

Mount Airy Environs Community Comprehensive Plan

Chapter 2: Demographics & Projections

Census and Other Data

Demographics are statistical data which describe various characteristics of the population of an area. A demographic analysis over time can reveal how the population has changed. An understanding of the characteristics of the current population and how the population has recently changed can lead to a better estimation of future community needs. Projections of future demographic characteristics can guide decision-makers in planning for the needs of future populations.

The following data was compiled based on U.S. Census Bureau information. The Census Bureau conducts a census of the United States' population every 10 years. Each household in the country receives a questionnaire. This data provides the best demographic information available and is used by most jurisdictions throughout the Country. Although the information becomes somewhat outdated toward the end of the decade, the census still provides a valuable information resource. The census data reported in this plan originate from the 2000 census.

1 Population Characteristics

The southwestern part of Carroll County has experienced a significant amount of growth dating back to the 1950's (see Table 2-1 and Figure 2-1). For the election district (including the Carroll portion of the town only) the largest ten-year increase, by percentage, occurred between 1970 and 1980, when the area grew by 34.4 percent. Another large increase occurred between 1980 and 1990, when the population grew by 33.6 percent.

The Town of Mount Airy has also grown at substantial rates during that same period of time. Prior to 1950, the town's population grew at a lesser rate, much like the rest of the county. In fact, the town's population actually declined between 1930 and 1940. The county's population has steadily grown since 1930, with large percentage increases over the three decades between 1960 and 1990; the population increased by 30.7, 39.6, and 28.0 percent, respectively. The town grew most dramatically between 1990 and 2000, while the county's largest increase occurred between 1970 and 1980.

The state population as a whole has grown steadily since 1930. The largest percentage increases in population for the State occurred between 1940 and 1970, similar to the Mount Airy environs study area. Unlike the other three areas, the state's population has not grown as dramatically over the last three decades, growing only 7.5 percent between 1970 and 1980, 13.4 percent between 1980 and 1990, and 10.6 percent between 1990 and 2000.

For the period between 1990 and 2000, the election district and the county experienced a growth rate of 26.7 and 22.3 respectively. However, the town's growth rate was substantially higher at 70.8 percent.

Since 1960, the Mount Airy environs study area and the county have nearly tripled in

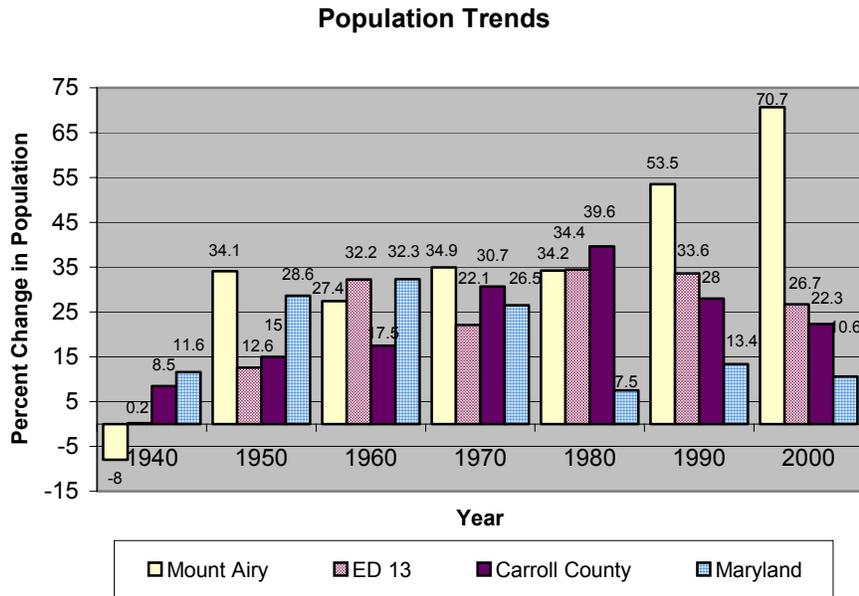
Mount Airy Environs Community Comprehensive Plan

population. The town's population has nearly quadrupled, increasing by 375 percent. In contrast, the state grew by 70.8 percent during the same period.

