



VERMONT LEGISLATIVE  
**Joint Fiscal Office**

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## Issue Brief

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# Vermont's Population Estimates by Age Group: 2021 Compared with 2010

## Executive Summary

Following the 2020 Decennial Census and the COVID-19 pandemic, many people want to know how Vermont's population by age group has changed. A state's population by age group affects not only the demand for public services but also its labor force, revenues, and overall economic activity. This Issue Brief compares 2021 Census Bureau estimates with those based on the 2010 Decennial Census. Between those years, Vermont's population increased by roughly 20,000. The distribution of the state's population by age group changed significantly over that time as well, with the biggest increase in Vermonters ages 65 to 79. Over the same time, the number of children and mid-career working-age folks dropped.

*Since 2010, Vermont's population increased by roughly 20,000 people, including a big swell in older people, ages 65 to 79. But the number of children and mid-career working-age folks dropped.*

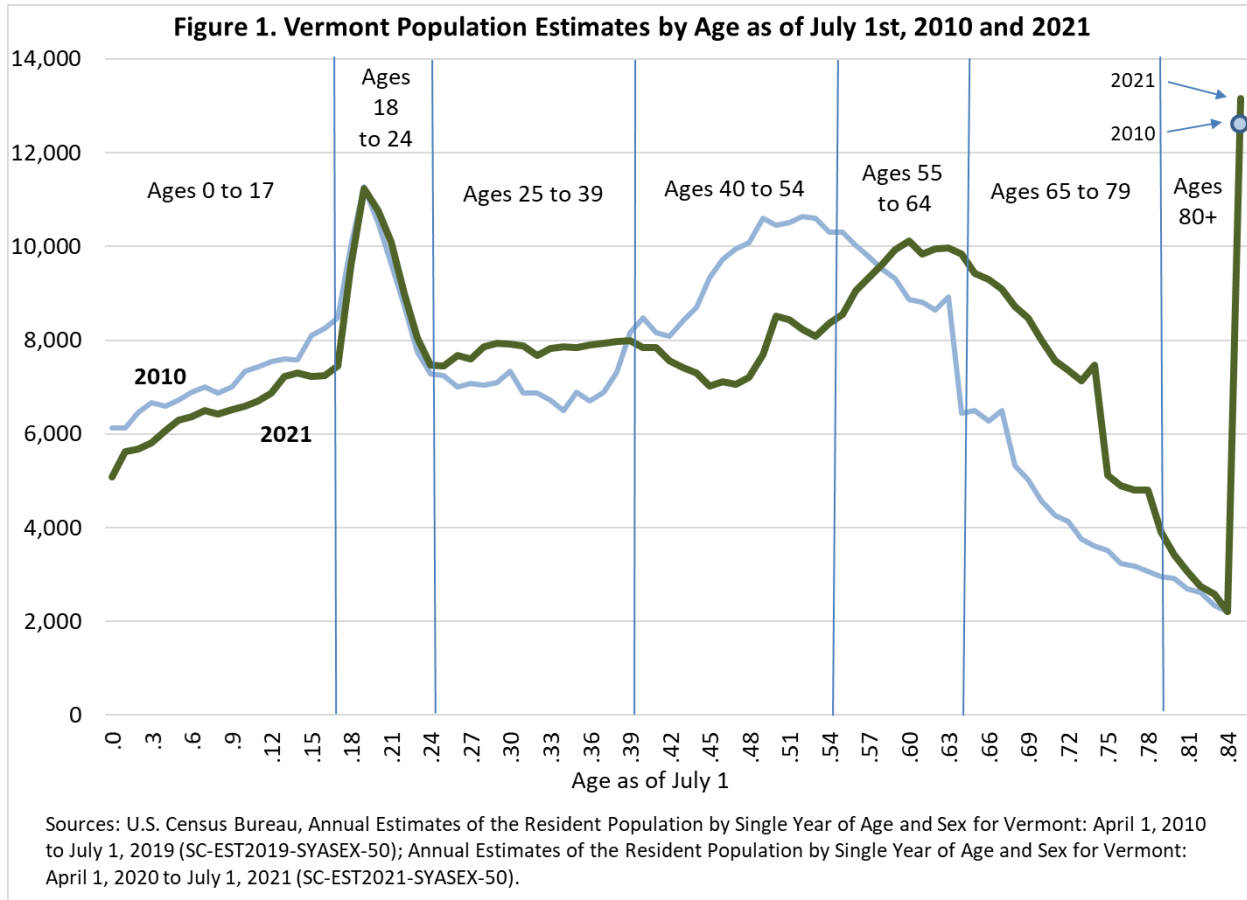
Vermont's population numbers for 2021 come from the U.S. Census Bureau estimates using the 2020 Census and other current data sources. The population estimate based on the 2010 Census remains the most reliable for comparison. Estimates for the intercensal years (2011 through 2019) were based on small surveys and will be revised in the coming year using data from the 2020 Census.

