Tennessee Population Projections for 2022-2070

Methodology, Summary of Findings and Notes

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In newly released projections, the [Boyd Center for Business and Economic Research](#) (BCBER) predicts that Tennessee's population will surpass 8 million by approximately 2041. This will result in the addition of nearly 900,000 new residents to the state's population, which was estimated to be 7.05 million people in 2022.

Figure 1: Tennessee Resident and Projected Population, 1910-2070
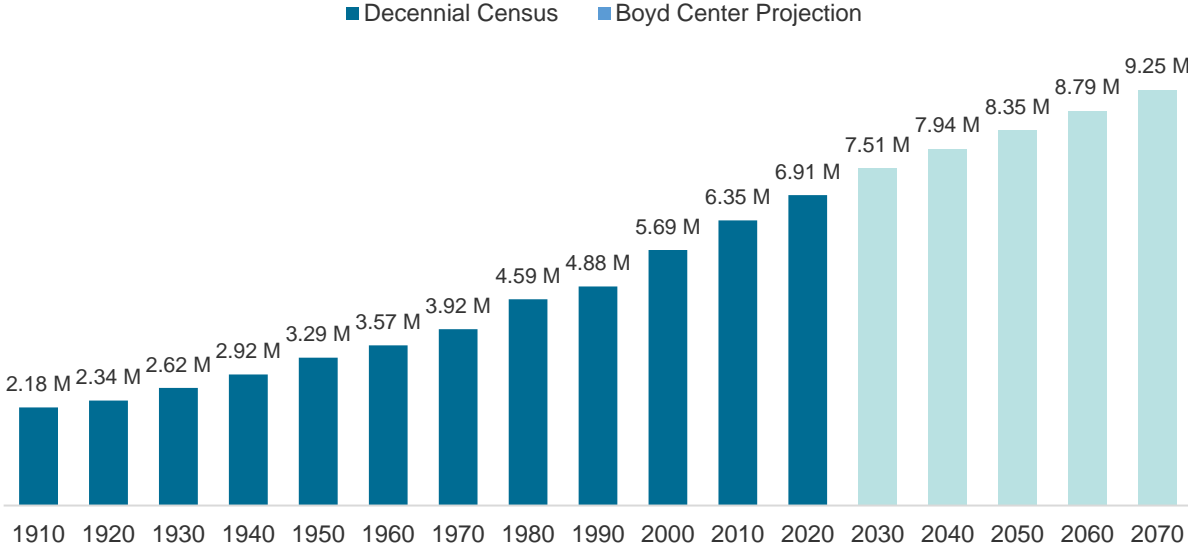
US Census Bureau, Boyd Center for Business and Economic Research

Through 2030, Tennessee's growth rate is projected to be similar to the population increases seen between 2010 and 2020. The state is expected to add more than 600,000 people between 2020 and 2030; about 35,000 more people than were added between 2010 and 2020. The resulting 8.7 percent increase this decade puts it on par with last decade's 8.9 percent gain. But beyond that point, the state's population increases are expected to slow somewhat. Between 2030 and 2040, the level of growth is expected to pull back to a 5.7 percent gain when projections show an increase of 427,000 people over the decade. Generally speaking, this slower pace of increase will continue in the decades following through 2070 (Table 1).

Table 1: The projected population increase for 2020 to 2030 (602,917) is expected to be slightly more than the prior decade (564,735). Rates of population increase will also be similar but will then begin to decelerate after 2030.

| Year	Population	Change	Percent Change
2020	6,910,840	564,735	8.9%
2030	7,513,757	602,917	8.7%
2040	7,940,301	426,544	5.7%
2050	8,346,845	406,544	5.1%
2060	8,786,239	439,394	5.3%
2070	9,253,868	467,629	5.3%

Age and Race Demographics

Growing racial diversity and aging will continue to headline Tennessee's population change in the coming decades. By 2040, almost 20 percent of the state's population is expected to be aged 65 and older. This is up from 17.3 percent in 2022, and a growth of 306,000 people. A key feature of this expansion will be the increase in the number of Tennessee's oldest residents. In 2022, there were more than 119,000 Tennesseans over the age of 85, and approximately 491,000 Tennesseans aged at least 75 years. By 2040, those numbers are expected to increase to nearly 205,000 individuals aged 85 and older and almost 712,000 people who are at least 75 years of age (Table 2).