Population Trends								
Year	Mount Airy*		Election District 13*		Carroll County		Maryland	
	Population	% Change	Population	% Change	Population	% Change	Population	% Change
1930	860	---	1,622	---	35,978	-----	1,631,526	-----
1940	791	-8.0	1,625	0.2	39,054	8.5	1,821,244	11.6
1950	1,061	34.1	1,830	12.6	44,907	15.0	2,343,001	28.6
1960	1,352	27.4	2,420	32.2	52,785	17.5	3,100,689	32.3
1970	1,825	34.9	3,106	22.1	69,006	30.7	3,923,897	26.5
1980	2,450	34.2	4,174	34.4	96,356	39.6	4,216,933	7.5
1990	3,762	53.5	5,575	33.6	123,372	28.0	4,781,468	13.4
2000	6,425	70.8	7,064	26.7	150,897	22.3	5,296,486	10.6

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

In 2000, the Mount Airy environs study area contained 4.7 percent of the county's total population. According to the 2000 Census, the population of the Mount Airy Election District was 7,064. Females represented 50.4 percent of the area's population (see Table 2-2). Females comprised a slight majority of the population for the other areas as well: 50.4 percent in the town, 50.6 percent in the county, and 51.7 percent in the state.



Persons by Gender 2000								
Gender	Mount Airy*		Election Dist. 13*		Carroll County		Maryland	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	3,189	49.6	3,481	49.3	74,470	49.4	2,557,794	48.3
Female	3,236	50.4	3,583	50.7	76,427	50.6	2,738,692	51.7
Total	6,425	100.0	7,064	100.0	150,897	100.0	5,296,486	100.0

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

Table 2-3 shows the racial characteristics of the population in 2000 for the Mount Airy Election District, as well as the Town of Mount Airy, Carroll County, and the State of Maryland.

Mount Airy Environs Community Comprehensive Plan

The study area was predominantly white, with minorities accounting for only 4.8 percent of the total population. The largest minority group was black, which comprised 2.4 percent of the total population.

Similar proportions were reported for the town and county. The Town of Mount Airy's population was 94.7 percent white, and Carroll County's population was 95.7 percent white.

The State of Maryland was also predominantly white, but at a lower percentage (64.0%). The black population was 27.9 percent of the total population, and other minority groups comprised 8.1 percent of the total. Much of the state's minority population was found in its larger urban areas. Baltimore City, for example, contained a 2000 population of 651,154, which was 12.3 percent of the State's total population. The black population comprised 418,951, or 64.3 percent, of Baltimore City's total population. Another populous jurisdiction in the state, Prince George's County, had a 2000 population of 801,515 (15.1% of the state's population). The black population represented 502,550, or 62.7 percent of the county's total population.

Racial Characteristics 2000								
Race	Mount Airy*		Election Dist. 13		Carroll County		Maryland	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	6,085	94.7	6,726	95.2	144,399	95.7	3,391,308	64.0
Black	166	2.6	171	2.4	3,433	2.3	1,477,411	27.9
American Indian/ Eskimo/ Aleut	15	0.2	22	0.3	330	0.2	15,423	0.3
Asian/ Pacific Islander	56	0.9	61	0.9	1162	0.8	213,232	4.0
Other race	16	0.2	21	0.3	471	0.3	95,525	1.8
2 or more	87	1.4	63	0.9	1,102	0.7	103,587	2.0
Total	6,425	100.0	7,064	100.0	150,897	100.0	5,296,486	100.0

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

Table 2-4 presents the age structure of the election district's population from 1990 to 2000. The population segment under 5 years of age increased in actual numbers (from 488 to 546) but decreased as a percentage of the total population. The 5 to 17-year group increased in number (1,160 to 1,561), and in percentage (from 20.8 to 22.1). This age group represents school-age children, from kindergarten through high school. The segment of the population that was likely to be in retirement, 65 years and older, increased in number (from 524 to 601), but decreased as a percentage of the population (from 9.4 to 8.5 percent). The age group that is 75 years and older typically experience more health problems and require more health-care services. This group increased from 232 to 260 persons, but also decreased (from 4.2 to 3.7 percent) as a percentage of the total population.

