POPULATION CHANGES AND VERMONT STATE REVENUE

December 6, 2019

While Vermont's overall population count has been stable for 15 years, three trends are impacting how Vermonters earn, spend, and live. Those impacts, in turn, will put pressure on the state's revenue system. A decrease in taxable income and a shift in consumer spending away from taxable goods portend a decrease in revenue growth. Higher wealth, later retirement, and increased tourism could temper these impacts for several years.

Vermont Tax Structure Commission

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About the Commission

The Vermont Tax Structure Commission was created by Act 11 of 2018 to analyze Vermont's revenue system, recommend improvements and modernization, and provide a long-term vision for the tax structure. Independent from both the legislative and executive branches of government, the Commission aims to make the tax system more understandable for the public, help policymakers compare the merits of various options, and offer recommendations that can help Vermont's revenue system work better for Vermonters. The Commission is comprised of three members – Deb Brighton, Bram Kleppner, and Stephen Trenholm – and supported by Seán Sheehan (staff director), Susan Mesner (consultant), and Sorsha Anderson (staff associate). The Commissioners regularly hold public meetings and will deliver a final report in January 2021.

This paper explores demographic trends and the impact of those trends on income and consumption tax revenue. A subsequent paper on the state's education finance system will discuss the impact on property taxes. The Commission also recognizes that population changes are merely a slice of the many types of changes the state will face over the next decade. In the coming months, the Commission will also explore the impact of social, economic, and environmental changes on Vermont's tax structure. Due to time constraints, the Commission must be selective in which types of changes and revenue impacts to explore. Due to scope and mandate, the Commission will not deal with spending pressures or impacts.

More information on the Commission, its work, and upcoming meetings can be found here: https://ljfo.vermont.gov/committees-and-studies/tax-structure-commission

Acknowledgements

The Commission could not conduct its analyses without the support of staff and consultants from the Vermont Legislative Joint Fiscal Office, Department of Taxes, and other state agencies who provide crucial data and input. The Commission also thanks members of the public, stakeholder groups, and the Legislature who testify and participate in Commission meetings and activities, including those who offered feedback for this paper.

Cover photo: Perry Hill, Waterbury, VT

EXECUTIVE SUMMARY

Vermont's population has been remarkably stable for the last fifteen years, at least in terms of total numbers. The state had 620,000 people in 2004, 626,000 in 2010, and still 626,000 in 2018. In addition, at least two projections suggest little movement over the next decade (p5). However, a look beyond that total number reveals significant change. Three trends in particular stand out:

1) **More Seniors, Fewer Children, and Fewer Working-age Adults** – 2017 marked the first time that Vermont had as many seniors (65+) as children (<18). Proportionally Vermont has one of the nation's largest populations of baby boomers. When the youngest boomers turn 65 in 2029, more than one in four Vermonters will be seniors. Only Maine will have a higher proportion (p7).
2) **More Metropolitan, Less Rural** – Vermont is one of the most rural states in the nation, but its population is shifting from rural areas to its one metropolitan region. Since 2000, three counties around Burlington have grown by more than eight percent, while the other 11 counties have either lost population or are virtually unchanged (p11). The trend has accelerated since 2010.
3) **More Households with Fewer People** – The average Vermont household is statistically tied with North Dakota and Maine for smallest in the nation, having shrunk five percent since 2000 due to fewer families with children and more Vermonters living alone. Among owner-occupied housing units, one-person households are more prevalent in Vermont than in any other state in the Northeast (p15).

None of the trends are unique to Vermont. All three affect public finance. On the spending side, health care and retirement costs increasingly loom large. On the revenue side, the trends will impact Vermont's three largest revenue sources: personal income tax, consumption taxes, and education property tax. This paper explores the impact on personal income tax and consumption taxes. The effect on education property tax will be discussed in the Commission's next paper, which focuses on Vermont's education finance system.

None of the revenue impacts are unique to Vermont either, although Vermont's tax structure does play a role in determining the extent of the impacts.

Personal Income Tax is the largest source of revenue in Vermont, accounting for nearly two-thirds of General Fund dollars.

- **Less Taxable Income Puts Downward Pressure on Revenue** – An aging population portends a slowdown in taxable income, leading to a decrease or less growth in revenue from personal income taxes. Younger baby boomers (age 55-64) account for more than a fifth of tax returns and more than a quarter of personal income tax dollars. As this most populous age cohort retires, their decreasing incomes will no longer contribute as disproportionately high a share of revenue. The age cohorts following behind are smaller and a growing gap in income tax revenues is likely (p20).
- **Multiple Factors Could Temper Impact** – Revenue decreases could be partially offset for at least a decade to the extent workers retire later, higher salaries are paid to workers moving into more senior positions at a younger age, and the labor shortage attracts in-migrants to fill job vacancies, including jobs taking care of seniors (p21).
- **More Stability than Most States** – The federal government gives tax breaks to seniors and states typically give more, sometimes exempting retirement income that is taxable at the federal level. As a result, seniors in some states pay less than half as much income tax as non-seniors pay at similar income levels. Vermont is one of the top three states for parity however, thus positioning the State to

avoid the larger revenue drop-offs faced by states that treat retirement income dramatically different than the federal government. It should be noted that the trade-off for greater stability is a reduced comparative advantage for seniors, a relevant consideration as states compete for both wealthy seniors and workers (p22).

Consumption Taxes support both the Education Fund (100% of Sales and Use and 25% of Meals and Rooms revenue) and General Fund (75% of Meals and Rooms).

- **Somewhat Fewer Taxable Expenditures** – Seniors' spending tends to focus on mostly non-taxable categories, such as health care and cash contributions, rather than the taxable goods favored by younger cohorts (p24).
- **Multiple Factors Could Temper Impact for at Least a Decade** – First, the median senior is now wealthier than the median non-senior and has resources to support higher spending. Second, to the extent Vermont workers retire later and spend accordingly, a drop in revenue would be delayed. Third, newer retirees in surrounding states have the time and resources to travel and spend (p26).

In addition to examining population trends and their prospective impact on Vermont's revenue system, this report also calls for consideration that trends do change, some trends are less likely to change than others, and in-migration is critical on many levels (p28).

Both Vermont's legislative and executive branches have taken early steps to address demographic pressures on the budget. The Tax Structure Commission publishes this report with the hope its findings will contribute to other planning efforts in the state while also providing building blocks for the Commission's subsequent research and deliberations.

INTRODUCTION: FROM STEADY GROWTH TO SHIFTING STABILITY

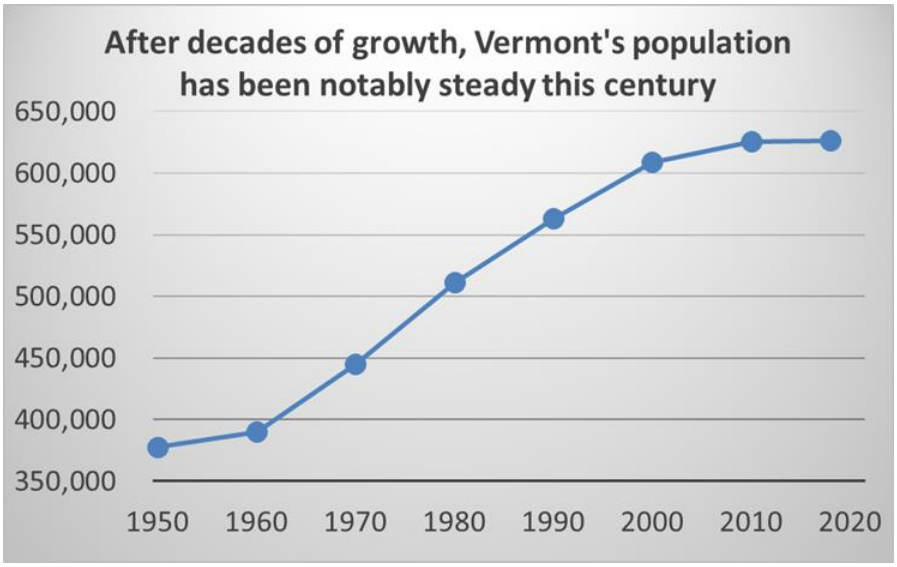


Figure 1. Vermont population from U.S. Census, decennial census and 2018 estimate.

Turn on a 24-hour news network, check in with an economic think tank, or listen to a political debate and there's a good chance you'll hear how a "silver tsunami" is about to hit the nation's work force. If you're in Vermont, open a newspaper, turn on the radio, or attend a community meeting and you're just as likely to hear how the Green Mountain State's population is not only aging faster than the rest of the nation, but its growth has stagnated or, worse yet, will soon shrink.

Indeed, Vermont added more than 50,000 residents in the 1960s, '70s, and '80s, then 45,000 more in the '90s. However, the U.S. Census reports growth of only 17,000 in the first decade of this century and estimates a mere 600-person gain in the last eight years (Figure 1).[1] Vermont's Consensus Administration and Joint Fiscal Office projections expect the state to add just 12,000 people over the next 12 years, while demographers at the University of Virginia expect Vermont to lose 8,000 people over that period. In other words, without significant changes in domestic migratory flows or federal immigration policy, Vermont's population is likely to stay about the same.

This halt in population growth means different things to different people. For credit rating agencies and other stakeholders in an economic system that depends on growth, it can be a major cause of consternation. For those concerned with the environmental impacts of unchecked growth, it can be a source of hope and a reason to rally around a strategy of adaptation to a steady state.

When it comes to Vermont's tax structure, however, the total number of Vermonters is only a small part of the story. Equally relevant are the major shifts that are occurring within the population, specifically:

- More Seniors, Fewer Children, and Fewer Working-age Adults
- More Metropolitan, Less Rural
- More Households with Fewer People

[1] U.S. Census Bureau (2019), "State Population Totals."

These trends impact how Vermonters work, spend, and live – which in turn will impact Vermont's revenue system (Figure 2). Section A of this paper discusses these trends in greater detail. Section B explores the social and economic impacts of the trends, as well as implications for the State's revenue system. Section C covers three additional factors that the Commission believes should be weighed when considering demographic trends, projections, and expected impacts before embarking on policy responses. These considerations are not specific to state revenue but are important for Vermonters – including the Commission as it continues its work – to consider when examining trends and determining if and how to respond to future changes. Finally, the paper recaps the key findings of this report.

