

**HOUSING REPORT**  
**FOR**  
**GRAHAM COUNTY, NORTH CAROLINA**

**Prepared for**  
Ms. Sophia Paulos, Economic Development Director  
Graham County  
12, North Main Street  
Robbinsville, NC 28771

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**T Ronald Brown: Research & Analysis**

P.O. Box 18534  
Asheville, NC 28814  
919.233.0670

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## Summary

This report examines population, household, and tenure trends, broken out into the senior market and the market from the working age population. These projections were supplemented by additional information from existing households who could be expected to consider residing in several housing options segmented by tenure and age, taking income/affordability into consideration also.

Here, it was seen that the study area - Graham County - based on a three-year projection period over a five year study period (2020 to 2025), could support:

- subsidized rental units for seniors (with incomes up to 50 percent of the median income): 32 units in Robbinsville.

With regard to rental housing catering to families, the area could likewise support:

- subsidized housing (up to 50 percent of the median income): 30 units in Robbinsville

A subsidized complex catering to seniors and a comparable project catering to families could be developed in conjunction with one another.

The market does not appear to support reasonably-sized affordable market rate properties for families or for seniors.

With respect to for-sale housing either for seniors or for families, the data do not support a reasonably-sized project over a reasonable time-frame.

These observations - that there is not a deep enough market to support most residential options in the area when segmented by age, tenure, income, and location - reflects the overall size of the market. This is not atypical of rural/non-urban areas. As noted, Graham County is one of the State's smallest jurisdictions, population-wise, which compounds these circumstances.

Introduction

The following narrative outlines our examination of housing needs in Graham County. Tables which inform the narrative are included in the report text and other tables - both for Graham County, Region A, and North Carolina - are included, for reference, in three reports appended to this document. It should be noted that some ancillary information is presented in the Addenda that are not referenced in this report.

The focus of this report is the identification of housing needs - by tenure and age of householder, segmented by income. The study period will focus on need over the short- to medium term: from 2020 to 2025. Housing needs will be based on household projections, which in turn are based on population trends and projections. Here, we will address population and household trends throughout Graham County in order to identify and quantify those trends and how they might relate to recent - and projected - population, household, and housing characteristics.

Population Trends

Population growth is, fundamentally, a function of the inter-relationship between the natural increase of that population (the difference between the number/rate of births and deaths), and net-migration. In addressing the components of population growth for a specific area it is necessary to discount any non-residential/group quarters (institutional) population. Population estimates - showing total population and group quarters since 2010 - for Graham County, are set out in Table 1, below. (Here, data presented are for the study area - Graham County - unless otherwise stated).

Table 1 - Population Estimates

	total population	group quarters
2010	8,870	
2011	8,814	93
2012	8,709	93
2013	8,722	93
2014	8,624	93
2015	8,598	93
2016	8,545	93
2017	8,534	96
2018	8,484	96

Source: Census Bureau

Here the population of Graham County is seen to show almost consistent marginal decreases on an annual basis between 2010 and 2018, based on official estimates.

When these decreases are examined from the perspective of the components of population change, (as set out in Table 2), it is seen that the natural increase (excess of births over deaths) is consistently negative - around five to 28 persons per year, with net migration (excess of in-migrants over out-migrants) varying from a net in-migration of 35 persons between 2012 and 2013, and a net out-migration of 88 persons in 2011 to 2012. These patterns are mirrored when rates of change in these components are illustrated (Table 3).

Table 2 - Components of Population Change, Numbers, 2010 to 2018

	Net change	Births	Deaths	Natural Increase	Net Migration
April 2010 to July 2010	9	23	35	-12	21
July 2010 to July 2011	-207	105	110	-5	-51
July 2011 to July 2012	-105	90	107	-17	-88
July 2012 to July 2013	13	93	116	-23	35
July 2013 to July 2014	-98	87	115	-28	-71
July 2014 to July 2015	-26	79	97	-18	-7
July 2015 to July 2016	-53	80	99	-19	-33
July 2016 to July 2017	-11	86	104	-18	8
July 2017 to July 2018	-50	76	98	-22	-27

Source Census Bureau

Table 3, below, illustrates the levels and trends of birth rates, death rates, the rate of natural increase and the net in-migration rate for Graham County since 2010, based on Census Bureau estimates. With respect to these, it is seen that birth rates have been around 10 per thousand, and death rates have ranged between 11 and 13 per thousand. The net migration rate shows relatively low rates of net out-migration over most of the study period.

Table 3 - Components of Population Change, Rates, 2010 to 2018

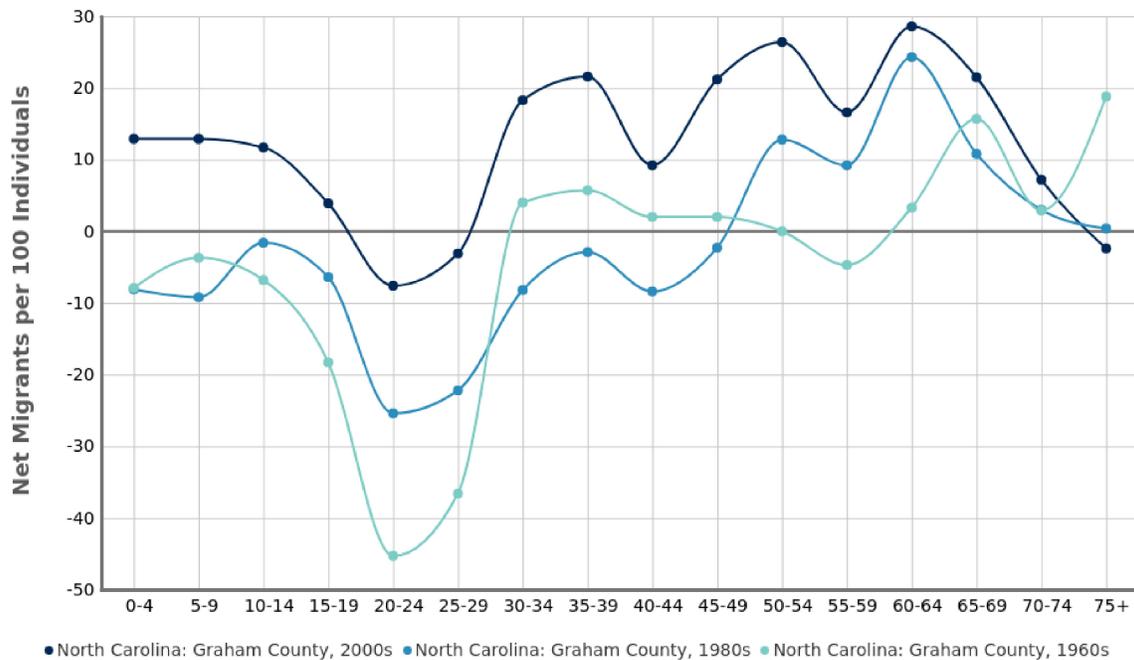
	Birth rate ‰	Death rate ‰	Natural increase rate	Migration rate ‰
July 2010 to July 2011	11.9	12.4	-0.6	-5.8
July 2011 to July 2012	10.3	12.2	-1.9	-10.0
July 2012 to July 2013	10.7	13.3	-2.6	4.0
July 2013 to July 2014	10.0	13.3	-3.2	-8.2
July 2014 to July 2015	9.2	11.3	-2.1	-0.8
July 2015 to July 2016	9.3	11.5	-2.2	-3.8
July 2016 to July 2017	10.1	12.2	-2.1	0.9
July 2017 to July 2018	8.9	11.5	-2.6	-3.2

Source Census Bureau

Whereas net in-migration has been a significant contributor to population growth in most of the Southwestern Region, this (as set out above) is not the case for Graham County. Nonetheless, as Table 4, below, illustrates, migration by age shows a trend towards increasing in-migration (that is, from more out-migration to less out-migration, with some in-migration). Table 4 also shows how net out-migration is more prevalent among the younger age cohorts, and net in-migration is more prevalent among the older cohorts (30 years and above) in the most recent decade.

Table 4 - Net Migration by Age

**Net Migration by Age**



● North Carolina: Graham County, 2000s ● North Carolina: Graham County, 1980s ● North Carolina: Graham County, 1960s  
 Winkler, Richelle, Kenneth M. Johnson, Cheng Cheng, Jim Beaudoin, Paul R. Voss, and Katherine J. Curtis. *Age-Specific Net Migration Estimates for US Counties, 1950-2010*. Applied Population Laboratory, University of Wisconsin - Madison, 2013. Web.

Source: as cited

As is to be expected, the patterns of natural increase and net migration, by age, are reflected in the age distribution of the population in published censuses and in official projections. Population data, by age, for Graham County, is set out in Table 5, below. Data for 2000 and 2010 are from the Decennial Census, and data for 2020, 2025, and 2030 are from the most recent official population projections published by the North Carolina State Data Center.

Table 5 - Population by Age, 2000 to 2030

	2000		2010		2020		2025		2030	
	number	percent.								
Total	7,993		8,861		8,763		8,743		8,737	
Male	3,900	48.8	4,367	49.3	4,343	49.6	4,344	49.7	4,352	49.8
Female	4,093	51.2	4,494	50.7	4,420	50.4	4,399	50.3	4,385	50.2
less than 5 years	467	5.8	508	5.7	436	5.0	457	5.2	459	5.3
5 to 9 years	489	6.1	550	6.2	461	5.3	444	5.1	462	5.3
10 to 14 years	498	6.2	538	6.1	517	5.9	472	5.4	451	5.2
15 to 19 years	470	5.9	522	5.9	553	6.3	526	6.0	480	5.5
20 to 24 years	418	5.2	449	5.1	503	5.7	512	5.9	488	5.6
25 to 34 years	936	11.7	916	10.3	912	10.4	986	11.3	1,040	11.9
35 to 44 years	1,078	13.5	1,038	11.7	1,005	11.5	1,041	11.9	1,046	12.0
45 to 54 years	1,178	14.7	1,283	14.5	993	11.3	931	10.6	1,014	11.6
55 to 59 years	537	6.7	617	7.0	604	6.9	515	5.9	459	5.3
60 to 64 years	486	6.1	698	7.9	594	6.8	586	6.7	506	5.8
65 to 74 years	795	9.9	988	11.1	1,155	13.2	1,088	12.4	1,091	12.5
75 to 84 years	472	5.9	546	6.2	734	8.4	859	9.8	867	9.9
85 years and older	169	2.1	208	2.3	296	3.4	326	3.7	374	4.3
under 15 years	1,454	18.2	1,596	18.0	1,414	16.1	1,373	15.7	1,372	15.7
15 to 64 years	5,103	63.8	5,523	62.3	5,164	58.9	5,097	58.3	5,033	57.6
65 years and older	1,922	24.0	2,440	27.5	2,779	31.7	2,859	32.7	2,838	32.5
Median Age	41.5 years		44.3 years		44.9 years		44.4 years		44.5 years	

Source: Census Bureau; North Carolina State Data Center

Here it is seen that the population of Graham County grew from 7,993 to 8,861 between 2000 and 2010. However, official projections show the population of the County leveling-off at around 8,740 over the 2020 to 2030 projection period.

As noted, the area was seen to exhibit some in-migration of older persons. In 2000, 1,922 persons aged 65 years and older lived in the County, and in 2010 that population grew to 2,440 and accounted for 27.5 percent of the total (compared with 24.0 percent in 2000). In 2010, 28.1 percent of the population of Region A as a whole was aged 65 and older (Table A1), and only 18.6 percent of the population of North Carolina was in that age group (Table NC1). Official projections for that older cohort show continued growth in absolute numbers - up to 2,838 older persons in 2030, for example - but that the proportion in that age range is projected to level-off (at around 32.7 percent in 2025 and 32.5 percent in 2030).

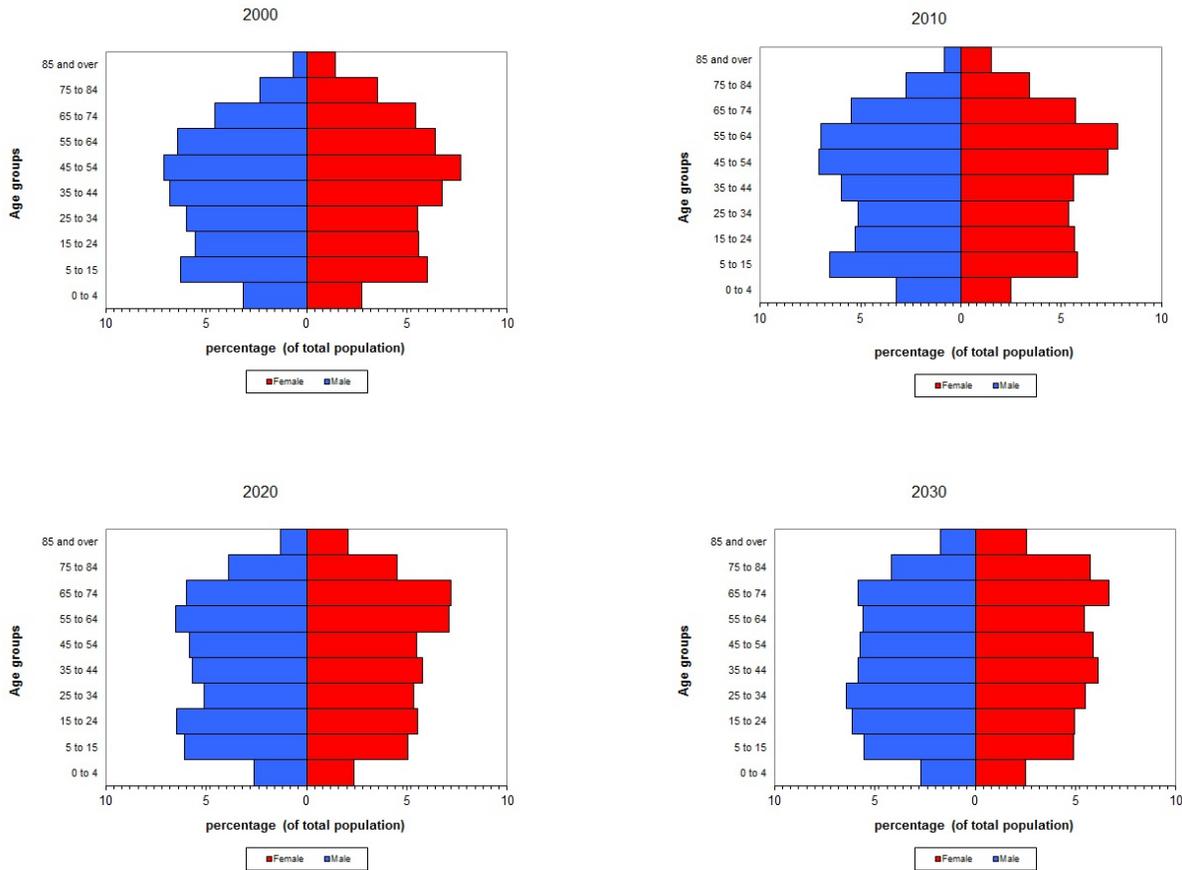
In 2000, 18.2 percent of the population of Graham County was aged less than 15 years old, and this proportion was 18.0 percent in 2010, and is projected to remain around 16 percent over the next two decades.

The population of Graham County in the 15 to 64 year age group (that broadly corresponding to the working age population) amounted to 5,103 persons in 2000 and 5,523 persons in 2010. This cohort is, however, projected to decrease to 5,033 by 2030. The proportion of the county's population in that cohort is projected to decrease from 63.8 percent in 2000 to 62.3 percent in 2010, and to 57.6 percent in 2030. This trend reflects, to a certain extent, the cumulative effects of the patterns of net-migration, by age. This pattern is mirrored for Region A as a whole: that is, 64.6 percent in 2000 to 54.2 percent in 2030 (Table A1). For the State as a whole, 61.7 percent of the total population will be in the 18 to 64 year age range in 2030, compared with 67.4 percent and 67.1 percent in 2000 and 2010, respectively (Table NC1).

Given these trends, by age, it is seen that the average age of the Graham County population was 41.5 years in 2000, and increased to 44.3 years in 2010. The average for 2020 is projected to be around 44.9 years, and is projected to decrease, slightly, to 44.4 years in 2025 and 44.5 years in 2030. The median age for Region A in 2010 is estimated at around 43.6 years and that for the State as a whole in 2010 was recorded as 37.4 years.

The distribution of the various age cohorts (broken out into males and females) are illustrated in the following population pyramids - showing the relative aging of the population and concomitant decreases in the cohorts in the middle age ranges.

Table 6 - Population Pyramids, 2000 to 2030



Source: Census Bureau; North Carolina State Data Center

It should be noted that a stable or decreasing population does not necessarily infer that there is little or no ongoing need for new housing. For example, housing need calculations are based on household projections which in the circumstances where average household size is projected to decrease can result in the identification of the need for housing from an increase in the number of households. Similarly, a significant source of demand for new housing is frequently from households that are already located in the market area/study area, and who would be willing to move to new units in order to be better housed. Typically, this need is driven by factors such as improved quality of housing, housing that is more suited to household circumstances, or housing that is better located and/or is more affordable. Thus, the marketability of any new housing that will appeal to the existing population will to a very significant extent be a function of the size of the pool of potential residents that any new project can draw from - and will be constrained to a not insignificant extent by location, design, price/affordability, etc. Thus, the population base will need to be quite large in order for any new development to be feasible given those constraints.

As is seen from the previous tables, the population of Graham County is very low - only two other counties in North Carolina have lower populations and, likewise, as many as 96 municipalities (cities and towns) have larger populations. Thus, in order for any new development to be considered feasible in Graham County it will likely need to be relatively small and appeal to a significant segment of existing residents (as determined by age, income, etc).

## Household Trends

The projections that our assessment of future housing needs are to be based on are projections of households, broken-out by tenure (owner-occupied and renter-occupied units), and by age. With respect to the latter we will focus on housing for senior households (aged 65 years and over) and for the working population/aged less than 65 years. Prior to projecting need by tenure it is therefore necessary to derive projections of the number of total households for the Graham County study area. Projections of households are necessarily derived from population projections - applying projected average household size to projected population.

Prior to outlining household projections for Graham County (both for all households and for households by age and/or tenure), it is pertinent to examine household characteristics and trends for that area.

In Graham County there were 8,775 persons in 3,354 households as of the 2000 Census, and 8,861 persons in 3,701 households as recorded in the 2010 Census. Over that period, therefore, the population grew by 1.0 percent, and the number of households increased by 10.3 percent. The relatively greater increase in the number of households reflects decreases in average household size over that period (from 2.62 persons per households in 2000 to 2.39 a decade later).

These figures for average household size in Graham County are quite low, and reflect the age and household structure of the county's population. As noted above, average age is relatively high and a significant proportion of the county's population is in the older age cohorts. Further, Census data (Table C3) show that in Graham County, the number of one-person households accounted for 26.0 percent of all households in 2000, and increased to 26.6 percent in 2010. The number of family households also declined over that decade. Thus, for example, the number of married-couple families decreased from 2,038 in 2000 to 2,006 in 2010 and accounted for 84.5 and 77.9 percent of the totals for those years, respectively. Again, in consideration of declining household size, the number of married couple families without children present grew from a relatively high 64.3 percent in 2000 to 67.1 percent in 2010. The latter illustrate the effects of the incidence of significant numbers of couples without children and childless couples (including younger couples delaying - or foregoing - having children).

Based on Decennial Census data, 82.7 percent of occupied housing units in Graham County in 2000 were owner-occupied and 17.3 percent were renter-occupied. The corresponding proportions for 2010 were 80.1 percent and 19.9 percent, respectively. Thus, over that decade Graham County experienced a net increase of 347 households - a net increase of 193 owner-occupied units and 154 rental units.

## Selected Housing Characteristics

The Census data cited in this report (other than the Estimates in Table C1) are based on the Decennial Census. The 2010 Census no longer included detailed data - instead those data are provided on an annual basis in the American Community Survey. The latter - although it is made available on a more regular basis - is based on a small sample, and as such needs to be used with caution. That is, it is best used to highlight the relative incidence of certain criteria rather than an absolute number - that is the percentage/proportion of a population that exhibits a certain condition, rather than the number of the population that exhibits that condition. Additionally, given that, for example, the five-year estimates reflect a five-year period it is not realistic to compare one five-year report's numbers with another report that falls within that five year period because of the inherent overlap in those data. Thus, in order to draw attention to certain conditions, we will employ the American Community Survey data to illustrate the relative incidence of those conditions, and where we present comparisons over time, the most recent five-year Survey (2013 to 2017) will be compared with the five years prior to the 2013 to 2017 data (that is, the 2008 to 2012 Survey).

With respect to select pertinent housing criteria, the 2013 to 2017 America Community Survey reports that, for example, 55.0 percent of all housing units in Graham County were occupied. Of the 45.0 percent that were reported as vacant, 1.8 percent of those were rented or sold, but not occupied, and 67.0 percent of which were recorded as second homes/held for seasonal, recreational, or occasional use, and 22.7 percent of which were 'other vacant units' (Table C4). These proportions are similar to those from the 2008 to 2012 Survey, and are comparable with the corresponding proportions for Region A as a whole (Table A4). Statewide, 14-to 15 percent of all housing units are reported to be vacant - with 31- to 33 percent being held as second homes, etc. (Table NC4).