- Overall, population estimates for Vermont increased almost 20,000 from about 625,900 in 2010 to about 645,600 in 2021.
- The number of Vermonters ages 65 to 79 increased significantly, up more than 40,000, as many baby boomers moved into their retirement years; the share of Vermonters ages 65 to 79 rose from 10.5 percent to 16.4 percent.
- The number of young people in the higher education years, ages 18-24, remained about stable.
- Both the child population and mid-career working-age population, ages 40 to 54, declined.
- Our understanding of recent population changes associated with the pandemic will be clearer once the Census Bureau adjusts the 2011 to 2019 estimates to align with the 2020 Census.
- Policy makers can smooth the way for an even older population in the coming years by taking a comprehensive look at investments in health care, human services, housing, transportation, employment and income security, and business development.

## Estimates of the Population by Age, 2021 and 2010

Currently, the 2021 population estimates represent the best available data on the number of Vermonters by age. They are informed by the 2020 Census as well as vital statistics on births and deaths, data on international

migration, and Medicare enrollment. The 2010 Census represents a detailed look at Vermont's population in that year. The postcensal estimates for 2011 through 2019 were based on the much smaller American Community Survey and will be revised later this year using data from the 2020 Census.<sup>1</sup> As a result, 2010 is the most recent year with reliable numbers to compare to the 2021 estimate. All reported estimates are as of July 1st (see Figure 1). Because the number of individuals ages 85 and older are reported in a single group, Figure 1 shows a dramatic increase between ages 84 and 85 that does not reflect actual age distribution.



The aging of the baby boomer generation is the most noticeable change in the age distribution of Vermont's population from 2010 to 2021. The baby boomers, defined as those born between 1946 and 1964, were ages 46 to 64 in 2010. Many were at or near the height of their working careers. In 2021, however, many had left the labor force and were ages 57 to 75.<sup>2</sup> The 65-to-79 age group saw an increase of about 40,000 from 2010 to 2021. That increase is the largest of any age group and more than double the overall population gain of about 19,600 people (see Table 1 for exact numbers).

A notable increase in Vermont's younger working-age population and a small expansion in the near-retirement age group partially fills the void retiring baby boomers left in the workforce. The younger population, ages 25 to 39, is up about 11,500. Some of that increase could be explained by pandemic-related migration to Vermont. Whether new residents stay permanently or go back to their place of origin will be interesting to watch. The number of people ages 55 to 64 increased by about 5,600, providing a good supply of older workers until they decide to retire.

<sup>1</sup> <https://www.census.gov/programs-surveys/popest/about/schedule.html>

<sup>2</sup> Further aging of the baby boomers suggests that Vermont's labor force will continue to shrink for some time.