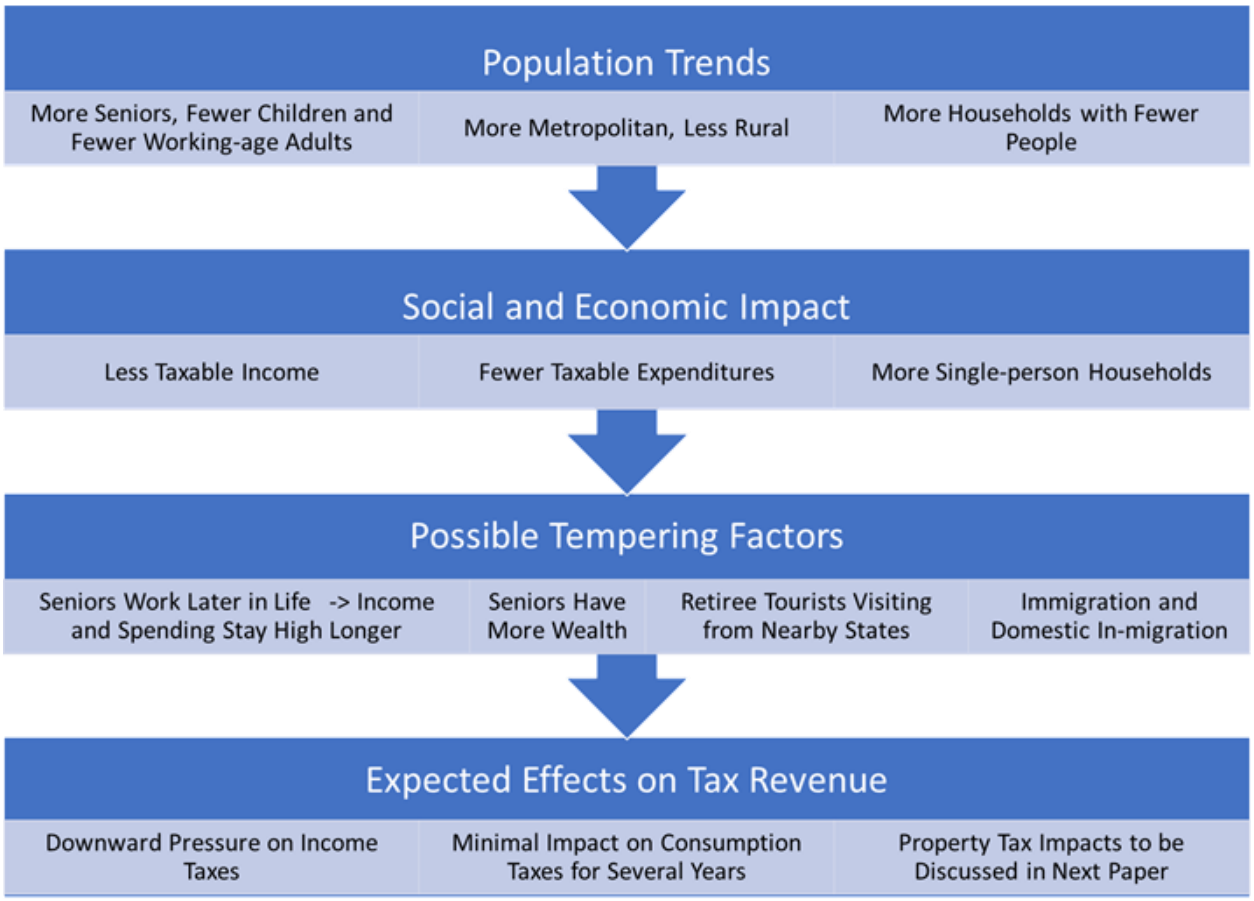


Figure 2. Vermont population changes, social and economic impact of changes on tax revenue, possible tempering factors, and expected effects on tax revenue.

SECTION A: DEMOGRAPHIC TRENDS

1. Trend: More Seniors, Fewer Children, Fewer Working-age Adults

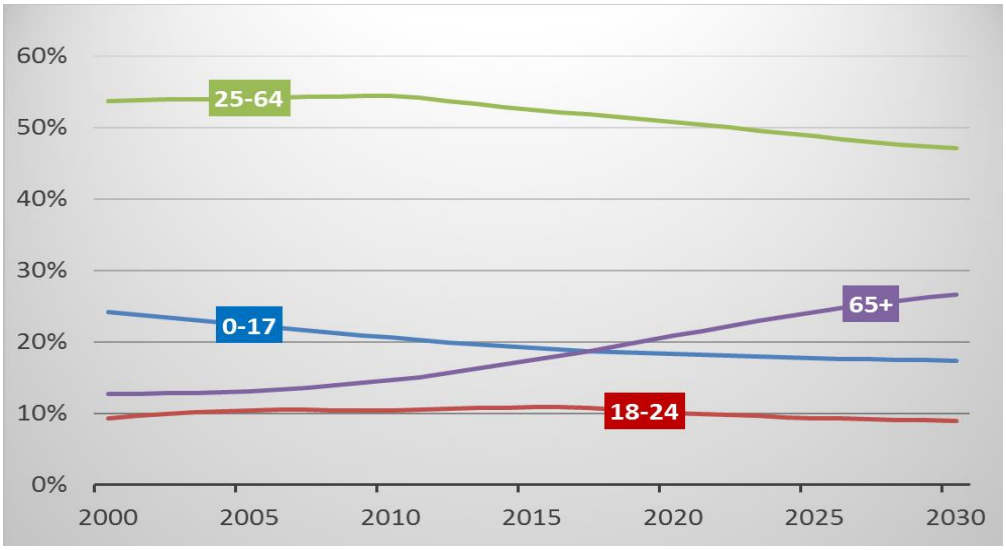


Figure 3. Share of Vermont population by age group, 2000-2030. 2000-2017 data from U.S. Census. 2018-2030 from Consensus Administration and Joint Fiscal Office projections.

A new normal in Vermont: Seniors outnumber children

The year 2017 marked the first time that Vermont had as many seniors (65+) as children (<18). Just two decades earlier, children outnumbered seniors by more than two to one. Over the coming decade, seniors will outnumber children by an increasing margin as younger baby boomers reach retirement age (Figure 3). Meanwhile, the number of children and working-age adults is projected to continue dropping. By 2030, just 47% of Vermonters will be between the ages of 25 and 64, down from 54% in both 2000 and 2010.

National context: The U.S. is aging fast, Northern New England is aging faster

Vermont is not alone in facing a graying age structure. Americans are having fewer babies and living longer. As a result, the 20th century's population pyramid – where a small number of senior citizens sit atop a moderate number of middle-aged adults, a larger number of young adults, and even more children – is in the process of transitioning to a pillar, in which all age groups have roughly similar numbers (see Appendix G).

But while the whole country is aging, the change is more dramatic in northern New England. Nationally, the proportion of seniors will increase nearly 50% from 2010 to 2030. In Vermont and New Hampshire, the increase is projected to be about 80%. By 2030, the northern New England states are projected to be the first three states in the nation where seniors make up at least a quarter of the population (Figure 4).

There are at least four reasons why the phenomenon is more acute in northern New England. First, Vermont saw higher net in-migration of baby boomers than other generations, meaning that the state benefited from a larger workforce as boomers aged and will now see a higher retirement population as the group continues to age (Figure 5 and Appendix B). Second, millennials have been more prone to leaving rural areas than their baby boomer parents (see Table 1 for generations), and Vermont is one of the most rural states in the nation. Third, Vermont is highly educated, and high education – along with higher female income and moderate

religious beliefs – tend to correlate with lower birth rates and longer lifespans. Fourth, the region has a low immigrant population, which is relevant because immigrants a) are more likely to be Generation X and thus balance out a region's baby boomers, and b) tend to have higher birth rates than native-born residents and thus increase the number of children (Chapter 9).

Combined, these factors help explain why, compared to 2000, Vermont now has 1) more adults at every single year of age over 53 and fewer at every age 29-53 (Figure 6), and 2) a greater variance in size of generations than the nation at large (Figure 7).

As Fitch Ratings referenced in its July 2019 downgrade of the state's bond rating, a state can grow from a) births outnumbering deaths, b) domestic in-migration outpacing out-migration, or c) immigration exceeding emigration.[2] Vermont shows little net gain in any of the three. The result: slow growth and an aging population.

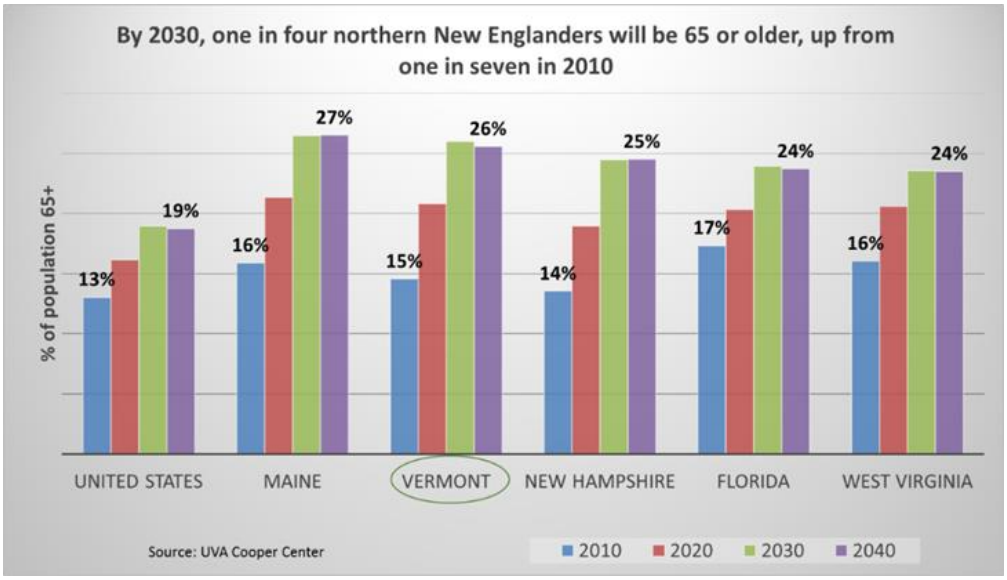


Figure 4. The five states projected to have the highest proportion of seniors (age 65+) in 2030.

Generations Defined

Birth Years	Age in 2019
Silent	
1928-45	74-91
Baby Boomers	
1946-64	55-73
Generation X	
1965-80	39-54
Millennials	
1981-96	23-38
Generation Z	
1997-2012	7-22

Table 1. Generation names and years, as defined by Pew Research Center.

[2] Fitch Ratings (2018), "U.S. States and the Growth Implications of an Aging Population." See Fitch's graph in Chapter 9.

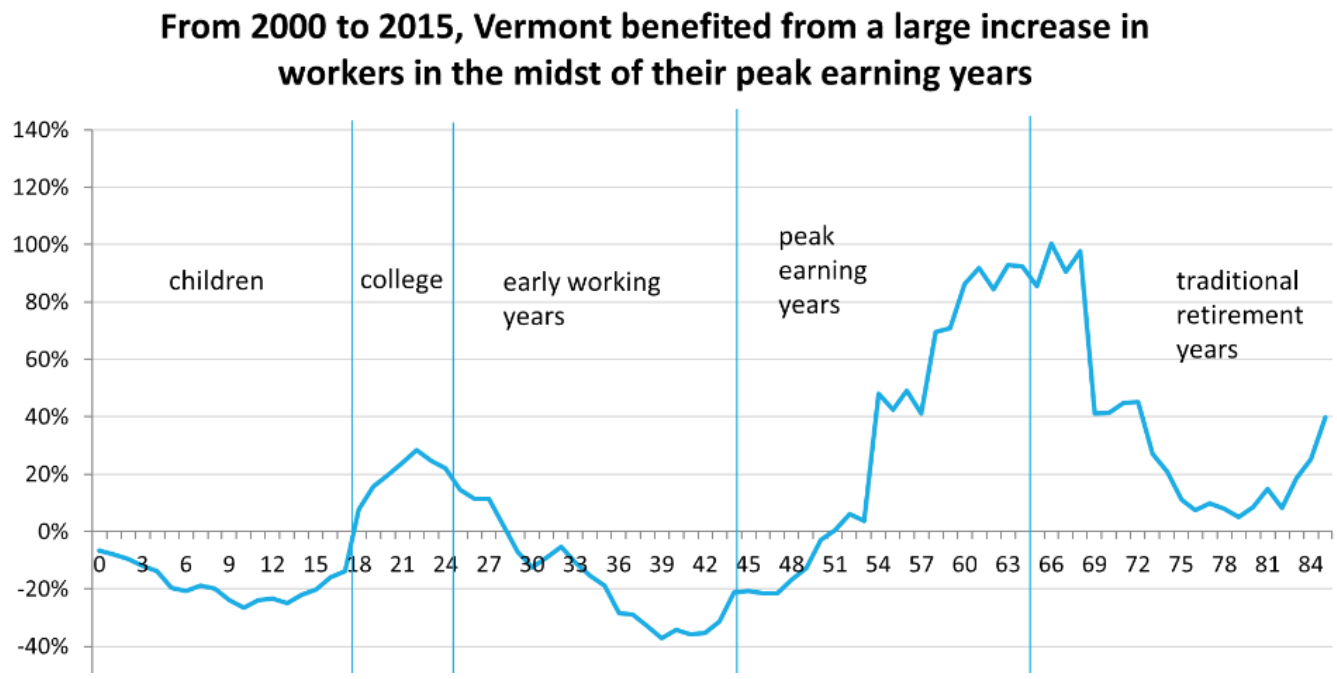


Figure 5. Change in population by single year of age from 2000 to 2015. Data from U.S. Census decennial census and American Community Survey estimate of 2015 population.