Mount Airy Environs Community Comprehensive Plan

Age distribution statistics for 2000 for the town, election district, county, and state are presented in Table 2-5. Of the four areas, the town has the largest percentage (24.3%) of school-age children, 5 to 17 years. The town also has the youngest median age (32.7 years), while the county has the oldest (36.9 years). People who are 65 years and older comprise 11.3 percent of the state's population (the highest percentage), while this age group represents only 4.6 percent of the town's population (the lowest percentage).

Age Distribution Trends Election District 13				
Age	1990		2000	
	Population	Percent	Population	Percent
Under 5 years	488	8.8	546	7.7
5 - 17 years	1,160	20.8	1,561	22.1
18 - 24 years	420	7.5	456	6.5
25 - 34 years	1,061	19.0	921	13.0
35 - 44 years	939	16.9	1,385	19.6
45 - 54 years	603	10.8	1,044	14.8
55 - 64 years	380	6.8	550	7.8
65 - 74 years	292	5.2	341	4.8
75 years and older	232	4.2	260	3.7
Total	5,575	100.0	7,064	100.0

*ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

Age Distribution Trends 2000								
Age	Mount Airy*		Election District 13*		Carroll County		Maryland	
	Population	Percent	Population	Percent	Population	Percent	Population	Percent
Under 5 years	649	10.1	546	7.7	10,110	6.7	353,393	6.7
5 - 17 years	1,561	24.3	1,561	22.1	31,728	21.0	1,002,779	18.9
18 - 24 years	348	5.4	456	6.5	10,491	7.0	450,922	8.5
25 - 34 years	995	15.5	921	13.0	17,896	11.9	748,521	14.1
35 - 44 years	1,389	21.6	1,385	19.6	28,287	18.7	916,156	17.3
45 - 54 years	767	11.9	1,044	14.8	22,708	15.0	755,032	14.3
55 - 64 years	318	4.9	550	7.8	13,410	8.9	470,376	8.9
65 - 74 years	215	3.4	341	4.8	8,539	5.7	321,285	6.1
75 years & older	183	2.9	260	3.7	7,728	5.1	278,022	5.2
Median Age		32.7		35.3		36.9		36.0
Under 18 years	2,210	34.0	2,107	29.8	41,838	27.7	1,356,172	25.6
65 years & older	298	4.6	601	8.5	16,267	10.8	599,307	11.3

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

2 Household Type, Size, and Relationship

According to the 2000 Census, the Mount Airy (13th) Election District (including the Carroll portion of the town) contained 2,420 households (i.e., occupied housing units). The average number of persons per household in this district was 2.92 in 2000. Table 2-5 shows household types for 1990 and 2000 for Mount Airy, the Mount Airy Election District, Carroll County, and Maryland. Family households consist of a householder and one or more persons living in the same household who are related to the householder by birth, marriage, or adoption. While the number of households in the study area increased by 31.9 percent between 1990 and 2000, the average number of persons per household declined from 2.98 to 2.92.

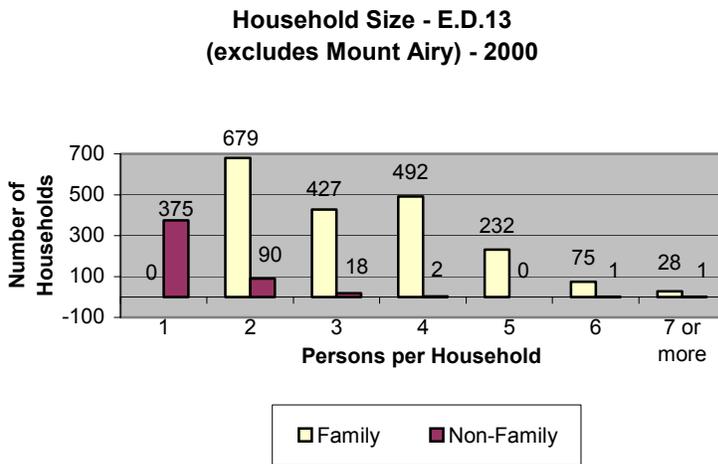
Nearly 79.9 percent of total households within the study area consisted of family households (two or more related people living in one dwelling unit). Married-couple families represented 85.9 percent of family households. Non-family households (persons unrelated to the householder) comprised 20.1 percent of total households.