Table 2: The projected population change of Tennessee seniors aged 65 years and over from 2022 to 2040 shows that people 85 years and older will grow most quickly (71.8 percent)

Age Group	2022	2040	Change (Percent)
65 to 74	729,524	815,120	85,596 (11.7%)
75 to 84	372,230	506,795	134,565 (36.2%)
85 and over	119,236	204,895	85,659 (71.8%)
All Seniors 65+	1,220,990	1,526,810	305,820 (25.0%)

Youth and working-age populations in Tennessee will also grow, but those increases will be of an amount and pace that is smaller than the increase in the state's senior population. The share of the state's population that is under age 20 will grow slightly from 24.2 percent to 24.4 percent. This equates to an increase of over 237,000 under the age of 20 or a 13.9 percent change. The share of the state's population in their prime working years between the ages of 25 and 54 will grow by 296,000 people or 10.8 percent; slightly slower than the state as a whole. That will result in the share of the state's population that are prime-age workers dipping to 38.3 percent of the population, down from 38.9 percent in 2022 (Figure 2).

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Figure 2: Among the highlighted age groups, prime working-age individuals (25 to 54) is projected to remain the largest at 3.04 million people, but the senior population is growing more rapidly.
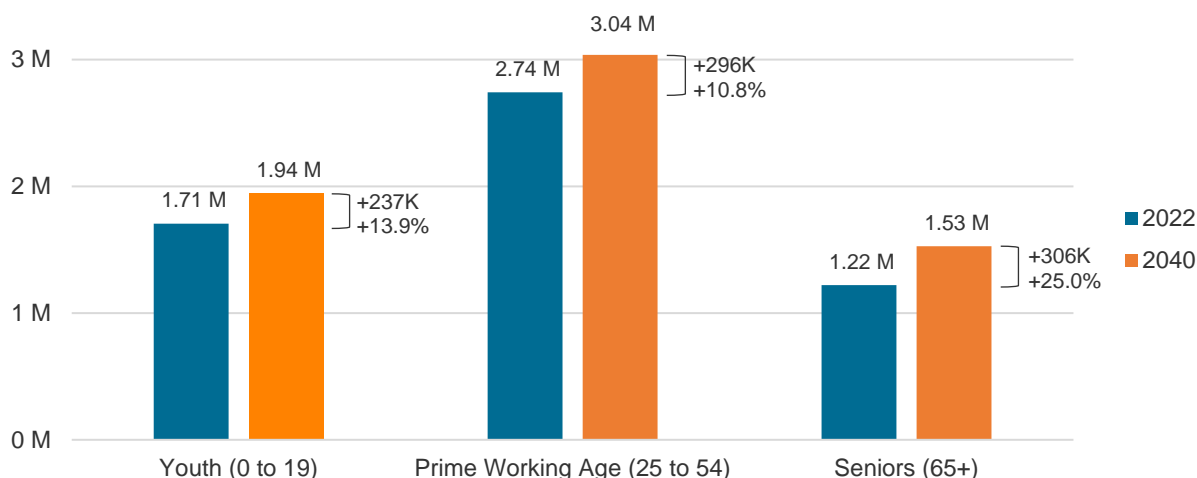
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Changing Race Characteristics

Tennessee's population will continue to become more racially and ethnically diverse. The number of Hispanic Tennesseans is expected to increase from approximately 450,000 in 2022 to 754,000 over the next 20 years. By 2040, we project that the Hispanic population will comprise 9.5 percent of Tennessee residents, up from 6.4 percent in the 2022 base year.

Similarly, the share of the population comprising the group of Other Races—including Asian Americans and Pacific Islanders, Native Americans, and individuals of two or more races—is expected to increase from approximately 307,000 to 470,000 by 2040. By comparison, the white population in Tennessee is expected to have the largest growth in absolute terms (an increase of 354,000) but the share of the state's population that is white will *decrease* from 72.9 percent to 69.2 percent by 2040. Similarly, the number of black Tennesseans is expected to increase by approximately 66,000 over the next 20 years, but the share of Tennessee's population that is black will decrease from 16.4 percent to 15.4 percent (Table 3).

