Analysis Of The 2024 Population Estimates For Maryland: Age, Sex, And Race Characteristics

MARYLAND STATE DATA CENTER

Maryland
DEPARTMENT OF PLANNING

ANALYSIS OF THE 2024 POPULATION ESTIMATES FOR MARYLAND: AGE, SEX, AND RACE CHARACTERISTICS

The U.S. Census Bureau has released its latest population estimates for age, sex, and race characteristics. The data show that Maryland's population increased from 6.18 million in April, 2020 to 6.26 million in July, 2024—a gain of 81,600. In an analysis of these statistics, the Maryland Department of Planning (MDP) reports on changes in the population structure by age and sex, the prime working-age population, and racial diversity. The population estimates may also be accessed at the MDP State Data and Analysis Center website.

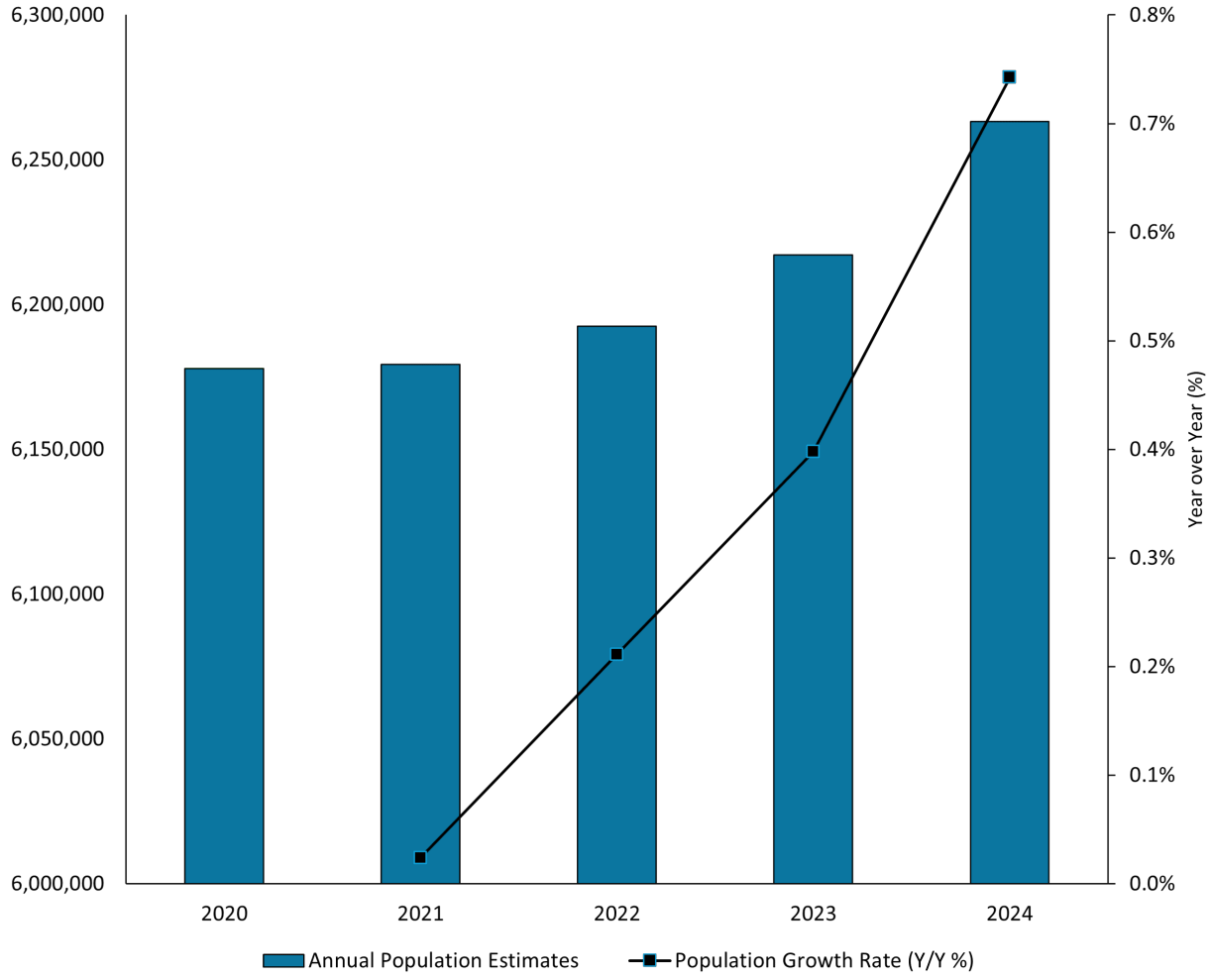
Highlights:

- The prime working-age population (25–54) is gradually shrinking. While the 30–34 and 35–39 age groups remained stable or grew slightly between 2020 and 2024, the 25–29 group and 50–54 groups declined, suggesting fewer new entrants and more aging out of the workforce.
- The elderly population (age 65 and above) showed modest growth, with the largest increases in the 75–79 and 80–84 groups.
- Median age increased from 39.0 in 2020 to 39.7 in 2024, with some counties aging faster and others growing younger due to changing population trends.

Population Growth in Maryland

As of July 1, 2024, Maryland's population reached 6,263,220, an increase of 46,158 residents from the previous year (see Figure 1). Since 2020, the state has experienced modest annual population growth. The growth rate was less than 0.1 percent between 2020 and 2021, followed by annual increases of 0.2 percent in 2021–2022, 0.4 percent in 2022–2023, and 0.7 percent in 2023–2024.

Fig. 1. Maryland Population Trends and Growth Rates, 2020–2024

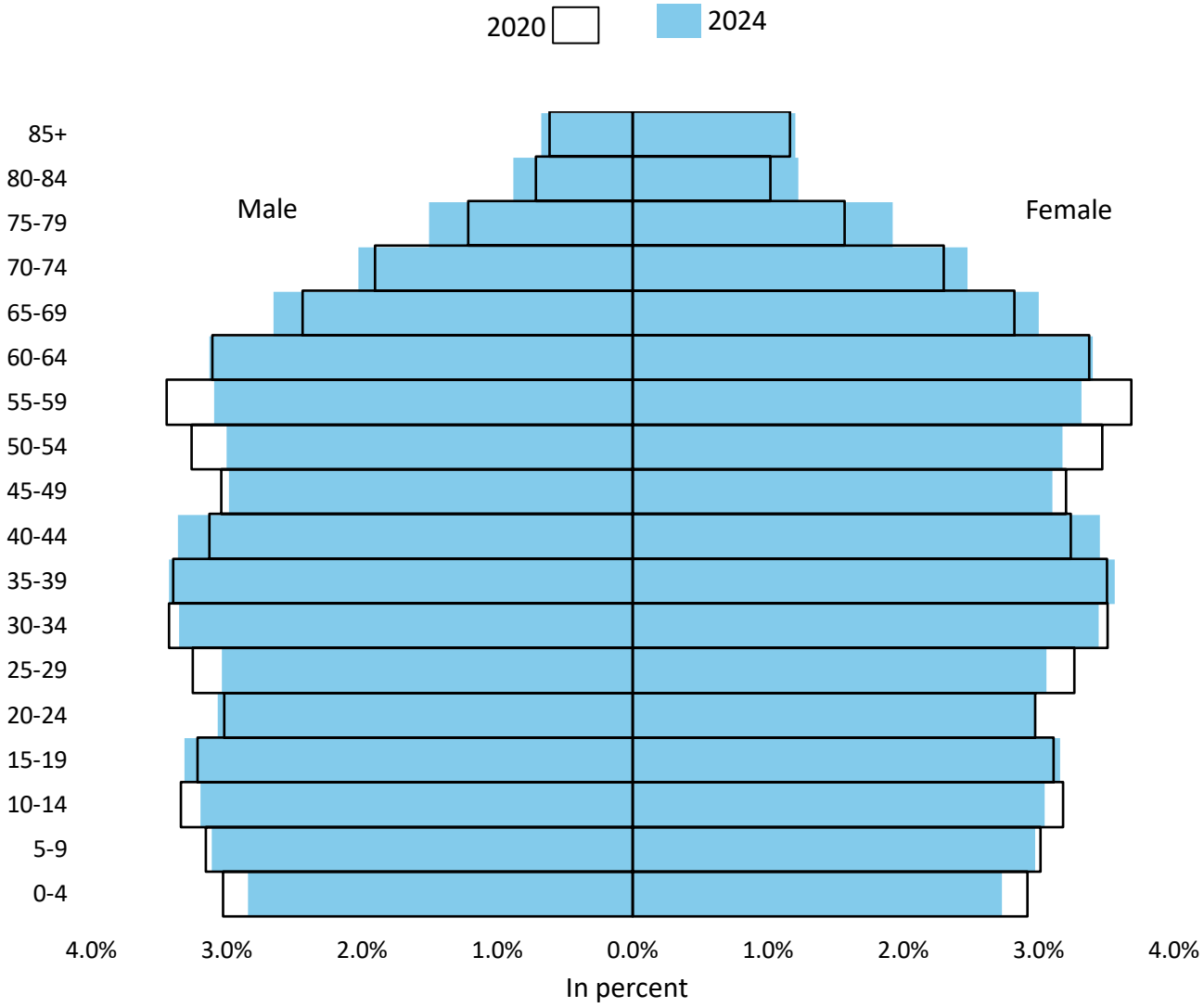


Changes in Maryland population structure by age and sex

The population structure of Maryland by age and sex is illustrated by population pyramids (See Figure 2). A population pyramid is a graphical representation that shows the distribution of various age groups and gender in a population. The male population is represented on the left-hand side of the pyramid and female population on the right.

Population pyramids for Maryland, between 2020 and 2024, reflect a beehive-like population structure which is characterized by narrow shapes at both the bottom and top, with widest shapes in the middle.

Fig. 2. Maryland's Age Structure in 2020 and 2024



The percentage distribution of the youngest age groups (0–14 years) decreased from 18.6% in 2020 to 17.9% in 2024[1]. The distribution by sex reveals the number of males exceeding that of females in the youngest age groups[2].

The pyramids show modest growth among teens (+0.2%) and young adults in their early 20s (+0.1%)[3]. The percentage share of teenagers (ages 15–19) increased slightly, from 6.3% in 2020 to 6.5% in 2024. Similarly, the 20–24 age group grew from 6.0% to 6.1% over the same period. These age groups feed into the labor force, but their sizes are not enough to compensate for the losses occurring at older working ages.