Mount Airy Environs Community Comprehensive Plan

In 2000, five people lived in group quarters within the Election District, which refers to institutions such as prisons, jails, nursing homes, hospitals, and juvenile institutions. Non-institutional group quarters include rooming houses, group homes, college dormitories, military quarters, and emergency shelters. The Town registered four people living in group quarters in 2000.

Households by Type 1990 and 2000								
Household Type	Mount Airy*		Elect. Dist. 13		Carroll County		Maryland	
	1990	2000	1990	2000	1990	2000	1990	2000
Family Household	1030	1,717	1,488	1,933	33,909	41,094	1,245,814	1,359,318
Married-Couple Families	859	1,465	1,289	1,661	29,476	34,936	948,563	994,549
Other Family/ Male Householder	78	71	52	86	1,197	1,808	65,362	84,893
Other Family/ Female Householder	131	181	147	186	3,236	4,350	231,889	279,876
Non-Family Household	250	406	347	487	8,339	11,409	503,177	621,541
Total Households	1,280	2,123	1,835	2,420	42,248	52,503	1,748,991	1,980,859
Persons per household	2.91	3.02	2.98	2.92	2.85	2.81	2.67	2.61
Group quarters Pop.	0	4	99	5	2,915	3,581	113,856	134,056

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau



In 2000, the majority of family households in the study area generally contained 2 to 5 people (see Figure 2-2). In contrast, most of the non-family households contained one person.

Table 2-7 provides data on households and household size. In 2000, the election district contained 2,420 households, with an average of 2.92 persons per household. That average was higher than the County (2.81),

and State (2.61). For the study area, County, and State, the household size has steadily fallen. For the Town of Mount Airy, the household size has increased (from 2.91 to 3.02) between 1990 and 2000. The trend, not only in the County and State, but also nationally, has been a decrease in household size over time.

3 Household Income

Household income data, as reported in the 2000 Census, is shown on Table 2-9. Nearly 37 percent of the households in the Mount Airy environs study area (Election District 13 including Carroll portion of town) had incomes between \$35,000 and \$74,999 in 1999. An estimated 45 percent had incomes of \$75,000 and above, while 18 percent were below \$35,000.

Mount Airy Environs Community Comprehensive Plan

The median household income was \$67,250, and the per capita income was \$28,059.

Households and Persons per Household 2000		
Locale & Year	Number of Households	Persons per Household
Mount Airy*		
1990	1,280	2.91
2000	2,123	3.02
Election District 13		
1990	1,835	2.98
2000	2,420	2.92
Carroll County		
1990	42,248	2.85
2000	52,503	2.81
Maryland		
1990	1,748,991	2.67
2000	1,980,859	2.61

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

The study area compares closely to the Town of Mount Airy. An estimated 37 percent of the households in the town had incomes between \$35,000 and \$74,999; 43 percent had incomes of \$75,000 and above, while 20 percent were below \$35,000. The town's median household income was \$66,967, and per capita income was \$25,380.

Within the county, household incomes were slightly lower overall than for the study area and town. The county compared favorably with 40.8 percent of the households having incomes of \$35,000 to \$74,999. However, only 35 percent of the county's households have incomes of \$75,000 and above, while 24.2 percent of the county's households made less than \$35,000. Median household income (\$60,021) and per capita income (\$23,829) were correspondingly lower in the county than in the study area or town.

Income levels in the state indicate slightly higher percentages in the lower (i.e., incomes below \$35,000) income ranges compared to the county, study area, and town. Incomes between \$35,000 and \$74,999 comprised 37 percent of the state's households. An estimated 32 percent of the state's households had incomes of \$75,000 and above, while 31 percent had incomes below \$35,000. The median household income (\$52,868) was lower than in the study area or county, but the per capita income (\$25,614) was higher.