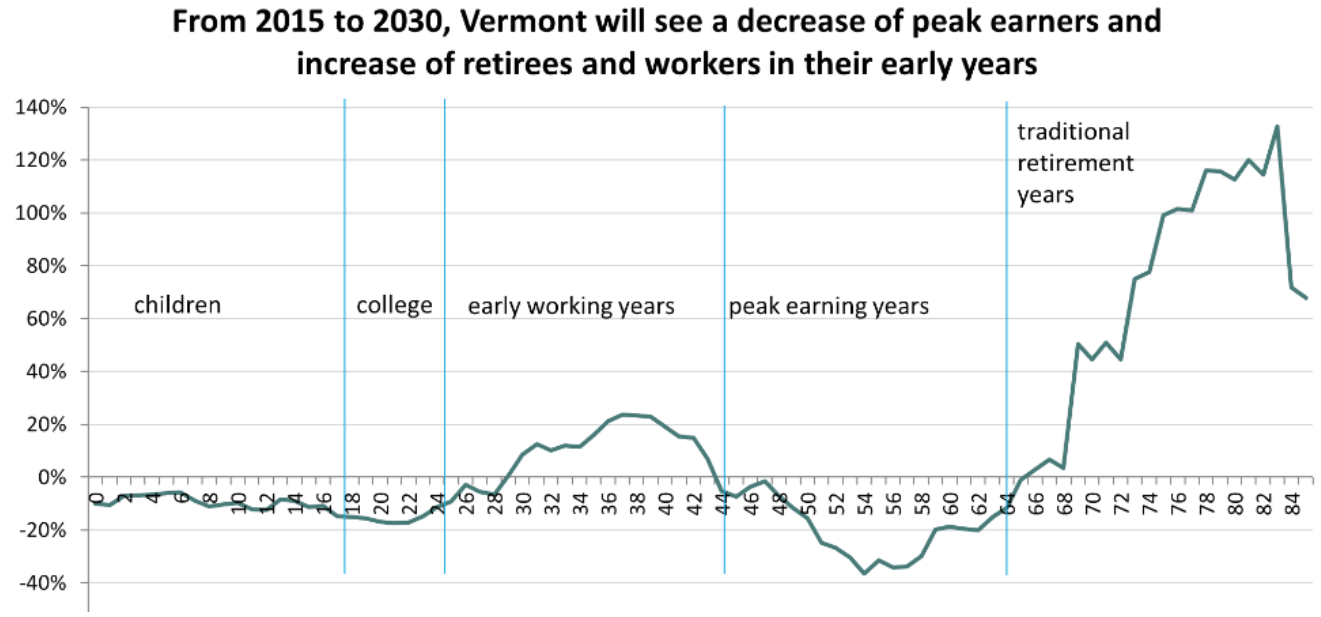


Figure 6. Projected change in population by single year of age from 2015 to 2030. Sources: American Community Survey estimate of 2015 population; Consensus Administration and Joint Fiscal Office projections of 2030 population.

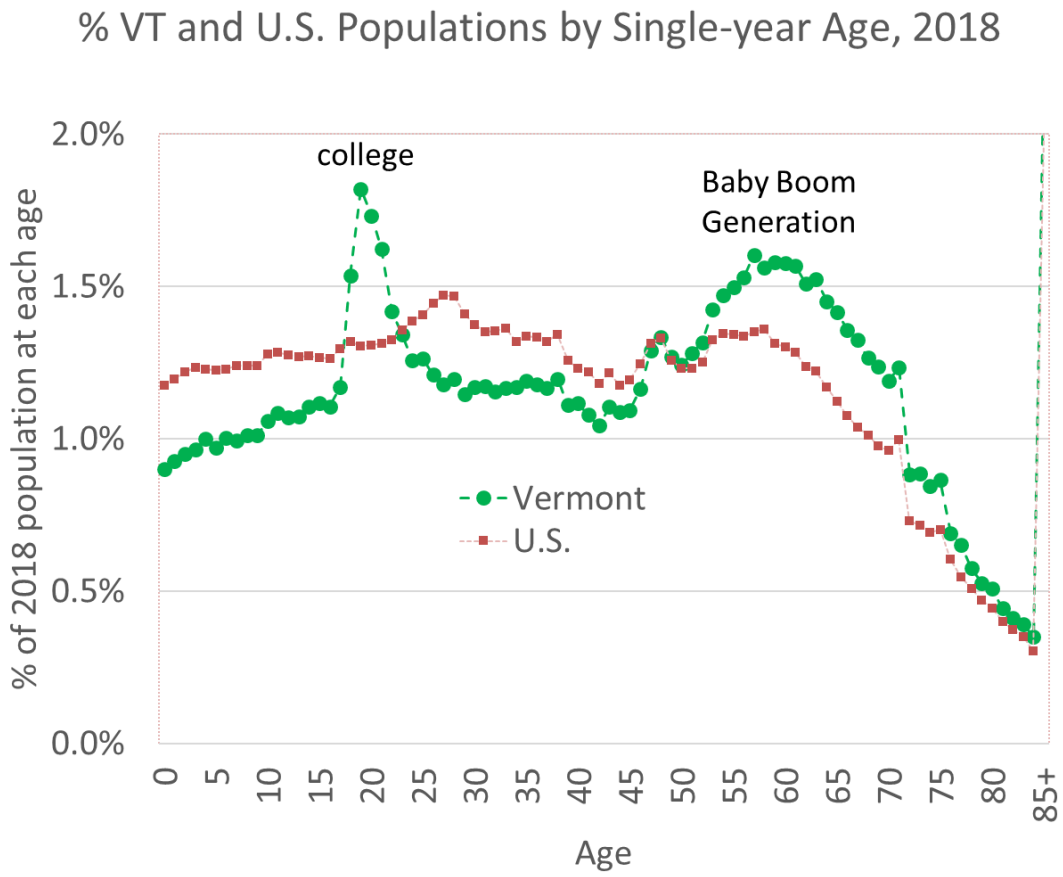
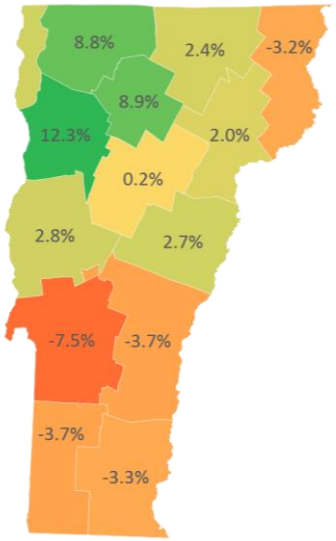


Figure 7. U.S. and Vermont population - single year of age as % of total population, 2018.

2. Trend: More Metropolitan, Less Rural



Change in County Population from 2000 to 2018		
Grew >8%	Virtually Unchanged	Shrunk >3%
Chittenden, Franklin, Lamoille	Addison, Caledonia, Grand Isle, Orange, Orleans, Washington	Bennington, Essex, Rutland, Windham, Windsor

Figure 8. Change in county population from 2000 to 2018.

In Vermont: Only the Burlington area is growing

Since 2000, three counties around Burlington have grown by more than eight percent while the five furthest from Burlington have shrunk. The remaining six were virtually unchanged, growing less than three percent over 18 years, or less than two-tenths of a percent per year (Figure 8).

National Context: Americans have flocked to metropolitan areas, especially in the last decade

Urbanization has been a global trend for over a century, with metro areas gaining population much faster than nonmetro areas. In the U.S., the trend has been particularly strong in the decade since the Great Recession with nonmetro areas collectively shifting from slow growth to actual population loss (Figures 9-11).

Recent research has pointed to evidence that internal migration in the United States accelerates during times of economic expansion and decreases during periods of economic contraction, with the housing market playing a role in this trend.[3] Places like Vermont that have low birth rates and depend on in-migration suffered when property values in population-sending states went underwater and potential migrants couldn't afford to sell. State Economist Tom Kavet has noted that, as property values have rebounded in states that traditionally send migrants to Vermont, in-migration in Vermont ticked up in 2016 and 2017.[4]

When evaluating statewide impacts, most states have large metro areas to counteract nonmetro population loss. Vermont's lone metro area consists of just three counties: Chittenden, Franklin, and Grand Isle (and the latter two are largely rural).

[3] Johnson, Kenneth et al. (2017), "Frozen in Place."
[4] Communication with State Economist Tom Kavet, 11/12/19.

Nationally, as of 2016, only one out of seven (14%) Americans lived outside of metro areas.[5] In Vermont, two out of three (65%) did, but the proportion is declining as rural counties lose population and age faster (Figures 12,13). In New England, most counties in Census-defined metropolitan areas have gained population (except in Connecticut), while nearly all nonmetro counties have lost population (Figure 14).

The Census defines rural areas differently than nonmetro areas, and the U.S. Department of Agriculture (USDA) has yet a different definition of rural counties (Appendix C). But regardless of which definition is chosen, Vermont stands as one of the two most rural states in the nation, along with Maine. Maine and Vermont each have about 61% of their populations living in rural census blocks; no other state has more than 51% and only seven other states have more than 40% of the population in rural areas.[6]

In short, the trend in Vermont is largely consistent with national and regional trends. The question is the timing and the extent to which in-migration will return to high-amenity rural areas like Vermont.

Vermont's high-amenity rural counties have advantages compared to much of the rural United States

Not all rural economies are equal. Those that are recreation-based or non-specialized – USDA classifications that fit every rural Vermont county except Essex – are less likely to suffer from poverty, joblessness, and other afflictions than counties dependent on farming, mining, manufacturing, or the government.[7] Recreation-based counties also tend to offer the amenities that attract in-migrants.

While the USDA reports that one in four rural counties nationally suffer from low employment and persistent related child poverty, and more than one in ten have low education and persistent poverty, no Vermont counties meet the criteria for any of these labels (Table 2).