Table 3: Among the four race groups in the projection, the change in population between 2022 to 2040 shows that the largest increase will be among non-Hispanic Whites (354,050), but the rate increase among Hispanics will be significantly higher (67.8 percent).

Race Group	2022	2040	Change
White non-Hispanic	5,141,367	5,495,417	354,050 (6.9%)
Black non-Hispanic	1,153,834	1,220,280	66,446 (5.8%)
Hispanic	449,510	754,170	304,660 (67.8%)
Other and Two More Races	306,861	470,434	163,573 (53.3%)

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Summary of Methodology

Consistent with previous BCBER forecasts, these projections were developed using a cohort-component model and were conducted at the county level for each combination of race, sex and age. Age is defined by five-year bands starting with an "age 0-4" group and ending with an "age 85+" group. Race is delineated as one of four categories combining race and ethnic definitions:

- White non-Hispanic
- Black non-Hispanic
- All Hispanic
- Other non-Hispanic, including two or more races

We use 2010 as the base year, and 2022 as the launch year. The population and characteristic data from 2010-2019 are from the BCBER Intercensal Population Estimates and are linked to Vintage 2022 Population Estimates from the U.S. Census Bureau covering the period from 2020 to 2022. To forecast each county's population by race, sex and age for each year from 2023-2070, we include information from 2010-2022 about:

- Birth rates
- Death rates
- Net Migration

Data on births are from the Tennessee Department of Health. Where possible, we use county-level birth rates that are specific to the age and race of females aged 15 to 44. For those counties where that level of demographic detail was not available, we impute birth rates using regional rates by race and age. We use life tables from the Centers for Disease Control to calculate the statistical probability of death by age, race and sex, and control up to Tennessee death totals from 2010-2019. Net migration is calculated by simulating the cohort component model from 2010-2022 using only births and deaths. The difference between the estimated population and the population in the simulation is attributable to annual net migration by county, race, age and sex.

For each year in the projection, we first predict deaths in each county by age, race and sex. We then simulate births from the surviving female population using the calculated average birth rates from the projection period. Finally, we allow for expected net migration as determined by recent trends, and advance to the next year, with the population aging by one year.

These projections are underpinned by the expectation that both long-term and emerging trends pertaining to the components of change—births, deaths, and net migration—will continue to shape Tennessee's population in the future.

Discussion of Critical Factors Underlying Expected Future Changes

Acknowledging that the forecast is based on the continuation of current trends, the population projections should be interpreted with some caution for two reasons. First, a series of issues related to the 2020 Census including data quality concerns, operational challenges and delays in obtaining demographic data required the Census Bureau to change the way its base population is derived. While these enhancements are being addressed by collaboration between Census divisions, they still must be acknowledged. Second, this forecast reflects some emerging trends for which it is not yet known how long they will continue. In this section, we discuss both sets of issues as they are informative about likely revisions to the forecast as more data become available.

Revisions to the Base Population

The population base is the starting point for any forecast, and the decennial census is a vital component of that base. Typically, a nationwide count like the 2020 Census is the most reliable snapshot available of the population. The decennial census was the basis for the annual Census Population Estimates in prior decades, which we then incorporate into our forecast. However, results of the 2020 Census revealed that undercounts this decade worsened despite large-scale efforts to improve them. At the state level, Tennessee recorded a statistically significant net undercount that was estimated to total 322,000 household residents, or 4.8 percent of the population. While additional geographic and demographic specificity about the state's undercount is not available, the results of a post-decennial review at the national level showed that undercounts of children, Black and African Americans, and Hispanics all grew larger this decade. Additional concerns about the base grew as new Census Bureau procedures aimed at enhancing respondent confidentiality have resulted in multi-year delays in publishing county-level data with sufficient demographic detail to incorporate it into the estimate base.