Household Income 2000								
Income Range	Mount Airy		Election Dist. 13*		Carroll County		Maryland	
	Households	%	Households	%	Households	%	Households	%
Less than \$10,000	60	3	54	2.2	1,866	3.5	137,199	6.9
\$10,000 - \$14,999	71	3.5	94	3.9	1,865	3.5	83,328	4.2
\$15,000 - \$24,999	116	5.7	175	7.2	4,379	8.3	188,104	9.5
\$25,000 - \$34,999	139	6.8	125	5.2	4,663	8.9	212,135	10.7
\$35,000 - \$49,999	187	9.2	273	11.2	7,813	14.9	305,987	15.4
\$50,000 - \$74,999	565	27.8	623	25.6	13,603	25.9	427,180	21.6
\$75,000 - \$99,999	433	21.3	430	17.7	8,933	17.0	268,558	13.6
\$100,000 - \$149,999	304	15.0	402	16.6	7,259	13.8	230,285	11.6
\$150,000 - \$199,999	90	4.4	132	5.4	1,335	2.5	69,102	3.5
\$200,000 or more	67	3.3	122	5.0	885	1.7	59,917	3.0
Total	2,032	100.0	2,430	100.0	52,601	100.0	1,981,795	100.0
Median Household Income	\$66,967		\$67,250		\$60,021		\$52,868	
Per Capita Income	\$25,380		\$28,059		\$23,829		\$25,614	

*Town income figures include entire Town, ED income figures include Carroll portion of the town only, Source: U.S. Census Bureau

Mount Airy Environs Community Comprehensive Plan

4 Educational Attainment

The level of educational attainment for persons 25 years and older in 2000 was similar, overall, for the town, the election district, the county, and the state (see Table 2-9). An estimated 13.9 percent of the election district's population did not complete high school. A slight majority (56.7%) of the election district's population finished high school or completed some level of college. Almost a third (29.0%) earned a bachelor's degree or graduate or professional degree.

**Educational Attainment
Persons 25 Years of Age and Over
2000**

Educational Level	Mount Airy*		Election District 13*		Carroll County		Maryland	
	No. of Persons	Percent	No. of Persons	Percent	No. of Persons	Percent	No. of Persons	Percent
Less than 9 th Grade	84	2.3	179	3.9	4,492	4.6	178,169	5.1
9 th -12 th Grade, no diploma	275	7.4	454	10.0	10,010	10.1	386,917	11.1
High School Graduate (or equivalency)	1,292	35.0	1,730	38.2	32,891	33.3	933,836	26.7
Some College, no degree	801	21.7	934	20.6	20,534	20.8	711,127	20.3
Associates Degree	171	4.6	217	4.8	6,274	6.4	186,186	5.3
Bachelor's Degree	730	19.8	613	13.5	15,786	16.0	629,304	18.0
Graduate or Professional Degree	341	9.2	406	9.0	8,697	8.8	470,056	13.5
Total Persons 25 Years & Over	3,694	100.0	4,533	100.0	98,684	100.0	3,495,595	100.0

*Town population figures include entire Town, ED population figures include Carroll portion of the town only
Source: U.S. Census Bureau

Population Projections

The factual base, which serves as background to a comprehensive planning document, guides the development of the rest of the plan. This information and data also provide a basis on which forecasts and projections can be developed and used to formulate policies.

Population projections are used in several ways in the process of developing a comprehensive plan. Projecting what the population will be at certain years helps a jurisdiction to plan for needed improvements to public facilities. A jurisdiction can then include items in the capital improvements program budget at the appropriate times to ensure that facilities are brought on line as they are needed, before they become inadequate. These projections help us to establish the capacity of needed facilities, or the demand. By studying population projections and associated growth trends, a determination can be made about the point at which this may occur. Appropriate measures may then be taken to ensure that additional population growth does not negatively impact facilities or create demand before a jurisdiction can improve its facilities.

Mount Airy Environs Community Comprehensive Plan

Many factors are typically entered into the formula for population projections, for which the specific factors depend on the projection method. These factors generally include statistics related to births, deaths, in-migration (new people moving in), out-migration (people moving out), labor force, average annual growth rate, and potentially many more. This presents a difficult situation for the Mount Airy environs. Much of this information is not available for such a small geographic area. Therefore, some of the more complex and accurate models commonly used to make projections, such as the Cohort Survival Method, could not be used. The following projections then are based on available information and provide a general idea of what may be expected in the future based on current conditions.