American Community Survey data for Graham County show that, as of the 2013 to 2017 Survey, only 1.3 percent of housing units there were built since 2010, and 18.8 percent were built between 2000 and 2009, for example. The average year built in the County is seen to be 1986 (Table C6). The average year built for Region A is estimated at 1984 (Table A6), and that for North Carolina as a whole is seen to be 1988 (Table NC6).

For Graham County, it is seen that 6.0 percent of households moved since 2015, and 16.0 percent moved between 2010 and 2014. Of those in Graham County that moved over those two periods, 54.9 percent were renters (Table C7).

Based on ACS data, the median value of owner-occupied units is only \$124,800 (Table C8) - with that for Region A being estimated at \$185,234 (Table A8); and that for North Carolina reported at \$161,000 (Table NC8).

The 2013 to 2017 ACS report shows that the median monthly housing costs for owner-occupiers (with a mortgage) was \$851 - compared with \$933 in the 2008 to 2012 Survey (Table C9). The corresponding figure for Region A is around \$1,111 (Table A9), with that for the State being \$1,261 (Table NC9).

The median monthly rent reported for Graham County in the 2013 to 2017 Survey is found to be \$733 - compared with \$726 (a 1.0 percent increase) from the 2008 to 2012 Survey (Table C11). The corresponding estimated median rents for the Region (Table A11) are \$670 and \$738 (a 10 percent increase), with those for the state (Table NC11) being \$759 and \$844 (a 12 percent increase).

The 2013 to 2017 ACS report reveals that for Graham County (Table C12), 20.3 percent of renters were paying in excess of 35 percent of their income on housing costs - with 39.9 percent of renters throughout Region A (Table A12) paying that proportion (estimated), and 39.6 percent statewide, devoting that share of their income to housing costs (Table NC12) .

### Tenure Trends

In consideration of population and household growth - and focusing on tenure in particular - it is noted that for the 2008 to 2012 report for Graham County, 16.6 percent of occupied housing units were rented, and the corresponding proportion was recorded as 18.2 percent in the subsequent, 2013 to 2017, report.

The last decade or so - with a housing boom-and-bust consequent upon changes in the economy, changes in credit conditions, and evolving housing markets in general - along with demographic trends such as the aging of the population, delayed marriage, delayed child-bearing, and related factors, complicate the process of determining future tenure trends in general, and housing needs in particular. Additionally, significant and ongoing increases in construction costs impact the supply of housing - especially housing that caters to the more affordable end of the market.

On one hand, projecting tenure trends in Graham County on the basis of, for example, the extrapolation of 2000 to 2010 tenure trends and applying those extrapolated shares to projected population and households in the short-to-medium term would serve to overstate the need for rental housing. On the other hand, assuming that the tenure trends would return to some sort of 'norm' - with tenure proportions more like the 2000 (or 1990) levels - would, in the short-to-medium term, overstate the need for owner-occupied units.

Under these circumstances, we consider it prudent (largely given the lack of applicable alternatives) to assume that the tenure proportions recorded in the 2010 Census are likely to hold, all things considered, for areas such as Graham County. Here, we assume that tenure proportions to be used ought to be those based on the age of the householder, applying them to projected households, by age. Thus, the total population will be used to derive household projections based on decreases in average household size, and the 2020 tenure proportions will be applied to projected households, by age. With respect to the latter, given that home-ownership is typically seen to increase with age, then, given the aging of the projected population, this should result in marginal increases in owner-occupied housing and concomitant decreases in rental accommodation. Here, it should be noted that given that our tenure projections focus on a more purely demographic criterion, it is implied that economic, financial, and other criteria will be effectively held constant (or at least mirror any trends in the latter that may have been incorporated in the official population projections used - for example, the extent to those projections may be subject to employment assumptions based on recent labor force and employment numbers, etc.).

Here, we will provide tenure projections for Graham County as a whole, for the working age population (15 to 64 years), and for the senior population (65 years and older). The data for 1990, 2000, and for 2010 are taken from the Decennial Census for those years (with 1990 data included for reference). These are set out in the following tables, along with projections for the 2020 to 2025 study period.

The following table provides projections for the total population of Graham County. This shows, as outlined on the previous pages, marginal population decreases with slight growth in the total number of households reflecting decreasing average household size. Here is to be seen that the number of owner-occupied units is effectively stable, with slight increases in the number of renter households.

Table 7 - Population, Household, and Tenure Trends, 1990 to 2025

Total Population									
	Population	Households	Person per Household	Owner-occupied		Renter-occupied			
				number	percent.	number	percent.		
1990	7,196	2,772	2.60	2,266	81.7	506	18.3		
2000	8,775	3,354	2.62	2,773	82.7	581	17.3		
2010	8,861	3,701	2.39	2,966	80.1	735	19.9		
2020	8,763	3,725	2.35	2,997	80.5	728	19.5		
2025	8,743	3,727	2.35	2,995	80.4	731	19.6		

Source 1990, 2000 and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

The changes in these variables over the study period are illustrated in the following table.

Table 8 - Population, Household, and Tenure Trends: Change

Change	Population		Households		Owner-occupied		Renter-occupied	
1990-2000		1,579		582		507		75
2000-2010		86		347		193		154
2010-2020		-98		24		31		-7
2020-2025		-20		2		-2		4
Annual change	Population		Households		Owner-occupied		Renter-occupied	
1990-2000		158		58		51		8
2000-2010		9		35		19		15
2010-2020		-10		2		3		-1
2020-2025		-4		0		0		1

Source 1990, 2000, and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

Here, it is seen that despite a certain amount of household growth between 1990 and 2000, and smaller increases between 2000 and 2010, there is little net projected growth over the projection period to 2025.

The calculations outlined in the previous two tables illustrate potential net quantitative change in housing units needed - focusing on population and household growth and tenure trends. In order to get a better determination of need it is pertinent to consider a qualitative aspect. Most housing market study guidelines incorporate an element that reflects the need for the replacement of “substandard” housing - where, most often, this variable is based on a somewhat outdated/historical definition of physically substandard housing. Thus, often variables such as lacking complete plumbing facilities and/or lacking a complete kitchen facilities are used as a measure of substandard housing, often in combination with overcrowding. These criteria do not, in our opinion, reflect the need for the replacement of housing units that are physically or functionally obsolete.

Based on the most recent ACS data, 0.8 percent of occupied units in Graham County are seen to lack complete plumbing. The American Housing Survey report on Components of Inventory Change provides data on the loss of houses to the housing inventory over a two-year period. The most recent report examines changes from 2011 to 2013. Here, it is possible to examine losses due to conversions, homes or mobile homes moving, units changing to nonresidential use, losses through demolition or disaster, units that are badly damaged or condemned, and lost in other ways. Here, it is seen that around 0.23 percent of the owner-occupied stock are lost - on annual basis - and around 0.49 percent of rental units are likewise lost. Over the five year study period, this amounts to the need for the replacement of 34 owner-occupied units and the replacement of 18 rental units in Graham County over the study period in this report. Thus, the five-year need set out above is adjusted to 32 owner-occupied units and 22 rental units (six and four units per year, respectively).

Our examination of housing needs in Graham County also considers the need for housing from two populations/sub markets - the senior population and the population aged 15 to 64 years (or what can be considered the working population). The nature of these markets, highlighted by the impact of demographic factors and trends suggest that these markets should be treated separately.

Tenure Trends, by Age: Senior Households

Table 9, below, outlines the population, household, and tenure trends for the senior population of Graham County. Here, unlike the population as a whole, there is reasonable population growth with parallel growth in the total number of households reflecting both that population growth and decreasing average household size, for that age cohort. Both the number of owner-occupied households and renter households showed ongoing growth. Given the method used to project households by tenure (as outlined above) it is seen that, over the period from 2010 to 2025, even as the population of the County ages, the relative proportion of owner-occupied households remains quite steady.

This table illustrates the net growth of the Graham County senior population - reflecting both the aging of the population and the continued impact of the net in-migration of older persons. Here it should be noted that although there is ongoing growth that is not insignificant in relative terms, it does not yield large absolute numbers (reflecting the size of the population base).

Table 9 - Population, Household, and Tenure Trends, Households 65 and older, 1990 to 2025

Population, 65 and older											
	Population		Households		Person per Household	Owner-occupied		Renter-occupied			
						number	percent.	number	percent.		
1990		1,159		773	1.50	671	86.8	102	13.2		
2000		1,436		951	1.51	818	86.0	133	14.0		
2010		1,742		1,174	1.48	982	83.6	192	16.4		
2020		2,185		1,499	1.46	1,253	83.6	246	16.4		
2025		2,273		1,573	1.45	1,313	83.5	260	16.5		

Source 1990, 2000, and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

The changes in these variables over the study period are illustrated in the following table.

Table 10 - Population, Household, and Tenure Trends, Households 65 and older: Change

Change		Population	Households	Owner-occupied	Renter-occupied
1990-2000		277	178	147	31
2000-2010		306	223	164	59
2010-2020		443	325	271	54
2020-2025		88	74	60	13
Annual change		Population	Households	Owner-occupied	Renter-occupied
1990-2000		28	18	15	3
2000-2010		31	22	16	6
2010-2020		44	33	27	5
2020-2025		18	15	12	3

Source 1990, 2000, and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

The continued growth of the senior population reveals that around 74, net, units are needed for seniors between 2020 and 2025 - 60 of which are owner-occupied units and 13, net, are rentals. These figures can also be adjusted to reflect potential losses (as outlined for the total population). Thus, these figures translate to an additional 14 owner-occupied units and six rentals - a total of 75 owner-occupied units, and 19 renter-occupied units - or 15 owner-occupied units and four renter-occupied units, annually.

Tenure Trends, by Age: Working-Age Households

Table 11, below outlines the population, household, and tenure trends for the working age population of Graham County.

Table 11 - Population, Household, and Tenure Trends, Households 15 to 64 years, 1990 to 2025

Population, 15 to 64 years										
	Population		Households	Person per Household	Owner-occupied		Renter-occupied			
					number	percent.	number	percent.		
1990		4,643	1,999	2.32	1,595	79.8	404	20.2		
2000		5,103	2,403	2.12	1,955	81.4	448	18.6		
2010		5,523	2,527	2.19	1,984	78.5	543	21.5		
2020		5,164	2,226	2.32	1,744	78.4	482	21.6		
2025		5,097	2,154	2.37	1,682	78.1	472	21.9		

Source 1990, 2000, and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

Give the projected population by age (using official projections), projected average household size and assumptions regarding tenure, the number of persons of working age in Graham County in 2025 is projected to decrease to 5,097 in 2,154 households - 1,682 of which are owner occupied and 472 are renters. These represent a significant decrease over the corresponding figures for 2010 and 2020.

The changes in these variables over the study period are illustrated in the following table. The scale of these decreases over the 2020 to 2025 period suggests that there is no need for new owner-occupied and renter-occupied housing for persons in that age group over the study period.

Table 12 - Population, Household, and Tenure Trends, Households 15 to 64 years: Change

Change					
	Population		Households	Owner-occupied	Renter-occupied
1990-2000		460	404	360	44
2000-2010		420	124	29	95
2010-2020		-359	-301	-240	-61
2020-2025		-67	-72	-62	-10
Annual change					
	Population		Households	Owner-occupied	Renter-occupied
1990-2000		46	40	36	4
2000-2010		42	12	3	10
2010-2020		-36	-30	-24	-6
2020-2025		-13	-14	-12	-2

Source 1990, 2000, and 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

These figures can also be adjusted to reflect potential losses (as outlined previously for other populations). Thus, these figures translate to 20 owner-occupied units and 12 rentals. This need is still less than the deficit of owner-occupied units and yields a small net need for rental units-occupied units.

Tenure Trends, by Age : Summary

Data on the tenure trends outlined above for the 2020 to 2025 summary period are summarized, below.

Table 13 - Tenure by Age, Working Age and Senior Households, 2020 to 2025.

Change, 2020 to 2025	Households			
	Population	Occupied/ housing units	Owner- occupied	Renter- occupied
Total population	-20	2	-2	4
Working Age Population	-67	-72	-62	-10
Senior Population	88	74	60	13

Source: T.Ronald Brown: Research & Analysis

The preceding are the net numbers derived from the population, household and tenure projections. The following table includes adjustments to account for losses, as described, both for the study period as a whole and annual averages for that period.

Table 14 - Tenure by age, Working Age and Senior Households, 2020 to 2025, adjusted, and change

Adjusted for losses	Occupied/ housing units	Owner- occupied	Renter- occupied
Total population	54	32	21
Working Age Population	-40	-42	2
Senior Population	94	75	19
Annual Change			
Total population	11	6	4
Working Age Population	-8	-8	0
Senior Population	19	15	4

Source: T.Ronald Brown: Research & Analysis

Here, it is seen that, net growth is restricted to the senior population. It should be noted that these numbers, while reflecting the relative strength, or otherwise, of each segment, do not represent the demand for any single product catering to any of these segments. The extent to which one particular development could cater to any market segment will be the function of several inter-related factors such as location, price/affordability relative to a target income, and the existence of potentially competing properties, etc. Thus, even under very positive circumstances, no single potential development can reasonably account for a significant share of the need from any particular segment as defined.

Here it is seen that the potential for any new development that targets a specific market (as defined by age, tenure, and/or income) is constrained by the growth projections outlined above. Thus, any potential demand will necessarily be derived from the existing population/household base - which, as noted earlier, is further constrained by the area's low population base.

Development Options: by Age and Tenure

As noted, any potential new project will appeal to only a share of the market defined in terms of the ability, for example, of persons/households in that market to be able to afford that product at a particular location, and to choose to live there, and be willing to move.

Development Options: Senior Housing, Owner-occupied

With respect to senior housing options, the following table outlines the income distribution of Graham County households aged 62 years and older, for all households, and by tenure. This information is derived from a Special Tabulation of American Community Survey (2013 to 2017) data prepared for, and published by, HUD.

Table 15 - Income by Tenure, Households aged 62 and over

Population aged 62 and over							
	All households		Owner-occupied		Renter-occupied		
	number	percent	number	percent	number	percent	
\$0 to \$9,999	135	9.4	110	8.3	25	21.7	
\$10,000 to \$14,999	150	10.4	125	9.4	25	21.7	
\$15,000 to \$19,999	139	9.6	105	7.9	34	29.6	
\$20,000 to \$24,999	134	9.3	130	9.8	4	3.5	
\$25,000 to \$29,999	115	8.0	115	8.7	0	0.0	
\$30,000 to \$34,999	90	6.2	90	6.8	0	0.0	
\$35,000 to \$39,999	80	5.5	80	6.0	0	0.0	
\$40,000 to \$44,999	70	4.9	55	4.1	15	13.0	
\$45,000 to \$49,999	74	5.1	70	5.3	4	3.5	
\$50,000 to \$59,999	160	11.1	160	12.1	0	0.0	
\$60,000 to \$74,999	94	6.5	90	6.8	4	3.5	
\$75,000 to \$99,999	117	8.1	113	8.5	4	3.5	
\$100,000 to \$124,999	54	3.7	54	4.1	0	0.0	
\$125,000 to \$149,999	15	1.0	15	1.1	0	0.0	
\$150,000 to \$199,999	15	1.0	15	1.1	0	0.0	
\$200,000 and over	0	0.0	0	0.0	0	0.0	
Median (estimate)	\$32,661		\$34,337		\$16,101		

Source: HUD Special Tabulations of Households from, American Community Survey 2013 to 2017

Assuming, for example, if single-family, for sale units were offered that appealed to seniors in the \$45,000 to \$100,000 income range, that product would appeal to 32.6 percent of that income range. With a projected need for 74 units from this segment, this yields a need for 24 units over the 2020 to 2025 study period, or five units, annually.

Here, it is seen that given the projected housing needs, that as one specific segment of that need is considered, the application of even more market shares to a relatively small starting number yields a small potential demand as specific types of development are considered. Actual demand is a function of growth in demand (as set out here), plus demand from existing households in the market area who might move. Given the nature of owner-occupied housing, it is not likely that the demand for new owner-occupied units would be impacted, to any noticeable degree, by the movement of seniors from one home to another, within Graham County.

Thus, with respect to the relatively low ongoing need for owner-occupied housing for seniors in Graham County, it is unlikely that any one single development/subdivision targeted to seniors could expect to be absorbed in significant numbers in a reasonable time-frame to make that development feasible. Instead, that growth would represent the aging of existing homeowners who would remain in their own homes, and the ongoing in-migration of seniors who would purchase homes throughout the area.

### Development Options: Senior Housing, Renter-occupied

With respect to the need for rental housing for seniors in Graham County, the numbers presented above show a net need for 13 rental units, per year, based solely on projected growth and allowing for replacements. Again, this is for units for tenants at all income levels, throughout Graham County.

With respect to income, three income levels can be considered. These levels may best be characterized as subsidized, affordable, and market rate. These levels are traditionally defined as relating to the income level of the tenants - and those incomes are in turn, defined relative to income levels in the host community/county. Thus, subsidized housing may be defined as that targeted to households with incomes below 50 percent of the local area median, by household size, as defined by HUD. In subsidized developments it is the norm that tenants pay 30 percent of their income on housing costs (that is, rent, plus utilities). Likewise, affordable housing is that targeted to households with incomes up to 60 percent of the median. Here, rents are not subsidized, but the rents are set to be affordable to tenants who, although with moderate incomes, can afford rents that are set to be below market rates. Here, these units are considered to be those affordable to households with incomes between 40 and 60 percent of the median (excluding units that any have deeper targeting). Market rate units are those set at market rents and are rented to households whose incomes are adequate to afford prevailing market rents. For the purposes of this report, it is assumed that market rate units are affordable to households with incomes at or above 60 percent of the median. It should be noted, however, that in areas with relatively low incomes (that is low HUD median incomes) the rents that are based on a 60 percent level, may be less than the prevailing market rents. Here, an upper limit of 120 percent of the median is employed representing a level above which older persons may be more likely to prefer continuing care retirement communities or other, more upscale, communities.

The preceding designations apply to both rental properties that are open to family tenants and those that cater specifically to a senior tenantry. The latter are typically developments that offer only one- and two-bedroom units and have features and amenities that cater specifically to seniors. Units in these developments are typically on one level - either in a single building (which may have more than one storey and be served by one or more elevators), or be in attached or detached units/ cottages. Senior renters may be seen to be willing to pay a larger proportion of their incomes on housing, where they may have fewer additional expenses than family renters. This proportion can be quite significant, especially in developments that offer meals and other services to their residents.

Although many senior apartments are open to residents aged 55 and older, the calculations presented here will be based on households aged 65 and older - which allows for a more conservative (but not unrealistic approach) and reflects the availability of data on income by age.

The HUD income limits in Graham County, for one and two-person households, are based on a median income of \$42,400 for a one person household and \$48,500 for a two-person household.

Calculations here are based on an approach following the market study guidelines required by the North Carolina Housing Finance Agency - which follow accepted standards. Here, the major components are the need from senior population and housing growth, from existing renters who would consider moving, and from some seniors who live in owner-occupied housing who wish to move to rental accommodation.

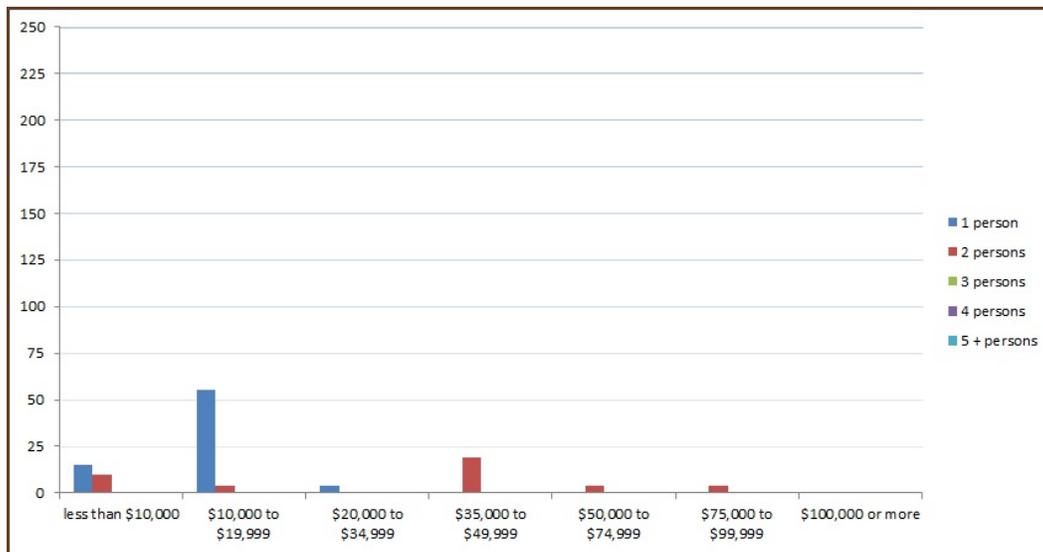
The following table provides data on the income distribution of senior rental households, by household size, for Graham County. This information is derived from a Special Tabulation of 2013 to 2017 American Community Survey data prepared for, and published by, HUD.