Together, these factors led to the development of a "Blended Base" which in 2022 included total population counts from the decennial census, but characteristic data from other estimate sources. The base remains a work in progress with Vintage 2023 estimates incorporating total counts of the Hispanic population from the 2020 Census. Plans for Vintage 2024 should finally see the estimates base be at least partially informed by age and sex data from the decennial census. As the blended base revisions continue, our current population estimates will update, but so will birth rates. This is likely to affect subsequent forecasts.

Emerging Trends

Death Rates

Death rates were still well above pre-pandemic levels in 2022. In fact, there were more deaths in Tennessee in 2022 than in 2020. Before the pandemic, deaths were gradually but steadily increasing as the population aged. Data from the National Center for Health Statistics show that

deaths per year increased from approximately 60,000 in 2010 to 71,900 in 2019. While the record numbers of deaths in 2020 and 2021 are easily attributable to the pandemic, the persistent elevated death numbers in 2022 are not as easily dismissed (Figure 3). These high numbers are deaths are not driven by aging either. For every age category *except* individuals aged 85+, there were more deaths in 2022 than in 2020.

Figure 3: The number of deaths in Tennessee grew steadily with population increases in the state but jumped in 2020 as deaths related to COVID-19 emerged. Through 2022, both deaths and the state's crude death remain elevated above pre-pandemic levels.
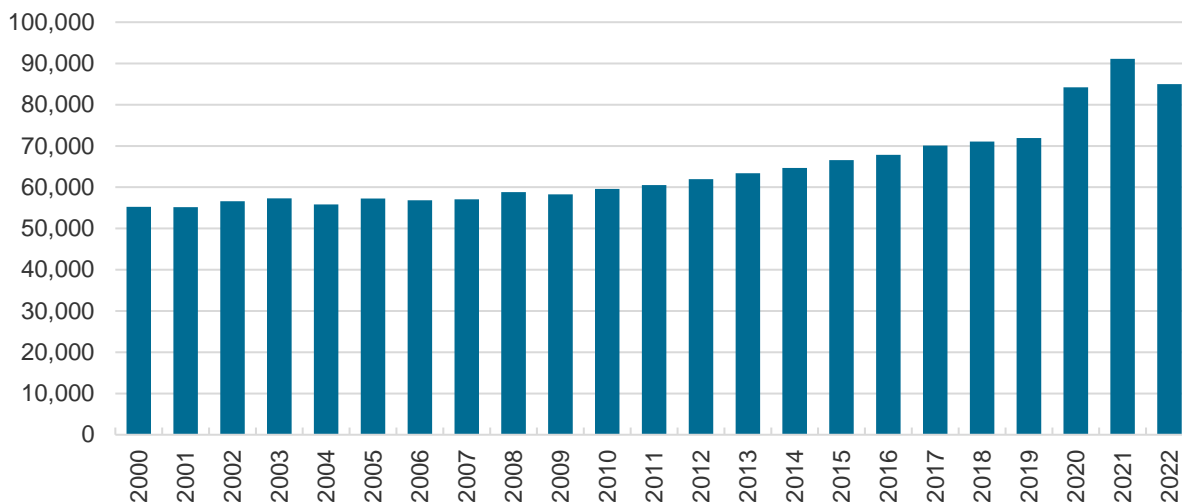

National Center for Health Statistics

It remains to be seen whether deaths and death rates will return to pre-pandemic levels, and if so, how quickly that adjustment process will unfold. The most recent life tables from the CDC represent significant adjustments from pre-pandemic death rates. At current rates, CDC life tables lead to over-predictions in deaths for Tennessee. We are therefore controlling down to recent history, excluding 2020 and 2021. Nevertheless, as the "new normal" regarding deaths becomes clearer, this may necessitate revisions to the forecast—but the direction of those revisions is unclear.

Births

In 2020, the number of births in Tennessee (78,689) fell to its lowest level since 2002 when there were 77,482 births. Missed conceptions in the early months of the pandemic were the likely cause as there were 2,000 fewer births in 2020 than the 2010 to 2019 average of 80,700. Since then, successive increases in 2021 and 2022 have pushed births to their highest level since 2009 (Figure 4). This most recent recovery is primarily attributable to growth of the state's female population since birth rates are still low compared to recent history.

