# Maggie Valley, North Carolina Seasonal Population Analysis

ABSTRACT: Maggie Valley is a picturesque mountain community in Western North Carolina which has a growing population that fluctuates tremendously with the changing seasons. The overall community population is much more than just those who inhabit the corporate limits twelve months a year. Seasonal visitors and part-time residents, along with the Town's permanent residents and those living in the surrounding vicinity are all crucial members of Maggie Valley. Establishing an accurate count of the total seasonal population within the environs of the valley is challenging due to the transitory nature of the many travelers and visitors to the area. Using data from local, state, and federal sources, this analysis establishes a methodology for delineating the "greater" Maggie Valley and quantifying the potential seasonal population during peak times, including permanent residents, seasonal residents, and overnight travelers.

The purpose of this analysis is to provide a reasonably accurate estimate of Maggie Valley's

potential population during peak times, including the number of permanent residents, seasonal

residents, and traveling residents. An additional purpose of the study is to identify any unique

characteristics of the community's overall population. The number of permanent residents are

estimated using direct sources such as the U.S. Census Bureau and the NC State Demographer's Office.

The US Census Bureau provides information on the number of housing units utilized for seasonal,

recreational, or occasional use which is helpful in estimating the number of seasonal residents. The

Haywood County Tourism Development Authority (TDA) provides information on overnight

accommodations and their occupancy rates which helps estimate the number of traveling residents. The

use of this information along with other sources and variables such as utility usage, traffic counts, postal

deliveries, etc. are often used when estimating overall seasonal populations. Perhaps the best way to

estimate the seasonal population of Maggie Valley is to estimate the seasonal population of the Town,

along with the encompassing 28751 ZIP code area, while making careful assumptions about the

characteristics of corresponding and nearby jurisdictions. This is an expedient and appropriate

methodology because the Haywood County TDA collects and disseminates information based on ZIP

codes, while the US Census Bureau uses Zip Code Tabulation Areas (ZCTA) as a geographic unit for

population enumeration. This enumeration method is also suitable because Maggie Valley consists of

much more than simply the Town's municipal boundaries. The community is quite inclusive and many

people that reside outside of the Town of Maggie Valley identify as a member of the Maggie Valley

community. By area comparison, the Town of Maggie Valley is only 3.2 square miles while the area for

all those having a Maggie Valley mailing address is forty-five square miles. The majority of the Town is

contained within this postal district but there are some areas of town with residents having a

Waynesville ZIP code (28785). These areas must also be considered in the overall population estimate (see MAP 1).