	<b>2010</b>	<b>2021</b>	<b>Change</b>
<b>0-17</b>	128,792	116,976	-11,816
<b>18-24</b>	65,214	66,194	980
<b>25-39</b>	105,734	117,271	11,537
<b>40-54</b>	143,988	115,692	-28,296
<b>55-64</b>	90,605	96,179	5,574
<b>65-79</b>	65,907	106,063	40,156
<b>80+</b>	25,639	27,195	1,556
<b>Total</b>	<b>625,879</b>	<b>645,570</b>	<b>19,691</b>

Sources: U.S. Census Bureau, Estimates as of July 1 based on 2010 Decennial Census and 2021 Population Estimates

The biggest decline by age group was among working-age people ages 40 to 54. That age group saw a drop of more than 28,000 from 2010 to 2021 as younger baby boomers aged out and some members of the Gen X (born 1965 to 1976) and Millennial (born 1977 to 1995) cohorts moved into their 40s and 50s. The smaller (relative to baby boomers) Gen X cohort partly explains why the labor force in Vermont today has declined relative to the last decade.

Two age groups remained relatively stable in size. The number of Vermonters ages 80 and older increased by about 1,500. The uptick might have been a bit larger, but excess deaths associated with COVID-19 in 2020 and the first half of 2021 took the lives of 145 Vermonters in that age group. The number of young people in the higher education years, ages 18-24, rose by about 1,000 between 2010 and 2021 as Vermont continued to attract young people to its institutions of higher learning.

Some Vermonters are concerned that the number of children continues to fall. From 2010 to 2021, the number of children ages 0 to 17 fell by almost 12,000, or about 9 percent. Fewer children in schools leads to higher per pupil expenditures in many cases and may signal smaller working-age cohorts in the future.

## Shares of Vermont's Population by Age Group

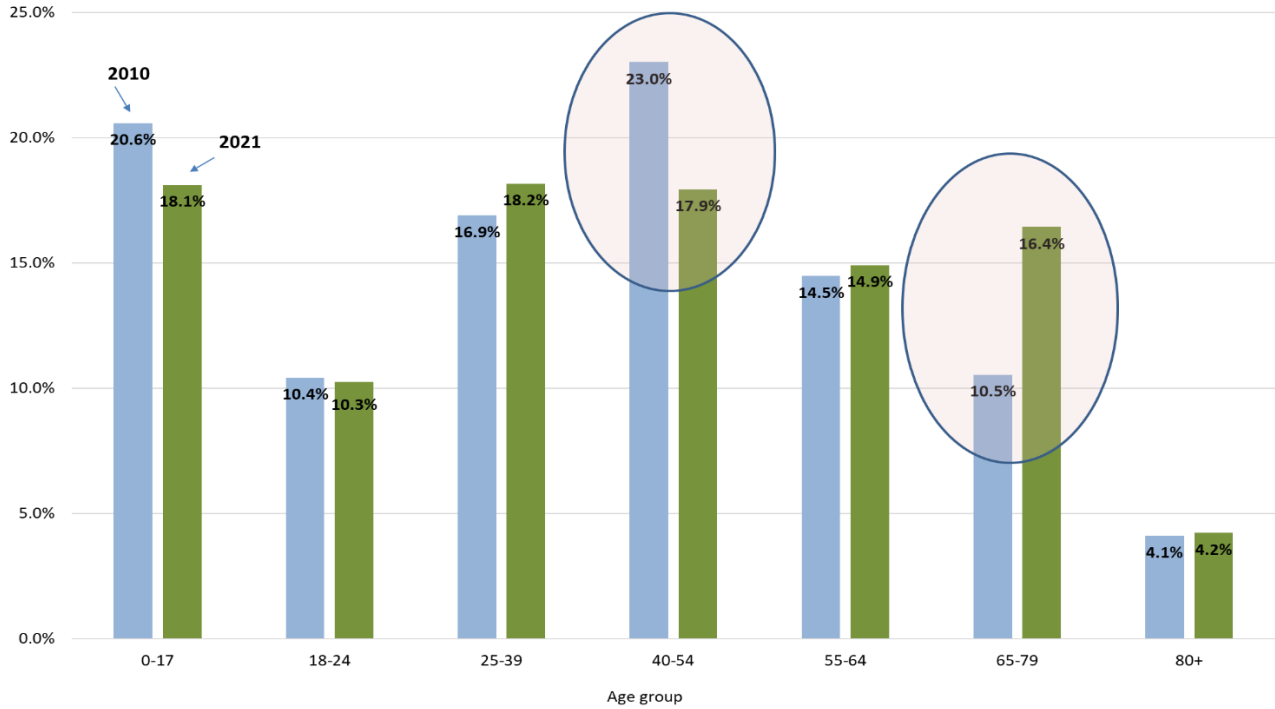
Looking at shares of the population in different age groups may help Vermont policy makers identify pressures on services, revenue sources, and labor force issues. Understanding changes in those population shares in the past and likely changes in the shares going forward can help policy makers target resources with an eye to the future.