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Figure 4: Births in Tennessee grew in 2021 and 2022 primarily because of the state's growing population.

National Center for Health Statistics
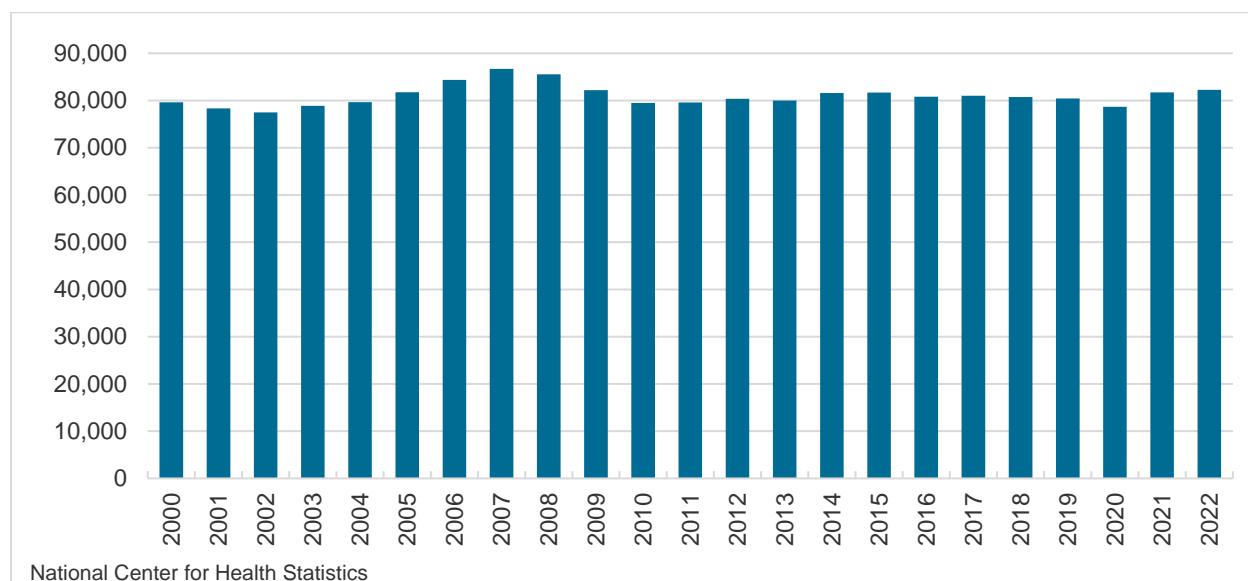
However, fertility rates among Hispanic females are likely too high. This is based on revisions that are expected to increase the number of Hispanics or Latinos shown in the U.S. Census Bureau's Vintage 2023 Population Estimates. The planned change includes integrating the 2020 decennial census count of Tennessee's Hispanic or Latino population into the estimate base. The revision will increase the number of Hispanics in the state on July 1, 2020, from 410,561 people, according to the Vintage 2022 estimates, to over 480,000 in Vintage 2023. In terms of calculating fertility, the number of births to Hispanic or Latino mothers will be unchanged. But, by increasing the size of the denominator—the number of females aged 15 to 44—fertility rates for this group will decline. As corrections to the blended base come to pass, fertility rates will need to be adjusted as well. This will affect the projected growth dynamics of the Hispanic population in Tennessee in particular.

Net Migration

Net migration, the difference between the number of people moving into and out of Tennessee, has always been somewhat cyclical since the measure turned positive at the beginning of the 1970s. Those peaks have coincided with some of the state's highest periods of population growth including the 1970s, mid-1990s and mid-2000s. At present, the state is likely at a cyclical peak for net migration. In 2022, net migration from domestic and international sources surged to an annual level of nearly 92,000 people. Estimates for 2023 showed this number had receded to 76,000 people. Going forward, those numbers may remain historically high or begin to decrease. Additionally, the distribution of net migration over Tennessee has changed considerably from 2010-2020 to 2020-2023. Last decade, 60 percent of the net migration in Tennessee was into the Nashville Core-Based Statistical Area (CBSA)—a 20-county area covering the middle third of the state. From 2020-2023, that share decreased to 35% (Table 3a). So far this decade, the Metropolitan Statistical Areas (MSA) in East Tennessee, Knoxville and