Map 1: Study Area
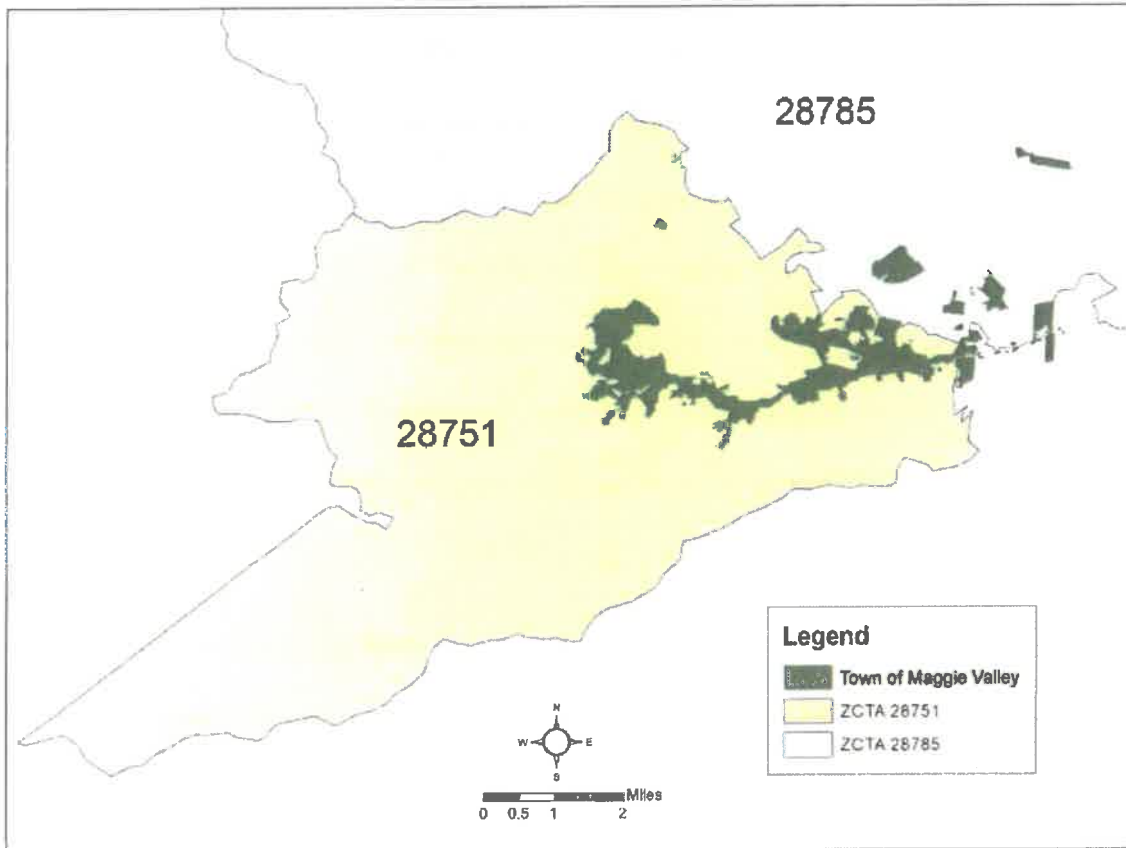
To get a complete count of the number of those residing in "greater" Maggie Valley on any given day unique local factors must be taken into account. Principle among these factors is the concept of seasonality, or the number of seasonal residents and traveling residents who occupy the Town at a particular point in time, in addition to permanent residents. Seasonal residents are most often described as those temporary residents who regularly stay in a place more than 30 days, such as retirees and second home owners. Traveling residents include those visitors who stay in overnight accommodations

up to 30 days. Seasonal and traveling residents are not included in the population estimates provided by the State Demographer or Census Bureau but do play a key role in the composition of Maggie Valley. Seasonality is especially important in a community like Maggie Valley because much of the local economy is heavily dependent on part-time residents and visitors and their spending habits. Seasonality is very significant in vacation and tourist communities because retirees, second home owners, and tourists are often more affluent and typically spend money more freely during their stays. Depending on the impressions and opinions that are formed of the community, seasonal stays and vacations may even serve as the precursors for permanent relocation to the area by these visitors. Many folks are attracted to Maggie Valley's natural beauty, recreational opportunities, and small town character. In communities that experience large variations in population throughout the year, population estimates are difficult to assess yet critical to ascertain because of the increased demand for goods and services, both public and private.

In this analysis, the potential seasonal population is considered to be the total of permanent, seasonal, and traveling residents when the community is at maximum capacity. Permanent residents are those who have an established domicile within the area and who live here more than six months out of the year. Seasonal residents are people who stay in the area less than six months but more than 30 days a year, often in a second home. Transient residents, or travelers, are those visitors who stay in the area utilizing overnight accommodations such as: hotels, motels, vacation rentals, cabins, cottages, villas, Bed & Breakfasts, inns, lodges, country clubs, resorts, and campgrounds. Differentiating among the various types of residents is relatively straight forward but fully counting them is often more challenging.

Permanent Residents

The U.S. Census Bureau and the NC Demographer's Office provide periodic population estimates of the permanent residents of Maggie Valley. The official estimates have shown steady population

growth in recent years. From 2010 through 2018, Maggie Valley was the fastest growing municipality in

Region A, the area's designated multi-county planning district. This is the case both numerically and by

percent rate of growth. During this timeframe, Maggie Valley added 292 permanent residents and had a

growth rate of more than twenty-five (25) percent (see Tables 1 and 2). The State Demographer's official

population estimate released in 2019 reported the Town's population as 1450. According to the U.S.

Census Bureau's 2013-2017 American Community Survey (ACS) Five Year Estimate, the Town's

population was considered to be 1541 in 2017. Based upon these "direct" sources of population data it

can reasonably be expected that the population of the Town of Maggie Valley consists of approximately

1500 permanent residents in 2020. The population of the Maggie Valley 28751 ZIP Code Tabulation Area

(ZCTA) was estimated by the Census Bureau to be **3,298** permanent residents in 2017. The 2020 Census

results due to be released in 2021 will likely show that the 28751 Zip Code area has also experienced

significant growth.