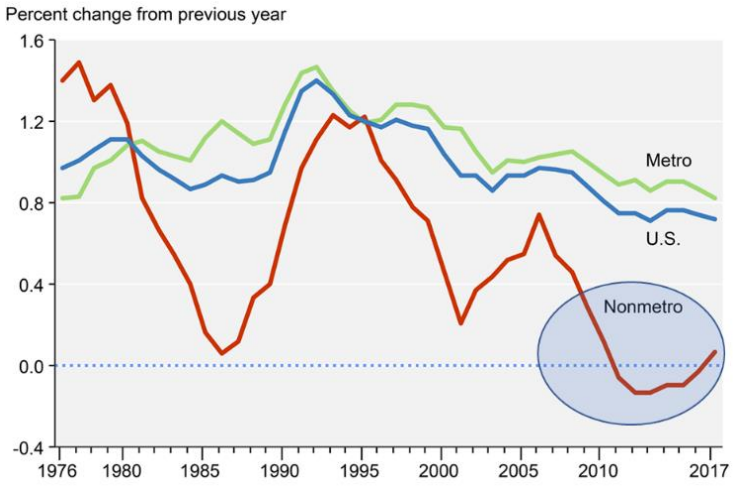


Figure 9. U.S. population change by metro/nonmetro status. Graph from USDA using data from U.S. Census.

[5] Cromartie, John (2017). "Rural Areas Show Overall Population Decline and Shifting Regional Patterns of Population Change."
[6] U.S. Census Bureau (2016), "Life Off the Highway."
[7] U.S. Department of Agriculture Economic Research Service (2015), "County Typology Codes."

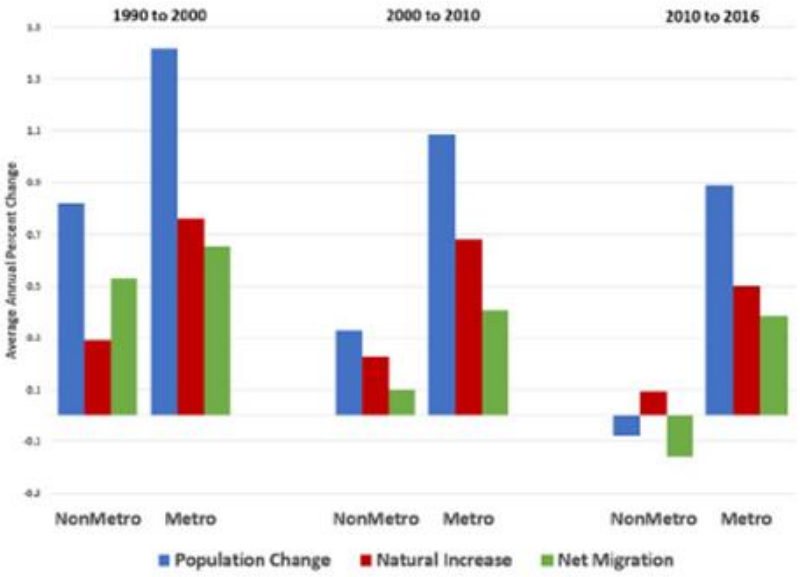


Figure 10. U.S. population change by components, 1900-2016. Graph from Johnson and Lichter.

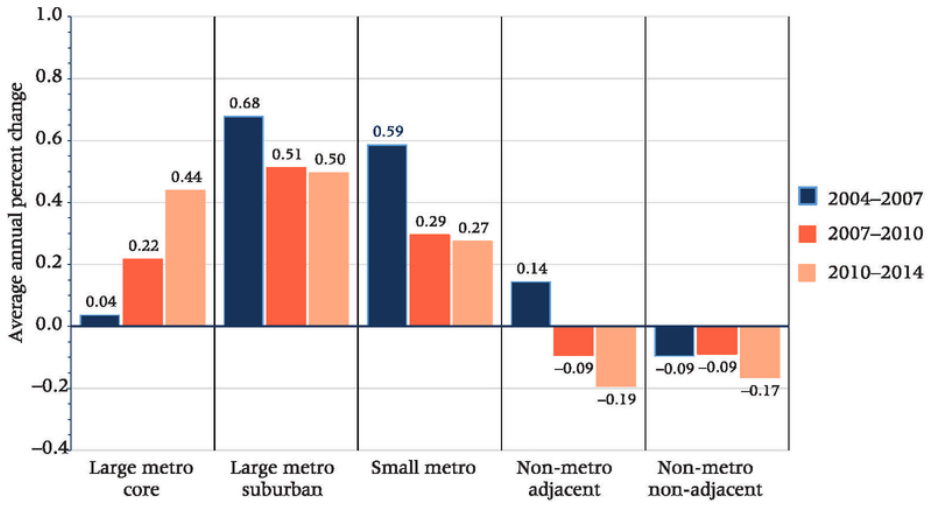


Figure 11. U.S. population change by type of metro, 2004-2014. Graph from Johnson et al.

Type of Rural County	Low Education	Low Employment	Persistent Poverty	Persistent Related Child Poverty
U.S.	15%	29%	11%	23%
VT	0%	0%	0%	0%

Table 2. Percentage of counties afflicted by four problems, U.S. and Vermont. Data from USDA.

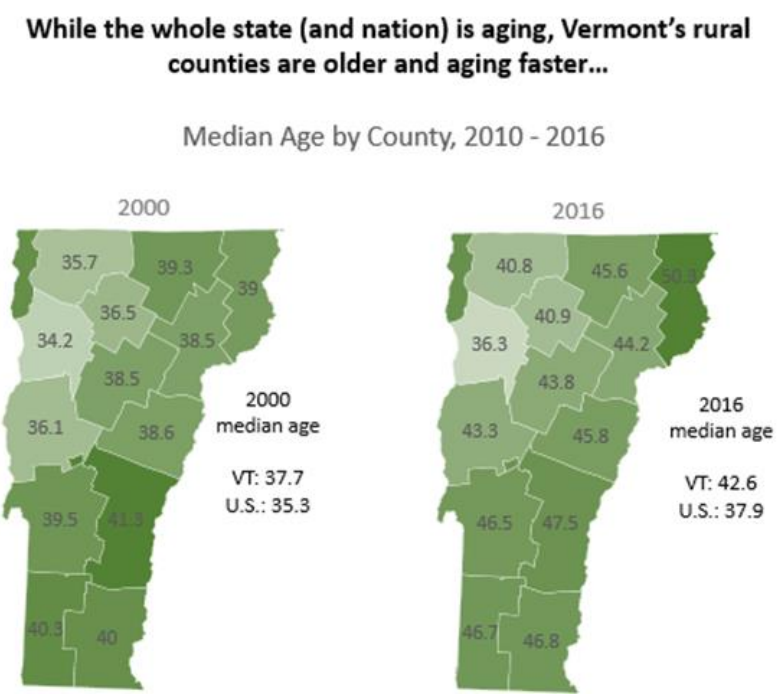


Figure 12. Median age by Vermont county, 2000 and 2016. Data from U.S. Census.

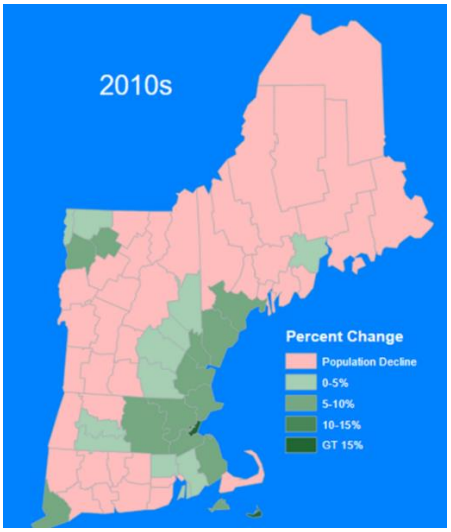


Figure 14. New England population change, 2010-2017. Graph from Peter Nelson of Middlebury College using data from U.S. Census.

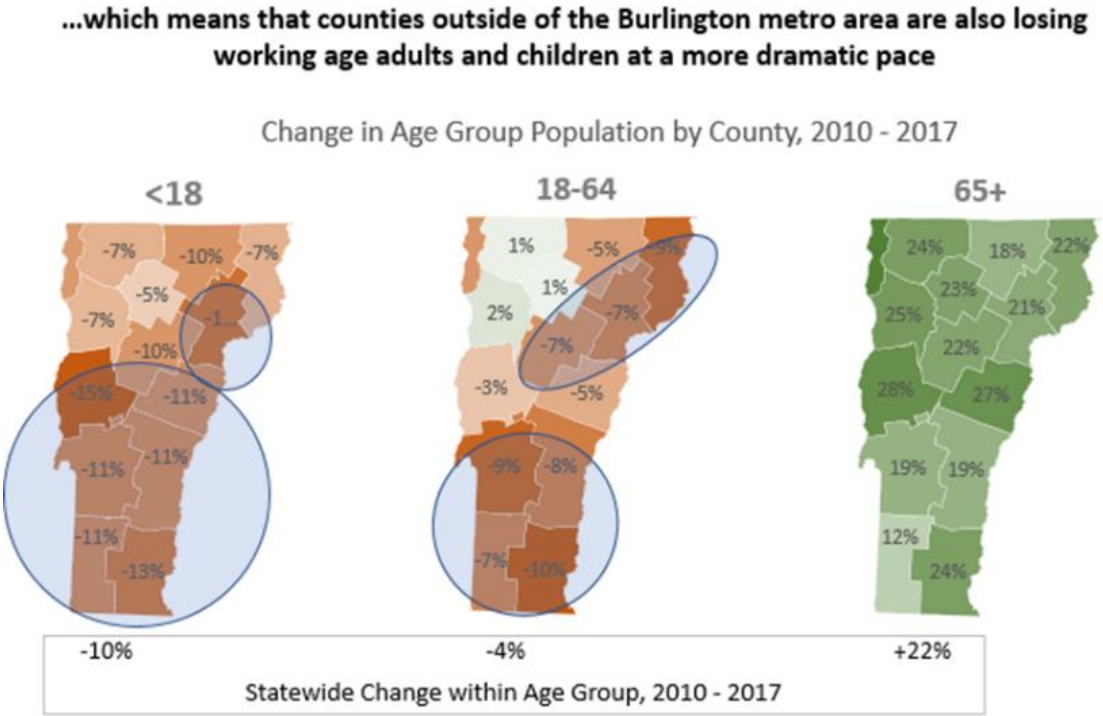


Figure 13. Change in age group population by county, 2010-2017. Data from U.S. Census.