Table 16 - Income by Household Size, Renter Households Aged 62 and older

	total	1 person	2 persons	3 persons	4 persons	5+ persons
less than \$10,000	25	15	10	0	0	0
\$10,000 to \$14,999	25	25	0	0	0	0
\$15,000 to \$19,999	34	30	4	0	0	0
\$20,000 to \$24,999	4	4	0	0	0	0
\$25,000 to \$29,999	0	0	0	0	0	0
\$30,000 to \$34,999	0	0	0	0	0	0
\$35,000 to \$39,999	0	0	0	0	0	0
\$40,000 to \$44,999	15	0	15	0	0	0
\$45,000 to \$49,999	4	0	4	0	0	0
\$50,000 to \$59,999	0	0	0	0	0	0
\$60,000 to \$74,999	4	0	4	0	0	0
\$75,000 to \$99,999	4	0	4	0	0	0
\$100,000 to \$124,999	0	0	0	0	0	0
\$125,000 to \$149,999	0	0	0	0	0	0
\$150,000 to \$199,999	0	0	0	0	0	0
\$200,000 and over	0	0	0	0	0	0
<b>total</b>	<b>115</b>	<b>74</b>	<b>41</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: HUD Special Tabulations of Households from American Community Survey, 2013 to 2017

Here, as one would expect, in focusing on a relatively small population base, which is further delineated by age and tenure, the population that any one development could draw-on is quite restricted. However, here, it can be seen that the preponderance of this population is largely seen to be focused on low and very low income one-person households- as illustrated, overleaf.



Calculations for subsidized units are based on an effective lower income of zero dollars, with an upper limit of \$24,250 - the two person limit at 50 percent of the median. Based on the table above, it is seen that as many as 76.0 percent of renters are in that income range. Applying that to the projected need for 19 units yields 14 units.

With respect to demand from existing renters who would likely move to a new complex, the market study guidelines suggest using rent-overburdened households - those paying more a certain proportion of income on rent. In North Carolina that proportion is 40 percent for senior households. The Special Tabulations data upon which our calculations are based, define certain “selected conditions”, which for renters are seen to be households “having at least one of the following housing conditions: lacking complete plumbing facilities, lacking complete kitchen facilities, with more than 1.01 persons per room, and selected monthly owner costs greater than 30 percent of household income (2017), or gross rent as a percentage of household income (2017) of greater than 30 percent”. The table for those households for senior renters in Graham County are as set out below.

Table 17 - Income and Household Size, Renter Households Aged 62 and older, with Special Conditions

	total	1 person	2 persons	3 persons	4 persons	5+ persons
less than \$10,000	24	14	10	0	0	0
\$10,000 to \$14,999	15	15	0	0	0	0
\$15,000 to \$19,999	4	4	0	0	0	0
\$20,000 to \$24,999	0	0	0	0	0	0
\$25,000 to \$29,999	0	0	0	0	0	0
\$30,000 to \$34,999	0	0	0	0	0	0
\$35,000 to \$39,999	0	0	0	0	0	0
\$40,000 to \$44,999	0	0	0	0	0	0
\$45,000 to \$49,999	0	0	0	0	0	0
\$50,000 to \$59,999	0	0	0	0	0	0
\$60,000 to \$74,999	0	0	0	0	0	0
\$75,000 to \$99,999	0	0	0	0	0	0
\$100,000 to \$124,999	0	0	0	0	0	0
\$125,000 to \$149,999	0	0	0	0	0	0
\$150,000 to \$199,999	0	0	0	0	0	0
\$200,000 and over	0	0	0	0	0	0
<b>total</b>	<b>43</b>	<b>33</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: HUD Special Tabulations of Households from American Community Survey, 2013 to 2017

These data, graphed, are as follows.



Here, the pattern parallels that for the total number of senior renters, with rent-overburdening, etc., being concentrated in the lower income ranges.

Based on these data, it is found that around 49.2 percent of income-eligible renters have those selected conditions - or around 92 renters.

With respect to senior home-owners who may consider moving to senior apartments, our calculations show that there will be a total of 396 older owner-occupied households in the qualifying income ranges in the market area. With respect to the existing elderly homeowners it is conservatively assumed that perhaps 2 percent would consider moving to the proposed apartments. Thus, a total of eight older homeowners might consider moving.

Based on the 14 new income eligible renters derived from household growth, the 92 existing renters who might consider moving to a new subsidized complex, and the eight older home-owners who might consider moving to rental accommodation, there is seen to be a total of 114 senior households who would be eligible for a potential new subsidized rental complex for seniors (age 65 and older). This would be from throughout Graham County, based on a five-year projection period. Assuming that a new complex could capture around 30 percent of this potential demand, then demand would be for 34 units. Based on a three-year projection period demand is determined to be for a 33-unit complex.

Given its central location and the distribution of shopping and other services located in Robbinsville that serve the county as a whole, a property in Robbinsville could expect to attract most if not all of that demand.

The projections of demand for an affordable senior housing complex are based on a qualifying income range from 40 to 60 percent of the local area median. The latter would range from \$16,960 (the one-person limit at 40 percent of the median) to \$29,100 (the two-person limit at the 60 percent level). This is a relatively narrow target range - given the mandated upper income limit and the fact that the tenants have to be able to afford rent under the assumptions used.

Paralleling the calculations for subsidized units, it is seen that potential demand for an affordable senior complex from projected household growth is seen to be for around four new units. The corresponding numbers from existing renters and from existing home-owners are found to be five units and three units, respectively. This yields a total potential demand for 12 affordable units - or four units assuming a 30 percent capture rate - and for three units over a three-year period.

With respect to market rate rentals for seniors, demand calculations are based on a qualifying income range with a lower level equivalent to the one-person 60 percent income limit, and an upper limit equivalent to 120 percent of the area median income for two person households. Under this scenario, and following the approach used for the subsidized and affordable segments, we determined there to be a need for 13 units: three units based on growth, none from existing renters, and ten units from home-owners. A 30 percent capture rate translates to four units - and three units based on a three year projection period.

As suggested earlier, basing the latter on a lower income limit of \$25,448 - the one-person 60 percent limit - may not be realistic as that would suggest a net rent of \$748 for a one-bedroom unit where the tenant pays 40 percent of income on rent, and utilities are assumed to be around \$100 for that unit. Were the one-person 80 percent limit used, that would translate to a net rent of \$1,031 and suggests a demand for ten units: three units with a 30 percent capture rate, and for three units over three years.

The preceding reveals that with regard to rental housing designated for seniors, only a small project catering to low and very low income renters is feasible. Here, this could take the form of a 32-unit subsidized project in Robbinsville.

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### Development Options: Housing for Working Age Households, Renter-occupied

The previous section outlined potential demand, by income for the population aged 65 years and older - with the projected growth for the area being supplemented by need from existing renter households in the area who would move to be better housed. The demand projections for renter households of working age population can be obtained using the same approach as for senior rentals (omitting demand from homeowners who might move to rental accommodation).

As set out above, we have examined the subsidized, affordable, and market-rate segments - however, whereas it is realistic to look at senior rentals on the basis of a 40 percent rent-to-income ratio, we are employing a 35 percent figure for family units (assuming, as is generally held, that families have more non-housing expenses).

Here, demand for subsidized apartments for families is seen to amount to 103 units - 101 being from existing renters that are rent-overburdened, etc. A 30 percent capture rate yields 31 units - again, based on a five-year period, countywide. This translates to 31 units over a three-period given the negligible amount of projected growth of that population. Again, a location in Robbinsville is considered appropriate.

Demand for affordable housing, as defined, amounts to a total of 15 units: 14 of which are from existing overburdened households. This total translates to five units upon applying a 30 percent capture rate (or four units over a three-year projection period).

Using 60- to 120 percent of the median as the basis for determining the need for market rate units suggests the need for only two units. Given the affordability standard used, these figures are based on a net one-bedroom unit of \$642, which is probably unrealistically low). As with the calculation for market rate senior rentals, this segment was re-calculated using an 80- to 120 percent range (assuming a one-bedroom rent of \$890), and, again, yields a demand for only two units.

The preceding reveals that with regard to rental housing households aged less than 65, only a small project catering to low and very low income renters is feasible. Here, this could take the form of a 30-unit subsidized project in Robbinsville. This could provide a mix of one-, two-, and/or three-bedroom units - and could be development in conjunction with the senior property detailed in the previous section of this report.

In this section, we will examine the need for owner-occupied units by persons of working age. However, as noted above, there is effectively no net need for housing from growth projections from this market segment.

#### Development Options: Housing for Working Age Households, Owner-occupied

Given the fact that there is no projected net need for this type of housing from growth, it is nonetheless instructive to examine demand from potential first-time home buyers who currently live in the market/study area. This demand may be unmet where households may prefer to rent, or by households in that age who rent not being able to qualify for a home loan or make a reasonable down-payment. However, it may be that there is not an adequate supply of affordable homes available for first-time home-buyers in these circumstances.

The market for single-family homes for first-time buyers is focused on potential buyers living in the area at present, and who would be income-eligible for any affordable development. Those potential buyers are necessarily households now renting in the area.

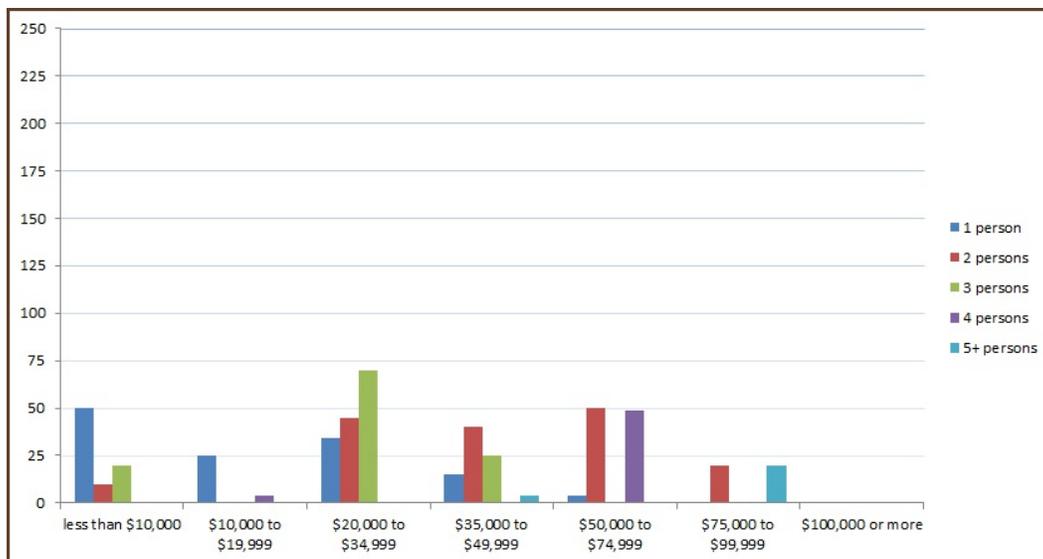
The income distribution for renters aged 15 to 61 in Graham County is set out in Table below. Again, this information is derived from a Special Tabulation of 2013 to 2017 American Community Survey data prepared for, and published by, HUD.

Table 18 - Income and Household Size, Renter Households Aged 15 to 61

	total	1 person	2 persons	3 persons	4 persons	5+ persons
less than \$10,000	80	50	10	20	0	0
\$10,000 to \$14,999	29	25	0	0	4	0
\$15,000 to \$19,999	0	0	0	0	0	0
\$20,000 to \$24,999	49	4	45	0	0	0
\$25,000 to \$29,999	55	30	0	25	0	0
\$30,000 to \$34,999	45	0	0	45	0	0
\$35,000 to \$39,999	4	0	0	0	0	4
\$40,000 to \$44,999	25	15	10	0	0	0
\$45,000 to \$49,999	55	0	30	25	0	0
\$50,000 to \$59,999	64	4	15	0	45	0
\$60,000 to \$74,999	39	0	35	0	4	0
\$75,000 to \$99,999	40	0	20	0	0	20
\$100,000 to \$124,999	0	0	0	0	0	0
\$125,000 to \$149,999	0	0	0	0	0	0
\$150,000 to \$199,999	0	0	0	0	0	0
\$200,000 and over	0	0	0	0	0	0
<b>total</b>	<b>485</b>	<b>128</b>	<b>165</b>	<b>115</b>	<b>53</b>	<b>24</b>

Source: HUD Special Tabulations of Households from American Community Survey, 2013 to 2017

These data are graphed, below.



Here it is seen that many renters have relatively low incomes, particularly one-person households. Here, we will calculate potential need for two income groups. The first, a lower group, will be households with incomes between \$40,000 and \$50,000, which in Graham County would, broadly, correspond to that cohort that would be eligible for USDA Section 502 homes. The second cohort would be that segment, with incomes above \$50,000 and less than \$89,500, that would qualify for North Carolina Housing Finance Agency mortgage/down-payment assistance - and would broadly represent the bulk of potential first-time home-buyers, regardless of financing source.

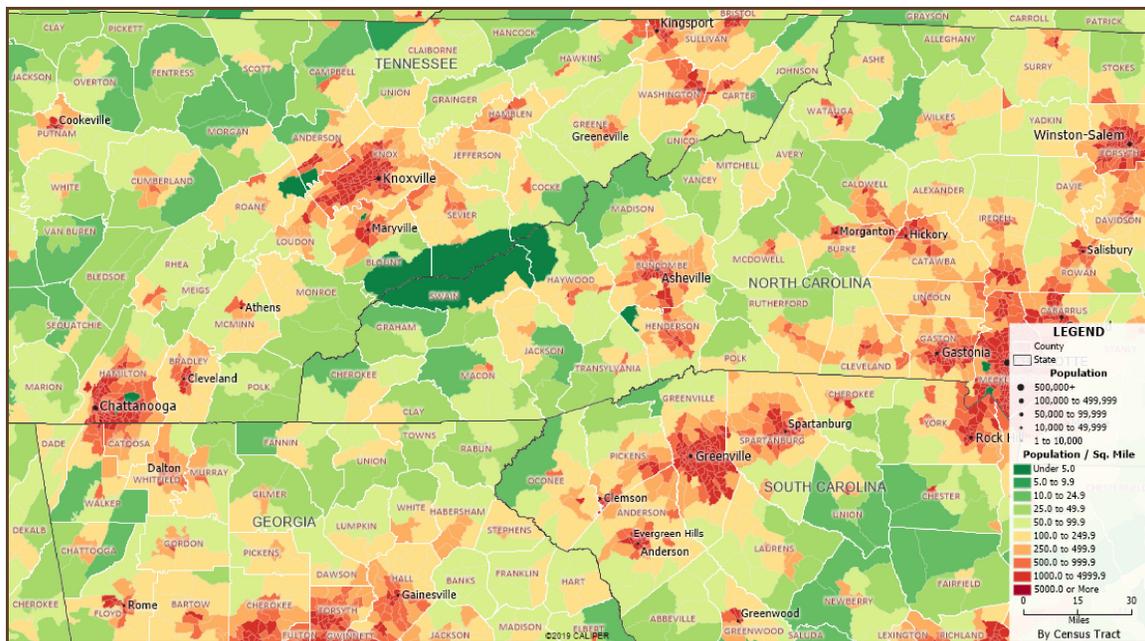
Consideration of the data set out on the previous page shows (proportionally speaking) a quite significant number of renters throughout the \$45,000 to \$100,000 income range. This information should be interpreted in light of the nature of American Community Survey data, where, given that is based on small sample there can be high margins of error associated with detailed data for small areas, for example. Thus, these data for Graham County show 109 renters with incomes between \$50,000 and \$99,999 - with a margin of error of +/- 78 units. Under these circumstances, any conclusions drawn from an analysis using such data would need to be interpreted with this in mind.

The lower income range is met by 16.5 percent of renters in the market area - corresponding to 80 households. The higher income range corresponds to 26.0 percent of renters - that is, 125 households. In market studies for homes for first-time home-buyers the proportion of renters that would translate to home-ownership needs to take into account those who rent by choice (either in the short- or long-term) and households who do not qualify for a mortgage or not be able to afford a down-payment. The share also has to account for the fact that a particular development may not appeal to all potential buyers (again, in terms of features, location, and the like). Typically, we have used a 1- to 2-percent figure in these circumstances. Here, we use 2 percent - which would suggest an annual demand for two units in the lower range, and three in the higher range. Again, this represents demand on a county-wide basis.

Thus, with respect to the ongoing need for owner-occupied housing for potential first-time homeowners currently living in rental units in Graham County, it is unlikely that any one single development/subdivision targeted to this market specifically could expect to be absorbed in significant numbers in a reasonable time-frame to make that development feasible.

These observations - that there is not a deep enough market to support most residential options in the area when segmented by age, tenure, income, and location - reflects the overall size of the market - which is not atypical of rural/non-urban areas. As noted, Graham County is one of the State's smallest jurisdictions, population-wise, which compounds these circumstances.

The map, below, shows population density at the census tract level, focusing on southwestern North Carolina, and shows adjacent areas in North Carolina as well as in South Carolina, Tennessee, and Georgia. This illustrates how settlement in Graham County and the Region A area is significantly less dense than adjoining areas. This pattern reflects the location, topography, and history of the area. Thus, development options are significantly constrained in the study area relative to other areas with a larger population base - despite ongoing growth.



## Market Study Terminology

The following presents the accepted definitions of various terms typically found in real estate market studies. These definitions are typically followed unless reviewing agency requirements differ.

**Absorption period** - the period of time necessary for a newly constructed or renovated property to achieve the *stabilized level of occupancy*. The absorption period begins when the first certificate of occupancy is issued and ends when the last unit to reach the *stabilized level of occupancy* has a signed lease. Assumes a typical premarketing period, prior to the issuance of the certificate of occupancy, of about three to six months. The month that leasing is assumed to begin should accompany all absorption estimates.

**Absorption rate** - the average number of units rented each month during the *absorption period*.

**Acceptable rent burden** - the rent-to-income ratio used to qualify tenants for both income-restricted and non-income restricted units. The acceptable rent burden varies depending on the requirements of funding sources, government funding sources, target markets, and local conditions.

**Achievable rents** - See *Market Rent, Achievable Restricted Rent*.

**Affordable housing** - housing affordable to low or very low-income tenants.

**Amenity** - tangible or intangible benefits offered to a tenant. Typical amenities include on-site recreational facilities, planned programs, services and activities.

**Annual demand** - the total estimated demand present to the market in any one year for the type of units proposed.

**Assisted housing** - housing where federal, state or other programs *subsidize* the monthly costs to the tenants.

**Bias** - a proclivity or preference, particularly one that inhibits or entirely prevents an impartial judgment.

**Capture rate** - the percentage of age, size, and income qualified renter households in the *primary market area* that the property must capture to fill the units. Funding agencies may require restrictions to the qualified households used in the calculation including age, income, living in substandard housing, mover-ship and other comparable factors. The *Capture Rate* is calculated by dividing the total number of units at the property by the total number of age, size and income qualified renter households in the *primary market area*. See also: penetration rate.

**Comparable property** - a property that is representative of the rental housing choices of the subject's *primary market area* and that is similar in construction, size, amenities, location, and/or age. Comparable and *competitive* properties are generally used to derive market rent and to evaluate the subject's position in the market.

**Competitive property** - a property that is comparable to the subject and that competes at nearly the same rent levels and tenant profile, such as age, family or income.

**Comprehensive market study** - NCHMA (the National Council of Housing Market Analysts) defines a comprehensive market study for the purposes of IRC Section 42 as a market study compliant with its Model Content Standards for Market Studies for Rental Housing. Additionally, use of the suggested wording in the NCHMA certification without limitations regarding the comprehensive nature of the study, shows compliance with the IRC Section 42 request for completion of a market study by a 'disinterested party.'

**Concession** - discount given to a prospective tenant to induce the tenant to sign a lease. Concessions typically are in the form of reduced rent or free rent for a specific lease term, or for free amenities, which are normally charged separately (i.e. washer/dryer, parking).

**Demand** - the total number of households in a defined market area that would potentially move into the proposed new or renovated housing units. These households must be the appropriate age, income, tenure and size for a specific proposed development. Components of demand vary and can include household growth; turnover, those living in substandard conditions, rent over-burdened households, and demolished housing units. Demand is project specific.

**Effective rents** - contract rent less concessions.

**Household trends** - changes in the number of households for a particular area over a specific period of time, which is a function of new household formations (e.e. at marriage or separation), changes in average household size, and net *migration*.

**Income band** - the range of incomes of households that can afford to pay a specific rent but do not have below any applicable program-specific maximum income limits. The minimum household income typically is based on a defined *acceptable rent burden* percentage and the maximum typically<sup>7</sup> is pre-defined by specific program requirements or by general market parameters.

**Infrastructure** - services and facilities including roads, highways, water, sewerage, emergency services, parks and recreation, etc. Infrastructure includes both public and private facilities.

**Market advantage** - the difference, expressed as a percentage, between the estimated market rent for an apartment property without income restrictions and the lesser of (a) the owner's proposed rents or (b) the maximum rents permitted by the financing program for the same apartment property. (*market rent - proposed rent*) / *market rent* \* 100

**Market analysis** - a study of real estate market conditions for a specific type of property.

**Market area** - See *primary market area*.

**Market demand** - the total number of households in a defined market area that would potentially move into any new or renovated housing units. Market demand is not project specific and refers to the universe of tenure appropriate households, independent of income. The components of market demand are similar to those used in determining project-specific demand. A common example of market demand used by HUD's MAP program, which is based on three years of renter household growth, loss of existing units due to demolition, and market conditions.