Traveling Residents

According to the Haywood County TDA, during 2019 there were approximately 900 traditional

hotel/motel rooms and 500 short term vacation rentals (STVR) available for overnight accommodations

in the 28751 Zip Code area. Based on a minimum of double occupancy, the number of STVRs available is

considered to be the equivalent of 1000 traditional hotel/motel rooms. All of these different types of

accommodations provide a crucial means for supplementing the local economy. The introduction of

these visitors and their much needed tourism dollars, including occupancy taxes, is vital to the Town's

success. At maximum occupancy, these accommodations represent a potential **3,800** traveling residents

within Maggie Valley. Due to its remarkable environment and relaxed atmosphere and culture, Maggie

Valley has also established a rich tradition of Camping and RVing. The Town of Maggie Valley has

sixteen RV Parks/Campgrounds with more than 800 campsites. At full capacity, RV Parks and

Estimates of the Total Population of NC Municipalities for July 1, 2018
Standard Population Estimates
Ranked by Percent Change

Municipality	Total Population		Change	
	April 2010	July 2018	Numeric	Percent
Maggie Valley	1,150	1,442	292	25.4
Montreat	723	903	180	24.9
Hayesville	311	372	61	19.6
Seven Devils	192	220	28	14.6
Banner Elk	1,028	1,158	130	12.6
Mars Hill	1,869	2,096	227	12.1
Rosman	576	629	53	9.2
Tryon	1,646	1,792	146	8.9
Blowing Rock	1,241	1,347	106	8.5
Marshall	872	942	70	8
Franklin	3,845	4,113	268	7
Beech Mountain	320	338	18	5.6
Hot Springs	560	591	31	5.5
Sylva	2,588	2,720	132	5.1
Bryson City	1,424	1,488	64	4.5
Clyde	1,223	1,274	51	4.2
Saluda	713	742	29	4.1
Canton	4,227	4,400	173	4.1
Laurel Park	2,180	2,268	88	4
Andrews	1,781	1,851	70	3.9
Forest Hills	365	378	13	3.6
Webster	363	374	11	3
Robbinsville	620	639	19	3.1
Lake Lure	1,192	1,226	34	2.9
Highlands	924	950	26	2.8
Bakersville	464	475	11	2.4
Waynesville	9,869	10,110	241	2.4
Biltmore Forest	1,343	1,372	29	2.2
Murphy	1,627	1,658	31	1.9
West Jefferson	1,299	1,310	11	0.8
Old Fort	908	910	2	0.2
Sugar Mountain	198	198	-	0
Dillsboro	232	232	-	0
Chimney Rock	113	112	(1)	-0.9
Lake Santeetlah	45	42	(3)	-6.7

Source: North Carolina OSBM, Standard Population Estimates, Vintage 2018

Bold = Haywood County and Gray = Region A

Table 1.

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Table 2.

Campgrounds contribute another **1600** traveling residents. This represents a total of **5,400** traveling residents included in the potential seasonal population.

Seasonal and Part-time Residents

Housing data and household demographics reveal important information about the makeup of the seasonal residents of Maggie Valley. According to the ACS, in 2017 there were 1,597 total housing units in the Town of Maggie Valley. Of these, 731 were counted as vacant housing units designed for *seasonal, recreational, or occasional use.* In the Maggie Valley postal area the total number of housing units in 2017 was 4,198 according to the ACS. The number of seasonal housing units in that same area was 2099 at the time. These housing units help make up the increasingly important short term vacation rental market. It is interesting that the Census Bureau considers the number of *households* to be synonymous with the number of *occupied housing units.* In 2017 there were 726 households in the Town and 1718 households with a 28751 Zip Code. The average household size in the Town is reported to be slightly more than two (2.12) and in the Maggie Valley postal area this number is slightly less than two (1.92). Family households are described by the Census Bureau as a group of two or more persons related by birth, marriage, or adoption and residing together. Based on the ACS, in 2017 there were 495 family households in the Town of Maggie Valley and 1049 family households in the 28751 area. The average size of these types of households was reported to be 2.5 persons per family in Maggie Valley and 2.28 per family in the 28751 ZCTA (Table 3). Using an average household size of 2.3 persons per family and 2,099 seasonal housing units, there are potentially **4,828** seasonal residents in the 28751 postal area. Based on 2.5 residents per unit and 731 seasonal housing units, the Town of Maggie Valley alone potentially adds **1,828** seasonal residents from these type units. Assuming this to be the case, it is probable that **3,000** seasonal residents could potentially be within the 28751 postal area yet outside of the Town limits.