Bristol-Kingsport-Johnson City have seen substantial increases in their share of the state's net migration. More people have moved to the Bristol-Kingsport-Johnson City CBSA from 2020-2023 than did in all the last decade. Counties that are outside of any MSA/CBSA in Tennessee are also seeing growth unprecedented compared to the last decade. From 2010-2020, net migration to these mostly rural counties totaled about 3,300 persons per year. From 2020-2023, net migration to rural counties totaled almost 13,000 persons per year (Table 3b). Much of this is concentrated in the central and eastern parts of the state—and, from what we can tell, is predominantly comprised of working-age individuals rather than retirees.

Table 3a: Comparison as a share of State Total Migration

	July 1, 2010-July 1, 2020		2020-2023	
	Total Net Migration	**Share of State Total**	**Total Net Migration**	**Share of State Total**
Nashville-Davidson–Murfreesboro, TN CSA	235,336	59.9%	77,339	35.7%
Memphis, TN-MS-AR MSA[1]	-44,209	-11.3%	-21,613	-10.0%
Knoxville–Morristown–Sevierville, TN CSA	83,079	21.2%	57,992	26.8%
Chattanooga–Cleveland–Dalton, TN-GA-AL CSA[1]	43,912	11.2%	23,301	10.8%
Johnson City–Kingsport–Bristol, TN-VA CSA[1]	22,948	5.8%	23,840	11.0%
Clarksville, TN-KY MSA[1]	20,329	5.2%	13,825	6.4%
Jackson, TN MSA	-2,102	-0.5%	2,870	1.3%
Other Tennessee Counties	33,333	8.5%	39,083	18.0%
Tennessee (Total)	392,626		216,637	

Source: 2020 and 2023 Population Estimates, U.S. Census Bureau 2020.
[1]Data shown for the Tennessee portion core-based statistical area

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Table 3b: Comparing patterns in net migration before and after 2020, select Tennessee Combined and Metropolitan Statistical Areas

	July 1, 2010- July 1, 2020		July 1, 2020- July 1, 2023		% Change in Annual Net Migration
	Total Net Migration	**Annual Average**	**Total Net Migration**	**Annual Average**	
Nashville-Davidson–Murfreesboro, TN CSA	235,336	23,534	77,339	25,780	9.5%
Memphis, TN-MS-AR MSA[1]	-44,209	-4,421	-21,613	-7,204	-63.0%
Knoxville–Morristown–Sevierville, TN CSA	83,079	8,308	57,992	19,331	132.7%
Chattanooga–Cleveland–Dalton, TN-GA-AL CSA[1]	43,912	4,391	23,301	7,767	76.9%
Johnson City–Kingsport–Bristol, TN-VA CSA[1]	22,948	2,295	23,840	7,947	246.3%
Clarksville, TN-KY MSA[1]	20,329	2,033	13,825	4,608	126.7%
Jackson, TN MSA	-2,102	-210	2,870	957	555.1%
Other Tennessee Counties	33,333	3,333	39,083	13,028	290.8%
Tennessee (Total)	392,626	39,263	216,637	72,212	83.9%

Source: 2020 and 2023 Population Estimates, U.S. Census Bureau 2020.
[1]Data shown for the Tennessee portion core-based statistical area

At this point in time, it is unknown how long these migration trends will persist. We have adjusted net migration to reflect these recent trends, with a 10-year horizon. In other words, we gradually unwind the adjustment from 2023-2033. After 2033, we assume that net migration will continue to follow the historical average from the full base period from 2010-2023. However, as more data on net migration become available in subsequent years, we will revise this forecast to reflect that "new normal".

In the meantime, this is the best forecast we can provide with the currently available data. We hope they are of some use for capacity planning purposes. As subsequent releases from Population Estimates allow for greater insight into the permanence (or not) of some of these emerging trends, we will revise the forecast accordingly.