In 2020, Maryland's prime working-age population (ages 25–54) made up a large portion of the population. The largest shares within this group were in the age groups 30–34 (6.9%), 35–39 (6.8%), and 50–54 (6.7%), compared to 25–29 (6.5%), 40–44 (6.4%), and 45–49 (6.2%). These values point to a strong labor force, especially concentrated in the 30s and early 50s.

By 2024, the 30–34 group remained relatively high at 6.8%, and the 35–39 group increased slightly to 7.0%. However, the 25–29 group declined to 6.1%, and the 50–54 group fell to 6.2%. This shift indicates that Maryland's prime working-age population has become more concentrated in midlife, with fewer people at the younger and older ends of the working-age spectrum.

Overall, the data suggests that while the prime working-age population remains strong between 2020 and 2024, there are fewer new entrants (ages 25–29) moving into the workforce pipeline, and older workers (ages 50–54) are beginning to age out. This emerging imbalance suggests the potential for future labor force contraction if not addressed through policy, migration, or other demographic shifts.

The pre-retirement age group (ages 55–64) is clearly transitioning out of the workforce, with the bulk of this population shifting upward in the age structure. In 2020, the 55–59 age group was one of the largest in the middle of the population pyramid, accounting for 7.1% of Maryland's total population. By 2024, this group had shrunk to 6.4%, reflecting its aging into the next bracket. At the same time, the 60–64 age group expanded, which suggests that most individuals aged 55–59 in 2020 progressed into the 60–64 group by 2024 with relatively little

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[1] As shown in Figure 2, the three bars at the base of each pyramid represent children ages 0–14 years. Considering the 2020 pyramid, the three bars at the base are narrower than the bars for the working age groups. Similar patterns are shown in the 2024 pyramid. In addition, the 2024 pyramid shows that the three bars at the bottom have become slightly thinner compared to the shape in 2020.