|	Maggie Valley	ZIP 28751	ZIP 28785	Haywood Co.	NC
Total Population	1541	3298	7814	59,854	10,052,564
Male	736	1559	3944	29,008	4,895,368
Female	805	1739	3870	30,846	5,157,196
<18	278	272	1435	11,000	2,289,682
>59	644	1774	2375	18,819	2,115,334
>64	509	1386	1717	14,194	1,514,937
Median Age	52.4	61.8	46.7	47.5	38.4
Median Age F	50.9	62.6	47.7	49	39.9
Median Age M	55.8	60.6	46.1	45.8	36.9
Age Dependency Ratio	104	101.1	67.6	72.7	60.9
Total Households	726	1718	3249	26,288	3,874,346
Avg. HH size	2.12	1.92	2.41	2.26	2.53
Avg HH size, Family	2.5	2.28	2.63	2.76	3.1
%HH with age >59	55.6	66.6	46	47.5	37
Family HH	495	1049	2413	17,211	2,551,439
%Owner Occupied	79.3	84.3	75.7	71.7	65
Per Capita Income	27,174	31,098	32,164	27,166	28,123
Family Income	63,863	69,768	88,421	71,015	83,338
HH income	56,373	58,707	76,047	60,451	70,523
with SS income	21,946	21,783	21,403	19,750	18,728
with retirement	26,626	25,327	34,773	23,690	23,031
Insured	1,394	3044	6,679	52,069	8,658,835
% insured	91	92.3	86	88	88
% Private Insurance	61	68.5	63	66	66
In school	252	334	1,399	10,822	2,387,063
College	71	150	269	2,704	701,820
K-12	181	184	1,130	8,118	1,685,243

Table 3. US Census Bureau, American Community Survey

Mail Delivery and Traffic Counts

Other variables and data sources that can be useful in assessing, analyzing, and estimating the potential seasonal population include Post Office deliveries, public utility data, and daily vehicular traffic counts. The Postmaster for Maggie Valley, Joel Hampton, reported in March 2020 that his facility makes over 3,130 deliveries per day. Of these 143 are to business addresses, 779 are to PO boxes, and 2,213 are residential deliveries. Based off of approximately 3000 deliveries to PO boxes and residences, and an average household size of 1.92, the number of people receiving mail in 28751 at times reaches somewhere in the neighborhood of **5,760** residents. This aggregation of postal customers in Maggie Valley provides an estimate that is almost **2,500** greater than the 2017 population estimate of 3298 provided by the US Census Bureau. It would be difficult to accurately reconcile this difference but can be used as a simple gauge as to how dramatically the seasonal population can climb.

Traffic studies are excellent indicators of seasonal population trends and travel behaviors. Commuting patterns and the performance of certain commercial activities can be predicted by local traffic studies. For these and other reasons, the North Carolina Department of Transportation (NCDOT) and the Town of Maggie Valley performs traffic counts using automated data gathering devices. Annual Average Daily Traffic (AADT) statistics have been generated for locations throughout Maggie Valley for years. According to NCDOT, the AADT count in 2018 varied from 23,000 on US 19/276 through Dellwood, to 16,000 from the US 19/276 interchange through the center of Maggie Valley. Traffic counts of 7,400 have been recorded as US Highway 19 heads out of town towards Cherokee. These data are confirmed by the Town of Maggie Valley's independent counting devices which are located at both the east and west ends of Town along the US Highway 19 thoroughfare (Map 2). An advantage of the Town doing independent data gathering is that more precise data can be accessed and analyzed using datasets that reveal the seasonal trends in the traffic statistics. The Monthly Average Daily Traffic (MADT) counts for the Town show vast ranges and significant trends in the vehicular traffic patterns over time. At the

