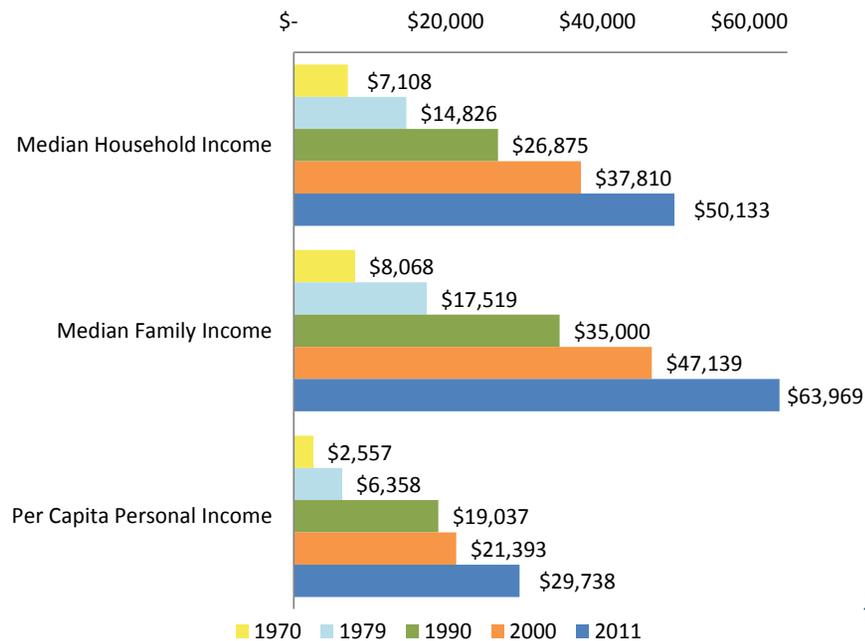
FIGURE 3.5.10: HOUSEHOLD COMPOSITION, 2011



Source: American Community Survey Five-Year Estimate, 2007-2011

wide, and the housing and financial markets collapsed. Charleston County experienced a slowing of the local economy; however, employment growth remained somewhat steady compared to other parts of the state and nation, as illustrated in the Economic Development Element. To better understand the income levels of the County's residents, As illustrated in *Table 3.5.2* below *Figure 3.5.11* illustrates; the Median Household Income, Median Family Income, and Per Capita Personal Income. Figures have not been adjusted for inflation. *Figure 3.5.12* illustrates the inflation-adjusted figures for change in Median Household Income from 1990 to 2011. continued to increase between the 1990 and 2000 Censuses. Between 1989 and 2000, the Median Household Income increased by almost forty-one percent, while the Median Family Income and Per Capita Personal Income increased by approximately forty-nine percent and sixty-three percent, respectively.

FIGURE 3.5.11: CHARLESTON COUNTY INCOME CHARACTERISTICS, 1970-2011

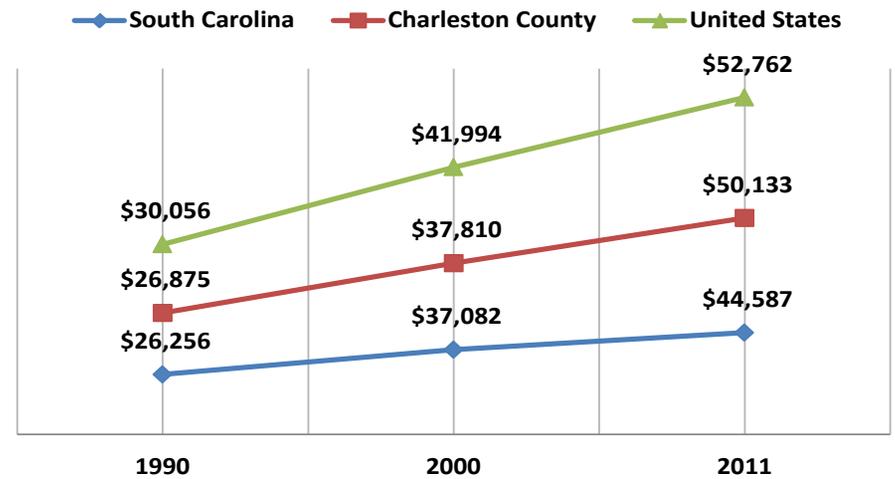


Sources: U.S. Census Bureau, 1970, 1979, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011
 Note: Household income includes the incomes of everyone in the household 15 years and older. Family income includes the income of all members of a family 15 years and older. Per capita personal income is the mean money received over 12 months for every individual over 15 years of age in an area. These figures have not been adjusted for inflation.

