Population Estimates

Carroll County Department of Planning

	POPULATION ESTIMATES																							
	by ELECTION DISTRICT and MUNICIPALITY																							
	CARROLL COUNTY, MD																							
									I	Augus	st 20	19	<u></u>											
ELECTION	ED	2009	2009	2010C	2010	2010	2011	2011	2012	2012	2013	2013	2014	2014	2015	2015	2016	2016	2017	2017	2018	2018	2019	2019
DISTRICT/CITY	#	U&O	РОР	POP	U&O	POP	U&O	РОР	U&O	РОР	U&O	POP	U&O	РОР	U&O	POP	U&O	рор	U&0	РОР	U&0	рор	U&O	РОР
Taneytown ED	1	6	2,813	2,710	0	2,710	2	2,710	0	2,710	0	2,710	3	2,710	2	2,711	7	2,711	0	2,711	4	2,712	3	2,712
Taneytown City	1-1	7	7,019	6,728	6	6,743	2	6,743	3	6,744	24	6,748	22	6,752	38	6,758	17	6,761	26	6,766	20	6,769	23	6,773
Uniontown ED	2	8	4,357	4,148	6	4,163	2	4,163	2	4,163	2	4,163	3	4,164	2	4,164	4	4,164	5	4,165	3	4,165	2	4,165
Myers ED	3	1	5,621	5,516	3	5,524	2	5,524	3	5,524	3	5,525	1	5,525	7	5,525	4	5,526	9	5,527	14	5,528	1	5,528
Woolerys ED	4	18	17,760	17,487	20	17,539	15	17,541	20	17,543	41	17,547	33	17,550	37	17,554	41	17,558	32	17,561	30	17,564	25	17,566
Freedom ED	5	35	25,063	24,277	33	24,365	49	24,370	72	24,377	60	24,383	60	24,389	132	24,402	74	24,409	54	24,415	45	24,419	30	24,422
Sykesville Town	5-1	0	4,302	4,436	7	4,454	17	4,457	23	4,460	23	4,464	51	4,472	12	4,474	6	4,475	0	4,475	0	4,475	4	4,476
Manchester ED	6	9	9,363	9,193	3	9,201	5	9,201	5	9,202	14	9,203	12	9,205	5	9,205	8	9,206	7	9,207	12	9,208	10	9,209
Manchester Town	6-1	28	4,607	4,808	34	4,897	16	4,899	40	4,903	65	4,910	19	4,912	9	4,913	12	4,914	9	4,915	9	4,916	4	4,916
Westminster ED	7	23	18,743	18,162	20	18,212	30	18,215	22	18,217	39	18,221	51	18,225	35	18,229	40	18,232	23	18,235	14	18,236	10	18,237
Westminster City	7-1	22	17,818	18,590	35	18,664	20	18,667	13	18,669	36	18,674	17	18,677	31	18,681	15	18,683	30	18,688	60	18,697	33	18,702
Hampstead ED	8	9	8,531	8,475	5	8,488	6	8,489	8	8,489	4	8,490	5	8,490	7	8,491	5	8,491	21	8,493	21	8,496	10	8,496
Hampstead Town	8-1	15	6,173	6,323	3	6,330	1	6,330	0	6,330	0	6,330	3	6,331	5	6,331	13	6,332	14	6,333	7	6,334	4	6,334
Franklin ED	9	5	7,838	7,372	3	7,380	4	7,381	6	7,381	8	7,382	10	7,383	6	7,384	9	7,384	17	7,386	19	7,388	6	7,389
Middleburg ED	10	0	1,468	1,422	1	1,424	1	1,424	1	1,425	1	1,425	1	1,425	2	1,425	3	1,425	2	1,425	2	1,426	1	1,426
New Windsor ED	11	1	2,464	2,281	1	2,283	1	2,284	6	2,284	2	2,284	1	2,284	3	2,285	3	2,285	1	2,285	5	2,286	4	2,286
New Windsor Town	11-1	2	1,368	1,396	3	1,403	1	1,403	0	1,403	0	1,403	1	1,403	0	1,403	7	1,405	20	1,410	11	1,413	19	1,418
Union Bridge ED	12	0	548	576	1	578	1	578	0	578	1	578	1	579	3	579	2	579	1	579	0	579	0	579
Union Bridge Town	12-1	0	1,017	975	1	977	0	977	0	977	0	977	0	977	0	977	0	977	0	977	0	977	0	977
Mt Airy ED	13	3	4,575	4,475	6	4,492	2	4,492	4	4,492	7	4,493	5	4,494	7	4,494	5	4,495	10	4,496	1	4,496	3	4,496
Mt Airy Town (Total)		33	8,852	9,288	20	9,340	13	9,341	53	9,346	40	9,349	31	9,352	9	9,352	2	9,353	0	9,353	2	9,358	4	9,358
Mt Airy Town (Carroll)	13-1	33	4,988	5,503	20	5,555	13	5,556	53	5,561	40	5,564	31	5,567	9	5,567	2	5,568	5	5,568	1	5,571	3	5,571
Mt Airy Town (Frederick)	18-1	0	3,864	3,785	0	3,785	0	3,785	0	3,785	0	3,785	0	3,785	0	3,785	0	3,785	0	3,785	1	3,787	1	3,787
Berrett ED	14	16	12,495	12,281	4	12,292	8	12,293	10	12,294	20	12,296	23	12,298	30	12,301	44	12,305	29	12,308	14	12,346	7	12,347
COUNTY TOTAL		241	168,930	167,134	215	167,676	198	167,697	291	167,727	390	167,770	353	167,810	382	167,852	321	167,887	315	167,924	293	167,997	203	168,023
TOTAL INCORPORATED		107	47,292	48,759	109	49,023	70	49,032	132	49,047	188	49,070	144	49,090	104	49,105	72	49,115	104	49,132	108	49,151	90	49,166
% INCORPORATED		44%	28%	29%	51%	29%	35%	29%	45%	29%	48%	29%	41%	29%	27%	29%	22%	29%	33%	29%	37%	29%	44%	29%
TOTAL UNINCORPORATED		134	121,639	118,375	106	118,652	128	118,665	159	118,680	202	118,700	209	118,720	278	118,747	249	118,772	211	118,792	184	118,847	112	118,858
% UNINCORPORATED		56%	72%	71%	49%	71%	65%	71%	55%	71%	52%	71%	59%	71%	73%	71%	78%	71%	67%	71%	63%	71%	55%	71%