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NCDOT AADT Station Map
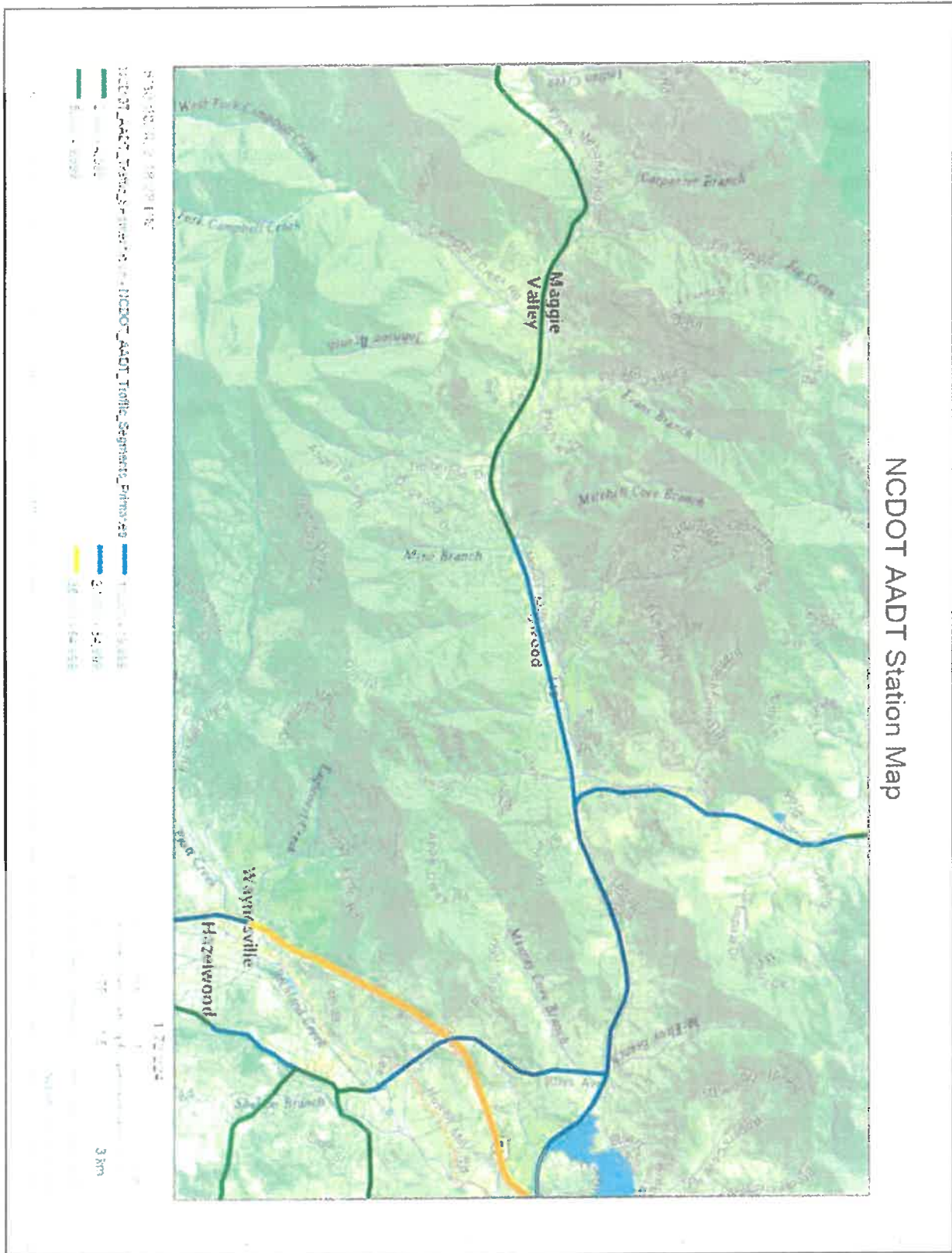
Map 2.