3. Trend: More Households with Fewer People

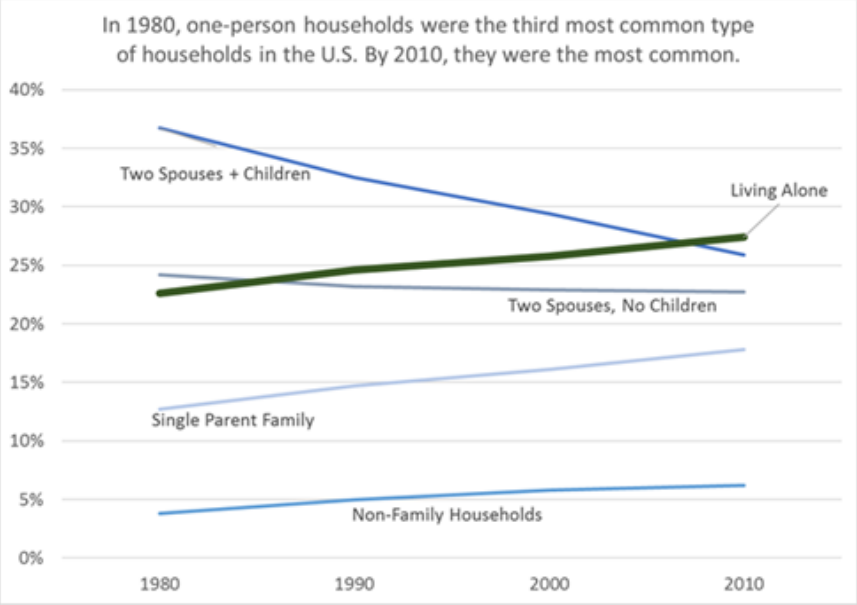


Figure 15. Proportion of U.S. households by type of household, 1980-2010. Data from U.S. Census decennial census.

The average Vermont household is shrinking and is now tied for smallest in the nation

The number of people per Vermont household shrunk by five percent from 2000 to the period of 2013-2017. At just 2.32 members, the average Vermont household is smaller than every state except possibly North Dakota and Maine.[8] Among owner-occupied households, no state has smaller households.

An analysis of Census data from the last decade, comparing American Community Survey five-year data from 2005-2009 to 2013-2017, illuminates two points. First, household size – both in Vermont and nationally -- is impacted by counter trends resulting from the rise in households other than traditional families – pushed down by growth in single-person households and pushed up by multi-person non-family households. Second, Vermont's decrease in household size is fully attributable to owner-occupied households as the size of Vermont renter households is unchanged (Figure 18).

One-person households: the most common household type in the nation; growing faster in Vermont

The traditional two-spouse family has been declining nationally for decades, while single-parent families, one-person households, and non-family households have all grown. One-person households became the most common type of household in the U.S. as of the 2010 Census, accounting for more than a quarter of American households (Figure 15).

[8] Household size from 2000 U.S. Census as well as U.S. Census 2017 American Community Survey five-year data (data from 2013-2017). Due to the size of the sample, North Dakota, Vermont, and Maine have overlapping margins of error for overall average household size. Vermont is clearly the smallest for owner-occupied.

Examining five-year American Community Survey data, the prevalence of single-parent families has also begun to dip while one-person households have grown five times as fast in Vermont as in the nation as a whole over the last decade. One-person households comprised 27.3% of U.S. households for the period 2005-2009, 27.5% for 2009-2013, and 27.7% for 2013-2017, compared to 27.7%, 28.4%, and 29.6% of Vermont households over the same periods (Figure 16).

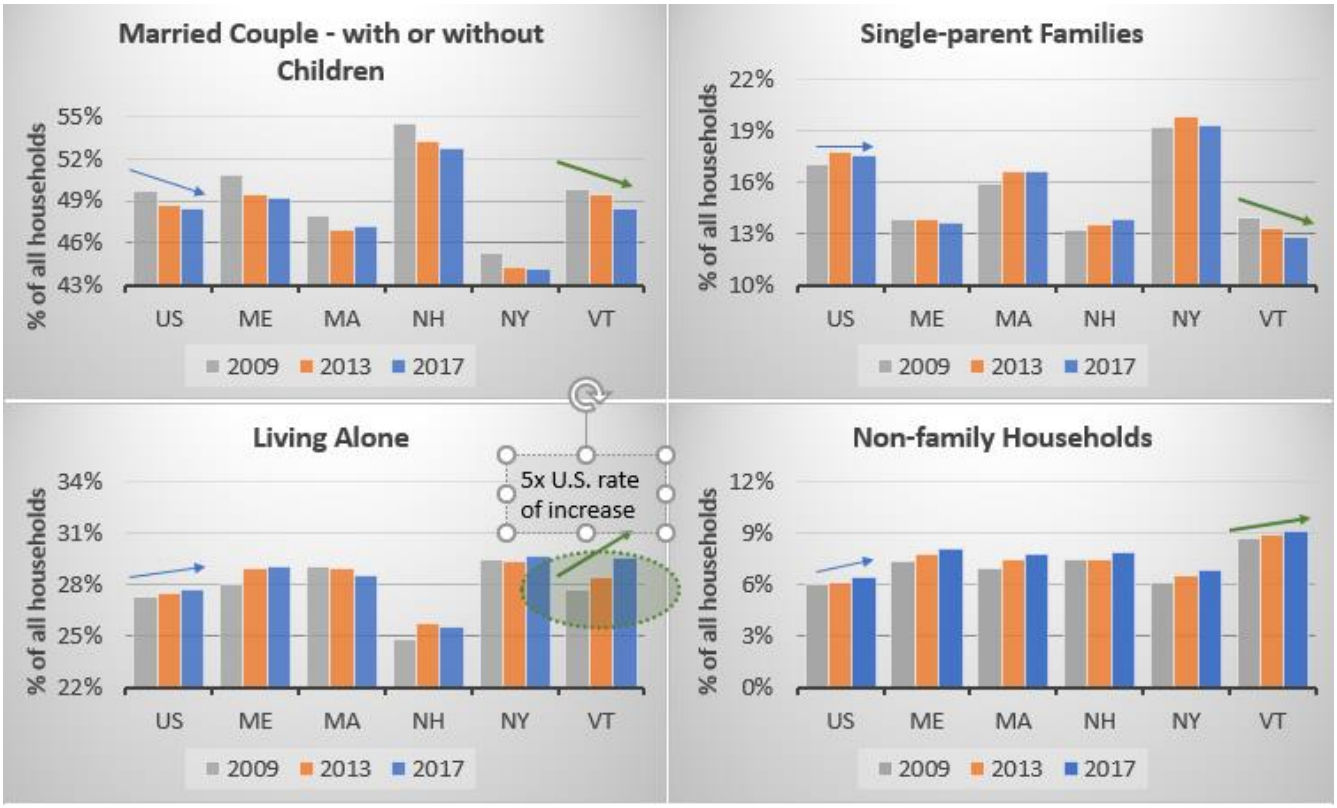


Figure 16. Proportion of four types of households in U.S., Vermont, and surrounding states. Five-year data from U.S. Census 2009, 2013, and 2017 American Community Survey (data from 2005-2009, 2009-2013, and 2013-2017).

As Figure 16 shows, the trends for various household types are directionally similar in Vermont as in the rest of the region. Therefore, the question of whether average households shrink or expand could largely come down to weighting. In short, to what extent do people outside of families live alone as opposed to in multi-person households? To the extent that one-person households grow much faster, average household size would likely drop (as is seen in Vermont). To the extent that multi-person non-family households grow faster, average household size could tick up (as is seen in the nation as a whole). Because the proportion of one-person households is growing faster in Vermont than nationally, while multi-person non-family households are growing more slowly, it should not surprise that Vermont household size would continue to decline even as the size of U.S. households tick up.

Global Context: One-person households even more prevalent in many other countries

This phenomenon is not unique to the United States. In Germany and the Scandinavian countries, two out of five households are single persons, as are nearly a third of households in Japan and the United Kingdom.[9]

[9] Chamie, Joseph (2017). "The Rise of One-Person Households." Inter Press Service.

National Context: The trend toward one-person households is expected to continue

The Harvard Joint Center for Housing Studies projects that one-person households will account for 38% of all new households across the country from 2018-2028, a development that would widen the gap between one-person households and other types of households (Appendix D).

Regional Context: Owner-occupied households are more likely to be one-person in Vermont than in any other state in the Northeast

While there has been a national uptick in average household size for both owner-occupied households and renters, the experience for states neighboring Vermont has been more in line with Vermont's. Specifically, owner-occupied households have shrunk, though not as significantly as in Vermont (Figure 17), while renter

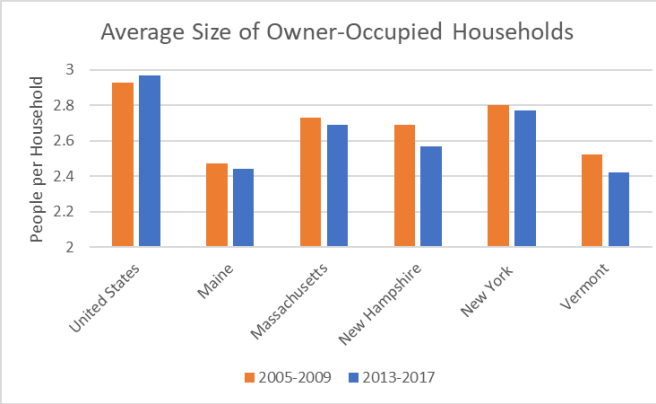


Figure 17. Size of average owner-occupied household in U.S., Vermont, and neighboring states. Data from U.S. Census Five-year American Community Survey, 2009 and 2017.

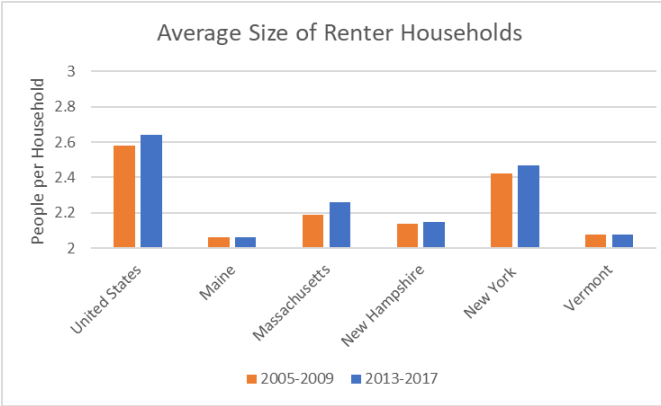


Figure 18. Size of average renter household in U.S., Vermont, and neighboring states. Data from U.S. Census Five-year American Community Survey, 2009 and 2017.

household size has expanded in New York and Massachusetts while staying stable throughout Northern New England (Figure 18).

As one-person households are largely driving the decrease in household size, it is not surprising that the data also show the shift toward one-person households in Vermont being particularly acute among owner-occupied housing units, where more than 24% of households were one-person based on 2013-2017 data, up from less than 22% for the 2005-2009 period, and the highest of any northeast state (Figure 19).

Given Vermont's high proportion of single-family homes and low availability of multi-family units and small homes, living alone can be an expensive proposition.[10] Appendix D details data on incidence of changes in one-person households by age group in Vermont and neighborhood states.

[10] While not statistically representative of the entire housing stock, a 2011 analysis of Realtor.com data found that Vermont homes for sale had the largest lots of any state in the nation and the largest house size of any state in the Northeast.