**Market rent** - the rent that an apartment, without rent or income restrictions or rent subsidies, would command in the *primary market area* considering its location, features and amenities. Market rent should be adjusted for *concessions* and owner paid utilities included in the rent.

**Market study** - a comprehensive study of a specific proposal including a review of the housing market in a defined market area. Project specific market studies are often used by developers, syndicators, and government entities to determine the appropriateness of a proposed development, whereas market specific market studies are used to determine what housing needs, if any, exist within a specific geography.

**Marketability** - the manner in which the subject fits into the market; the relative desirability of a property (for sale or lease) in comparison with similar or competing properties in the area.

**Market vacancy rate, economic** - percentage of rent loss due to concessions, vacancies, and non-payment of rent on occupied units.

**Market vacancy rate, physical** - average number of apartment units in any market which are unoccupied divided by the total number of apartment units in the same market, excluding units in properties which are in the lease-up stage.

**Migration** - the movement of households into or out of an area, especially a *primary market area*.

**Mixed income property** - an apartment property containing (1) both income restricted and unrestricted units or (2) units restricted at two or more income limits (i.e. low income tax credit property with income limits of 30%, 50%, and 60%).

**Mobility** - the ease with which people move from one location to another.

**Move-up demand** - an estimate of how many consumers are able and willing to relocate to more expensive or desirable units. Examples: tenants who move from class-C properties to class-B properties, or tenants who move from older tax credit properties to new tax credit properties.

**Multi-family** - structures that contain more than two housing units.

**Neighborhood** - an area of a city or town with common demographic and economic features that distinguish it from adjoining areas.

**Net rent (also referred to as contract rent or lease rent)** - Gross rent less tenant paid utilities.

**Penetration rate** - The percentage of age and income qualified renter households in the *primary market area* that all existing and proposed properties, to be completed with six months of the subject, and which are competitively priced to the subject that must be captured to achieve the *stabilized level of occupancy*. Funding agencies may require restrictions to the qualified households used in the calculation including age, income, living in substandard housing, mover ship and other comparable factors. Units in all proposals / households in market \* 100, see also: capture rate.

**Pent-up demand** - a market in which there is a scarcity of supply and vacancy rates are very low.

**Population trends** - changes in population levels for a particular area over a specific period of time – which is a function of the level of births, deaths, and net *migration*.

**Primary market area** - a geographic area from which a property is expected to draw the majority of its residents.

**Programmatic rents** - See *restricted rents*.

**Project based rent assistance** - rental assistance from any source that is allocated to the property or a specific number of units in the property and is available to each income eligible tenant of the property or an assisted unit.

**Redevelopment** - the redesign or rehabilitation of existing properties.

**Rent burden** - gross rent divided by adjusted monthly household income.

**Rent burdened households** - households with *rent burden* above the level determined by the lender, investor, or public program to be an acceptable rent-to-income.

**Restricted rent** - the rent charged under the restrictions of a specific housing program or subsidy.

**Restricted rent, achievable** - the rents that the project can attain taking into account both market conditions and rent in the *primary market area* and income restrictions.

**Saturation** - the point at which there is no longer demand to support additional unit. Saturation usually refers to a particular segment of a specific market.

**Secondary market area** - the portion of a market that supplies additional support to an apartment property beyond that provided by the primary market area.

**Special needs population** - specific market niche that is typically not catered to in a conventional apartment property. Examples of special needs population include: substance abusers, visually impaired person or persons with mobility limitations.

**Stabilized level of occupancy** - the underwritten or actual number of occupied units that a property is expected to maintain after the initial rent-up period, expressed as a percentage of the total units.

**Subsidy** - monthly income received by a tenant or by an owner on behalf of a tenant to pay the difference between the apartment's *contract rent* and the amount paid by the tenant toward rent.

**Substandard conditions** - housing conditions that are conventionally considered unacceptable which may be defined in terms of lacking plumbing facilities, one or more major systems not functioning properly, or overcrowded conditions.

**Target income band** - the *income band* from which the subject property will draw tenants.

**Target population** - the market segment or segments a development will appeal or cater to. State agencies often use target population to refer to various income set asides, elderly v. family, etc.

**Tenant paid utilities** - the cost of utilities (not including cable, telephone, or internet) necessary for the habitation of a dwelling unit, which are paid by the tenant.

**Turnover period** - 1. An estimate of the number of housing units in a market area as a percentage of total housing units in the market area that will likely change occupants in any one year. See also: vacancy period. Housing units with new occupants / housing units \* 100 2. The percent of occupants in a given apartment complex that move in one year.

**Unmet housing need** - new units required in the market area to accommodate household growth, homeless people, and housing in substandard conditions.

**Unrestricted rents** - rents that are not subject to *restriction*.

**Unrestricted units** - units that are not subject to any income or rent restrictions.

**Vacancy period** - the amount of time that an apartment remains vacant and available for rent.

**Vacancy rate-economic vacancy rate - physical** - maximum potential revenue less actual rent revenue divided by maximum potential rent revenue. The number of total habitable units that are vacant divided by the total number of units in the property.

## Other Terms

The following terms are also to be found in professional market studies - here, this information is drawn from various sources including HUD, the Census Bureau, and the Urban Land Institute.

**Area Median Income (AMI)** - 100% of the gross median household income for a specific Metropolitan Statistical Area, county or non-metropolitan area established annually by HUD.

**Attached housing** - two or more dwelling units connected with party walls (e.g. townhouses or flats).

**Basic rent** - the maximum monthly rent that tenants who do not have rental assistance pay to lease units developed through the USDA-RD Section 515 Program, the HUD Section 236 Program and HUD Section 223(d)(3) Below Market Interest Rate Program. The Basic Rent is calculated as the amount of rent required to operate the property, maintain debt service on a subsidized mortgage with a below-market interest rate, and provide a return on equity to the developer in accordance with the regulatory documents governing the property.

**Below Market Interest Rate program (BMIR)** - Program targeted to renters with income not exceeding 80% or area median income by limiting rents based on HUD's BMIR Program requirements and through the provision of an interest reduction contract subsidize the market interest rate to a below-market rate. Interest rates are typically subsidized to effective rates of one percent or three percent.

**Census tract** - a small, relatively permanent statistical subdivision delineated by a local committee of census data users for the purpose of presenting data. Census tract boundaries normally follow visible features, but may follow governmental unit boundaries and other non-visible features; they always nest within counties. They are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions at the time of establishment. Census tracts average about 4,000 inhabitants.

**Central Business District (CBD)** - the center of commercial activity within a town or city; usually the largest and oldest concentration of such activity.

**Community Development Corporation (CDC)** - entrepreneurial institution combining public and private resources to aid in the development of socio-economically disadvantaged areas.

**Condominium** - a form of joint ownership and control of property in which specified volumes of space (for example, apartments) are owned individually while the common elements of the property (for example, outside walls) are owned jointly.

**Contract rent** - 1. The actual monthly rent payable by the tenant, including any rent subsidy paid on behalf of the tenant, to the owner, inclusive of all terms of the lease. (HUD & RD) 2. The monthly rent agreed to between a tenant and a landlord (Census).

**Difficult Development Area (DDA)** - an area designated by HUD as an area that has high construction, land, and utility costs relative to the Area Median Gross Income. A project located in a DDA and utilizing the Low Income Housing Tax Credit may qualify for up to 130% of eligible basis for the purpose of calculating the Tax Credit allocation.

**Detached housing** - a freestanding dwelling unit, typically single-family, situated on its own lot.

**Elder or senior housing** - housing where (1) all units in the property are restricted for occupancy by persons 62 years of age or older or (2) at least 80% of the units in each building are restricted for occupancy by households where at least one household member is 55 years of age or older and the housing is designed with amenities and facilities designed to meet the needs of senior citizens.

**Extremely low income** - person or household with income below 30% of the Area Median Income adjusted for household size.

**Fair Market Rent (FMR)** - the estimates established by HUD of the Gross rents (Contract rent plus Tenant Paid Utilities) needed to obtain modest rental units in acceptable condition in a specific county or metropolitan statistical area. HUD generally set FMR so that 40% of the rental units have rents below FMR. In rental markets with a shortage of lower priced rental units HUD may approve the use of Fair Market Rents that are as high as the 50<sup>th</sup> percentile of rents.

**Garden apartments** - apartments in low-rise buildings (typically two or four stories) that feature low density, ample open-space around buildings, and on-site parking.

**Gross rent** - the monthly housing cost to a tenant which equals the Contract rent provided for in the lease plus the estimated cost of all Tenant Paid Utilities.

**High-rise** - a residential building having more than ten stories.

**Household** - one or more people who occupy a housing unit as their usual place of residence.

**Housing unit** - house, apartment, mobile home, or group of rooms used as a separate living quarters by a single household.

**Housing Choice Voucher (Section 8 Program)** - federal rent subsidy program under Section 8 of the U.S. Housing Act, which issues rent vouchers to eligible households in the use of the housing of their choice. The voucher payment subsidizes the difference between the Gross Rent and tenant's contribution of 30% of adjusted income, (or 10% of gross income, whichever is greater). In cases where 30% of the tenants' income is less than the utility allowance, the tenant will receive an assistance payment. In other cases, the tenant is responsible for paying his share of the rent each month.

**Housing Finance Agency (FHA)** - state or local agencies responsible for financing housing and administering assisted housing programs.

**HUD Section 8 Program** - federal program that provides project based rental assistance. Under the program HUD contracts directly with the owner for the payment of the difference between the contract rent and a specified percentage of tenants' adjusted income.

**HUD Section 202 Program** - federal program which provides direct capital assistance (i.e. grant) and operating or rental assistance to finance housing designed for occupancy by elderly households who have income not exceeding 50% of Area Median Income. The program is limited to housing owned by 501(c)(3) nonprofit organizations or by limited partnerships where the sole general partner is a 501(c)(3) nonprofit organization. Units receive HUD project based rental assistance that enables tenants to occupy units at rents based on 30% of tenant income.

**HUD Section 811 Program** - federal program which provides direct capital assistance and operating of rental assistance to finance housing designed for occupancy by persons with disabilities who have income not exceeding 50% of Area Median Income. The program is limited to housing owned by 501(c)(3) nonprofit organizations or by limited partnerships where the sole general partner is a 510(c)(3) nonprofit organization.

**HUD Section 236 Program** - federal program which provides interest reduction payments for loans which finance housing targeted to households with income not exceeding 80% of area median income who pay rent equal to the greater of Basic Rent or 30 percent of their adjusted income. All rents are capped at a HUD approved market rent.

**Income limits** - maximum household income by county or Metropolitan Statistical Area, adjusted for household size and expressed as a percentage of the Area Median Income for the purpose of establishing an upper limit for eligibility for a specific housing program. Income limits for federal, state and local rental housing programs typically are established at 30%, 50%, 60% or 80% of AMI. HUD publishes income limits each year for 30% median. Very low income (50%), and low income (80%), for households with 1 through 8 people.

**Low income** - person or household with gross household income below 80% of Area Median Income adjusted for household size.

**Low income housing tax credit** - a program to generate equity for investment in affordable rental housing authorized pursuant to Section 42 of the Internal Revenue Code, as amended. The program requires that a certain percentage of units built be restricted for occupancy to households earning 60% or less of Area Median Income, and that the rents on those units be restricted accordingly.

**Low rise building** - a building with one to three stories.

**Metropolitan Statistical Area (MSA)** - a geographic entity defined by the federal Office of Management and Budget for use by federal statistical agencies, based on the concept of a core area with a large population nucleus, plus adjacent communities have a high degree of economic and social integration with that core. Qualification of an MSA requires the presence of a city with 50,000 or more inhabitants, or the presence of an Urbanized Area (UA) and a total population of at least 100,000 (75,000 in New England). The county or counties containing the largest city and surrounding densely settled territory are central counties of the MSA. Additional outlying counties qualify to be included in the MSA by meeting certain other criteria of metropolitan character, such as a specified minimum population density or percentage of the population that is urban.

**Mid-rise** - a building with four to ten stories.

**Moderate income** - person or household with gross household income between 80 and 120 percent of area median income adjusted for household size.

**Public Housing or Low Income Conventional Public Housing** - HUD program administered by local (or regional) Housing Authorities which serves low- and very-low income households with rent based on the same formula used for HUD Section 8 assistance.

**Qualified Census Tract (QCT)** - any census tract (or equivalent geographic area defined by the Bureau of the Census) in which at least 50% of households have an income less than 60% of the area median income or where the poverty rate is at least 25%. A project located in a QCT and receiving Low Income Housing Tax Credit may qualify for up to 130% of the eligible basis for the purpose of calculating the Tax Credit allocation.

**Rural Development (RD) market rent** - a monthly rent that can be charged for an apartment under a specific USDA-RD housing program, that reflects the agency's estimate of the rent required to operate the property, maintain debt service on an unsubsidized mortgage and provide an adequate return to the property owner. The rent is the maximum rent that a tenant can pay at an RD Property.

**Rural Development (RD) Program (Formerly the Farmers Home Administration Section 515 Rural Rental Housing Program)** - federal program which provides the low interest loans to finance housing which serves low- and moderate-income persons in rural areas who pay 30 percent of their adjusted income on rent or the basic rent, which is the higher (but not exceeding the market rent). The program may include property based rental assistance and interest reduction contracts to write down the interest on the loan to as low as one percent.

**Single-family housing** - a dwelling unit, either attached or detached, designed for use by one household and with the direct access to a street. It does not share heating facilities or other essential building facilities with any other dwelling.

**State Data Center (SDC)** - a state agency or university facility identified by the governor of each state to participate in the Census Bureau's cooperative network for the dissemination of the census data.

**Tenant** - one who rents real property from another.

**Tenure** - the distinction between owner-occupied and renter-occupied housing units.

**Townhouse (or Row House)** - single-family attached residence separated from another by party walls, usually on a narrow lot offering small front and back-yards; also called row house.

**Very low income** - person or household whose gross household income does not exceed 50% of Area Median Income adjusted for household size.

**Zoning** - classification and regulation of land by local governments according to use categories (zones); often also includes density designations.

ADDENDUM

GRAHAM COUNTY TABLES

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## Selected Population Characteristics

Table C1 - Graham County, Population, by age, 2000 to 2030

	2000		2010		2020		2025		2030	
	number	percent.								
Total	7,993		10,587		8,763		8,743		8,737	
Male	3,900	48.8	5,223	49.3	4,343	49.6	4,344	49.7	4,352	49.8
Female	4,093	51.2	5,364	50.7	4,420	50.4	4,399	50.3	4,385	50.2
less than 5 years	467	5.8	508	4.8	436	5.0	457	5.2	459	5.3
5 to 9 years	489	6.1	550	5.2	461	5.3	444	5.1	462	5.3
10 to 14 years	498	6.2	538	5.1	517	5.9	472	5.4	451	5.2
15 to 19 years	470	5.9	522	4.9	553	6.3	526	6.0	480	5.5
20 to 24 years	418	5.2	449	4.2	503	5.7	512	5.9	488	5.6
25 to 34 years	936	11.7	916	8.7	912	10.4	986	11.3	1,040	11.9
35 to 44 years	1,078	13.5	1,038	9.8	1,005	11.5	1,041	11.9	1,046	12.0
45 to 54 years	1,178	14.7	1,283	12.1	993	11.3	931	10.6	1,014	11.6
55 to 59 years	537	6.7	617	5.8	604	6.9	515	5.9	459	5.3
60 to 64 years	486	6.1	698	6.6	594	6.8	586	6.7	506	5.8
65 to 74 years	795	9.9	988	9.3	1,155	13.2	1,088	12.4	1,091	12.5
75 to 84 years	472	5.9	546	5.2	734	8.4	859	9.8	867	9.9
85 years and older	169	2.1	208	2.0	296	3.4	326	3.7	374	4.3
under 15 years	1,454	18.2	1,596	15.1	1,414	16.1	1,373	15.7	1,372	15.7
15 to 64 years	5,103	63.8	5,523	52.2	5,164	58.9	5,097	58.3	5,033	57.6
65 years and older	1,922	24.0	2,440	23.0	2,779	31.7	2,859	32.7	2,838	32.5
Median Age	41.5 years		44.3 years		44.9 years		44.4 years		44.5 years	

Source: 2000 Census; 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

Table C2 - Graham County, Population, by Race, 2010

	<u>number</u>	<u>percent</u>
Total	8,861	100.0
One race	8,711	98.3
White	8,004	90.3
Black or African American	17	0.2
American Indian and Alaska Native	566	6.4
Asian	29	0.3
Native Hawaiian/other Pacific	4	0.0
Some other race	91	1.0
Two or more races	150	1.7
Two races, with some other race	7	0.1
Two races without some other race	139	1.6
Three races, with some other race	2	0.0
Three races without some other race	2	0.0
Hispanic or Latino		
Total population	8,861	100.0
Hispanic or Latino (any race)	194	2.2
Mexican	144	1.6
Puerto Rican	11	0.1
Cuban	4	0.0
Other Hispanic or Latino	35	0.4
Not Hispanic or Latino	8,667	97.8
Race and Hispanic or Latino		
Total population	8,861	100.0
One race	8,711	98.3
Hispanic or Latino	183	2.1
Not Hispanic or Latino	8,528	96.2
Two or more races	150	1.7
Hispanic or Latino	11	0.1
Not Hispanic or Latino	139	1.6

Source: 2010 Census; T.Ronald Brown: Research & Analysis

## Selected Household Characteristics

Table C3 - Graham County, Households, by type, 2000 and 2010

	2000		2010	
	number	pct.	number	pct.
Total Households	3,354		3,701	
1-person households	871	26.0	984	26.6
Male	356	40.9	466	47.4
Female	515	59.1	518	52.6
2 or more person households	2,483	74.0	2,717	73.4
Family Households	2,411	71.9	2,575	69.6
Husband/wife family	2,038	84.5	2,006	77.9
with children	727	35.7	659	32.9
without children	1,311	64.3	1,347	67.1
Other family	373	15.5	569	22.1
Male Householder/no wife	91	3.8	173	6.7
with children	46	50.5	83	48.0
without children	45	49.5	90	52.0
Female Householder/no husband	282	11.7	396	15.4
with children	136	48.2	176	44.4
without children	146	51.8	220	55.6
Nonfamily Households	72	2.1	142	3.8
Male Householder	47	65.3	85	59.9
Female Householder	25	34.7	57	40.1

Source: 2000 Census; 2010 Census; T.Ronald Brown: Research &amp; Analysis

## Selected Housing Characteristics

Table C4 - Graham County, Housing Occupancy and Vacancy status, 2008-2012 and 2013-2017

	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Total Housing Units	5,917		6,001	
Occupied Housing Units	3,443	58.2	3,303	55.0
Vacant Housing Units	2,474	41.8	2,698	45.0
Rented or sold, not occupied	61	2.5	48	1.8
Seasonal, Recreational or occasional use	1,911	77.2	1,809	67.0
Other vacant	424	17.1	613	22.7

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C5 - Graham County, Units in Structure, 2008-2012 and 2013-2017

	2008-2012						2013-2017					
	owner		renter		total		owner		renter		total	
	<u>number</u>	<u>percent.</u>										
Total	2,871	83.4	572	16.6	3,443		2,702	81.8	601	18.2	3,303	
1, detached	2,071	72.1	180	31.5	2,251	65.4	1,912	70.8	348	57.9	2,260	68.4
1, attached	0	0.0	0	0.0	0	0.0	12	0.4	0	0.0	12	0.4
2	9	0.3	62	10.8	71	2.1	0	0.0	0	0.0	0	0.0
3 or 4	0	0.0	13	2.3	13	0.4	0	0.0	25	4.2	25	0.8
5 to 9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10 to 19	15	0.5	7	1.2	22	0.6	0	0.0	0	0.0	0	0.0
20 to 49	0	0.0	56	9.8	56	1.6	0	0.0	47	7.8	47	1.4
50 or more	0	0.0	3	0.5	3	0.1	13	0.5	7	1.2	20	0.6
mobile home	776	27.0	251	43.9	1,027	29.8	762	28.2	170	28.3	932	28.2
Other	0	0.0	0	0.0	0	0.0	3	0.1	4	0.7	7	0.2

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C6 - Graham County, Year Structure Built, 2013-2017

	2013-2017					
	owner		renter		total	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Built 2014 or later	23	0.9	0	0.0	23	0.7
Built 2010 to 2013	11	0.4	9	1.5	20	0.6
Built 2000 to 2009	555	20.5	67	11.1	622	18.8
Built 1990 to 1999	543	20.1	225	37.4	768	23.3
Built 1980 to 1989	430	15.9	72	12.0	502	15.2
Built 1970 to 1979	617	22.8	27	4.5	644	19.5
Built 1960 to 1969	262	9.7	67	11.1	329	10.0
Built 1950 to 1959	132	4.9	48	8.0	180	5.4
Built 1940 to 1949	99	3.7	40	6.7	139	4.2
Built 1939, or earlier	30	1.1	46	7.7	76	2.3
Median	1985		1990		1986	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table C7 - Graham County, Tenure by Year Household moved into unit, 2013-2017