Since 2010, the share of Vermonters in the mid-career age group, ages 40 to 54, has declined from 23 percent to not quite 18 percent (see Figure 2). Slight upticks in the shares of both younger and nearing-retirement working-age people did not fill the gap, suggesting that the potential pool of workers relative to children and retirees has shrunk. At the same time, the sharp increase from 10.5 percent to 16.4 percent in the share of the population that is ages 65 to 79 suggests greater demand for services that help older people thrive – housing, transportation, health care, and the like. As that population ages over the next ten years, the demand for those services will rise.

Those who want to get a sense of the movement in the shares by age group since 2010 will note the steady dip in the share of people ages 40 to 54 and sharp increase in the share of people ages 65 to 79 (see Figure 3). However, the detailed patterns in shares may change after the postcensal population estimates for the

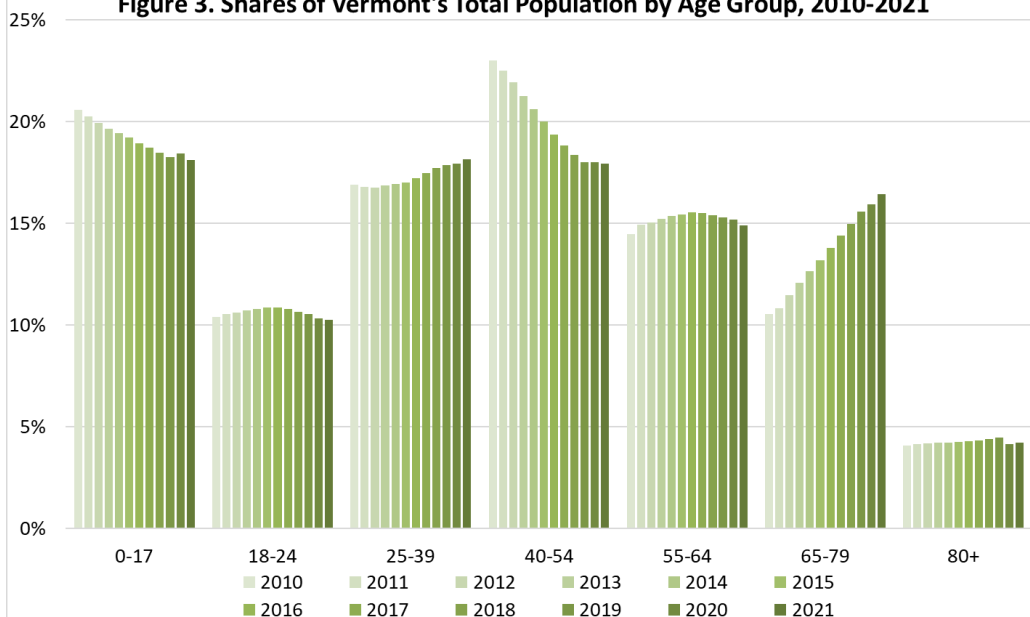
years 2011 to 2019 are revised. Of particular interest may be the seeming increased share of children and slowdown in the declining share of working-age people ages 40 to 54 during the pandemic years. But those shifts could disappear if revised population numbers go up in the latter years of the last decade based on information gleaned from the 2020 Census.