1 Assumptions

While projections can only be as good as the data available to calculate them, certain assumptions must still be made even with reliable data. The assumptions that are implicit in a forecasting model can also profoundly influence the forecasts. The analysis is based on the following assumptions:

- ◆ Historic population data was reviewed assuming that past trends will continue into the future.
- ◆ Forecasts developed by secondary sources are accurate.
- ◆ Future population growth in Mount Airy will be influenced by national, regional, and local economic and social conditions. These variables were not explicitly incorporated into the model. However, historic trends are influenced by these factors and are thus indirectly included in the forecast.
- ◆ The vacancy rate reported in the 2000 U.S. Census will remain consistent.
- ◆ No other unforeseen impacts on the growth rate will occur, such as moratoriums on water or building permits, change in the housing market, etc.
- ◆ Population estimates made by the Carroll County Planning Department for the years preceding the 2000 Census are accurate. Projections are calculated using these figures.

2 Traditional Forecast (to determine when growth will happen)

One of the factors that is often considered in trying to project the population of an area is the “average annual growth rate,” or AAGR. The AAGR represents the average growth rate of an area over a period of time. Past trends in this rate can be examined for relevance and application to future growth. The following table shows the AAGR for the Carroll County portion of the Mount Airy and Carroll County for each decade since 1930. Mount Airy has grown at a faster rate than the County every decade since 1940 except for the eighties.

The next table uses the various factors to project possible future population trends that could occur until the year 2025 in 5-year increments. These projections were developed using a number of different methods in order to present a range of possible future population figures, some more feasible than others. Four different scenarios are presented. The first shows the

Mount Airy Environs Community Comprehensive Plan

population growth based on the AAGR of the past 10 years. Scenario #2 shows the possible growth based on the 5-year timeframe in which the greatest amount of growth was experienced. The projections in the third scenario are based on the AAGR of the one year that experienced the highest amount of growth. The last scenario uses dwelling units per year, persons per household, and vacancy rate to project population. Since a significant amount of detailed and specific information generally used to develop population projections is not available, either due to lack of primary research or because the sample area is too small, the projections found in this chapter are rough estimates to be used to get a very general idea of possible future population size.

**Average Growth Rate per Decade
Mount Airy, Carroll County, and Maryland
1930-2000**

Year	Mount Airy %*	Carroll County %	Maryland %
1930 to 1940	-1.12	0.82	1.10
1940 to 1950	4.30	1.41	2.25
1950 to 1960	1.75	1.63	2.84
1960 to 1970	3.31	2.72	2.38
1970 to 1980	4.57	3.39	0.72
1980 to 1990	1.69	2.50	1.26
1990 to 2000	4.10	2.57	1.03

* Carroll portion of the town only

Source: U.S. Bureau of Census; Maryland Dept. of Planning

How is the Average Annual Growth Rate Calculated?

$$\frac{(\text{recent year} - \text{previous year})}{\text{previous year}}$$

To identify the AAGR for the period between 1990 and 2000, the growth rate for each year was determined. These growth rates were then averaged for the 10-year period. To calculate the projections in Scenario #1, the AAGR for the 1990-2000 period was then applied to each year from 2004 to 2025. To identify the AAGR for the 1998-2003 period shown in Scenario #2, the growth rate for each of these years was determined and then averaged for the 5-year period. Scenario #3 uses a growth rate experienced during the 2000 - 2001 period. This growth rate was applied to each of the years following 2003.

The last scenario projects population without the use of a strict growth rate. Since the current developments in progress are expected to continue for several years yet, the average number of units that have been completed during the past 5 years was used to estimate the number of dwelling units that could be completed in each of the coming years. The number of dwelling units this would produce was multiplied by the occupancy rate for Mount Airy (96.6%) to determine the number of occupied households in the future. This anticipated number of households was then multiplied by the average household size for Mount Airy (3.02) to determine the number of people to be added to the existing population. This additional population was added to the previous year's expected population to identify the population for each year from 2004 to 2025. Immigration and birth and death rates were not used due to lack of availability and due to lack of historical data.