East location the Maggie Valley counters recorded a high of 19,790 trips in July and a low of 12,914 trips in March. The counters at the West location registered a high of 8,599 trips in July and a low of 5,047 trips during January of 2018. These figures represent a seasonal range of 6,876 daily trips in the east and 3,552 daily trips at the west end of Town (Table 4). These types of traffic counts, and their various differences, can be better understood within the context of the number of daily trips generated by specific land uses. For example, the Institution of Traffic Engineers (ITE) estimates that the average daily trip generation rates for single family homes, motel rooms, and vacation homes are 10, 9 and 3, trips/unit, respectively. While it is impossible to determine what type of land use has generated the individual trips collected by the Town's traffic counters, it can be assumed that the ITE trip generation factors apply for the daily trips attributed to single family residences, motels, and vacation homes. Considering this, the additional 6,876 peak trips on the east side of Maggie Valley would be generated by the equivalent of 688 additional occupied households, while the additional 3,552 trips during the peak in the east would be equivalent to 355 households. However, this characterization of trips generated by single family households does not adequately portray the true reasons for the seasonal fluctuations in the population of the Town and is somewhat limited for this study. The Town of Maggie Valley and NCDOT traffic counters obviously demonstrate that there are more people in Town during certain times of the year but they fail to identify the likely numerous day- and through- trips being made, or the seasonal and overnight visitors that contribute to the number of trips counted. The traffic analysis also assumes that the demographics of Maggie Valley is typical compared with other communities and that the residents of Maggie Valley exhibit the same behaviors that generate the typical number of trips established by the ITE.

Month	East	West
January	14096	5047
February	13396	5435
March	12914	5348
April	14519	5894
May	17170	6601
June	19213	7738
July	19790	8599
August	18494	7785
September	18065	7026
October	17689	8061
November	15626	6320
December	18299	6449

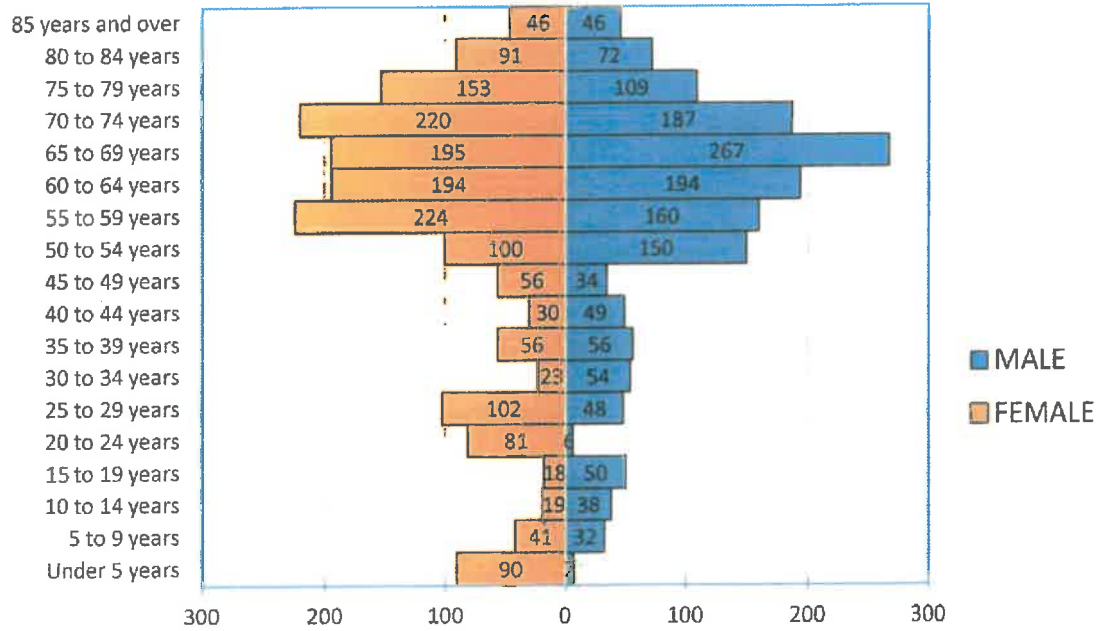Table 4. Maggie Valley Monthly Average Daily Traffic counts, 2018

Unique Demographic Characteristics

The Town of Maggie Valley and the 28751 postal area are unique compared to many

communities based on several important demographic indicators. Beyond its quintessential character of

being a small town, Maggie Valley is distinctive due to the nature of its older and aging population.

Median age is commonly used as a basic indicator of a community's demography. For example, Maggie

Valley (52.4) and the 28751 ZCTA (61.8) each have a high median age compared with Haywood County

(47.5), NC (38.4), and the United States (38) as a whole. This age statistic is helpful in describing the

community but only provides the age of the midpoint of the population, i.e. half of the population is

older than the median age and half of the population is younger than the median age. To get a better

understanding of the true age composition of a population other indicators should be examined. The

number of people in school, the percent of households with a family member over 59, and the "age

dependency ratio" compared with other communities are better indicators than median age alone.