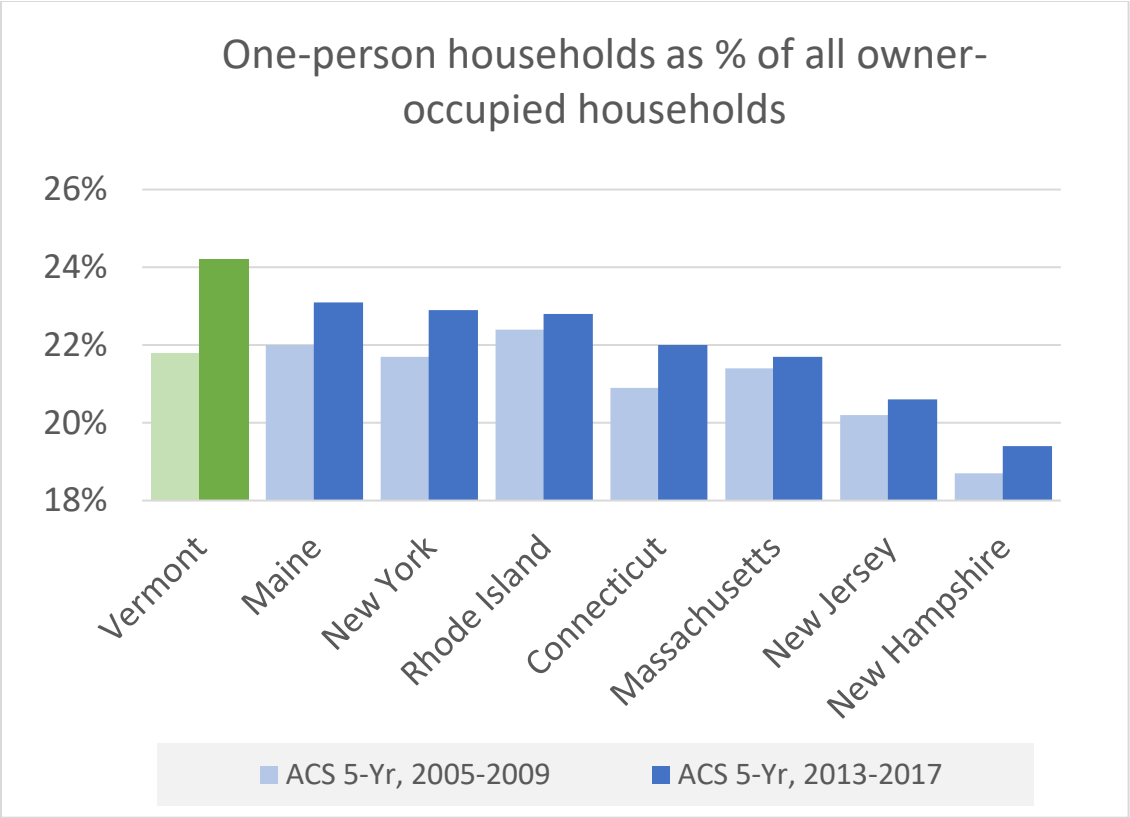


Figure 19. Proportion of one-person owner-occupied households in northeastern states. Data from U.S. Census Five-year American Community Survey.

Seniors are more likely to live alone in Vermont than in neighboring states or the nation as a whole

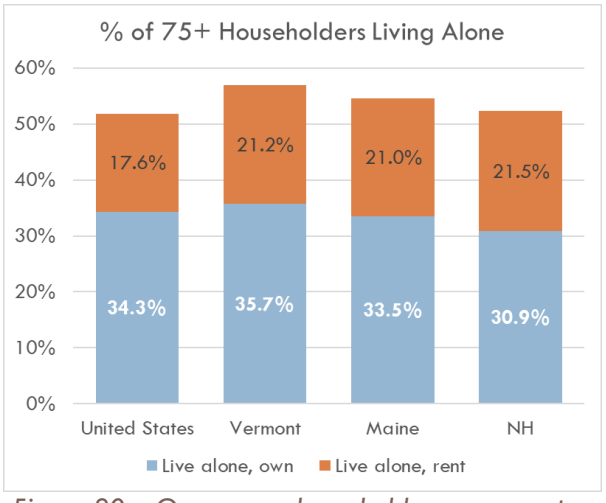


Figure 20. One-person households as a percentage of all households headed by a person 75+.

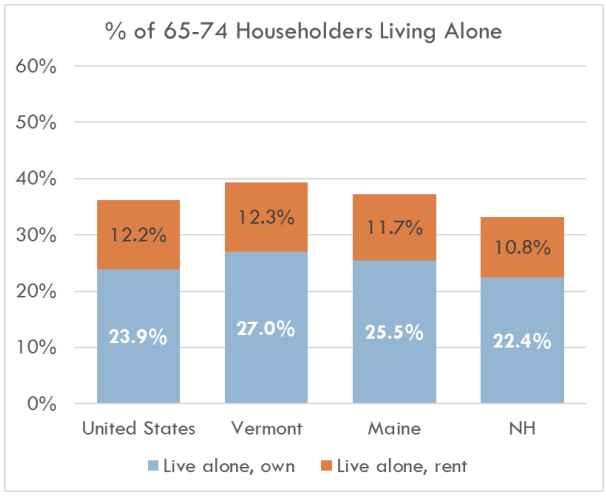


Figure 21. One-person households as a percentage of all households headed by a person 65-74.

SECTION B: IMPACT OF THE TRENDS ON VERMONT'S REVENUE SYSTEM

The three trends discussed in the previous section will impact how we earn (and pay income tax), how we spend (and pay consumption taxes), and how we live (and pay property tax).

By way of introduction, Vermont's three largest sources of state revenue include:

• **Personal Income Tax** is the largest source of revenue in Vermont, accounting for nearly two-thirds of General Fund dollars.

• **Consumption Taxes** support both the Education Fund (100% of Sales and Use and 25% of Meals and Rooms revenue) and General Fund (75% of Meals and Rooms).

• **Education Property Tax** accounts for two-thirds of Education Fund dollars, with non-homestead property taxes accounting for 41% of the Fund's revenue and the homestead education tax accounting for 26%.

Section B of this paper explores the impact of the trends from Section A on income and consumption tax revenue. A subsequent paper on the state's education finance system will discuss the impact on property taxes.

Population changes interact with how we earn

4. Impact: Downward Pressure on Personal Income Tax

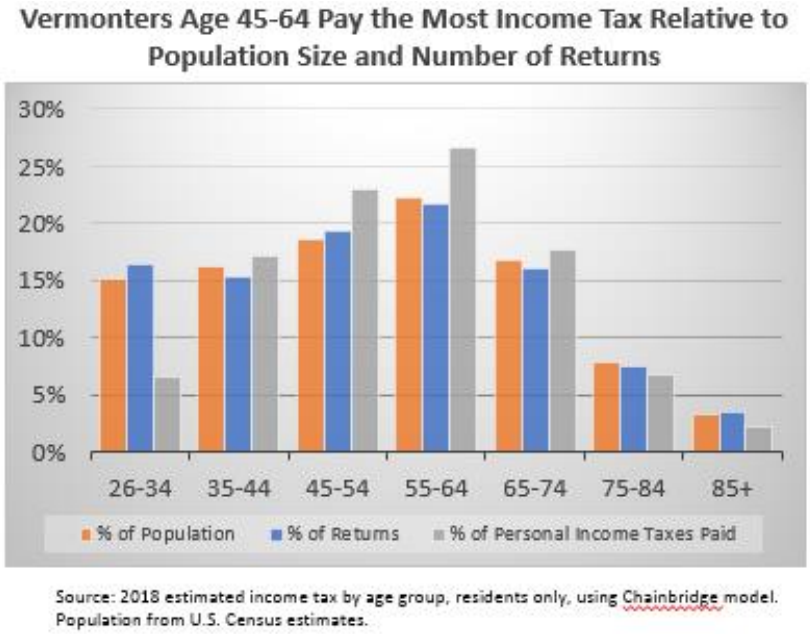


Figure 22. Proportion of Vermont population, tax returns, and total income taxes paid.

Impact: Taxable income decreases

Incomes generally increase throughout a person's working years, then decrease in retirement. The non-taxable portion of income tends to increase in retirement as well. For these reasons, Vermonters between the ages of 45 and 64 collectively pay the most personal income tax, both overall and relative to their population size. Younger baby boomers (those currently aged 55-64) are the largest age group in the state. They account for more than a fifth of tax returns and more than a quarter of all income tax dollars (Figure 22).

Impact: Higher incomes concentrate in the growing metro area

The per capita income of the three counties in the Census-defined Burlington-South Burlington Metropolitan Statistical Area (Burlington metro area) is seven percent higher than the per capita income of the state as a whole. This is the region, along with adjacent Lamoille County, that is gaining population. The counties that are losing population tend to have lower incomes.[11]

Impact: Per capita income up, household income down

The shrinking size of households underscores the importance of reading income metrics closely. Since 1999, Vermont real per capita income has increased five percent while the state's median household income has fallen four percent.[12] This divergence between per capita income and median household income is driven by

[11] County population and income from U.S. Census decennial census and 2017 five-year American Community Survey (data from 2013-2017).
[12] Income from U.S. Census decennial census and 2017 five-year American Community Survey (data from 2013-2017).

two factors. First, smaller households mean fewer earners per household and total income is spread across more households. Second, greater inequality, with greater concentration of income among high-earners, serves to pull up the average more than the median. The first factor can suppress revenue to the extent that tax benefits are given at the household level (as opposed to by filing status or number of dependents), while the second factor produces increased revenue through a higher effective tax rate in a state with a progressive income tax (like Vermont).

Revenue Result: Personal income tax revenue will likely decrease

In announcing its July 2019 cut to Vermont's bond rating, Fitch Ratings referenced a 2018 report that "working age populations are projected to decline approximately 0.5% between 2017 and 2026. This trend will strain economic growth….with knock-on implications for revenue growth prospects and ratings."[13]

Several state and national researchers have studied the impact of demographic shifts on income tax revenues and tax expenditures. In 2013, Alison Felix and Kate Watkins with the Federal Reserve Bank of Kansas City estimated Vermont's per capita income tax revenue would fall four percent from 2011 to 2030.[14] This projection assumed that income composition by age cohort would hold steady over time, while in fact – as the authors acknowledged – seniors have tended to retire later and thus earn more wage income than they did in past decades. Assuming the trend of working later in life continues, and depending on the types of jobs worked and incomes earned, it could alleviate some of the downward pressure on income tax revenue.

Two additional factors could impact income tax revenues.

First, the Bank made its projection prior to Vermont's creation of a personal income tax exemption for social security beneficiaries below certain income thresholds. Passed in 2018, Vermont's partial social security exemption was projected to cost $5 million the first year, a figure that will presumably tick up as more Vermonters draw social security.[15] Vermont's new medical deduction primarily benefits seniors and its cost could grow alongside Vermont's senior population. However, even with the new tax expenditures, Vermont's income tax exemptions for seniors are modest relative to many other states in the region (Appendix F) and throughout the country.

Second, in-migration dipped below the Census projections used by the study for several years before starting to rebound. To the extent that in-migration tends to be younger than a resident population, lower in-migration would generally result in an even older population and thus likely less taxable income. A 2019 Joint Fiscal Office analysis seems to indicate that this may not be the case with recent migration.[16]

[13] Fitch Ratings (2018), "U.S. States and the Growth Implications of an Aging Population."
[14] Felix and Watkins (2013), "The Impact of an Aging U.S. Population on State Tax Revenues."
[15] Office of Governor Phil Scott (2018), "New Vermont Law Reduces Personal Income Taxes by $5 Million for Social Security Recipients."
[16] Campbell and Wexler (2019), "Taxpayer Migration by Age and Income: Evidence from the IRS."

The tax structure interacts with how we earn

5. Impact: More Income Tax Stability than Most States

A 2013 report by the Federal Reserve Bank of Kansas City projected that Vermont's income tax per capita would fall 4% by 2030. Several less aged states, particularly those with extensive tax breaks for retirement income, projected larger drops.