Poverty Levels

In 2013, the poverty guideline for a family of three in the Charleston area was \$19,530, as determined by the U.S. Department of Health and Human Services. Based on the 2011 poverty guideline for a family of three (\$18,530), nearly 12 percent of families in Charleston County (approximately 9,762 families) had incomes below the poverty level. Nearly 17 percent of all people in Charleston County (approximately 58,293 people) had incomes below the poverty level. In 2000, approximately thirty-three percent of the County residents reported a household income of less than \$25,000. The majority of the poorest residents in Charleston County live in the unincorporated areas of the County. *Table 3.5.3* to the right *Figure 3.5.13* illustrates the income ranges of households in the County in 1979, 1990, and 2000, and 2011 and indicates that wages are growing in the County. The

FIGURE 3.5.12: MEDIAN HOUSEHOLD INCOME, 1990-2011



Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011
 Note: Figures have not been adjusted for inflation. Table 3.5.1 below indicates the median household income for Charleston County adjusted for inflation and shown in 2011 dollars.

TABLE 3.5.1: MEDIAN HOUSEHOLD INCOME, CHARLESTON COUNTY, 1990-2011

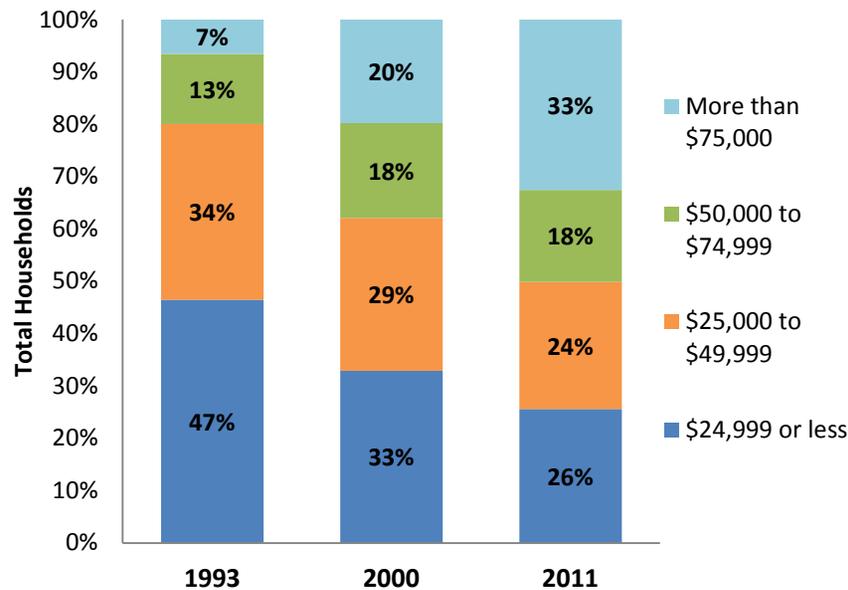
	1990	2000	2011
Median Household Income	\$ 26,875	\$ 37,810	\$ 50,133
Inflation Adjusted (2011)	\$ 46,253	\$ 49,253	\$ 50,133

Sources: U.S. Census Bureau, 1990, 2000; American Community Survey Five-Year Estimate, 2007-2011

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FIGURE 3.5.13: DISTRIBUTION OF HOUSEHOLD INCOME, CHARLESTON COUNTY, 1993-2011



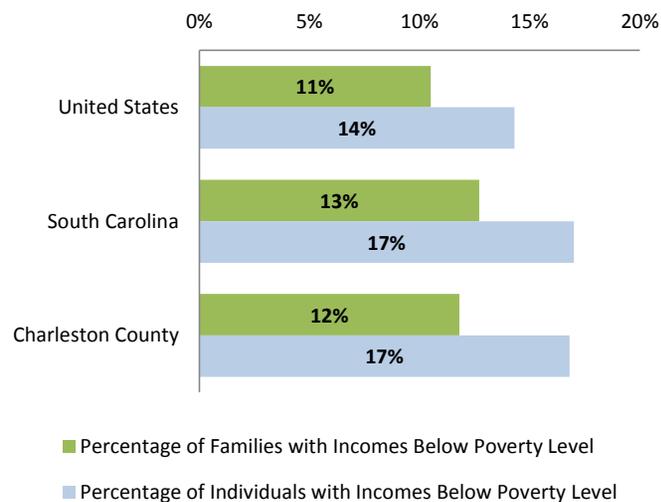
Sources: U.S. Census Bureau, 1993, 2000; American Community Survey Five-Year Estimate, 2007-2011