	2013-2017					
	owner		renter		total	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Moved in 2015 or later	90	3.3	109	18.1	199	6.0
Moved in 2010 to 2014	239	8.8	291	48.4	530	16.0
Moved in 2000 to 2009	823	30.5	90	15.0	913	27.6
Moved in 1990 to 1999	587	21.7	64	10.6	651	19.7
Moved in 1980 to 1989	452	16.7	8	1.3	460	13.9
Moved in 1979, or earlier	511	18.9	39	6.5	550	16.7
Median	1997		2012		2000	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table C8 - Graham County, Value, Owner-occupied Housing Units, 2013-2017

	2013-2017	
	<u>number</u>	<u>percent.</u>
less than \$50,000	652	24.1
\$50,000 to \$99,999	396	14.7
\$100,000 to \$149,999	473	17.5
\$150,000 to \$199,999	406	15.0
\$200,000 to \$299,999	520	19.2
\$300,000 to \$499,999	155	5.7
\$500,000 to \$999,999	90	3.3
\$1,000,000 or more	10	0.4
Median	\$124,800	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table C9 - Graham County, Selected Monthly Owner Costs, 2008-2102 and 2013-2017

Units with a mortgage	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than \$300	18	1.5	less than \$500	101	11.6
\$300 to \$499	160	13.6	\$500 to \$999	488	56.2
\$500-\$699	228	19.4	\$1,000-\$1,499	184	21.2
\$700-\$999	293	25.0	\$1,500 to \$1,999	69	7.9
\$1,000 to \$1,499	334	28.5	\$2,000 to \$2,499	14	1.6
\$1,500 to \$1,999	113	9.6	\$2,500 to \$2,999	10	1.2
\$2,000 or more	27	2.3	\$3,000 or more	2	0.2
Median	\$933		Median	\$851	
Units without a mortgage	1,698	59.1 percent of total		1,834	67.9 percent of total

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C10 - Graham County, Selected Monthly Owner Costs as a Percentage of Household Income , 2008-2012 and 2013-2017

Units with a mortgage	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
less than 20.0 percent	467	40.8	452	53.5
20.0 to 24.9 percent	199	17.4	79	9.3
25.0 to 29.9 percent	91	7.9	43	5.1
30 to 34.9 percent	52	4.5	56	6.6
35.0 percent or more	337	29.4	215	25.4
Units without a mortgage				
	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
less than 10.0 percent	861	51.4	789	44.5
10.0 to 14.9 percent	329	19.6	334	18.8
15.0 to 19.9 percent	168	10.0	210	11.8
20.0 to 24.9 percent	76	4.5	123	6.9
25.0 to 29.9 percent	76	4.5	116	6.5
30 to 34.9 percent	47	2.8	51	2.9
35.0 percent or more	119	7.1	150	8.5

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C11 - Graham County, Rent, Renter-occupied Housing Units, 2008-2012 and 2013-2017

	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
less than \$200	24	5.7	less than \$500	119 26.6
\$200 to \$299	30	7.2	\$500 to \$999	295 66.0
\$300 to \$499	154	36.8	\$1,000 to \$1,499	17 3.8
\$500 to \$749	161	38.5	\$1,500 to \$1,999	16 3.6
\$750 to \$999	20	4.8	\$2,000 to \$2,499	0 0.0
\$1,000 to \$1,499	29	6.9	\$2,500 to \$2,999	0 0.0
\$1,500 or more	0	0.0	\$3,000 or more	0 0.0
Median	\$551		Median	\$610
No rent paid	154		No rent paid	154

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C12 - Graham County, Selected Monthly Renter Costs as a Percentage of Household Income , 2008-2012 and 2013-2017

	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
less than 15.0 percent	93	25.8	137	33.9
15.0 to 19.9 percent	31	8.6	25	6.2
20.0 to 24.9 percent	22	6.1	118	29.2
25.0 to 29.9 percent	38	10.6	14	3.5
30.0 to 34.9 percent	59	16.4	28	6.9
35.0 percent or more	117	32.5	82	20.3

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table C13 below, gives details of residential construction throughout Graham County since 2000. Here, this is for all units permitted - all of which may or may not have been built. It should be noted that data for single-family and multi-family units relate to units in structure, not tenure. Also, these figures include units built for seasonal or occasional use.

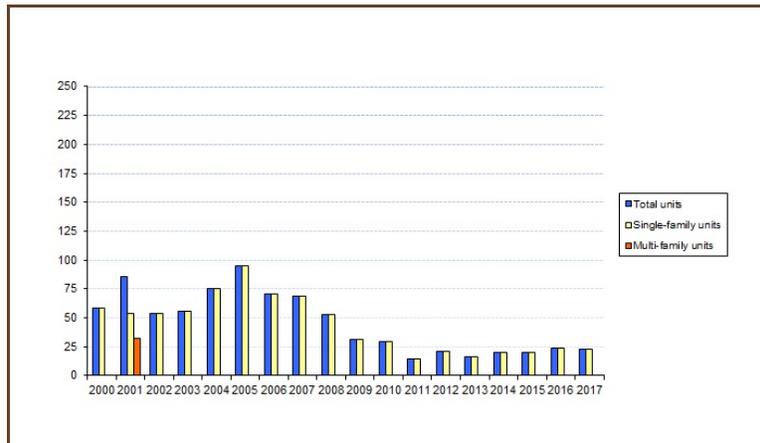
Where the data exist, it can be seen that a total of 815 units were permitted/added throughout the County, 783 of which were for single-family units (96.1 percent) and 32 ( or 3.9 percent) were for multi-family units. The table and the graph following it show the significant slow-down in construction from 2008.

Table C13 - Graham County, Building Permits Issued, Annually, 2000 to 2017

	<u>Total</u>	<u>single-family</u>	<u>multi-family</u>
2000	58	58	0
2001	86	54	32
2002	54	54	0
2003	56	56	0
2004	75	75	0
2005	95	95	0
2006	71	71	0
2007	69	69	0
2008	53	53	0
2009	31	31	0
2010	29	29	0
2011	14	14	0
2012	21	21	0
2013	16	16	0
2014	20	20	0
2015	20	20	0
2016	24	24	0
2017	23	23	0
Total	815	783	32

Source: SOCDS Building Permits Database, HUDUSER; T.Ronald Brown: Research & Analysis

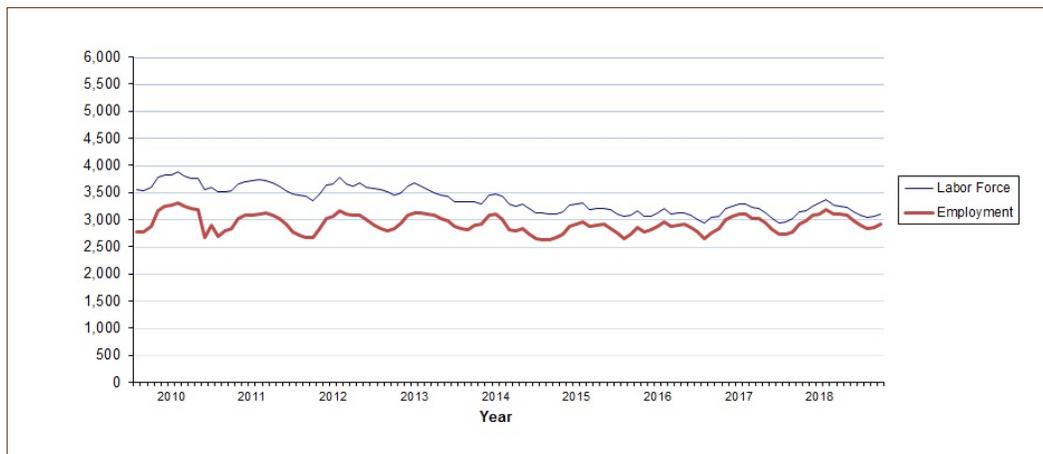
These data are illustrated, below



Selected Economic Characteristics

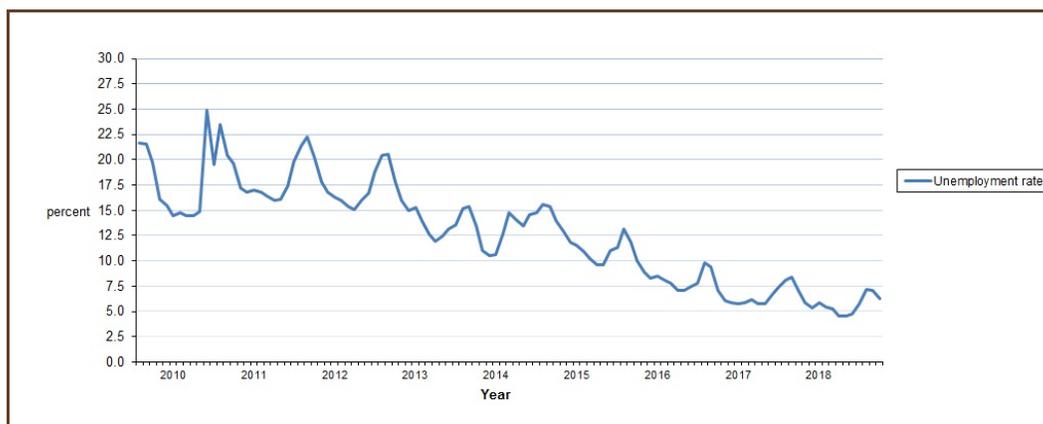
The makeup and trends of the labor force and employment have a strong influence on the growth and stability of the local housing market in general. Tables C14 and C15 illustrate labor force and employment, and unemployment trends for Graham County since 2011. In 2018, the most recent year for which annualized data are available, the County’s labor force comprised an estimated 3,179 persons. Of this total, 2,993 were employed and 186 or 5.9 percent were unemployed. Over the last decade, the seasonality of the area’s labor market is noteworthy, with a general downward trend in both labor force and employment between 2010 and 2015, that leveled-off subsequently. Unemployment peaked at as much as 18.1 percent in 2011; however, on an annual basis, it has decreased consistently since then.

Table C14 - Graham County Labor Force and Employment Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Table C15 - Graham County Unemployment Rate Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Information on employment, by industry for Graham County in 2014 and 2018 is set out in Table C16, below. From this it is seen that the largest sub-sector is construction which, in 2018 employed 398 persons - 19.1 percent of local employment. Other significant sub-sectors are retail trade, accommodation and food services, education, and public administration - each of which account for more than 10 percent of jobs. Manufacturing, however, accounted for only 2.5 percent of jobs in 2018, down from 12.8 percent five years previously.

From this table it is seen that employment grew from 2,028 to 2,080 between 2014 and 2018 - an increase of around ten jobs per year, or around 2.1 percent, annually. Average wages were reported at \$683.56 per week in 2018 - a 2.1 percent per year average growth since 2014. Average wages, statewide, were \$976.45 per week in 2018.

Table C16 - Graham County Employment and Average Wage Trends, 2014 and 2018

	Employment				Average weekly wage	
	2014		2018		2014	2018
	number	percent	number	percent		
Agriculture, Forestry, etc	11	0.5	n/a	n/a	\$351.34	n/a
Utilities	n/a	n/a	n/a	n/a	n/a	n/a
Construction	309	15.2	398	19.1	\$960.28	\$1,012.30
Manufacturing	260	12.8	52	2.5	\$704.31	\$629.71
Wholesale trade	29	1.4	82	3.9	\$1,045.08	\$807.70
Retail trade	202	10.0	234	11.3	\$404.50	\$448.08
Transp. and Warehousing	n/a	n/a	n/a	n/a	n/a	n/a
Information	n/a	n/a	n/a	n/a	n/a	n/a
Financial and Insurance	54	2.7	66	3.2	\$717.47	\$915.44
Real estate	4	0.2	n/a	n/a	\$421.20	n/a
Professional and Technical services	27	1.3	24	n/a	\$815.46	\$1,034.54
Management	n/a	n/a	n/a	n/a	n/a	n/a
Administrative and Waste services	74	3.6	115	5.5	\$661.71	\$692.40
Educational services	247	12.2	239	11.5	\$627.98	\$695.74
Health Care and Social Assistance	185	9.1	168	8.1	\$354.63	\$389.99
Arts, Entertainment, Recreation	n/a	n/a	n/a	n/a	n/a	n/a
Accommodation and Food services	260	12.8	320	15.4	\$348.71	\$361.14
Other Services	44	2.2	53	2.5	\$526.93	\$1,103.65
Public Administration	245	12.1	244	11.7	\$572.00	\$646.43
Total	2,028	100.0	2,080	100.0	\$618.02	\$683.56

Source: Labor & Economic Analysis Division, NC Department of Commerce ; T.Ronald Brown: Research & Analysis

Graham County's largest employer is the local public school system which employs at least 250 persons. The Graham County Land Company and Crisp and Crisp - both of which are construction companies - are also significant employers in the area and contribute to the significance of the construction sector (as noted earlier).

Table C17 - Graham County Major Employers

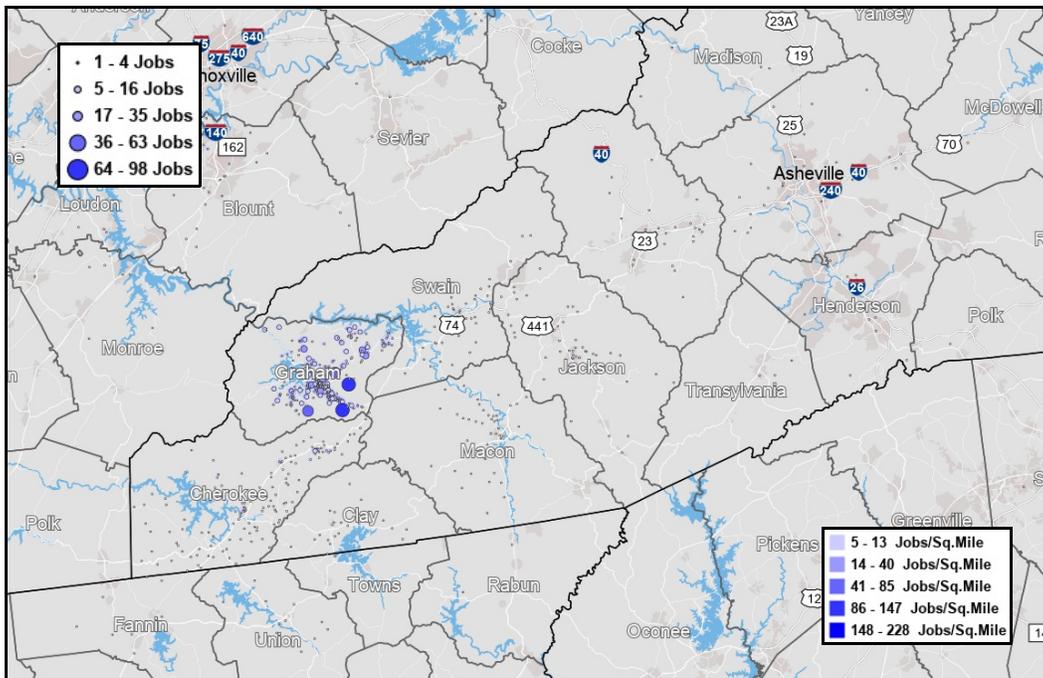
<u>Employer Name</u>	<u>Product/Service</u>	<u>Employees</u>
Graham County Schools	Education & Health Services	250-499
Graham County	Public Administration	100-249
Graham County Land Company	Construction	100-249
Crisp And Crisp Inc	Construction	50-99
Ingles Markets, Inc	Trade, Transportation, & Utilities	50-99
Principle Long Term Care Inc	Education & Health Services	50-99
Sawyers Home Care	Education & Health Services	50-99
Fontana Village Inc	Leisure & Hospitality	50-99
C&S Adams Trucking Inc	Trade, Transportation, & Utilities	50-99
Historic Tapoco Lodge	Leisure & Hospitality	Below 50
Lovin Contracting Company Inc	Professional & Business Services	Below 50
Oak Hardwoods Inc	Manufacturing	Below 50
Wendys Old Fashion Hamburgers	Leisure & Hospitality	Below 50
Wolf Creek General Store	Trade, Transportation, & Utilities	Below 50
McDonald's	Leisure & Hospitality	Below 50
Human Resources	Financial Activities	Below 50
K&B Land Clearing	Construction	Below 50
Farley Insurance Services Inc	Financial Activities	Below 50
Rak Rastaurant Management	Leisure & Hospitality	Below 50
Lynns Place	Leisure & Hospitality	Below 50
Robbinsville Custom Moulding Inc	Construction	Below 50
NC Department Of Transportation	Public Administration	Below 50
A 4 Home Center Inc	Trade, Transportation, & Utilities	Below 50
Papa's Pizza	Leisure & Hospitality	Below 50
Town Of Robbinsville	Public Administration	Below 50

Source: Labor & Economic Analysis Division, NC Department of Commerce ; T.Ronald Brown: Research & Analysis

There is significant commuting throughout southwestern North Carolina, and with adjacent areas. The following maps show where workers resident in Graham County work (Map C1), and where they live (Map C2 ). (It should be noted that the scale on these two maps differ.)

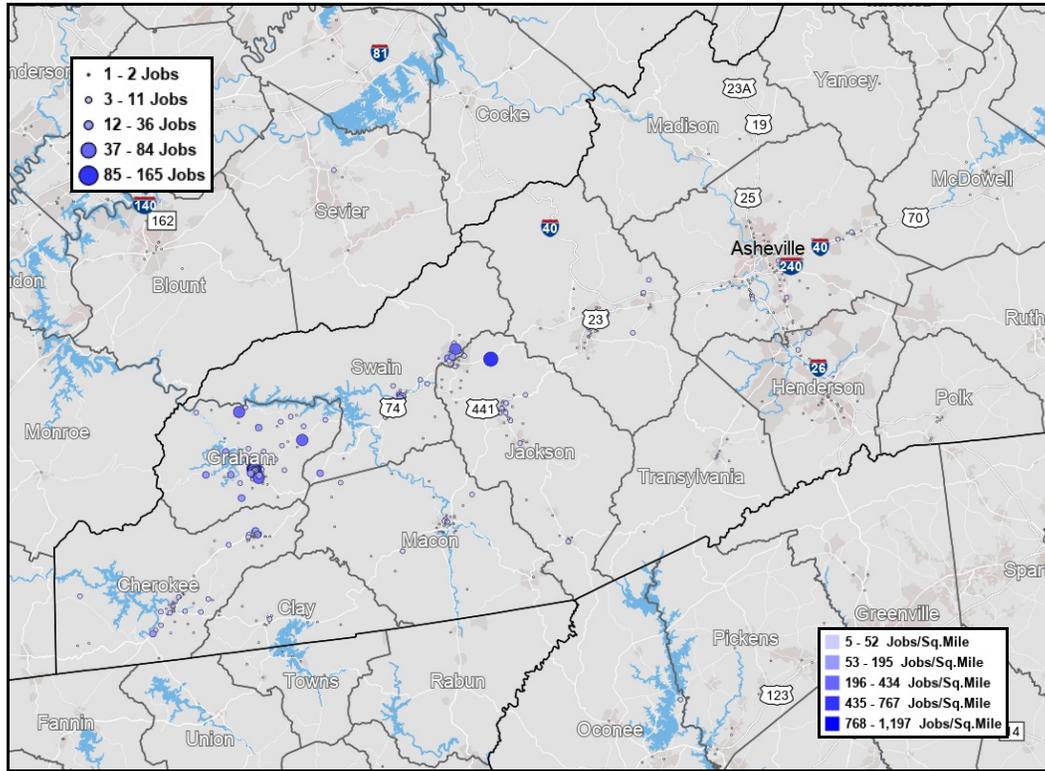
These flows area summarized in Map C3, where it is seen that 1,111 workers live in and work in Graham County, and that 645 persons commute into the County to work, and that as many as 1,544 workers who live in the County work beyond that area.