[2] A natural trend observed in most human populations, more males than females at birth and youngest age groups this is a normal biological pattern. Over time, due to higher male mortality rates at most ages, the number of males gradually declines relative to females, resulting in more females in older age groups.

[3] The 4th to 13th bars at the middle of the pyramid represent ages 15–64, which covers the core working-age population, including teens and early 20s, prime working-age population and pre-retirement ages.

attrition, indicating low mortality and demographic stability within that cohort over the four-year period.

In 2020, older adults aged 65 and above combined made up a sizable share (15.8%) of Maryland's total population. However, the distribution of the elderly population shows relatively fewer populations in the oldest age groups i.e., 65–69 age group comprised 5.2%, 70–74 was 4.2%, 75–79 was 2.7%, 80–84 was 1.7%, and those 85 and older represented 1.7%. In the oldest age groups, especially 80–84 and 85+, women clearly outnumbered men. For instance, in the 85+ age group, females made up 1.6% of the population, compared to only 0.6% for males.

By 2024, the share of older adults aged 65 and above increased from 15.8% in 2020 to 17.6% in 2024, reflecting the aging of the Baby Boom generation. Female dominance persisted in the older age groups, but there was evidence of improving male longevity, seen in a modest increase in the male share of older age cohorts. For instance, males aged 85+ rose from 0.61% of the population in 2020 to 0.67% in 2024. Despite this, females continued to significantly outnumber males at the oldest ages.

Changes in Median Age in Maryland and its Jurisdictions, 2020-2024

The median age of Maryland's population was estimated at 39.0 years in 2020 and increased steadily each year, reaching 39.7 years by 2024[4].

Maryland's youngest jurisdictions in 2020 were Baltimore City (35.9), Wicomico County (36.2 years), and St. Mary's County (37.0), each with a median age at least two years below the statewide median (see Table 1 in appendix). By 2024, all three continued to fall below the state median, underscoring their relatively younger population profiles.

In contrast, the oldest jurisdictions in 2024 were Worcester (51.3 years), Talbot (50.6), Kent (49.2), and Garrett counties (48.1), all of which showed a more senior population likely influenced by the in-migration of retirees and out-migration of youth.

As of 2024, several counties had median ages closely aligned with the statewide median of 39.7 years, indicating age structures like the overall state. These included Anne Arundel (39.2), Charles (39.3), Frederick (39.4), Caroline (39.7), and Baltimore counties (39.9).

Some jurisdictions saw a more rapid increase in median age between 2020 and 2024, particularly Howard (+1.3 years), Montgomery (+1.0), Garrett (+1.0), and Prince George's

[4] The median age is the age that divides a population into two equal halves: half of the population is younger than the median age, and half is older. It serves as a summary measure of the age distribution within a population.

counties (+0.9). These shifts likely reflect a combination of aging-in-place, increased life expectancy, and reduced in-migration of younger populations.

Conversely, a few counties became slightly younger during the same period, based on a decline in median age. These included Somerset, Allegany, Caroline, Carroll, Washington, and Wicomico counties, possibly due to the dying out of the senior population, expanding student populations, or modest increases in births.

Total Dependency Ratios in Maryland and its Jurisdictions, 2020-2024

MDP measured total dependency ratio by comparing the sum of the children's population (ages 0-17) and older adults (ages 65 and above) to the working-age population (ages 18-64). This ratio shows the economic pressure on the working-age population to support dependents.

Maryland's total dependency ratio increased gradually from 61.9% in 2020 to 65.3% in 2024 (see Table 2). This trend reflects an increasing burden on the working-age population and suggests that a larger share of the state population consists of dependents over time.