NOTES:

 U&O = Use and Occupancy Permits Issued
 2010C Column reflects 2010 US Census numbers
 Population estimates are based on an assumed average vacancy rate of 3.7%
 Population totals 2011-2018 have been adjusted to better align with Census Bureau Estimates 5) U&O and Population totals (2008-2018)
are based off of the calendar year-end date
6) New Household Size factors were implemented in these estimates
7) Survival Rate was factored in for the Population estimates which is less than 1%

SOURCES:

Carroll County Bureau of Permits and Inspections, U.S. Census Bureau Prepared by the Carroll County Department of Planning

Date of Completion: September 12, 2019

Population Model

- Estimated Population = Previous Year Population + (Average Household Size x Death Rate x U&O Current Year x Vacancy Rate)
 - Displayed to the right are the 2018 Populations, Average Household Sizes, Death Rate Multipliers and Vacancy Rates for each Election District/City
 - A sample equation for a Population Estimate based upon the current U&O's issued through July (164) and the Averages of variables for each Election District/City
 - The result is an increase of ~20, resembling the increase in in Population since December 2018

#	РОР			
	PUP	Size	Multiplyer	Rate
1	2,712	2.4	0.962	0.037
1-1	6,769	2.6	0.966	0.068
2	4,165	2.57	0.965	0.037
3	5,528	2.65	0.98	0.037
4	17,564	2.71	0.968	0.037
5	24,419	2.75	0.971	0.037
5-1	4,475	2.59	0.982	0.063
6	9,208	2.72	0.98	0.037
6-1	4,916	2.74	0.956	0.04
7	18,236	2.6	0.967	0.037
7-1	18,697	2.22	0.952	0.07
8	8,496	2.66	0.983	0.037
8-1	6,334	2.51	0.959	0.032
9	7,388	2.78	0.974	0.037
10	1,426	2.51	0.952	0.037
11	2,286	2.55	0.978	0.037
11-1	1,413	2.46	0.934	0.108
12	579	2.46	0.93	0.037
12-1	977	2.27	0.9	0.142
13	4,496	2.88	0.968	0.037
	9,358	2.69	0.966	0.033
13-1	5,571	2.69	0.966	0.033
18-1	3,787			
14	12,346	2.78	0.977	0.037
	7,504	2.58	0.96	0.0
		ulation Based or		7,524
	2 3 4 5 5-1 6 6-1 7 7-1 8 8-1 9 10 11 11-1 12 12-1 13 13-1 18-1	2 4,165 3 5,528 4 17,564 5 24,419 5 24,419 5-1 4,475 6 9,208 6-1 4,916 7 18,236 7-1 18,697 8 8,496 8-1 6,334 9 7,388 10 1,426 11 2,286 11-1 1,413 12 579 12-1 977 13 4,496 9,358 13-1 13-1 5,571 18-1 3,787 14 12,346	2 4,165 2.57 3 5,528 2.65 4 17,564 2.71 5 24,419 2.75 5-1 4,475 2.59 6 9,208 2.72 6-1 4,916 2.74 7 18,236 2.6 7-1 18,697 2.22 8 8,496 2.66 8-1 6,334 2.51 9 7,388 2.78 10 1,426 2.51 11 2,286 2.55 11-1 1,413 2.46 12 579 2.46 12 579 2.46 12 579 2.46 12 579 2.46 13 4,496 2.88 9,358 2.69 13-1 5,571 2.69 18-1 3,787 14 12,346 2.78	2 4,165 2.57 0.965 3 5,528 2.65 0.98 4 17,564 2.71 0.968 5 24,419 2.75 0.971 5-1 4,475 2.59 0.982 6 9,208 2.72 0.98 6-1 4,916 2.74 0.956 7 18,236 2.6 0.967 7-1 18,697 2.22 0.952 8 8,496 2.66 0.983 8-1 6,334 2.51 0.959 9 7,388 2.78 0.974 10 1,426 2.51 0.952 11 2,286 2.55 0.978 11-1 1,413 2.46 0.934 12 579 2.46 0.93 12-1 977 2.27 0.9 13 4,496 2.88 0.968 9,358 2.69 0.966 13-1 <tr tbody=""></tr>