Mount Airy Environs Community Comprehensive Plan

**Population Projections (Traditional)
Town of Mount Airy (Carroll County portion)
2004 to 2025**

(Base 2003 Population: 4,225)

Method Used to Calculate				
Year	#1 AAGR 1990-2000 (4.10%)	#2 AAGR 1998-2003 (9.67%)	#3 Growth Rate 2000-2001 (13.85%)	#4 [D.U./Yr (116) x Persons/Hshld (3.02)] x Occupancy Rate (96.6%)
2004	4,398	4,634	4,810	4,563
2005	4,579	5,082	5,476	4,901
2010	5,597	8,062	10,475	6,591
2015	6,843	12,790	20,037	8,281
2020	8,365	20,292	38,326	9,971
2025	10,227	32,193	73,308	11,661

* Carroll portion of the town only

Source: U.S. Census Bureau; Carroll County Bureau of Permits, Inspections, and Review; Carroll County Department of Planning

3 *Build-Out Analysis (to identify how much growth is expected)*

Another useful method for identifying projected populations is by determining the amount of population possible based on land use designations. Land use designations identify the ultimate use desired for the land, which generally equates to being the future zoning for the land. After a property is zoned to match the land use designation shown on the adopted comprehensive plan map, the development potential is defined by that zoning. Once all of the land within the scope of the comprehensive plan is developed, which in this case is the Growth Area Boundary (GAB), theoretically there would be no additional residential units added and thus no additional population. At this point, the area will have reached its “zoning capacity” or be said to have reached “build-out”.

In order to develop an estimate of the future Carroll County population within the Mount Airy GAB based on zoning and land use designations, a Buildable Land Inventory (BLI) analysis was performed for the town and the county inside the GAB. The BLI is an inventory of the land that is still able to be developed. This type of analysis uses the County’s Geographic Information System (GIS) to estimate the lot yield for each individual parcel located within the GAB based on its zoning within the town, or its designated land use in the county. The first step in any BLI is to identify absolute constraints and subtract them out. Absolute constraints are areas where it is assumed no residential development will occur. They include areas such as government-owned land, land preservation easements, and parks. Once these constraints are taken out of the inventory, what is left is land which still has development potential. Due to the fact that Mount Airy’s zoning ordinance uses net acreage to determine lot yield for all residential zones except RE and R1, partial constraints were also subtracted from each property before lot yield was calculated. Partial constraints are areas which reduce the lot yield of a property because these areas can not be built on. Partial constraints include areas such as floodplains, steep slopes, wetlands, 100-foot stream buffers, well head buffers, and communication tower fall line buffers. For more clarification regarding the assumptions and methodology used in performing the BLI, please refer to the 2005 *Carroll County Buildable Land Inventory Report*. Although typically a BLI analysis includes a high, medium, and low estimate, for the purposes of looking at the potential population for land within the Mount Airy GAB only the high end

Mount Airy Environs Community Comprehensive Plan

estimate was used.

Buildable Land Inventory and Potential Population					
High-End Estimate: Absolute & Partial Constraints Removed					
Town of Mount Airy (Carroll County portion)					
Mount Airy Zoning	Acreage	Maximum Lot Yield	Potential Units	Persons per Household	Potential Population
RE Residential Existing	27.47	1.75 per gross acre	32	3.02	96
R2 Low-Density Residential	130.66	2 per net acre	243	3.02	733
R3 Low-Density Residential	17.66	3 per net acre	48	3.02	144
R5 Medium-Density Residential	1.44	5 per net acre	5	3.02	15
R7 High-Density Residential	35.49	7 per net acre	248	3.02	748
Total Potential Population					1,736

Buildable Land Inventory and Potential Population					
High-End Estimate: Absolute & Partial Constraints Removed					
Carroll County within GAB					
Proposed Land Use	Acreage	Maximum Lot Yield	Potential Units	Persons per Household	Potential Population
Conservation	7.08	1 per 3 gross acres	1	3.02	3
Low-Density Residential	201.84	2 per net acre	376	3.02	1,135
Medium-Density Residential	133.71	5 per net acre	633	3.02	1,911
Total Potential Population					3,049

In order to determine the possible future population of the Carroll County portion of Mount Airy, the potential population from the BLI analysis, and the potential population from approved subdivisions within the GAB were added to the current population within the GAB. According to Bureau of Comprehensive Planning estimates, the 2003 population for the Town of Mount Airy and the county land inside the GAB is 4,466. The total potential population of 10,504, assuming all of the land designated for residential use within the GAB is annexed and developed as planned, represents a 135 percent increase from the 2003 population within the GAB. These numbers would be subject to change if any land included in the calculation undergoes a rezoning or change in land use designation.