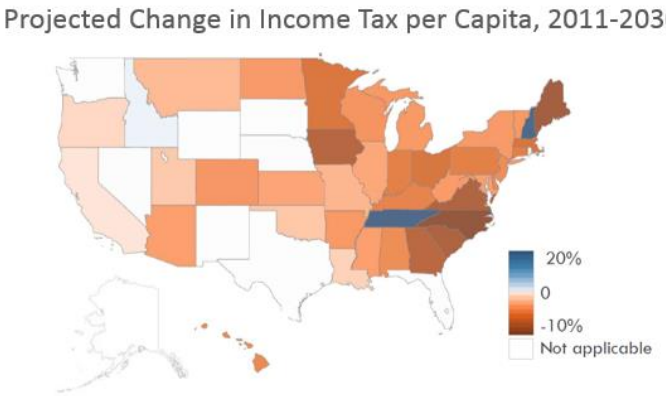


Figure 23. Projected change in per capita income tax revenue by state, 2011-2030. Graph from Mullis, data from Felix and Watkins.

National Context: It may be little consolation, but several states will see larger revenue drops

The federal government gives tax breaks to seniors and states typically give more, sometimes exempting retirement income that is taxable at the federal level. Vermont's approach of largely following federal rules for treatment of retirement income is presumably a large reason that Felix and Watkins projected the comparatively modest drop in per capita income tax revenue (Figure 23). States that offer generous exemptions for retirement income projected significantly steeper drops, even though they have a lower proportion of seniors.

According to a 2017 study by Brewer, Conway, and Rork, seniors in 2013 paid as little as 42% of the income tax they would have paid on the same income as a non-senior (in Georgia), or nearly 90% (in Rhode Island). Seniors in six states had less than 50% of the liability of non-seniors, while seniors in ten states (plus the District of Columbia) paid over 80%. At 87%, Vermont was the state with the third highest parity (fourth if counting the District, Figure 24).[17]

Such exemptions are sometimes used by states that are competing for wealthy retiree in-migrants. For example, a study commissioned by the OneGeorgia Rural Policy Center notes: "Georgia appeals to retirees with substantial retirement income due to its generous retirement income exclusion—$65,000 for singles and $130,000 for couples. Social security income also is fully exempt."[18] These states often have higher unemployment rates and count on job creation and consumption tax revenues from incoming seniors with

[17] Brewer et al. (2017). "Protecting the Vulnerable or Ripe for Reform, State Income Tax Breaks for the Elderly: Then and Now."

[18] Selig Center for Economic Growth (2013). "Golden Rules: Evaluating Retiree-Based Economic Development in Georgia."

disposable income and a need for services. However, the states also must plan for a larger drop in per capita income tax revenue.

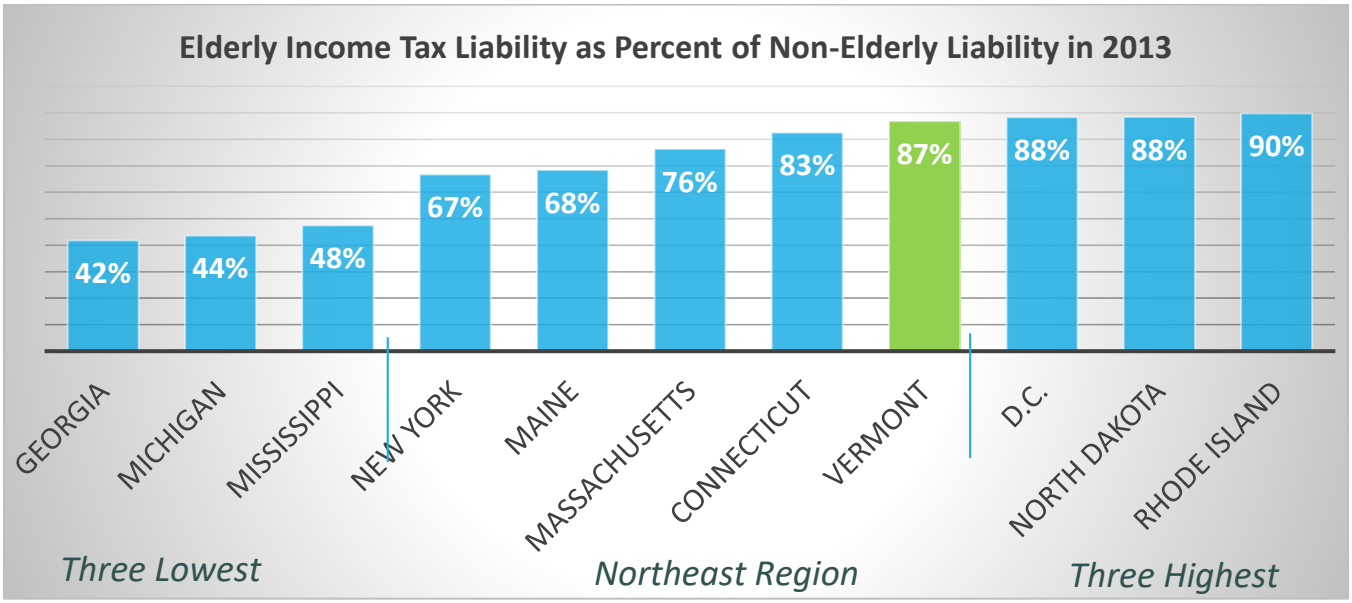


Figure 24. Income tax seniors would pay on the same income as non-seniors, expressed as a % of non-senior tax liability. Data from Brewer et al.

Population changes and the tax structure interact with how we spend

6. Impact: Minimal Impact on Consumption Taxes for Next Decade

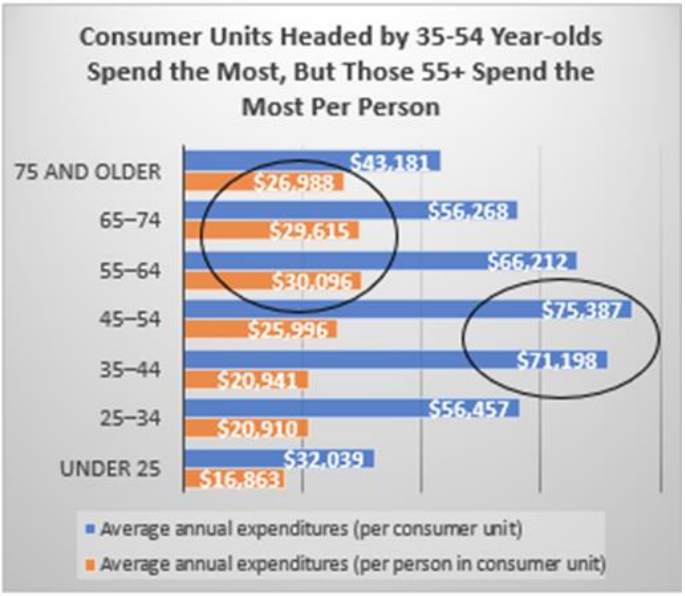


Figure 25. Average annual spending per consumer unit and per person in consumer unit, 2018. Data from Bureau of Labor Statistics Consumer Expenditure Survey.

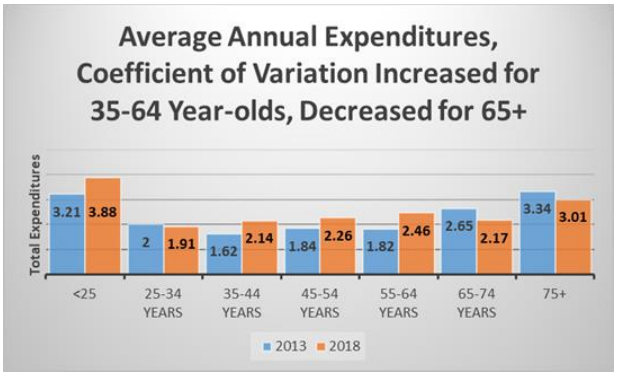


Figure 26. Coefficient of variation by age cohort, 2013 and 2018. Data from Bureau of Labor Statistics Consumer Expenditure Survey.

Overall spending per person peaks for households headed by 55-74-year-olds

Seniors tend to have smaller household sizes. They spend less per consumer unit than younger age cohorts but more per person (Figure 25). Of course, average spending can be a blunt measurement for any age group as it doesn't show inequalities within the group. Older seniors (75+) have the largest variance of any age group, while the variance for younger seniors (65-74) is on par with younger age groups. Notably, the variance decreased for both older and younger seniors from 2013 to 2018 but increased for the 35-64 cohorts (Figure 26).

Seniors spend less on goods (typically taxable) and more on services (typically non-taxable)

The focus of seniors' spending tends to shift away from taxable goods and toward non-taxable services. Compared to other age groups, seniors allot more of their spending to health care – which is mostly non-taxable[19] – and cash contributions.[20] Older seniors (75+) spend less than most groups on taxable food away from home and entertainment, though younger seniors – who will be well-represented in Vermont for the next decade – spend significantly in both areas. Notably, as the economy improved from 2013 to 2018, all age

[19] Health care is subject to a variety of taxes and fees but, in percentage terms, they account for far less of the purchase price than sales taxes.

[20] The Bureau of Labor Statistics defines cash contributions as "cash contributed to persons or organizations outside the consumer unit, including alimony and child support payments; care of students away from home; and contributions to religious, educational, charitable, or political organizations."

groups spent more on food away from home, but the increase in entertainment spending was concentrated in the 55-74 age cohort (Figure 27).