Figure 2. Shares of Vermont's Population by Age Group, 2010 and 2021



Sources: U.S. Census Bureau, Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2010 to July 1, 2019 (SC-EST2019-SYASEX-50); Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2020 to July 1, 2021 (SC-EST2021-SYASEX-50).

Figure 3. Shares of Vermont's Total Population by Age Group, 2010-2021



Sources: U.S. Census Bureau, Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2010 to July 1, 2019 (SC-EST2019-SYASEX-50); Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2020 to July 1, 2021 (SC-EST2021-SYASEX-50).

## Considerations for Legislators

Several questions are paramount as legislators consider future statewide program demands and revenues to fund them:

- **Is Vermont's aging situation different from the United States overall?** One way to look at the quantitative impact of our aging economy is to examine the number of young and old people relative to the number of working-age people – sometimes called the dependency ratio. The United Nations defines the overall ratio as the number of people under age 15 and at least 65 years of age and older relative to the number of people ages 15 to 64. Population ratios can help illustrate broad trends in needs for social support.
  - *Ratio of young to working age:* In 2010, about 24 children ages 14 and under lived in Vermont per 100 people ages 15 through 64 (see Table 2). In 2021, about 23 children lived in the state per 100 working-age people. The ratios in the United States were higher at about 30 in 2010 and 28 in 2021.
  - *Ratio of old to working age:* Vermont's ratios have changed significantly relative to the U.S. ratios in the number of older people ages 65 and above compared to the number of working-age people. In 2010, Vermont's ratio stood at about 21 but rose to almost 32 in 2021. The ratio for the U.S. as a whole rose from almost 19.5 to more than 26. The increase in Vermont's older dependency ratio was notably higher than the increase in the national ratio.
  - *Overall ratio:* Counting the young and old together and comparing that sum to the working-age population reinforces the idea that Vermont's demographics have changed markedly relative to the U.S. in the last 12 years. Vermont's overall ratio was almost 45.5 in 2010, well below the national ratio of 49. In 2021, Vermont's overall ratio rose to 54.7, surpassing the U.S. ratio of 54.5.

Table 2. Population Ratios in Vermont and the U.S., 2010 and 2021			
	2010	2021	Change, 2021 vs 2010
<b>Young/working age</b>			
VT	24.2	22.8	-5.8%
U.S.	30.2	28.2	-6.6%
<b>Old/working age</b>			
VT	21.3	31.9	49.8%
U.S.	19.4	26.3	35.6%
<b>(Y+O)/working age</b>			
VT	45.4	54.7	20.4%
U.S.	49.0	54.5	11.3%
Notes: Y = Young, under 15 years of age O = Old, ages 65 and older			
Sources: Author's calculations for Vermont using U.S. Census data and World Bank using United Nations population data.			

- **Will demographic changes lead to smaller growth in State revenues?** An aging population implies lower tax revenues per capita, all else being equal.
  - As reported in *The Vermont Tax Study, 2005-2015*, the 45-to-54 and 55-to-64 age groups paid the highest effective tax rate (3.7 percent) on 2014 income under the Vermont income tax (*Tax Study*, Figure 42). As the large baby boom cohort continues to age out of the higher earnings age groups, income tax revenue may decline.
  - Lower sales tax collections may accrue as well, as spending for the aging population shifts away from goods and toward services, such as health care, that are not taxed or are taxed lightly (*Tax Study*, Table 31).