Potential Future Population	
Town of Mount Airy (Carroll County portion) and Growth Area Boundary	
Existing GAB population	4,466
Potential Population from Approved Subdivisions inside the GAB	1,253
Potential Population from BLI analysis	4,785
Total Potential Population inside the GAB	10,504

4 *Blended Forecast*

Population projections are based on many factors. Historic trends, while not always accurate indicators of future trends, provide a basis upon which projections can be made. Economic development, in and out migration, births and deaths, as well as changing age and household characteristics can play a significant role in affecting the population characteristics of a specific area.

Mount Airy Environs Community Comprehensive Plan

While population projections based on past and current population growth are very useful, identifying the total population that could possibly occur in the Town is also important information. Regardless of the growth possible by such factors as births and in-migration, the population capacity of a town based on zoning or land use designation is still a limiting factor in the extent to which the population can grow.

Both methods of projecting population have disadvantages. Historic trends and information used to complete traditional population forecasts do not take into account the fact that a jurisdiction can only grow so much. They also do not accommodate unforeseen trends and technology that might influence population growth. Population projections based on land use and zoning carry the assumption that the zoning will not change. Since rezonings cannot always be foreseen, these actions could alter the total population that is projected.

By blending the traditional projections with the projections based on zoning capacity or build-out, these projections can also be used as a guide to determine when the Town will reach certain population levels. The various methods used for the traditional forecast provide a high and low range of possible population. However, for each of the previous scenarios presented, the approximate year in which “build-out” would occur is shown in the following table. Everything after that year is shaded out.

Mount Airy Growth Area Boundary Population Projections				
Year Population Would Reach Zoning Capacity				
(Based on Projected Population of 10,504)				
Year	Method Used to Calculate			
	#1	#2	#3	#4
	AAGR 1990-2000 (4.10%)	AAGR 1999-2003 (9.67%)	Growth Rate 2000-2001 (13.85%)	[D.U./Yr (116) x Persons/Hshld (3.02)] x Occupancy Rate (96.6%)
2005	4,579	5,082	5,476	4,901
2006	4,766	5,573	6,235	5,239
2007	4,962	6,112	7,098	5,577
2008	5,165	6,703	8,081	5,915
2009	5,377	7,351	9,201	6,253
2010	5,597	8,062	10,475	6,591
2011	5,827	8,842	11,926	6,929
2012	6,066	9,697		7,267
2013	6,314	10,634		7,605
2014	6,573			7,943
2015	6,843			8,281
2016	7,123			8,619
2017	7,415			8,957
2018	7,719			9,295
2019	8,036			9,633
2020	8,365			9,971
2021	8,708			10,309
2022	9,065			10,647
2023	9,437			
2024	9,824			
2025	10,227			
2026	10,646			

Source: U.S. Census Bureau; Carroll County Bureau of Permits, Inspections, and Review; Carroll County Department of Planning

Mount Airy Environs Community Comprehensive Plan

The table above blends the projection for rate of growth with the estimation for possible population based on the land use designations or zoning capacity. The population projection based on AAGR 1999-2003 and the growth rate for 2000-2001 (Scenarios #2 and #3) are probably unrealistic projections based on the fact that the Town has put additional growth controls in effect since that time. Currently, developers cannot receive more than 24 building permits per year per subdivision. In addition to lowering the number of building permits issued, the Town has also recently adopted an Adequate Public Facilities Ordinance designed to ensure that growth does not compromise its ability to provide public facilities to the current population.

As a result of these new growth controls, it is unlikely that growth rates as high of those in scenarios #2 and #3 would occur in the future. While it is possible to achieve that level of growth for a shorter time period, it is not likely that this level of growth would be maintained over a 25-year time period. Therefore, the historic growth rate for those two scenarios would probably not be representative of future growth rates.

Using the potential total population of the GAB from the BLI analysis, we can use the various scenarios above to estimate a range of possible years when the Town will reach this population. If you eliminate scenarios #2 and #3 because of the Town's current growth controls, zoning capacity would be reached sometime between the years 2022 and 2026.