All 24 jurisdictions experienced an increase in total dependency ratio during the 2020–2024 period with greater percentage point increases in Dorchester (+6.0%), Garrett (+5.8%), Kent (+5.6%), and Caroline counties (+5.5%). In contrast, some jurisdictions had relatively modest increases, such as Washington (+1.2%) and Allegany counties (+1.8%).

As of 2024, jurisdictions with the highest dependency ratios included Talbot (95.5%), Worcester (87.8%), Dorchester (81.6%) and Kent counties (79.7%). These counties have very high dependency ratios, likely driven by a large proportion of older adults, especially Talbot and Worcester counties.

Jurisdictions with the lowest dependency ratios included Somerset County (56.5%), Baltimore City (58.5%), Prince George's County (60.5%) and Charles County (61.2%). These ratios are likely influenced by relatively younger populations or a higher proportion of working-age residents, contributing to lower economic dependency pressures.

Changes in Prime Working-Age Population

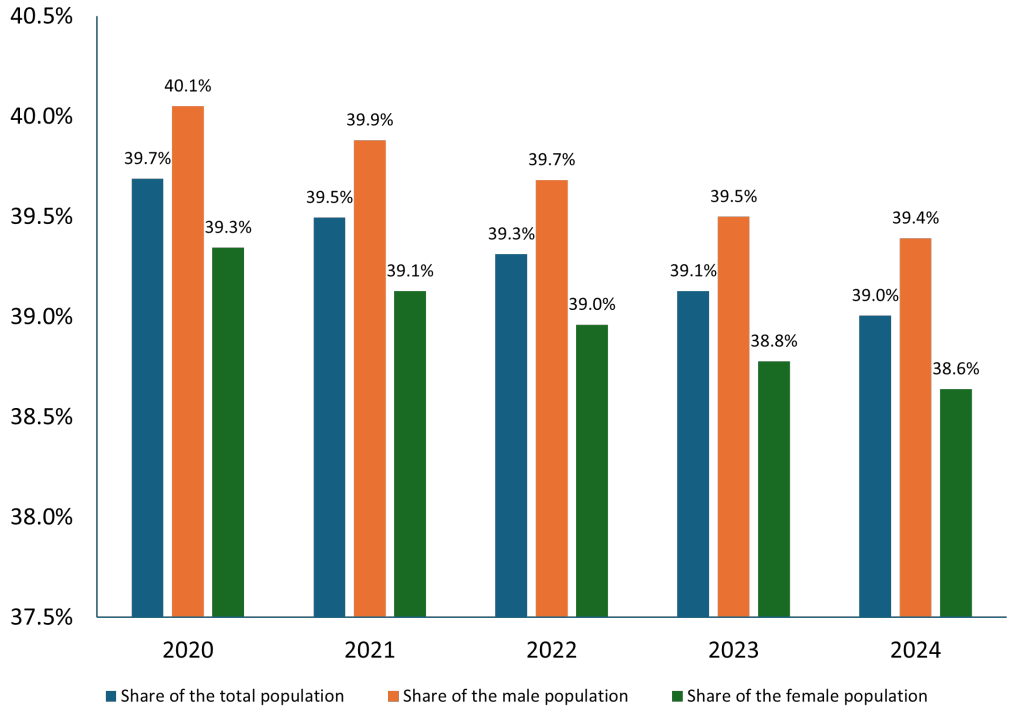
The prime working-age population refers to Marylanders aged 25 to 54, regardless of whether they are in the labor force, employed, or not working. This age group has the highest labor force participation rate and is considered a major driver of economic productivity because they are beyond typical schooling years (under age 25) and are not yet nearing traditional retirement age (55 and older).

Census estimates show a gradual decline in the share of the prime working-age population (ages 25–54) as a percentage of Maryland's total population from 2020 to 2024. The prime working-age population's share of Maryland's total population declined annually from 39.7% in 2020 to 39.0% in 2024. This downward trend suggests that the proportion of individuals in the prime working-age population is shrinking relative to the total population.

From 2020 to 2024, both male and female prime working-age populations declined gradually as a percentage of their respective total populations. Although the size of the decline was the same (0.7 percentage points for both groups) the trend was more pronounced among females (likely due to their consistently lower starting and ending shares).