- Vermont's property tax system provides relatively constant shares of income paid in net education taxes as people age (*Tax Study*, Figure 46). Because incomes tend to fall at older ages, more households will pay lower education property taxes as the share of the population over age 65 increases.
- **How can Vermont's economy best adapt to its changing demographics?** Unless Vermonters ages 65 and older decide to leave Vermont in droves or younger working-age people flock to the state in great numbers, Vermont's ratio of old to working-age people will continue to rise, placing a greater burden on workers to support both young and old. Potential policy options include:
  - Increasing in-migration of young working-age people, either through raising the cap on international migrants or attracting more workers from other states.
  - Investing in infrastructure such as health care, broadband, housing, and climate change adaptation and mitigation strategies to enable smooth relocation for remote workers and others interested in Vermont's amenities.
  - Planning now for comprehensive approaches to support an aging population across health care, human services, housing, transportation, workforce, income security, and safety.
    - Recent research suggests that almost half of adults who survive to age 65 receive some paid care for long-term services and supports over their lifetime (Johnson, 2019).
    - Older adults face transportation barriers because they drive less frequently, or not at all, as they age. Some face economic constraints as well.
    - Support systems are key in mitigating the multiple challenges older adults faced during the pandemic, such as increased health risks and social isolation.
    - Five states have developed "master plans" that lay out long-term, comprehensive approaches to support older adults' social, physical, and economic well-being. Vermont may want to take a comprehensive look at its current four-year State Plan on Aging; its focus is on critical services that support older Vermonters in the greatest social and economic need.<sup>3</sup>

## References

Johnson, Richard W. "What is the Lifetime Risk of Needing and Receiving Long-Term Services and Supports?" U.S. Department of Health and Human Services, April 3, 2019.

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The World Bank, "Age Dependency Ratio (% of Working-Age Population) – United States." 2019 Revision. <https://data.worldbank.org/indicator/SP.POP.DPND?locations=US>

U.S. Census Bureau, "Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2010 to July 1, 2019" (SC-EST2019-SYASEX-50); Annual Estimates of the Resident Population by Single Year of Age and Sex for Vermont: April 1, 2020 to July 1, 2021 (SC-EST2021-SYASEX-50).