Maggie Valley and the 28751 postal area are significantly older according to each of these statistical

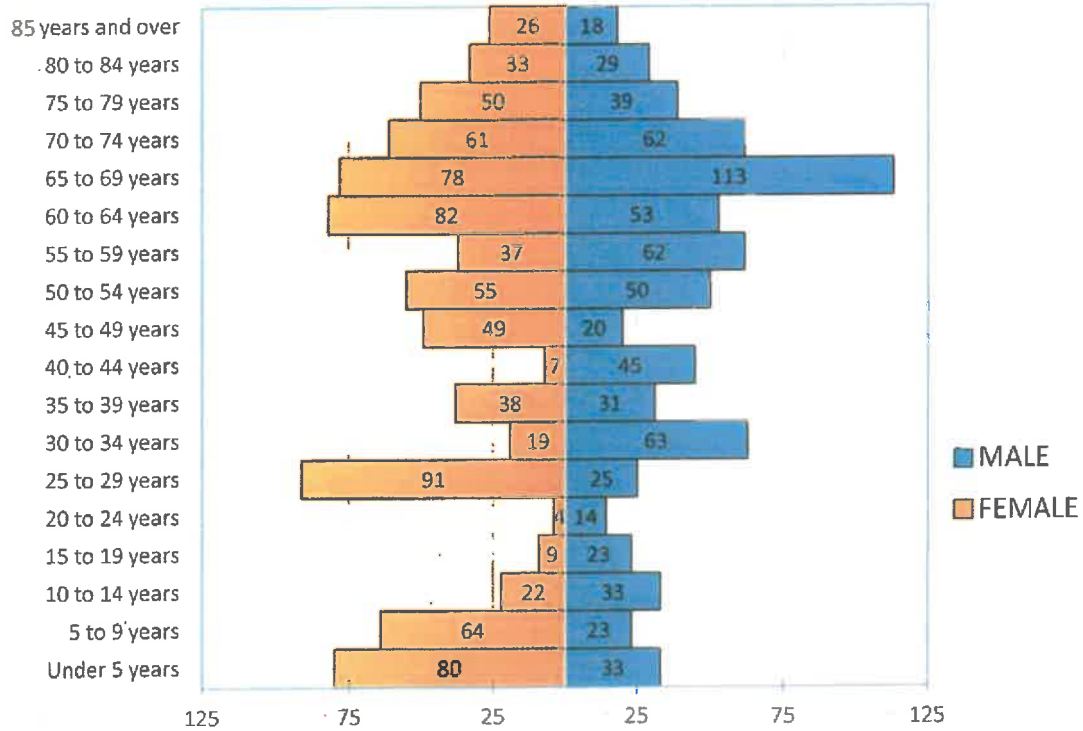characteristics (Table 3 and appendix).

A population pyramid is a convenient tool used to graphically demonstrate the age and gender distributions found within a population. The population pyramids for the Town of Maggie Valley and the 28751 postal area are primarily inverted. These graphs illustrate the extent of the community's older and aging population (Figures 1 and 2). The unique needs of this type of population must be taken under careful consideration, especially in regards to healthcare. The World Health Organization has identified three approaches that communities can take to help serve the healthcare needs of older populations:

1) Develop and ensure access to services that provide older-person-centered and integrated care;

2) Orient systems around intrinsic capacity; and

3) Ensure there is a sustainable and appropriately trained health workforce.
https://www.who.int/ageing/health-systems/en/

Population of ZIP 28751 by Age/Sex: 2017

Age	Female	Male
85 years and over	46	46
80 to 84 years	91	72
75 to 79 years	153	109
70 to 74 years	220	187
65 to 69 years	195	267
60 to 64 years	194	194
55 to 59 years	224	160
50 to 54 years	100	150
45 to 49 years	56	34
40 to 44 years	30	49
35 to 39 years	56	56
30 to 34 years	23	54
25 to 29 years	102	48
20 to 24 years	81	
15 to 19 years	18	50
10 to 14 years	19	38
5 to 9 years	41	32
Under 5 years	90	