For males, the share fell from 40.1% in 2020 to 39.4% in 2024, while for females, it declined from 39.3% to 38.6%. Throughout the period, men consistently had a higher prime working-age population than women, depicting a persistent gender gap in the core working-age population.

Fig. 3. Trends in Prime Working-Age Population as a Share of Maryland's Total and Sex-Specific Populations, 2020–2024



Percent distribution of Maryland population by race and Hispanic origin

Non-Hispanic White and non-Hispanic Black populations remain the largest racial and ethnic groups in Maryland (Table 3). In 2020, non-Hispanic White and non-Hispanic Black residents comprised a little more than three-quarters of the state population (48.7% and 30.0% respectively). Following these two groups were Hispanics, who made up 11.8% of the population. Other racial-ethnic groups represented smaller shares, including Asian (6.6%), individuals of two or more races (2.5%), American Indian and Alaska Native (0.2%), and Native Hawaiian and Other Pacific Islander (less than 0.1%). These distributional patterns have remained consistent throughout the 2020–2024 periods.

Percentage changes since 2020

However, in terms of changes since 2020, certain racial-ethnic groups have experienced higher rates of population growth than non-Hispanic White and non-Hispanic Black residents (Table 4). Hispanic residents experienced the highest annual growth, with the population increasing by 1.7% between 2020 and 2021, and continuing to increase each year, reaching a 4.1% increase between 2023 and 2024. The population of individuals identifying as two or more races also grew steadily, from 2.0% in 2020–2021 to 2.8% in 2023–2024. Similarly, the Asian population increased annually from 1.2% in 2020–2021 to 2.8% in 2023–2024. In contrast, the non-Hispanic White population declined each year, with annual decreases ranging from 0.8% in 2020–2021 to 0.6% in 2023–2024. Among non-Hispanic Black residents, the population showed modest annual growth, increasing from 0.3% to 0.8% over the same period.

Trend in diversity index in Maryland and its jurisdictions

Maryland showed slow but steady progress toward greater racial-ethnicity diversity. The diversity index represents the probability that two people chosen at random from a population belong to different racial or ethnic groups. With a diversity index of 0.65 in 2020, Maryland exhibited high diversity, meaning there was a 65% chance that two Marylanders chosen at random would belong to different racial-ethnic groups[5] (see Table 5). This probability increased slightly to 66% in 2021, remained steady in 2022, and then rose marginally to 67% in both 2023 and 2024, reflecting a gradual increase in the state's racial and ethnic diversity over time.

Most and least diverse counties

Racial and ethnic diversity varied by jurisdiction. Five jurisdictions were categorized as having low diversity in mid-2020 including Garrett (7%), Allegany (23%), Carroll (23%), Queen Anne's (26%) and Cecil (29%) counties, with percentages representing each county's diversity index. Among these, only Cecil County transitioned to the moderate diversity category by mid-2024, showing a gradual shift in its racial and ethnic composition.

As of mid-2020, fifteen Maryland jurisdictions were categorized as having moderate racial and ethnic diversity, including: Worcester (35%), Kent (38%), Calvert (39%), Washington (40%), Talbot (40%), Caroline (42%), Harford (43%), St. Mary's (44%), Frederick (49%), Dorchester (53%), and Anne Arundel (53%) counties, Baltimore City (56%), and Wicomico (56%), Somerset (57%), and Prince George's (57%) counties. All fifteen counties remained in the moderate

[5] There are no standards or official federal thresholds used for defining what is a 'low', 'moderate', or 'high' diversity index. The metrics we used for interpreting the diversity index are as follows: 0.0 - 0.29 (low diversity), 0.3 – 0.59 (moderate diversity), 0.60 – 0.79 (high diversity), and 0.80 and above (very high with no single group close to majority). These ranges are commonly used in demographic research.

diversity category throughout the 2020–2024 period, showing stable demographic composition over time.

Furthermore, four jurisdictions were identified as exhibiting high levels of racial and ethnic diversity in mid-2020 including Baltimore (61%), Charles (62%), Howard (68%) and Montgomery counties (72%), based on their respective diversity index values. Each of these counties maintained high levels of diversity throughout the 2020–2024 period.