Charleston Regional Development Alliance (CRDA) reported in the 2013 *Economic Scorecard* that the region’s wages grew 11.5 percent from 2005 to 2012; however, the region’s wages are only 85 percent of the national average wage, making it difficult for the County’s residents to afford to rent or buy homes. *Figure 3.5.14: Poverty Levels by Geographic Area* compares the percentage of individuals and families with incomes below the poverty level in Charleston County to both the state and nation. As illustrated, Charleston County has slightly fewer families with incomes below poverty level than South Carolina as a whole; however, poverty levels are higher for all individuals in Charleston County than the United States.

Commuter-Adjusted Population

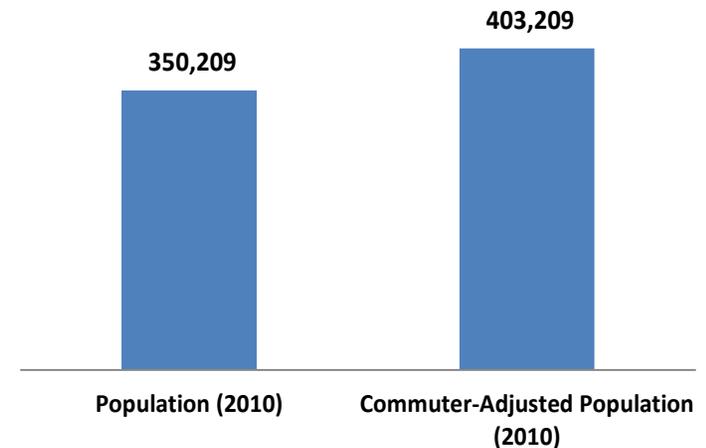
Because the County not only serves residents, but also visitors (both daily commuters and tourists), it is crucial to understand the commuter-adjusted population. As a major employment center for the region, Charleston County’s daytime population increased by about 53,000 people or approximately 16 percent in 2010, as depicted in *Figure 3.5.15: Commuter-Adjusted Population*. This important statistic is useful for transportation planning, emergency planning, and other policy-making. A large commuting population also indicates that many residents do not live near employment centers, resulting in high transportation costs and overburdened transportation infrastructure.

FIGURE 3.5.14: POVERTY LEVELS BY GEOGRAPHIC AREA, 2011



Source: American Community Survey Five-Year Estimate, 2007-2011

FIGURE 3.5.15: COMMUTER-ADJUSTED POPULATION, 2010



Source: U.S. Census Bureau, 2010

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3.5.3: POPULATION ELEMENT GOAL

A socioeconomically diverse and growing population will be accommodated by Charleston County in an environmentally and fiscally sustainable manner with particular attention to low to moderate income residents.



Population Element Needs

Population Element needs include, but are not limited to, the following:

- Monitoring population and cultural shifts and national trends;
- Developing policies to meet the needs of the County's population; and
- Encouraging diversity within communities.

3.5.4: POPULATION ELEMENT STRATEGIES AND TIME FRAMES

The County should undertake the following strategic actions in support of the Vision and Goals of this Plan. These implementation strategies will be reviewed a minimum of every five years and updated every ten years from the date of adoption of this Plan.

- P 1. Monitor population growth trends and demographic shifts as indicators of population change and use this information to guide future updates to the *Comprehensive Plan*.
- ~~P 2. Continue to monitor and update the Demand Analysis to identify how the County will accommodate growth in the future.~~
- ~~P 3.2.~~ Develop land use strategies and implementation measures that address the needs of the ~~aging~~ population.
- P 4.3. Support a diverse population through land development regulations which accommodate a range of housing, **transportation**, and employment ~~options~~ **opportunities**.
- P 5.4. Continue to monitor and evaluate population, ~~and~~ cultural shifts, and national trends for their potential impacts on land use and development patterns.
- P6.5. Adopt innovative planning and zoning techniques such as Form-Based Zoning ~~District~~ and **Multiple Use Overlay Zoning District** regulations that ~~focus on the form and mix of land uses in land use plans to support~~ **encourage** diverse communities **and respect culture and history**.
- p6. **Identify new mechanisms (such as social media outlets and innovative community workshops) to engage the County's younger population in the community planning process.**