Map C1- Graham County Workers, by place of Work (Work to Home )



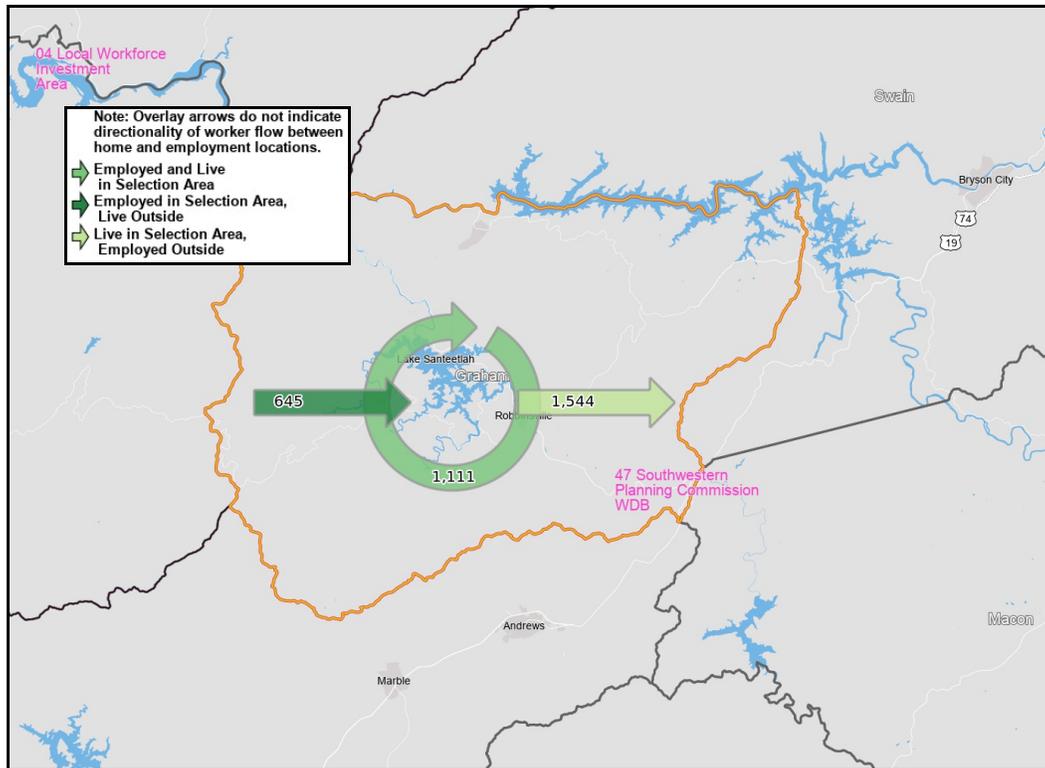
Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

Map C2 - Graham County Workers, by place of Residence (Home to Work)



Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

Map C3 - Inflow/Outflow of workers, Graham County



Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

With respect to consumer expenditures in Graham County, these data are not available (from Esri, through the Census Bureau).

Data from the Census Bureau show that there are five construction companies in Graham County that focus on residential construction and re-modeling\*. These employ 40 persons - at an average of around eight persons per company. Average pay is seen to be around \$27,950 compared with a statewide average of \$50,126.

Additionally, there is one residential construction company for every 1,721 residents of the County.

Table C18 - Graham County Construction Company data

Employer Establishments	5
Total Employment	40
Total Annual Payroll ('000's)	1,118
Average Employment per Employee	8
Average Payroll per Employee	\$27,950
Population per Employer	1,721

Source: Census Business Builder; T. Ronald Brown: Research & Analysis

\* the construction companies noted on previous pages are involved with land clearing, earth-moving, storm damage mitigation, etc., and not residential construction or remodeling.

ADDENDUM

REGION A TABLES

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## Selected Population Characteristics

Table A1 - Region A, Population, by age, 2000 to 2010

	2000		2010		2020		2025		2030	
	number	percent.								
Total	170,999		194,102		212,452		223,569		234,436	
Male	82,623	48.3	94,783	48.8	104,602	49.2	110,485	49.4	116,254	49.6
Female	88,376	51.7	99,319	51.2	107,850	50.8	113,084	50.6	118,182	50.4
less than 5 years	8,960	5.2	9,956	5.1	10,226	4.8	11,072	5.0	11,502	4.9
5 to 9 years	9,696	5.7	10,186	5.2	9,953	4.7	10,688	4.8	11,547	4.9
10 to 14 years	10,112	5.9	10,775	5.6	11,088	5.2	10,770	4.8	11,548	4.9
15 to 19 years	11,094	6.5	12,766	6.6	13,186	6.2	13,603	6.1	13,334	5.7
20 to 24 years	10,137	5.9	12,475	6.4	14,240	6.7	14,501	6.5	14,955	6.4
25 to 34 years	19,614	11.5	19,533	10.1	22,869	10.8	24,873	11.1	25,843	11.0
35 to 44 years	23,354	13.7	22,401	11.5	22,358	10.5	24,390	10.9	26,218	11.2
45 to 54 years	24,788	14.5	27,106	14.0	24,680	11.6	24,426	10.9	25,862	11.0
55 to 59 years	11,386	6.7	14,281	7.4	14,298	6.7	13,743	6.1	13,961	6.0
60 to 64 years	10,167	5.9	15,209	7.8	15,213	7.2	15,428	6.9	14,988	6.4
65 to 74 years	17,375	10.2	22,712	11.7	29,925	14.1	30,803	13.8	31,850	13.6
75 to 84 years	10,789	6.3	12,316	6.3	17,940	8.4	21,782	9.7	23,647	10.1
85 years and older	3,527	2.1	4,386	2.3	6,476	3.0	7,490	3.4	9,181	3.9
under 15 years	28,768	16.8	30,917	15.9	31,267	14.7	32,530	14.6	34,597	14.8
15 to 64 years	110,540	64.6	123,771	63.8	126,844	59.7	130,964	58.6	135,161	57.7
65 years and older	41,858	24.5	54,623	28.1	69,554	32.7	75,503	33.8	79,666	34.0
Median (estimate)	41.4 years		43.6 years		45.9 years		45.7 years		45.8 years	

Source: 2000 Census; 2010 Census; NC State Data Center; T.Ronald Brown: Research & Analysis

Table A2 - Region A, Population, by race, 2010

Race	number	percent
Total	194,102	100.0
One race	190,736	98.3
White	174,955	90.1
Black or African American	2,323	1.2
American Indian and Alaska Native	9,008	4.6
Asian	1,023	0.5
Native Hawaiian/other Pacific	54	0.0
Some other race	3,373	1.7
Two or more races	3,366	1.7
Two races, with some other race	354	0.2
Two races without some other race	2,853	1.5
Three races, with some other race	28	0.0
Three races without some other race	131	0.1
Hispanic or Latino		
Total population	194,102	100.0
Hispanic or Latino (any race)	7,947	4.1
Mexican	5,939	3.1
Puerto Rican	521	0.3
Cuban	349	0.2
Other Hispanic or Latino	1,138	0.6
Not Hispanic or Latino	186,155	95.9
Race and Hispanic or Latino		
Total population	194,102	100.0
One race	190,736	98.3
Hispanic or Latino	7,507	3.9
Not Hispanic or Latino	183,229	94.4
Two or more races	3,366	1.7
Hispanic or Latino	440	0.2
Not Hispanic or Latino	3,366	1.7

Source: 2010 Census; T.Ronald Brown: Research & Analysis

## Selected Household Characteristics

Table A3 - Region A, Households, by type, 2000 and 2010

	2000		2010	
	number	pct.	number	pct.
Total Households	71,793		82,386	
1-person households	19,061	26.5	23,824	28.9
Male	7,527	39.5	10,315	43.3
Female	11,534	60.5	13,509	56.7
2 or more person households	52,732	73.5	58,562	71.1
Family Households	49,679	69.2	54,101	65.7
Husband/wife family	40,477	81.5	42,190	78.0
with children	13,720	33.9	12,518	29.7
without children	26,757	66.1	29,672	70.3
Other family	9,202	18.5	11,911	22.0
Male Householder/no wife	2,414	4.9	3,579	6.6
with children	1,275	52.8	1,774	49.6
without children	1,139	47.2	1,805	50.4
Female Householder/no husband	6,788	13.7	8,332	15.4
with children	3,603	53.1	4,162	50.0
without children	3,185	46.9	4,170	50.0
Nonfamily Households	3,053	4.3	4,461	5.4
Male Householder	1,773	58.1	2,543	57.0
Female Householder	1,280	41.9	1,918	43.0

Source: 2000 Census; 2010 Census; T.Ronald Brown: Research & Analysis

## Selected Housing Characteristics

Table A4 - Region A, Housing Occupancy and Vacancy status, 2008-2012 and 2013-2017

	2008 to 2012		2013 to 2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Total Housing Units	124,979		127,833	
Occupied Housing Units	82,408	65.9	83,041	65.0
Vacant Housing Units	42,571	34.1	44,792	35.0
Rented or sold, not occupied	404	0.9	1,054	2.4
Seasonal, Recreational or occasional use	31,623	74.3	30,974	69.2
Other vacant	7,658	18.0	8,903	19.9

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table A5 - Region A, Units in Structure, 2008-2012 and 2013-2017

	2008-2012						2013-2017					
	owner		renter		total		owner		renter		total	
	<u>number</u>	<u>percent.</u>										
Total	62,014	75.3	20,394	24.7	82,408		60,378	72.7	22,663	27.3	83,041	
1, detached	48,243	77.8	9,661	47.4	57,904	70.3	48,237	79.9	11,369	50.2	59,606	71.8
1, attached	506	0.8	382	1.9	888	1.1	586	1.0	208	0.9	794	1.0
2	178	0.3	1,225	6.0	1,403	1.7	253	0.4	935	4.1	1,188	1.4
3 or 4	118	0.2	1,260	6.2	1,378	1.7	139	0.2	1,507	6.6	1,646	2.0
5 to 9	82	0.1	1,319	6.5	1,401	1.7	84	0.1	1,206	5.3	1,290	1.6
10 to 19	40	0.1	756	3.7	796	1.0	80	0.1	618	2.7	698	0.8
20 to 49	25	0.0	613	3.0	638	0.8	0	0.0	548	2.4	548	0.7
50 or more	0	0.0	167	0.8	167	0.2	33	0.1	291	1.3	324	0.4
mobile home	12,707	20.5	4,993	24.5	17,700	21.5	10,849	18.0	5,941	26.2	16,790	20.2
Other	115	0.2	18	0.1	133	0.2	117	0.2	40	0.2	157	0.2

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table A6 - Region A, Year Structure Built, 2013-2017

	2013-2017					
	owner		renter		total	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Built 2014 or later	490	0.8	151	0.7	641	0.8
Built 2010 to 2013	1,124	1.9	425	1.9	1,549	1.9
Built 2000 to 2009	12,479	20.7	3,738	16.5	16,217	19.5
Built 1990 to 1999	11,150	18.5	3,977	17.5	15,127	18.2
Built 1980 to 1989	11,108	18.4	3,813	16.8	14,921	18.0
Built 1970 to 1979	9,638	16.0	3,736	16.5	13,374	16.1
Built 1960 to 1969	5,258	8.7	2,048	9.0	7,306	8.8
Built 1950 to 1959	3,612	6.0	2,097	9.3	5,709	6.9
Built 1940 to 1949	2,449	4.1	1,193	5.3	3,642	4.4
Built 1939, or earlier	3,070	5.1	1,485	6.6	4,555	5.5
Median	1984 (estimate)		1987 (estimate)		1984 (estimate)	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table A7 - Region A, Tenure by Year Household moved into unit, 2013-2017

	2013-2017					
	owner		renter		total	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
Moved in 2015 or later	2,992	5.0	5,241	23.1	8,233	9.9
Moved in 2010 to 2014	10,279	17.0	11,167	49.3	21,446	25.8
Moved in 2000 to 2009	20,369	33.7	4,403	19.4	24,772	29.8
Moved in 1990 to 1999	11,983	19.8	1,257	5.5	13,240	15.9
Moved in 1980 to 1989	6,516	10.8	232	1.0	6,748	8.1
Moved in 1979, or earlier	8,239	13.6	363	1.6	8,602	10.4
Median	2007 (estimate)		2012 (estimate)		2004 (estimate)	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table A8 - Region A, Value, Owner-occupied Housing Units, 2013-2017

	2013-2017	
	<u>number</u>	<u>percent.</u>
less than \$50,000	6,834	11.3
\$50,000 to \$99,999	9,086	15.0
\$100,000 to \$149,999	11,414	18.9
\$150,000 to \$199,999	10,560	17.5
\$200,000 to \$299,999	12,007	19.9
\$300,000 to \$499,999	7,199	11.9
\$500,000 to \$999,999	2,533	4.2
\$1,000,000 or more	745	1.2
Median	\$185,234 (estimate)	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table A9 - Region A, Value, Selected Monthly Owner Costs, 2008-2102 and 2013-2017

Units with a mortgage	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than \$300	53	1.0	less than \$500	239	4.5
\$300 to \$499	154	2.8	\$500 to \$999	1,634	31.1
\$500-\$699	663	12.0	\$1,000-\$1,499	1,795	34.1
\$700-\$999	1,374	24.9	\$1,500 to \$1,999	968	18.4
\$1,000 to \$1,499	1,689	30.6	\$2,000 to \$2,499	289	5.5
\$1,500 to \$1,999	877	15.9	\$2,500 to \$2,999	178	3.4
\$2,000 or more	717	13.0	\$3,000 or more	159	3.0
Median	\$1,134		Median	\$1,159	
Units without a mortgage	5,114	48.1 percent of total		5,303	50.2 percent of total

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table A10 - Region A, Selected Monthly Owner Costs as a Percentage of Household Income ,  
2008-2012 and 2013-2017

Units with a mortgage					
	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than 20.0 percent	11,164	36.1	12,424	42.2	
20.0 to 24.9 percent	4,683	15.1	4,389	14.9	
25.0 to 29.9 percent	3,381	10.9	3,071	10.4	
30 to 34.9 percent	2,498	8.1	2,474	8.4	
35.0 percent or more	9,210	29.8	7,063	24.0	
Units without a mortgage					
	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than 10.0 percent	15,413	51.3	15,166	50.5	
10.0 to 14.9 percent	5,376	17.9	5,339	17.8	
15.0 to 19.9 percent	2,998	10.0	3,104	10.3	
20.0 to 24.9 percent	2,109	7.0	1,709	5.7	
25.0 to 29.9 percent	863	2.9	1,335	4.4	
30 to 34.9 percent	772	2.6	807	2.7	
35.0 percent or more	2,523	8.4	2,560	8.5	

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table A11 - Region A, Rent, Renter-occupied Housing Units, 2008-2012 and 2013-2017

	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than \$200	310	1.8	less than \$500	3,688	19.1
\$200 to \$299	717	4.2	\$500 to \$999	12,526	64.7
\$300 to \$499	2,853	16.6	\$1,000 to \$1,499	2,832	14.6
\$500 to \$749	6,903	40.2	\$1,500 to \$1,999	238	1.2
\$750 to \$999	4,125	24.0	\$2,000 to \$2,499	55	0.3
\$1,000 to \$1,499	2,008	11.7	\$2,500 to \$2,999	0	0.0
\$1,500 or more	273	1.6	\$3,000 or more	16	0.1
Median	\$670 (estimate)		Median	\$738 (estimate)	
No rent paid	3,205		No rent paid	3,308	

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table A12 - Region A, Selected Monthly Renter Costs as a Percentage of Household Income , 2008-2012 and 2013-2017

	2008-2012		2013-2017	
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>
less than 15.0 percent	2,193	13.1	3,125	16.5
15.0 to 19.9 percent	1,755	10.5	2,205	11.6
20.0 to 24.9 percent	2,040	12.2	2,829	14.9
25.0 to 29.9 percent	1,566	9.4	1,883	9.9
30.0 to 34.9 percent	1,552	9.3	1,338	7.1
35.0 percent or more	7,621	45.6	7,556	39.9

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

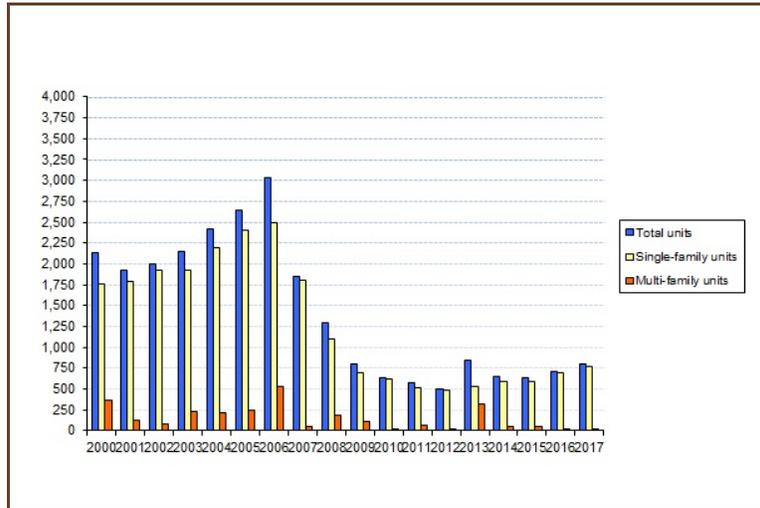
Table A13 below, gives details of residential construction throughout Region A since 2000. Where the data exist, it can be seen that a total of 25,577 units were permitted/added throughout the Region, 22,900 of which were for single-family units (89.5 percent) and 2,677 ( or 10.5 percent) were for multi-family units. The table and the graph following it show the significant slow-down in construction from 2008.

Table A13 - Region A, Building Permits Issued, Annually, 2000 to 2017

	<u>Total</u>	<u>single-family</u>	<u>multi-family</u>
2000	2,132	1,761	371
2001	1,925	1,796	129
2002	2,002	1,918	84
2003	2,149	1,924	225
2004	2,422	2,199	223
2005	2,648	2,401	247
2006	3,028	2,497	531
2007	1,848	1,804	44
2008	1,294	1,103	191
2009	798	694	104
2010	628	619	9
2011	574	514	60
2012	494	478	16
2013	850	533	317
2014	647	597	50
2015	638	594	44
2016	705	691	14
2017	795	777	18
Total	25,577	22,900	2,677

Source: SOCDs Building Permits Database, HUDUSER; T.Ronald Brown: Research & Analysis

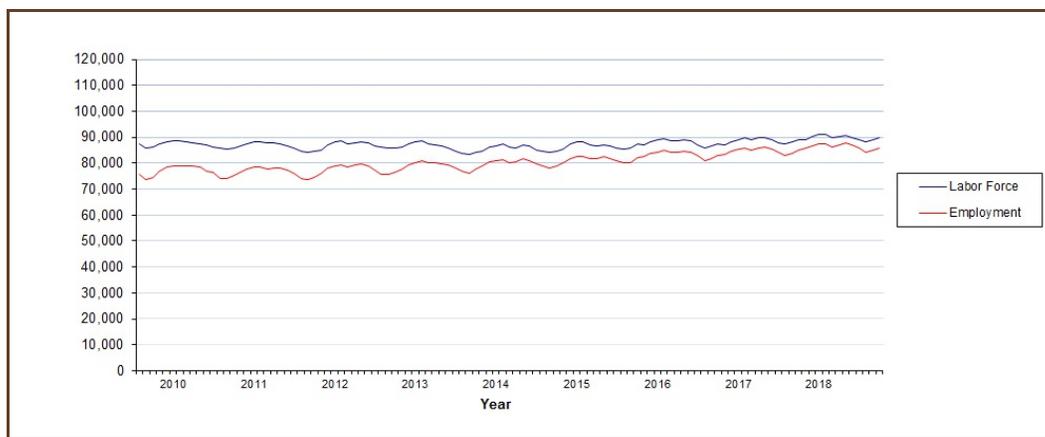
These data are illustrated, below



Selected Economic Characteristics

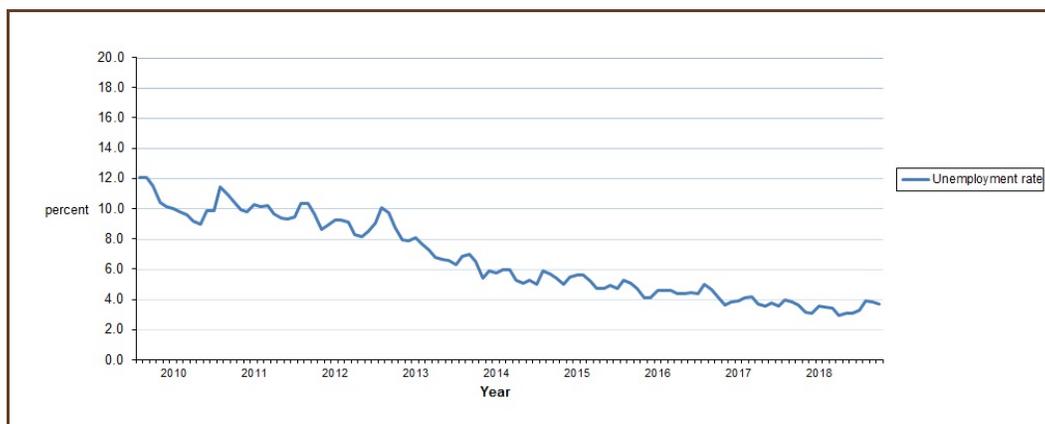
The makeup and trends of the labor force and employment have a strong influence on the growth and stability of the local housing market in general. Tables A14 and A15 illustrate labor force and employment, and unemployment trends for the Region, since 2011. In 2018, the most recent year for which annualized data are available, the Region’s labor force comprised an estimated 89,701 persons. Of this total, 86,148 were employed and 3,553 or 4.0 percent were unemployed. Over the last decade, the seasonality of the area’s labor market is noteworthy, with an overall upward trend in both labor force and employment. Unemployment peaked at 11.7 percent in 2010; however, on an annual basis, it has decreased consistently since then.

Table A14 - Region A Labor Force and Employment Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Table A15 - Region A Unemployment Rate Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Information on employment, by industry for the Region in 2014 and 2018 is set out in Table A16, below. From this it is seen that the largest sub-sectors are retail trade, accommodation and food services, healthcare, education, and public administration - each of which account for more than 10 percent of jobs. This illustrates the role of tourism in the Region, as well as support for the local population in terms of government, education, and healthcare. Manufacturing, however, accounted for only 7.4 percent of jobs in 2018, down from 8.4 percent five years previously. Other significant sub-sectors include arts, entertainment, and recreation (again highlighting the role of tourism).