MALE
FEMALE

300 200 100 0 100 200 300

Population of Maggie Valley by Age/Sex: 2017

Age	Female	Male
85 years and over	26	18
80 to 84 years	33	29
75 to 79 years	50	39
70 to 74 years	61	62
65 to 69 years	78	113
60 to 64 years	82	53
55 to 59 years	37	62
50 to 54 years	55	50
45 to 49 years	49	20
40 to 44 years	7	45
35 to 39 years	38	31
30 to 34 years	19	63
25 to 29 years	91	25
20 to 24 years	4	14
15 to 19 years	9	23
10 to 14 years	22	33
5 to 9 years	64	23
Under 5 years	80	33

MALE
FEMALE

125 75 25 25 75 125

Figures 1 and 2.

It is undeniable that Maggie Valley is comprised of more than just the 1500 or so lucky folks counted as permanent residents. The need to identify the population of "greater" Maggie Valley and to determine the potential seasonal population has existed for quite some time. Challenges in delineating the Maggie Valley community combined with disparate population data sources, collection methods, and vast seasonal population fluctuations, have contributed to the challenge. By employing a simple and straightforward method of augmenting the official population estimates with the potential populations of the "unoccupied" housing stock of the surrounding community, along with the other types of accommodations inhabited periodically by seasonal and traveling residents, it can be concluded that Maggie Valley has a potential seasonal population approaching **15,000** (Table 5), many of who are considered older adults and seniors. The provision of adequate public infrastructure and services, together with the availability of private goods and services designed to meet the needs of this unique community, will be necessary for the sustained growth and success of Maggie Valley in the future.

Population Type	Municipality	28751 ZCTA
Permanent	1500	3298
Seasonal	1828	4828
Traveling (overnight)	3400	5400
Sub-Total	6,728	13,526
Weighted for monthly traffic counts (522 * 2.1)	1096	1096
Weighted for dwelling units in 28785 ZCTA (170 *2.4)	408	408
SUM	8,232	15,030

Table 5. Total Potential Seasonal Population

Age dependency ratio

A measure defined by dividing the combined under 18 years and 65 years and over by the 18-64 years population and multiplying by 100. (American Community Survey and Population Estimates Program) A high dependency ratio means those of working age, and the overall economy, face a greater burden in supporting the aging population. A person who turns 64 years old is generally considered to be of normal retirement age and is not necessarily expected to be part of the workforce. It is the lack of income potential that generally qualifies those under 15 and over 64 as dependents as it is often necessary for them to receive outside support to meet their needs. As the overall age of the population rises, the ratio can be shifted to reflect the increased needs associated with an aging population. As the percentage of nonworking citizens rises, those who are working are likely subject to increased taxes to compensate for the larger dependent population.

Average household size

A measure obtained by dividing the number of people in households by the total number of households (or householders).

Family household (Family)

A family includes a householder and one or more people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family. A family household may contain people not related to the householder, but those people are not included as part of the householder's family. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. Not all households contain families since a household may comprise a group of unrelated people or one person living alone.

Family income

This includes the income of the householder and all other individuals 15 years old and over related to the householder.

Health insurance coverage

For reporting purposes, the Census Bureau broadly classifies health insurance coverage as private or public. Private health insurance is a plan provided through an employer or union, a plan purchased by an individual from a private company, or TRICARE or other military health care. Public coverage includes the federal programs Medicare, Medicaid, and VA Health Care (provided through the Department of Veterans Affairs); the Children's Health Insurance Program (CHIP); and local medical programs for indigents (this program is included only for the Pacific Islands). People who had no reported health coverage, or those whose only health coverage was Indian Health service (this program is included only in the American Community Survey), were considered uninsured.

Household

A household includes all the people who occupy a housing unit as their usual place of residence.

Housing unit

A house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible.

Income

"Total income" is the sum of the amounts reported separately for wages, salary, commissions, bonuses, or tips; self-employment income from own nonfarm or farm businesses, including proprietorships and partnerships; interest, dividends, net rental income, royalty income, or income from estates and trusts; Social Security or Railroad Retirement income; Supplemental Security Income (SSI); any public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability pensions; and any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony.

Median age

The median age is the age at the midpoint of the population. Half of the population is older than the median age and half of the population is younger. The median age is often used to describe the "age" of a population.