Appendix

Table 1. Median Ages in Maryland and its Jurisdiction, 2020–2024

State/ Jurisdictions	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Maryland	**39.0**	**39.3**	**39.4**	**39.6**	**39.7**
Allegany County	42.1	41.8	41.7	41.6	41.6
Anne Arundel County	38.5	38.6	38.8	39.0	39.2
Baltimore County	39.3	39.5	39.6	39.8	39.9
Calvert County	40.5	40.4	40.4	40.7	41.0
Caroline County	40.1	40.1	40.0	40.0	39.7
Carroll County	41.7	41.5	41.4	41.3	41.6
Cecil County	40.7	40.8	40.7	40.8	40.8
Charles County	38.6	38.6	38.8	39.1	39.3
Dorchester County	44.9	44.8	44.8	44.6	44.6
Frederick County	39.0	38.9	38.9	39.1	39.4
Garrett County	47.1	47.3	47.7	48.0	48.1
Harford County	40.5	40.5	40.6	40.9	41.2
Howard County	39.0	39.3	39.6	39.9	40.3
Kent County	48.8	48.7	49.1	49.2	49.2
Montgomery County	39.8	40.2	40.4	40.6	40.8
Prince George's County	38.0	38.4	38.7	38.9	38.9
Queen Anne's County	44.5	44.4	44.6	44.8	44.8
St. Mary's County	37.0	37.1	37.3	37.5	37.7
Somerset County	38.5	38.5	38.4	38.2	38.0
Talbot County	50.4	50.7	50.7	50.7	50.6
Washington County	40.6	40.6	40.5	40.6	40.5
Wicomico County	36.2	36.2	36.1	36.1	36.1
Worcester County	50.6	50.5	51.0	51.2	51.3
Baltimore City	35.9	36.1	36.2	36.4	36.5

Note: Data from the U.S. Census Bureau's Population Estimates Program were utilized.
https://planning.maryland.gov/MSDC/Pages/s2_estimate.aspx

Table 2. Total Dependency Ratios in Maryland and its Jurisdiction, 2020–2024

State/ Jurisdictions	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Maryland	**0.62**	**0.62**	**0.64**	**0.65**	**0.65**
Allegany County	0.63	0.63	0.64	0.65	0.65
Anne Arundel County	0.60	0.61	0.62	0.63	0.64
Baltimore County	0.65	0.66	0.67	0.68	0.68
Calvert County	0.63	0.64	0.65	0.66	0.67
Caroline County	0.68	0.69	0.70	0.72	0.74
Carroll County	0.65	0.65	0.66	0.68	0.69
Cecil County	0.63	0.64	0.65	0.66	0.67
Charles County	0.59	0.60	0.60	0.61	0.61
Dorchester County	0.76	0.77	0.79	0.80	0.82
Frederick County	0.62	0.62	0.63	0.64	0.64
Garrett County	0.70	0.71	0.72	0.74	0.76
Harford County	0.64	0.65	0.66	0.67	0.68
Howard County	0.63	0.63	0.64	0.65	0.65
Kent County	0.74	0.75	0.76	0.78	0.80
Montgomery County	0.64	0.65	0.66	0.67	0.68
Prince George's County	0.57	0.58	0.59	0.60	0.60
Queen Anne's County	0.69	0.70	0.71	0.73	0.74
St. Mary's County	0.60	0.60	0.62	0.63	0.63
Somerset County	0.53	0.54	0.55	0.56	0.57
Talbot County	0.92	0.93	0.93	0.95	0.95
Washington County	0.65	0.65	0.66	0.66	0.67
Wicomico County	0.64	0.64	0.65	0.66	0.67
Worcester County	0.83	0.84	0.85	0.87	0.88
Baltimore City	0.55	0.56	0.57	0.58	0.58

Note: Data from the U.S. Census Bureau's Population Estimates Program were utilized.
https://planning.maryland.gov/MSDC/Pages/s2_estimate.aspx