From this table it is seen that employment grew from 60,795 to 64,911 between 2014 and 2018 - an increase of around 823 jobs per year, or around 2.1 percent, annually. Average wages were reported at \$682.68 per week in 2018 - a 2.2 percent per year average growth since 2014. Average wages, statewide, were \$976.45 per week in 2018.

Table A16 - Region A Employment and Average Wage Trends, 2014 and 2018

	Employment				Average weekly wage	
	2014		2018		2014	2018
	number	percent	number	percent		
Agriculture, Forestry, etc	246	0.4	181	0.3	\$546.74	\$696.29
Mining	46	0.1	55	0.1	\$804.73	\$840.81
Utilities	259	0.4	255	0.4	\$1,384.91	\$1,636.11
Construction	3,112	5.1	3,414	5.3	\$662.93	\$774.80
Manufacturing	5,098	8.4	4,799	7.4	\$847.70	\$899.17
Wholesale trade	679	1.1	718	1.1	\$801.13	\$884.46
Retail trade	8,794	14.5	9,620	14.8	\$452.03	\$500.74
Transp. and Warehousing	764	1.3	916	1.4	\$775.77	\$872.98
Information	577	0.9	509	0.8	\$762.11	\$737.27
Financial and Insurance	1,201	2.0	1,362	2.1	\$831.73	\$960.56
Real estate	532	0.9	618	1.0	\$529.34	\$671.51
Professional and Technical services	2,319	3.8	2,352	3.6	\$758.46	\$807.06
Management	209	0.3	213	0.3	\$617.84	\$1,192.04
Administrative and Waste services	1,952	3.2	1,865	2.9	\$557.42	\$605.55
Educational services	6,976	11.5	6,944	10.7	\$691.93	\$777.53
Health Care and Social Assistance	8,644	14.2	8,399	12.9	\$725.51	\$785.09
Arts, Entertainment, Recreation	4,001	6.6	5,147	7.9	\$613.50	\$667.72
Accommodation and Food services	7,879	13.0	8,906	13.7	\$290.32	\$352.74
Other Services	1,454	2.4	1,861	2.9	\$467.44	\$557.86
Public Administration	6,057	10.0	6,781	10.4	\$702.35	\$814.31
Total	60,795	100.0	64,911	100.0	\$617.84	\$682.68

Source: Labor & Economic Analysis Division, NC Department of Commerce ; T.Ronald Brown: Research & Analysis

As noted above, the Region’s employment base is focused on retail trade, accommodation and food services, healthcare, education, and public administration, and this is reflected in the major employers for the area, along with retailers and wholesalers. The area’s largest employers, therefore include the local school systems, health care facilities, and government entities. The area’s largest manufacturer is the Blue Ridge Products paper mill in Canton. Various tourist-oriented businesses are also relatively large employers.

Table A17 - Region A Major Employers

<u>Employer Name</u>	<u>Product/Service</u>	<u>County</u>	<u>Employees</u>
Haywood County Consolidated Schools	Education & Health Services	Haywood	1000+
Blue Ridge Paper Products Inc	Manufacturing	Haywood	1000+
Western Carolina University	Education & Health Services	Jackson	1000+
ECBI	Public Administration	Swain	1000+
Cherokee County Board Of Education	Education & Health Services	Cherokee	500-999
DLP Partner Midwest	Education & Health Services	Haywood	500-999
Ingles Markets, Inc	Trade, Transportation, & Utilities	Haywood	500-999
Consolidated Metco Inc	Manufacturing	Haywood	500-999
County Of Haywood	Public Administration	Haywood	500-999
DLP Partner Midwest	Education & Health Services	Jackson	500-999
Jackson County Public Schools	Education & Health Services	Jackson	500-999
Aramark Food And Support Services	Professional & Business Services	Jackson	500-999
Macon County Public Schools	Education & Health Services	Macon	500-999
Drake Enterprises Ltd	Professional & Business Services	Macon	500-999
Cherokee Indian Hospital Authority	Public Administration	Swain	500-999
Murphy Medical Center Inc	Education & Health Services	Cherokee	250-499
Moog Inc	Professional & Business Services	Cherokee	250-499
Cherokee County	Public Administration	Cherokee	250-499
Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	Cherokee	250-499
Graham County Schools	Education & Health Services	Graham	250-499
Haywood Vocation Opportunities Inc	Manufacturing	Haywood	250-499
Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	Haywood	250-499
Haywood Community College	Education & Health Services	Haywood	250-499
Vaya Health	Public Administration	Jackson	250-499
Jackson County	Public Administration	Jackson	250-499
Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	Jackson	250-499
Southwestern Community College	Education & Health Services	Jackson	250-499
Macon County	Public Administration	Macon	250-499
Ingles Markets, Inc	Trade, Transportation, & Utilities	Macon	250-499
Angel Medical Center	Education & Health Services	Macon	250-499
The Cherokee Boys Club Inc	Education & Health Services	Swain	250-499
Swain County Schools	Education & Health Services	Swain	250-499

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Table A17 - Region A Major Employers, continued

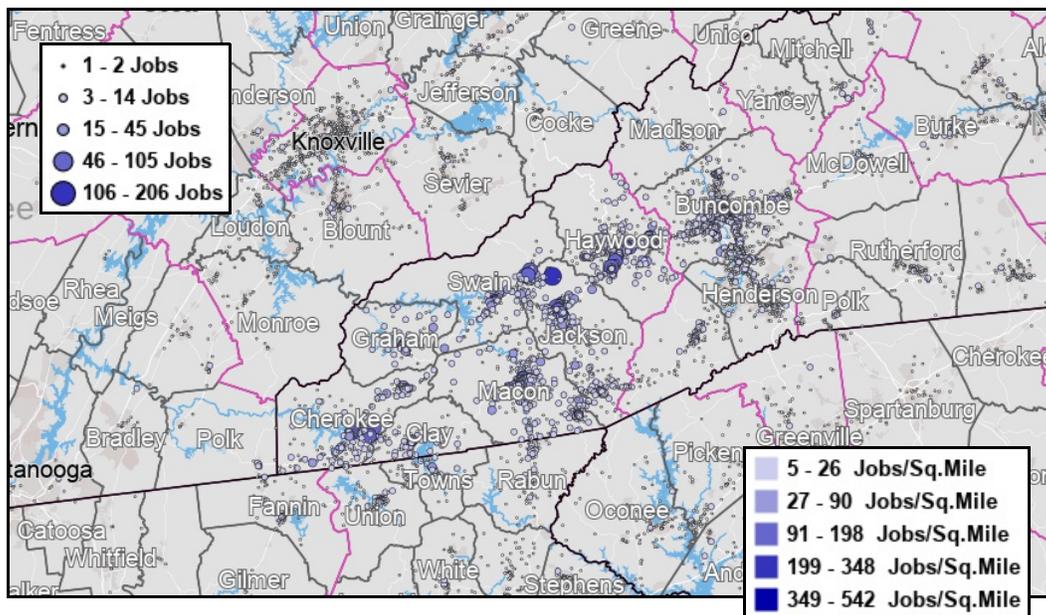
Sioux Tools Inc	Manufacturing	Cherokee	100-249	
Ingles Markets, Inc	Trade, Transportation, & Utilities	Cherokee	100-249	
Tri County Community College	Education & Health Services	Cherokee	100-249	
Ioi Enterprises Inc	Manufacturing	Cherokee	100-249	
Team Industries	Manufacturing	Cherokee	100-249	
Appalachian Community Services	Education & Health Services	Cherokee	100-249	
Lowe's Home Centers Inc	Trade, Transportation, & Utilities	Cherokee	100-249	
Clay County Board Of Education	Education & Health Services	Clay	100-249	
County Of Clay	Public Administration	Clay	100-249	
Ingles Markets, Inc	Trade, Transportation, & Utilities	Clay	100-249	
Graham County	Public Administration	Graham	100-249	
Graham County Land Company	Construction	Graham	100-249	
Town Of Waynesville	Public Administration	Haywood	100-249	
Giles Chemical Division	Manufacturing	Haywood	100-249	
Dlp Western Carolina Physician Prac	Education & Health Services	Haywood	100-249	
Cataloochee Ski Area	Leisure & Hospitality	Haywood	100-249	
Silver Bluff Nursing Home	Education & Health Services	Haywood	100-249	
Lowe's Home Centers Inc	Trade, Transportation, & Utilities	Haywood	100-249	
Maggie Valley Nursing And Rehab	Education & Health Services	Haywood	100-249	
Meridian Behavioral Health Services	Education & Health Services	Haywood	100-249	
Mountain Projects Inc	Education & Health Services	Haywood	100-249	
Ken Wilson Ford Inc	Trade, Transportation, & Utilities	Haywood	100-249	
Mcdonalds Restaurants	Leisure & Hospitality	Haywood	100-249	
Plus Linen & Uniform Service	Other Services	Haywood	100-249	
Belk Inc	Trade, Transportation, & Utilities	Haywood	100-249	
Sonoco Products Company	Manufacturing	Haywood	100-249	
Waynesville Automotive Group	Trade, Transportation, & Utilities	Haywood	100-249	
Ingles Markets, Inc	Trade, Transportation, & Utilities	Jackson	100-249	
NC Department Of Transportation	Public Administration	Jackson	100-249	
Ultrastar Multi-Tainment	Leisure & Hospitality	Jackson	100-249	
Dlp Western Carolina Physician Prac	Education & Health Services	Jackson	100-249	
Skyland Care Center	Education & Health Services	Jackson	100-249	
Lowe's Home Centers Inc	Trade, Transportation, & Utilities	Jackson	100-249	
United Parcel Service Inc	Trade, Transportation, & Utilities	Jackson	100-249	
Jackson Paper Manufacturing Company	Manufacturing	Jackson	100-249	
Jennings Builders Supply	Trade, Transportation, & Utilities	Jackson	100-249	
Southwestern Child Development Comm	Education & Health Services	Jackson	100-249	
Blue Ridge Healthcare On The Mounta	Education & Health Services	Jackson	100-249	
Wal-Mart Associates Inc.	Trade, Transportation, & Utilities	Macon	100-249	
Entegra Bank	Financial Activities	Macon	100-249	
Shaw Industries Group Inc	Trade, Transportation, & Utilities	Macon	100-249	
Macon Program For Progress Inc	Education & Health Services	Macon	100-249	
Town Of Highlands Inc	Public Administration	Macon	100-249	
Lowe's Home Centers Inc	Trade, Transportation, & Utilities	Macon	100-249	
Highlands Cashiers Hospital Inc	Education & Health Services	Macon	100-249	
United Parcel Service Inc	Trade, Transportation, & Utilities	Macon	100-249	
Great Smoky Mountains Railroad	Trade, Transportation, & Utilities	Swain	100-249	
Swain County	Public Administration	Swain	100-249	
Ingles Markets, Inc	Trade, Transportation, & Utilities	Swain	100-249	
Nantahala Outdoor Center	Leisure & Hospitality	Swain	100-249	

Source: Labor & Economic Analysis Division, NC Department of Commerce ; T.Ronald Brown: Research & Analysis

There is significant commuting within the Region, and with adjacent areas. The following maps show where workers resident in the region work (Map A1), and where they live (Map A2 ). (It should be noted that the scale on these two maps differ.)

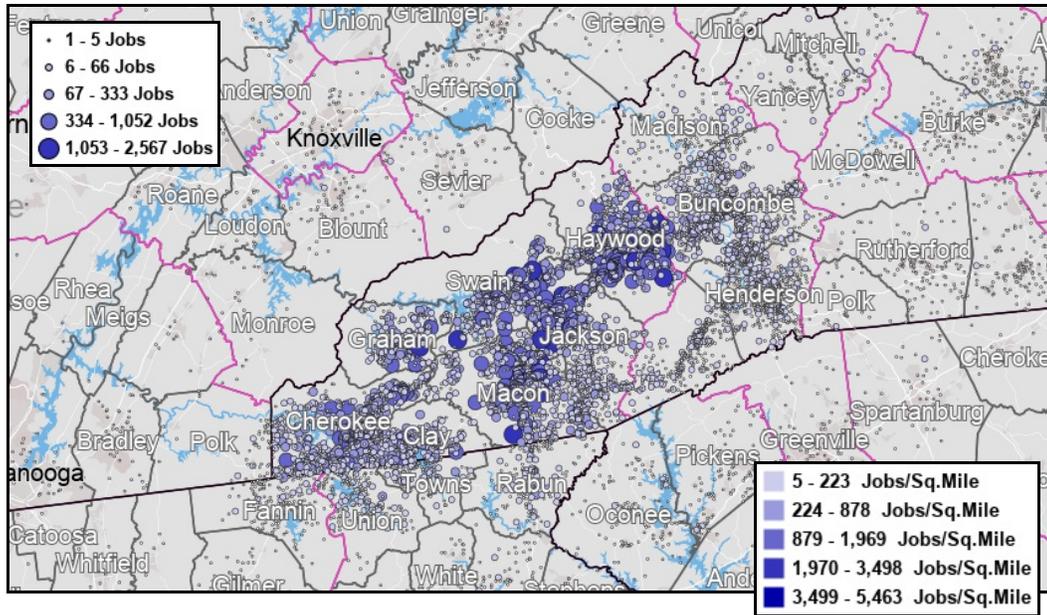
These flows area summarized in Map A3, where it is seen that 41,866 workers live in and work in the Region, and that 12,974 persons commute into the Region to work, and that as many as 23,894 workers who live in the Region work beyond that area.

Map A1 - Region A - Region A workers, by place of Work (Work to Home )



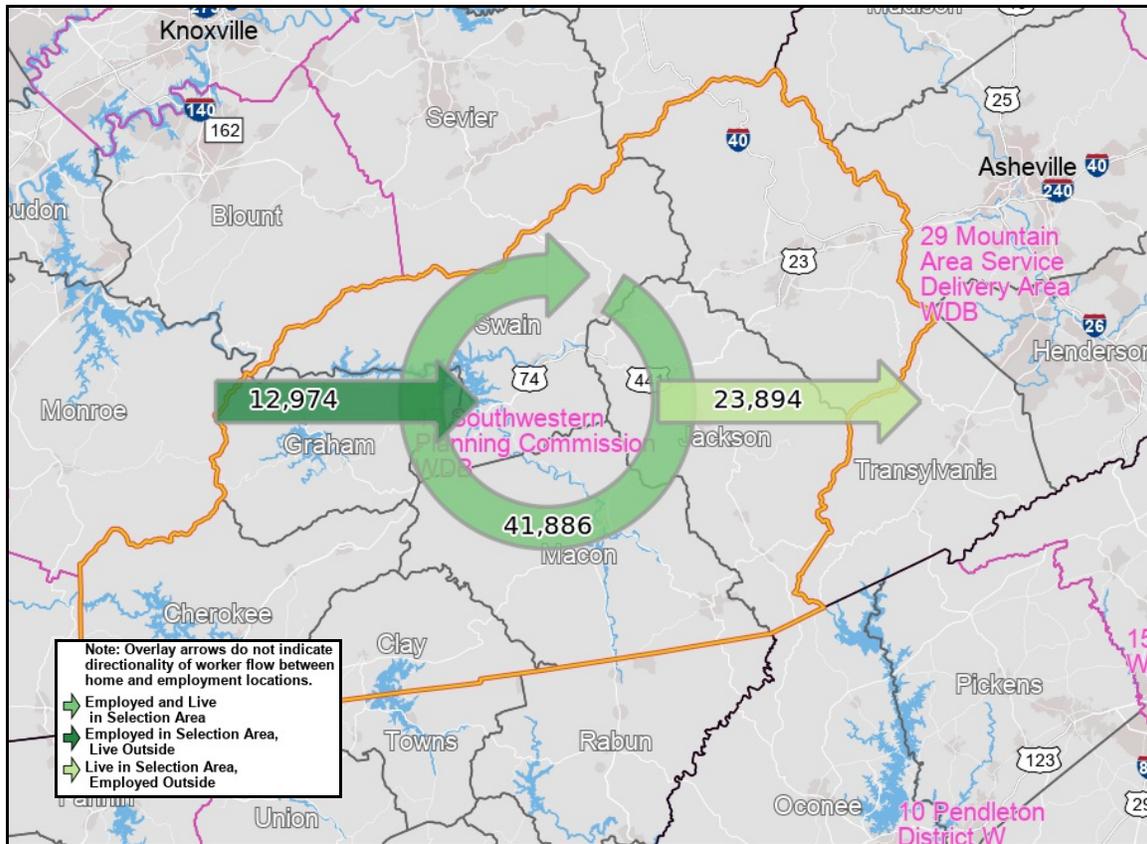
Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

Map A2 - Region A Workers, by place of Residence (Home to Work)



Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

Map A3 - Inflow/Outflow of workers, Region A



Source : On the Map; Census Bureau; T.Ronald Brown: Research & Analysis

Information on Consumer Expenditures is not available for the multi-county Region A area.

Data from the Census Bureau show that there are 219 construction companies in Region A that focus on residential construction and re-modeling. These employ 691 persons - at an average of around three persons per company. Average pay is seen to be around \$35,114 compared with a statewide average of \$50,126.

Additionally, there is one person employed in this sub-sector for every 859 residents of the region (compared with one company for every 1,757 persons, on average state-wide).

Table A18 - Region A Construction Company data

Employer Establishments	219
Total Employment	691
Total Annual Payroll ('000's)	\$24,264
Average Employment per Employee	3
Average Payroll per Employee	\$35,114
Population per Employer	859

Source: Census Business Builder; T. Ronald Brown: Research & Analysis

ADDENDUM

NORTH CAROLINA TABLES

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## Selected Population Characteristics

Table NC1 - North Carolina, Population, by age, 2000 to 2010

	2000		2010		2020		2025		2030	
	number	percent.								
Total	8,049,313		9,535,483		10,647,005		11,248,928		11,847,719	
Male	3,942,695	49.0	4,645,492	48.7	5,478,257	51.5	5,795,001	51.5	6,109,686	51.6
Female	4,106,618	51.0	4,889,991	51.3	5,168,748	48.5	5,453,927	48.5	5,738,033	48.4
less than 5 years	539,509	6.7	632,040	6.6	618,270	5.8	652,154	5.8	683,758	5.8
5 to 9 years	562,553	7.0	635,945	6.7	621,139	5.8	638,412	5.7	672,656	5.7
10 to 14 years	551,367	6.8	631,104	6.6	679,846	6.4	657,838	5.8	677,207	5.7
15 to 19 years	539,931	6.7	659,591	6.9	715,610	6.7	738,506	6.6	719,069	6.1
20 to 24 years	577,508	7.2	661,573	6.9	746,233	7.0	786,719	7.0	811,399	6.8
25 to 34 years	1,213,415	15.1	1,246,593	13.1	1,378,278	12.9	1,471,854	13.1	1,550,899	13.1
35 to 44 years	1,287,120	16.0	1,327,151	13.9	1,356,686	12.7	1,431,692	12.7	1,521,594	12.8
45 to 54 years	1,085,150	13.5	1,368,646	14.4	1,376,510	12.9	1,387,710	12.3	1,442,592	12.2
55 to 59 years	400,207	5.0	600,722	6.3	700,175	6.6	694,441	6.2	707,208	6.0
60 to 64 years	323,505	4.0	538,039	5.6	534,276	5.0	559,618	5.0	559,513	4.7
65 to 74 years	533,777	6.6	697,567	7.3	1,191,583	11.2	1,319,959	11.7	1,415,064	11.9
75 to 84 years	329,810	4.1	389,051	4.1	534,655	5.0	688,081	6.1	810,987	6.8
85 years and older	105,461	1.3	147,461	1.5	193,744	1.8	221,944	2.0	275,773	2.3
under 15 years	1,653,429	20.5	1,899,089	19.9	1,919,255	18.0	1,948,404	17.3	2,033,621	17.2
15 to 64 years	5,426,836	67.4	6,402,315	67.1	6,807,768	63.9	7,070,540	62.9	7,312,274	61.7
65 years and older	1,292,553	16.1	1,772,118	18.6	2,454,258	23.1	2,789,602	24.8	3,061,337	25.8
Median	35.3 years		37.4 years		39.1 years		39.8 years		40.2 years	

Source: 2000 Census; 2010 Census; NC State Data Center; T.Ronald Brown: Research &amp; Analysis

Table NC2 - North Carolina, Population, by race, 2010

Race	<u>number</u>	<u>percent</u>
Total	9,535,483	100.0
One race	9,329,284	97.8
White	6,528,950	68.5
Black or African American	2,048,628	21.5
American Indian and Alaska Native	122,110	1.3
Asian	208,962	2.2
Native Hawaiian/other Pacific	6,604	0.1
Some other race	905	0.0
Two or more races	206,199	2.2
Two races, with some other race	42,197	0.4
Two races without some other race	147,647	1.5
Three races, with some other race	3,224	0.0
Three races without some other race	13,131	0.1
Hispanic or Latino		
Total population	9,535,483	100.0
Hispanic or Latino (any race)	800,120	8.4
Mexican	486,960	5.1
Puerto Rican	71,800	0.8
Cuban	18,079	0.2
Other Hispanic or Latino	223,281	2.3
Not Hispanic or Latino	8,735,363	91.6
Race and Hispanic or Latino		
Total population	9,535,483	100.0
One race	9,329,284	97.8
Hispanic or Latino	749,680	7.9
Not Hispanic or Latino	8,579,604	90.0
Two or more races	206,199	2.2
Hispanic or Latino	50,440	0.5
Not Hispanic or Latino	155,759	1.6