HOUSEHOLD ESTIMATES														
	by ELECTION DISTRICT and MUNICIPALITY													
	CARROLL COUNTY, MD													
	August 2019													
	TED	2000	10100	2010	2011			2014	2015	2016	2015	2010	2010	2010
MUNICIPALITY / ELECTION DISTRICT	ED	2009	2010C	2010	2011	2012	2013 H	2014	2015	2016	2017	2018	2019	2019
	#			9			Housing Units							
Taneytown ED	1	1,075	1,117	1,117	1,119	1,119	1,119	1,122	1,124	1,131	1,131	1,135	1,138	1,104
City of Taneytown	1-1	2,531	2,554	2,560	2,562	2,565	2,589	2,611	2,649	2,666	2,692	2,712	2,735	2,653
Uniontown ED	2	1,588	1,607	1,612	1,614	1,616	1,618	1,621	1,623	1,627	1,632	1,635	1,637	1,588
Myers ED	3	2,048	2,068	2,070	2,072	2,075	2,078	2,079	2,086	2,090	2,099	2,113	2,114	2,051
Woolerys ED	4	6,381	6,443	6,459	6,474	6,494	6,535	6,568	6,605	6,646	6,678	6,708	6,733	6,531
Freedom ED	5	8,550	8,603	8,633	8,682	8,754	8,814	8,874	9,006	9,080	9,134	9,179	9,209	8,933
Town of Sykesville	5-1	1,482	1,474	1,481	1,498	1,521	1,544	1,595	1,607	1,613	1,613	1,613	1,617	1,568
Manchester ED	6	3,298	3,377	3,379	3,384	3,389	3,403	3,415	3,420	3,428	3,435	3,447	3,457	3,353
Town of Manchester	6-1	1,663	1,713	1,736	1,752	1,792	1,857	1,876	1,885	1,897	1,906	1,915	1,919	1,861
Westminster ED	7	6,923	6,834	6,850	6,880	6,902	6,941	6,992	7,027	7,067	7,090	7,104	7,114	6,901
City of Westminster	7-1	7,167	7,684	7,712	7,732	7,745	7,781	7,798	7,829	7,844	7,874	7,934	7,967	7,728
Hampstead ED	8	3,161	3,157	3,160	3,166	3,174	3,178	3,183	3,190	3,195	3,216	3,237	3,247	3,150
Town of Hampstead	8-1	2,265	2,500	2,500	2,501	2,501	2,501	2,504	2,509	2,522	2,536	2,543	2,547	2,471
Franklin ED	9	2,671	2,650	2,650	2,654	2,660	2,668	2,678	2,684	2,693	2,710	2,729	2,735	2,653
Middleburg ED	10	521	545	545	546	547	548	549	551	554	556	558	559	542
New Windsor ED	11	872	896	896	897	903	905	906	909	912	913	918	922	894
Town of New Windsor	11-1	535	566	569	570	570	570	571	571	578	598	609	628	609
Union Bridge ED	12	208	235	235	236	236	237	238	241	243	244	244	244	237
Town of Union Bridge	12-1	396	429	430	430	430	430	430	430	430	430	430	430	417
Mt Airy ED	13	1,662	1,521	1,527	1,529	1,533	1,540	1,545	1,552	1,557	1,567	1,568	1,571	1,524
Town of Mt Airy (Carroll)	13-1	1,780	2,011	2,025	2,038	2,091	2,131	2,162	2,171	2,173	2,173	2,175	2,179	2,114
Berrett ED	14	4,426	4,422	4,426	4,434	4,444	4,464	4,487	4,496	4,498	4,503	4,517	4,524	4,388
COUNTY TOTAL		61,202	62,406	62,572	62,770	63,061	63,451	63,804	64,165	64,444	64,730	65,023	65,226	63,269
TOTAL INCORPORATED	6	17,819	18,931	19,013	19,083	19,215	19,403	19,547	19,651	19,723	19,822	19,931	20,022	19,421
% INCORPORATED		29%	30%	30%	30%	30%	31%	31%	31%	31%	31%	31%	31%	31%
TOTAL UNINCORPORAT	ED	43,383	43,475	43,559	43,687	43,846	44,048	44,257	44,514	44,721	44,908	45,092	45,204	43,848
% UNINCORPORATED		71%	70%	70%	70%	70%	69%	69%	69%	69%	69%	69%	69%	69%