Table 3. Percentage distribution of Maryland population by race and Hispanic origin, 2020–2024

Race and Hispanic Origin	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Non-Hispanic White	48.7%	48.3%	47.7%	47.1%	46.4%ch
Non-Hispanic Black or African American	30.0%	30.1%	30.1%	30.1%	30.1%
American Indian and Alaska Native	0.2%	0.2%	0.2%	0.2%	0.2%
Asian	6.6%	6.7%	6.9%	7.0%	7.1%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.0%
Two or More Races	2.5%	2.6%	2.7%	2.7%	2.8%
Hispanic	11.8%	12.0%	12.4%	12.8%	13.3%

Note: Data from the U.S. Census Bureau's Population Estimates Program were utilized.
https://planning.maryland.gov/MSDC/Pages/s2_estimate.aspx

Table 4. Percent Change of the Resident Population by Race, and Hispanic Origin for Maryland, 2020–2024

Race and Hispanic Origin	7/1/20-7/1/21	7/1/21-7/1/22	7/1/22-7/1/23	7/1/23-7/1/24
Non-Hispanic White	-0.8%	-1.1%	-0.9%	-0.6%
Non-Hispanic Black or African American	0.3%	0.4%	0.5%	0.8%
American Indian and Alaska Native	-0.9%	-0.8%	-0.4%	0.6%
Asian	1.2%	2.6%	2.2%	2.8%
Native Hawaiian and Other Pacific Islander	0.3%	0.5%	1.2%	-0.4%
Two or More Races	2.0%	2.5%	2.5%	2.8%
Hispanic	1.7%	3.4%	3.7%	4.1%

Note: Data from the U.S. Census Bureau's Population Estimates Program were utilized.
https://planning.maryland.gov/MSDC/Pages/s2_estimate.aspx

Table 5. Diversity Index in Maryland and its Jurisdiction, 2020–2024

State/ Jurisdictions	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
Maryland	0.65	0.66	0.66	0.67	0.67
Baltimore Region	0.61	0.62	0.62	0.63	0.63
Anne Arundel	0.53	0.54	0.55	0.56	0.57
Baltimore County	0.61	0.62	0.62	0.63	0.63
Carroll	0.23	0.24	0.26	0.27	0.28
Harford	0.43	0.43	0.44	0.45	0.46
Howard	0.68	0.68	0.69	0.69	0.70
Baltimore City	0.56	0.56	0.56	0.56	0.57
Suburban Washington Region	0.72	0.72	0.72	0.73	0.73
Frederick	0.49	0.50	0.52	0.54	0.55
Montgomery	0.72	0.72	0.73	0.73	0.73
Prince George's	0.57	0.57	0.57	0.58	0.58
Southern Maryland Region	0.58	0.58	0.59	0.60	0.60
Calvert	0.39	0.40	0.41	0.42	0.42
Charles	0.62	0.62	0.62	0.62	0.61
St. Mary's	0.44	0.45	0.45	0.46	0.47
Western Maryland Region	0.32	0.33	0.35	0.36	0.37
Allegany	0.23	0.24	0.24	0.25	0.25
Garrett	0.07	0.08	0.08	0.09	0.09
Washington	0.40	0.41	0.43	0.44	0.46
Upper Eastern Shore Region	0.33	0.34	0.34	0.35	0.36
Caroline	0.42	0.43	0.43	0.44	0.45
Cecil	0.29	0.30	0.31	0.32	0.33
Kent	0.38	0.38	0.39	0.39	0.39
Queen Anne's	0.26	0.27	0.27	0.28	0.29
Talbot	0.40	0.41	0.42	0.42	0.43
Lower Eastern Shore Region	0.52	0.52	0.52	0.53	0.53
Dorchester	0.53	0.53	0.53	0.54	0.54
Somerset	0.57	0.57	0.57	0.58	0.58
Wicomico	0.56	0.56	0.57	0.57	0.58
Worcester	0.35	0.34	0.34	0.34	0.35

Note: Data from the U.S. Census Bureau's Population Estimates Program were utilized.
https://planning.maryland.gov/MSDC/Pages/s2_estimate.aspx