Source: 2010 Census; T.Ronald Brown: Research & Analysis

## Selected Household Characteristics

Table NC3 - North Carolina, Households, by type, 2000 and 2010

	2000		2010	
	<u>number</u>	<u>pct.</u>	<u>number</u>	<u>pct.</u>
Total Households	3,132,013		3,745,155	
1-person households	795,271	25.4	1,011,348	27.0
Male	337,575	42.4	435,368	43.0
Female	457,696	57.6	575,980	57.0
2 or more person households	2,336,742	74.6	2,733,807	73.0
Family Households	2,158,869	68.9	2,499,174	66.7
Husband/wife family	1,645,346	76.2	1,812,029	72.5
with children	707,506	43.0	732,199	40.4
without children	937,840	57.0	1,079,830	59.6
Other family	513,523	23.8	687,145	27.5
Male Householder/no wife	123,526	5.7	173,010	6.9
with children	60,791	49.2	85,199	49.2
without children	62,735	50.8	87,811	50.8
Female Householder/no husband	389,997	18.1	514,135	20.6
with children	227,351	58.3	292,504	56.9
without children	162,646	41.7	221,631	43.1
Nonfamily Households	177,873	5.7	234,633	6.3
Male Householder	105,078	59.1	132,035	56.3
Female Householder	72,795	40.9	102,598	43.7

Source: 2000 Census; 2010 Census; T.Ronald Brown: Research &amp; Analysis

## Selected Housing Characteristics

Table NC4 - North Carolina, Housing Occupancy and Vacancy status, 2008-2012 and 2013-2017

	2008 to 2012		2013 to 2017	
	number	percent.	number	percent.
Total Housing Units	4,325,088		4,521,697	
Occupied Housing Units	82,408	1.9	83,041	1.8
Vacant Housing Units	631,867	14.6	647,351	14.3
Rented or sold, not occupied	32,754	5.2	39,539	6.1
Seasonal, Recreational or occasional use	198,304	31.4	213,697	33.0
Other vacant	210,481	33.3	236,361	36.5

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table NC5 - North Carolina, Units in Structure, 2008-2012 and 2013-2017

	2008-2012						2013-2017					
	owner		renter		total		owner		renter		total	
	number	percent.	number	percent.	number	percent.	number	percent.	number	percent.	number	percent.
1, detached	2,030,789	82.0	435,060	35.8	2,465,849	66.8	2,075,940	82.4	488,091	36.0	2,564,031	66.2
1, attached	90,216	3.6	51,429	4.2	141,645	3.8	93,899	3.7	69,395	5.1	163,294	4.2
2	4,696	0.2	68,396	5.6	73,092	2.0	4,685	0.2	70,837	5.2	75,522	1.9
3 or 4	10,339	0.4	88,639	7.3	98,978	2.7	8,464	0.3	96,905	7.1	105,369	2.7
5 to 9	11,804	0.5	141,039	11.6	152,843	4.1	12,202	0.5	152,617	11.3	164,819	4.3
10 to 19	7,456	0.3	136,359	11.2	143,815	3.9	7,287	0.3	150,471	11.1	157,758	4.1
20 to 49	4,233	0.2	74,332	6.1	78,565	2.1	4,895	0.2	86,895	6.4	91,790	2.4
50 or more	4,245	0.2	46,095	3.8	50,340	1.4	4,793	0.2	60,917	4.5	65,710	1.7
mobile home	312,777	12.6	174,107	14.3	486,884	13.2	304,160	12.1	179,312	13.2	483,472	12.5
Other	805	0.0	405	0.0	1,210	0.0	1,571	0.1	1,010	0.1	2,581	0.1

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table NC6 - North Carolina, Year Structure Built, 2013-2017

	owner		renter		total	
	number	percent.	number	percent.	number	percent.
Built 2014 or later	30,204	1.2	15,876	1.2	46,080	1.2
Built 2010 to 2013	88,421	3.5	52,971	3.9	141,392	3.6
Built 2000 to 2009	577,503	22.9	225,393	16.6	802,896	20.7
Built 1990 to 1999	534,702	21.2	271,712	20.0	806,414	20.8
Built 1980 to 1989	367,116	14.6	229,926	17.0	597,042	15.4
Built 1970 to 1979	329,573	13.1	206,758	15.2	536,331	13.8
Built 1960 to 1969	223,550	8.9	125,812	9.3	349,362	9.0
Built 1950 to 1959	171,372	6.8	99,339	7.3	270,711	7.0
Built 1940 to 1949	77,627	3.1	55,595	4.1	133,222	3.4
Built 1939, or earlier	117,828	4.7	73,068	5.4	190,896	4.9
Median	1989		1985		1988	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table NC7 - North Carolina, Tenure by Year Household moved into unit, 2013-2017

	2013-2017					
	owner		renter		total	
	number	percent.	number	percent.	number	percent.
Moved in 2015 or later	128,493	5.1	298,158	22.0	426,651	11.0
Moved in 2010 to 2014	465,161	18.5	737,887	54.4	1,203,048	31.1
Moved in 2000 to 2009	912,971	36.3	240,990	17.8	1,153,961	29.8
Moved in 1990 to 1999	487,253	19.4	46,201	3.4	533,454	13.8
Moved in 1980 to 1989	233,259	9.3	15,904	1.2	249,163	6.4
Moved in 1979, or earlier	290,759	11.5	17,310	1.3	308,069	8.0
Median	2003		2012		2007	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table NC8 - North Carolina, Value, Owner-occupied Housing Units, 2013-2017

	2013-2017	
	number	percent.
less than \$50,000	233,758	9.3
\$50,000 to \$99,999	423,048	16.8
\$100,000 to \$149,999	488,793	19.4
\$150,000 to \$199,999	430,940	17.1
\$200,000 to \$299,999	464,850	18.5
\$300,000 to \$499,999	328,179	13.0
\$500,000 to \$999,999	122,055	4.8
\$1,000,000 or more	26,273	1.0
Median	\$161,000	

Source: 2013-2017 American Community Survey; T.Ronald Brown: Research & Analysis

Table NC9 - North Carolina, Value, Selected Monthly Owner Costs, 2008-2102 and 2013-2017

Units with a mortgage	2008-2012		2013-2017		
	number	percent.	number	percent.	
less than \$300	4,204	0.3	less than \$500	37,667	2.3
\$300 to \$499	39,246	2.4	\$500 to \$999	449,352	27.8
\$500-\$699	114,989	6.9	\$1,000-\$1,499	557,644	34.5
\$700-\$999	328,853	19.7	\$1,500 to \$1,999	299,372	18.5
\$1,000 to \$1,499	567,866	34.1	\$2,000 to \$2,499	133,836	8.3
\$1,500 to \$1,999	315,685	18.9	\$2,500 to \$2,999	65,653	4.1
\$2,000 or more	296,315	17.8	\$3,000 or more	71,562	4.4
Median	\$1,287		Median	\$1,261	
Units without a mortgage	810,202	32.7 percent of total	902,810	35.9 percent of total	

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table NC10 - North Carolina, Selected Monthly Owner Costs as a Percentage of Household Income ,  
2008-2012 and 2013-2017

Units with a mortgage					
	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than 20.0 percent	650,252	39.2	765,993	47.7	
20.0 to 24.9 percent	275,881	16.6	244,797	15.2	
25.0 to 29.9 percent	192,357	11.6	164,028	10.2	
30 to 34.9 percent	132,287	8.0	105,101	6.5	
35.0 percent or more	407,706	24.6	325,445	20.3	
Units without a mortgage					
	2008-2012		2013-2017		
	<u>number</u>	<u>percent.</u>	<u>number</u>	<u>percent.</u>	
less than 10.0 percent	339,610	42.5	410,438	46.2	
10.0 to 14.9 percent	156,937	19.6	171,215	19.3	
15.0 to 19.9 percent	93,795	11.7	100,562	11.3	
20.0 to 24.9 percent	60,053	7.5	60,543	6.8	
25.0 to 29.9 percent	37,668	4.7	38,936	4.4	
30 to 34.9 percent	25,817	3.2	25,327	2.8	
35.0 percent or more	84,975	10.6	82,264	9.3	

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table NC11 - North Carolina, Rent, Renter-occupied Housing Units, 2008-2012 and 2013-2017

	2008-2012			2013-2017	
	number	percent.		number	percent.
less than \$200	24,026	2.1	less than \$500	150,027	11.9
\$200 to \$299	35,578	3.2	\$500 to \$999	699,167	55.4
\$300 to \$499	116,555	10.4	\$1,000 to \$1,499	317,920	25.2
\$500 to \$749	369,897	33.0	\$1,500 to \$1,999	69,663	5.5
\$750 to \$999	317,735	28.3	\$2,000 to \$2,499	15,823	1.3
\$1,000 to \$1,499	208,262	18.6	\$2,500 to \$2,999	4,383	0.3
\$1,500 or more	49,413	4.4	\$3,000 or more	5,671	0.4
Median	\$759		Median	\$844	
No rent paid	94,395		No rent paid	93,796	

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

Table NC12 - North Carolina, Selected Monthly Renter Costs as a Percentage of Household Income , 2008-2012 and 2013-2017

	2008-2012		2013-2017	
	number	percent.	number	percent.
less than 15.0 percent	138,028	12.6	162,627	13.2
15.0 to 19.9 percent	139,207	12.7	164,003	13.3
20.0 to 24.9 percent	142,656	13.0	163,043	13.2
25.0 to 29.9 percent	121,258	11.1	143,174	11.6
30.0 to 34.9 percent	96,502	8.8	112,645	9.1
35.0 percent or more	457,926	41.8	488,174	39.6

Source: 2008-2012 and 2013-2017 American Community Surveys; T.Ronald Brown: Research & Analysis

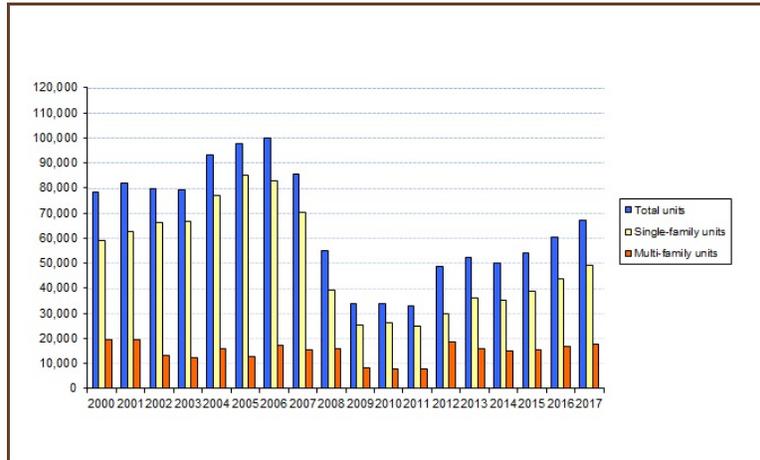
Table NC13 below, gives details of residential construction throughout North Carolina since 2000. Where the data exist, it can be seen that a total of 1,184,282 units were permitted/added throughout the State, 918,857 of which were for single-family units (77.6 percent) and 265,425 ( or 22.4 percent) were for multi-family units. The table and the graph following it show the significant slow-down in construction from 2008.

Table NC13 - North Carolina, Building Permits Issued, Annually, 2000 to 2017

	<u>Total</u>	<u>single-family</u>	<u>multi-family</u>
2000	78,376	59,061	19,315
2001	82,030	62,679	19,351
2002	79,824	66,400	13,424
2003	79,226	66,883	12,343
2004	93,077	77,147	15,930
2005	97,910	84,975	12,935
2006	100,017	82,710	17,307
2007	85,777	70,339	15,438
2008	54,852	39,082	15,770
2009	33,800	25,388	8,412
2010	33,889	26,047	7,842
2011	32,804	24,863	7,941
2012	48,692	29,945	18,747
2013	52,290	36,316	15,974
2014	49,911	35,051	14,860
2015	54,217	38,937	15,280
2016	60,550	43,675	16,875
2017	67,040	49,359	17,681
<b>Total</b>	<b>1,184,282</b>	<b>918,857</b>	<b>265,425</b>

Source: SOCDs Building Permits Database, HUDUSER; T.Ronald Brown: Research & Analysis

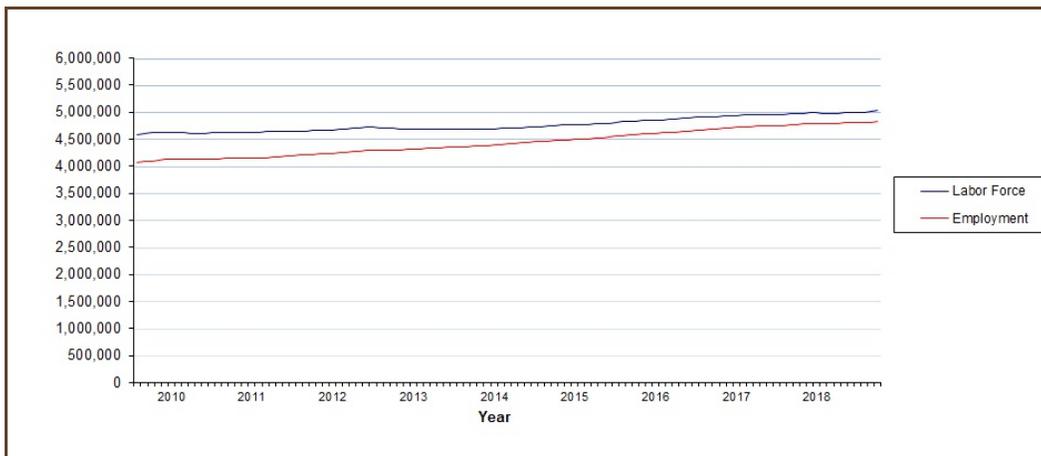
These data are illustrated, below



Selected Economic Characteristics

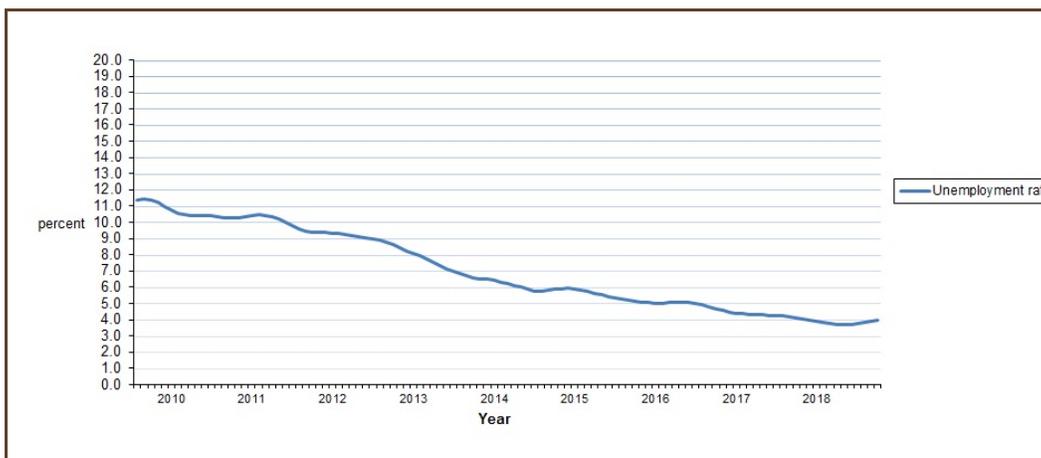
The makeup and trends of the labor force and employment have a strong influence on the growth and stability of the local housing market in general. Tables NC14 and NC15 illustrate labor force and employment, and unemployment trends for the State, since 2011. In 2018, the most recent year for which annualized data are available, the State’s labor force comprised an estimated 4,981,834 persons. Of this total, 4,787,320 were employed and 194,514 or 3.9 percent were unemployed. Over the last decade, the seasonality of the area’s labor market is noteworthy, with an overall upward trend in both labor force and employment. Unemployment peaked at 10.9 percent in 2010; however, on an annual basis, it has decreased consistently since then.

Table NC14 - North Carolina Labor Force and Employment Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Table NC15 - North Carolina Unemployment Rate Trends, Monthly data, 2010 to 2018



Source: Bureau of Labor Statistics; T.Ronald Brown: Research & Analysis

Information on employment, by industry for North Carolina in 2014 and 2018 is set out in Table NC16, below. From this it is seen that the largest sub-sectors are manufacturing, retail trade, and healthcare - each of which account for more than 10 percent of jobs. Other significant sub-sectors include education and accommodation and food services.

From this table it is seen that employment grew from 4,057,234 to 4,411,2352 between 2014 and 2018 - an increase of around 70,804 jobs per year , or around 2.2 percent, annually. Average wages were reported at \$976.45 per week in 2018 - a 2.3 percent per year average growth since 2014.

Table NC16 - North Carolina Employment and Average Wage Trends, 2014 and 2018

	Employment				Average weekly wage	
	2014		2018		2014	2018
	<u>number</u>	<u>percent</u>	<u>number</u>	<u>percent</u>		
Agriculture, Forestry, etc	28,754	0.7	27,160	0.6	\$615.71	\$701.17
Mining	2,867	0.1	3,117	0.1	\$933.79	\$1,188.40
Utilities	14,905	0.4	16,351	0.4	\$1,624.71	\$1,787.98
Construction	178,986	4.4	220,972	5.0	\$876.00	\$1,049.26
Manufacturing	448,623	11.1	474,811	10.8	\$1,061.21	\$1,150.53
Wholesale trade	176,928	4.4	182,441	4.1	\$1,282.24	\$1,423.88
Retail trade	478,479	11.8	506,707	11.5	\$503.68	\$550.21
Transp. and Warehousing	132,681	3.3	156,538	3.5	\$886.47	\$971.15
Information	73,577	1.8	81,080	1.8	\$1,410.97	\$1,607.40
Financial and Insurance	153,708	3.8	173,699	3.9	\$1,635.16	\$1,920.05
Real estate	52,383	1.3	60,167	1.4	\$842.15	\$979.60
Professional and Technical services	210,768	5.2	258,419	5.9	\$1,387.54	\$1,630.25
Management	80,461	2.0	83,289	1.9	\$864.75	\$2,097.96
Administrative and Waste services	284,159	7.0	299,167	6.8	\$622.35	\$714.29
Educational services	370,959	9.1	383,059	8.7	\$794.53	\$898.88
Health Care and Social Assistance	579,593	14.3	619,127	14.0	\$879.54	\$975.31
Arts, Entertainment, Recreation	65,626	1.6	77,524	1.8	\$583.80	\$606.44
Accommodation and Food services	382,671	9.4	430,616	9.8	\$299.78	\$343.17
Other Services	102,770	2.5	111,442	2.5	\$586.70	\$676.95
Public Administration	238,343	5.9	245,575	5.6	\$858.98	\$960.10
Total	4,057,234	100.0	4,411,252	100.0	\$864.75	\$976.45

Source: Labor & Economic Analysis Division, NC Department of Commerce ; T.Ronald Brown: Research & Analysis

With respect to consumer expenditures it is seen that based on the most recent Esri data, provided by the Census Bureau, average household expenditures amounted to \$60,366. As is seen in Table NC17, spending on housing amounts to as much as 30.2 of the household total. Other significant expenditures are on utilities (a subset of the housing category), food (at home), and healthcare.

Table NC17 - North Carolina Consumer Expenditures, Selected Categories, 2017

	Annual		Monthly
	total	percent.	
Total Consumer Expenditures, per Household	\$60,366	100.0	\$5,030.54
Expenditures, per Household			
Apparel and Services	\$1,862	3.1	\$155.20
Food, away from home	\$2,932	4.9	\$244.35
Education	\$1,155	1.9	\$96.25
Entertainment/Recreation	\$2,742	4.5	\$228.54
Food, at home	\$4,495	7.4	\$374.60
Health care	\$5,020	8.3	\$418.33
Household Services	\$1,585	2.6	\$132.08
Housing			
total	\$18,253	30.2	\$1,521.09
utilities, etc	\$4,578	7.6	\$381.48
water	\$619	1.0	\$51.58
Local Transportation			
total	\$7,349	12.2	\$612.38
Gasoline	\$2,486	4.1	\$207.14
Vehicle maintenance, etc	\$956	1.6	\$79.66
Pensions/Social Security	\$6,292	10.4	\$524.34
Travel	\$1,717	2.8	\$143.12

Source: Esri (reported in Census Business Builder); T. Ronald Brown: Research & Analysis

Data from the Census Bureau show that there are 5,721 construction companies in North Carolina that focus on residential construction and re-modeling. These employ 21,234 persons - at an average of around four persons per company. Average pay is seen to be around \$50,126.

Additionally, there is one residential construction company for every 1,757 residents of the state.

Table NC18 - North Carolina Construction Company data

Employer Establishments	5,721
Total Employment	21,234
Total Annual Payroll ('000's)	\$1,064,366
Average Employment per Employee	4
Average Payroll per Employee	\$50,126
Population per Employer	1,757

Source: Census Business Builder; T. Ronald Brown: Research & Analysis