NOTES:

 2019 household estimates are given for both number of total housing units and number of households (occupied housing units) based on an assumed average vacancy rate of 3.7%
 2) 2010C Column reflects 2010 US Census numbers

SOURCES:

Carroll County Bureau of Permits and Inspections, U.S. Census Bureau Prepared by the Carroll County Department of Planning

Date of Completion: September 12, 2019

Definitions

- 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.
- Household
 - A household includes all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence.
 - A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. There are two major categories of households, "family" and "nonfamily."
 - Household is a standard item in Census Bureau population tables

Housing Unit Model

- Housing Unit Estimates = Previous Year Housing Units + U&Os issued this year
 - Attached below are the Housing Unit Estimates from the last nine months
 - In December 2018 (highlighted below) the projected total Housing Units was 65,023. Since, there has been 164 U&O's issued, for an updated total of 65,187 in July 2019

Date	Population	Housing Units	Households	U+Os (Year)	U+Os (Month)
July, 2019	168,018	65,187	63,231	164	25
June, 2019	168,015	65,162	63,207	139	33
May, 2019	168,011	65,129	63,175	106	31
April, 2019	168,007	65,098	63,145	75	10
March, 2019	168,006	65,088	63,135	65	27
February, 2019	167,998	65,061	63,109	38	21
January, 2019	167,998	65,039	63,088	17	17
December, 2018	167,997	65,023	63,072	293	-
November, 2018	174,707	64,982	63,003	-	-
October, 2018	174,654	64,963	63,014	-	-
September, 2018	174,577	64,935	62,987	-	-

Occupied Household Model

- Occupied Household Estimates = Housing Units x 0.97
 - $\,\circ\,$ 0.97 accounts for an average assumed vacancy rate of 3%
 - $\,\circ\,$ Attached below are the Household estimates for the past nine months

Date	Population	Housing Units	Households	U+Os (Year)	U+Os (Month)
July, 2019	168,018	65,187	63,231	164	25
June, 2019	168,015	65,162	63,207	139	33
May, 2019	168,011	65,129	63,175	106	31
April, 2019	168,007	65,098	63,145	75	10
March, 2019	168,006	65,088	63,135	65	27
February, 2019	167,998	65,061	63,109	38	21
January, 2019	167,998	65,039	63,088	17	17
December, 2018	167,997	65,023	63,072	293	-
November, 2018	174,707	64,982	63,003	-	-
October, 2018	174,654	64,963	63,014	-	-
September, 2018	174,577	64,935	62,987	-	-

Household Projection Methodology

- To project the number of households, using data given by the Maryland Department of Planning, Carroll County planning staff reviewed the annual number of Use and Occupancy (U&O's) permits by election district from the last decade (2006-2016). Carroll County experienced a constant decline in growth from years 2006 to 2012, however, the County started to gradually increase in growth from 2013 to 2016.
- The average number of permits was calculated for each election district and each number was used as a guide for the projections from the 10-year timeframe. Carroll County has a total of 14 election districts. The table to the right is the averages for all 14 Election Districts:

Household Projection Methodology

 Using these averages as a guide, the planning staff assumed that each election district would add approximately the same number of new units per year. Round 9 is a fairly conservative projection, averaging roughly 364 Residential U&O's countywide per year.

E.D	Avg. U&O/year
1	38.4
2	4.7
3	4.6
4	32.3
5	71.2
6	41.5
7	78.8
8	15.4
9	8.8
10	1.6
11	4.7
12	1.5
13	37.5
14	22.8

Population Projection Methodology

- The population projections are derived from the data provided by the Maryland Department of Planning. To develop the projections, the staff applied the average household size for each of the 2010 Census Block Group to the number of households projected. This number was generally descending out to 2045 assuming a continued overall decrease in average household size. Because the average household size for the County has been declining for the last 25 years (2.85 in 1990, 2.81 in 2000, 2.74 in 2010, and 2.69 in 2015), staff calculated accordingly in reducing the number.
- For reference, The U.S. Census Bureau Population Estimates Program estimated a 2018 population of 168,429, while the Round 9 projection was 168,540, a difference of only 0.1%.

Questions?