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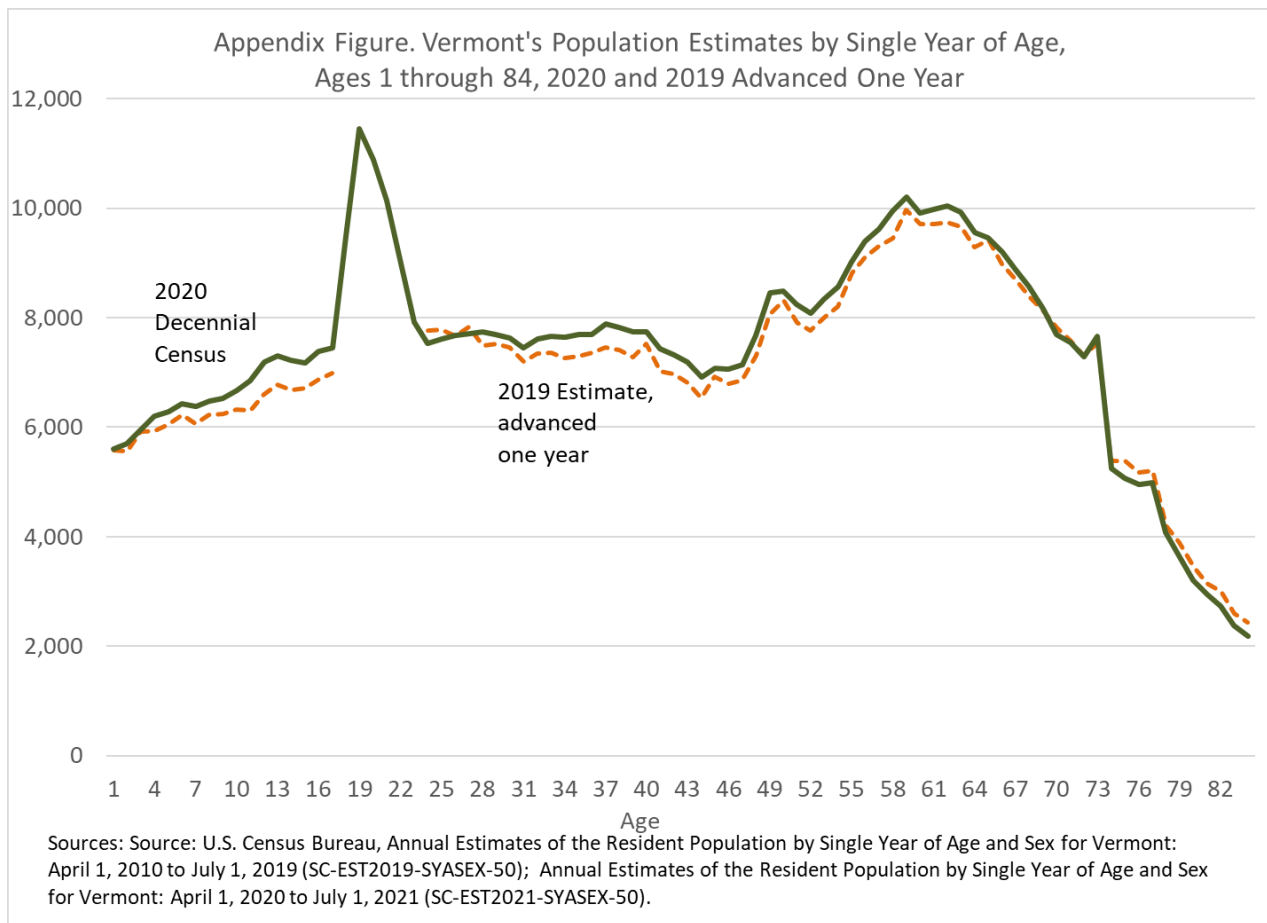
<sup>3</sup> The five states are California, Colorado, Massachusetts, Minnesota, and Texas. <https://www.chcs.org/resource/the-unexpected-benefits-of-a-state-masterplan-for-aging-lessons-from-california/> The 2023-2026 Vermont State Plan on Aging is available at [https://asd.vermont.gov/sites/asd/files/documents/VT%20State%20Plan%20on%20Aging%202023\\_2026.pdf](https://asd.vermont.gov/sites/asd/files/documents/VT%20State%20Plan%20on%20Aging%202023_2026.pdf).



## Appendix. The 2019 Population Estimates vs. 2020 Estimates

U.S. Census population estimates remain the gold standard for annual population counts, but those estimates become less reliable as time goes forward from the full Decennial Census year. The U.S. Census Bureau estimated Vermont's population by single year of age from 2011 to 2019 based on the 2010 Decennial Census and a much smaller sample of survey data collected in subsequent years. Revised intercensal estimates will be released in 2023, but the current estimates represent the best information available in the interim. At the aggregate level, Vermont's population estimate jumped more than 20,000 between 2019 and 2020. The estimate was 623,989 in 2019 but 642,495 in 2020. To see where the 2019 population estimate might have undercounted the "true" population by single year of age, JFO "advanced" by one year each of the 2019 population estimates by single year of age, moving the age 10 population up to age 11, the age 55 population up to age 56, and so on.

The simple exercise of advancing a single-year-of-age estimate to the next single year of age is only a rough guide to the inaccuracies of the intercensal estimates, but it reveals undercounts in certain age groups. School-age children, mid-career working-age folks, and near retirees likely were underestimated in the 2019 estimates (see Appendix Figure).<sup>4</sup> Of course, the simple exercise does not account for mortality or migration, both likely explaining the overestimates in the elderly population, ages 75 to 84. But it does help identify where the 20,000 increase in overall population might lie between 2019 estimates and 2020 estimates.



<sup>4</sup> JFO did not include the "advanced" 2019 estimates of the college-age population because most of the students come specifically for college or post-secondary training and then leave Vermont.