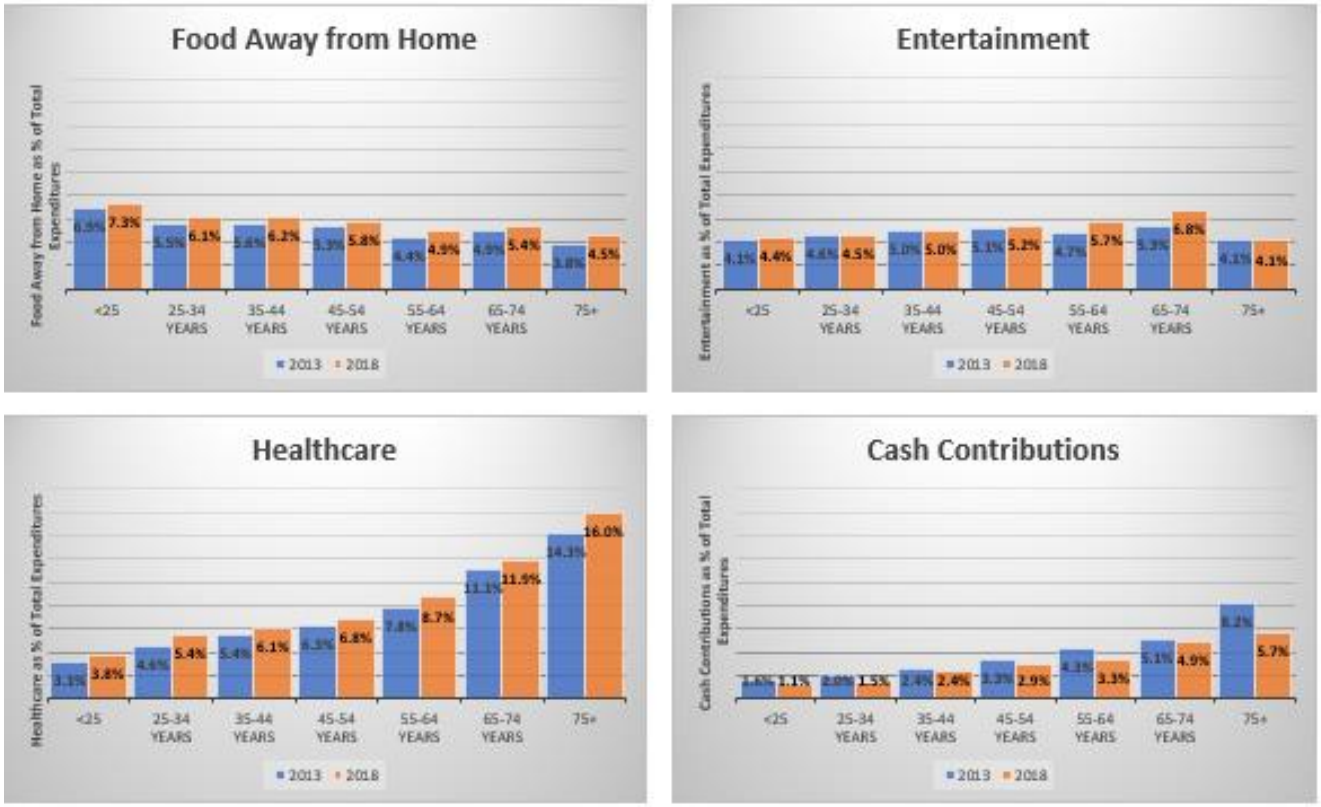


Figure 27. Spending on various categories by age cohort 2013 and 2018. Data from Bureau of Labor Statistics Consumer Expenditure Survey.

Wealthier seniors could have the capacity to spend more

Older baby boomers and members of the silent generation are also wealthier than previous generations were at a similar stage of life, while millennials and Generation X are less wealthy. Compared to the same age groups in 1989 and adjusting for inflation, the median older senior was nearly twice as wealthy in 2016 (+96%) while the median member of the 65-74 cohort had an additional half as much wealth (+56%), 55-64 year-olds ticked up slightly (+3%), and median members of younger age cohorts had significantly less wealth (Figure 28).

All age groups over 25 did increase spending in real terms from 2013 to 2018 (Figures 29,30), and older seniors did experience the largest increase. However, with much of the cohort's increase going to healthcare spending, the impact on consumption tax revenue would be muted.

Tourism is impacted by demographic change

Taxes are not limited to Vermont residents. Consumption taxes, particularly Meals and Rooms, are also paid by visitors to Vermont. Vermont's Agency of Commerce and Community Development (ACCD) estimates that out-of-state visitors account for roughly 50% of meals and over 95% of rooms.[21] Therefore, an increase in

[21] Jones (2018). "Tourism Benchmark Study, 2017."

retirement tourism into Vermont would have the potential to boost tax revenues. While tourism activity is heavily influenced by non-demographic factors such as weather and economic cycles, the population structure plays a role as well. Data from the Bureau of Labor Statistics show that travel expenditures peak in the 55-64 age cohort and the top income quintile (Figures 31,32). State Economist Tom Kavet has found such tourism by relatively recent retirees – especially those within driving distance – to benefit all northern New England states in recent years.[22]

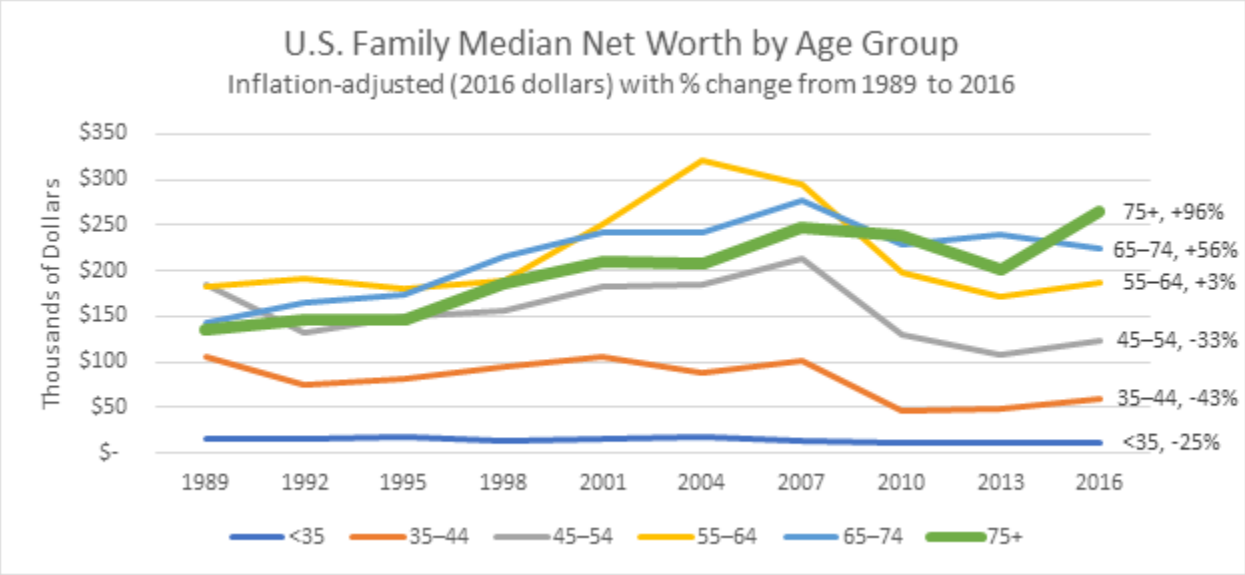


Figure 28. U.S. family median net worth by age group, 1989-2016. Data from Federal Reserve Survey of Consumer Finances.

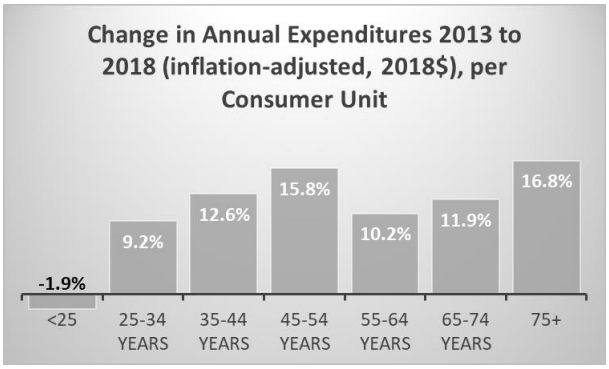


Figure 29. Change in average annual spending by consumer unit from 2013 to 2018, inflation-adjusted. Calculated from data from Bureau of Labor Statistics Consumer Expenditure Survey.

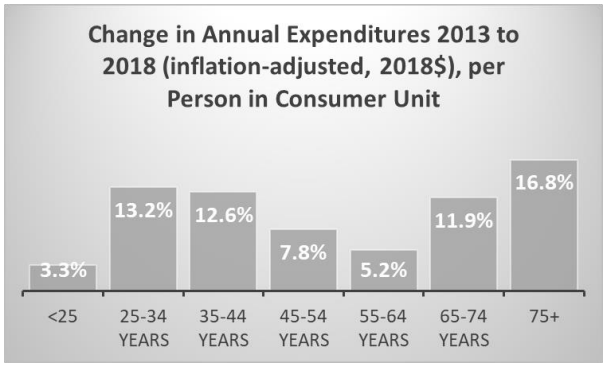


Figure 30. Change in average annual spending per person in consumer unit from 2013 to 2018, inflation-adjusted. Calculated from data from Bureau of Labor Statistics Consumer Expenditure Survey.

[22] Communication with State Economist Tom Kavet, 11/12/19.

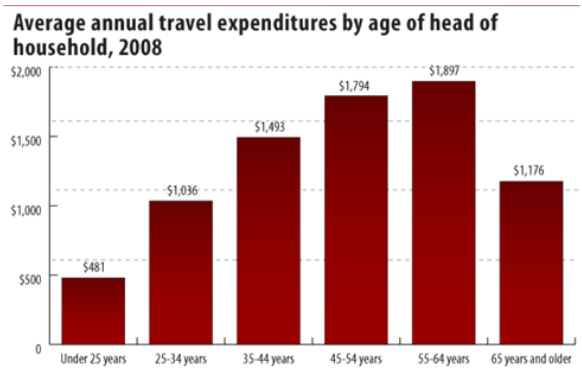


Figure 31. Average annual travel expenditures, 2008. Graph from Bureau of Labor Statistics Consumer Expenditure Program.

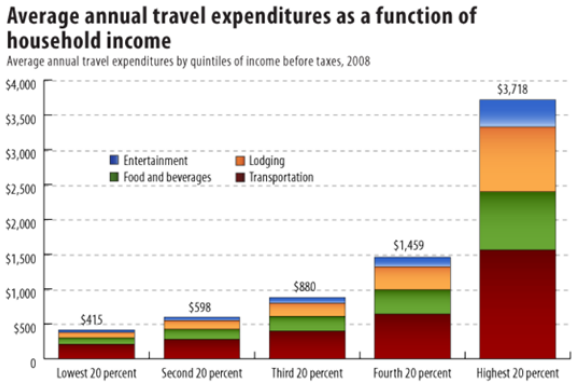


Figure 32. Average annual travel expenditures, 2008. Graph from Bureau of Labor Statistics Consumer Expenditure Program.

Revenue Result: Likely minimal impact on consumption taxes for next decade

In 2013, Alison Felix and Kate Watkins with the Federal Reserve Bank of Kansas City estimated Vermont's per capita sales tax revenue would fall one to two percent from 2011 to 2030.[23]

This projection assumed that expenditures by age cohort would hold steady over time, while in fact – as the authors acknowledged but did not work into calculations – average expenditures by seniors have increased as they have continued to work past retirement age. Assuming the trend of working later in life continues, younger seniors will likely spend at higher levels, thus mitigating some of the projected decrease in revenue. Higher wealth for senior residents and tourists could further moderate the impact for several years.

[23] Felix and Watkins (2013), "The Impact of an Aging U.S. Population on State Tax Revenues."

SECTION C: OTHER CONSIDERATIONS

7. Trends Can and Do Change

Over two millennia ago Heraclitus said that "change is the only constant." Those words should sound a cautionary note for anyone who evaluates trends and projects their future impact. After all, trends are comprised of recent datapoints compared to past datapoints and are subject to shift in the future. When trends and underlying assumptions shift, the projections can turn out to be inaccurate. Multiple cases illustrate this point.

Vermont's population trajectory shifted in the 1960s and again in the early 2000s

Few people in 1950s Vermont would have looked back at the state's lackluster population growth of the previous decades and predicted rapid growth over the following decades, as baby boomers from other parts of the country flocked to the state. Vermont proceeded to add roughly 50,000 people in each of the next four decades.

Based on that late 20th century trend, an observer might have projected continued growth. Indeed, in 2006, a U.S. Census report projected that Vermont's population would grow by nearly ten percent by 2020 (Figure 33). The same report projected that North Dakota and Washington, D.C. would both lose population by 2020. However, as of 2018, Census data show those projections to be considerably off the mark. As of 2018, Vermont's population appears to be virtually unchanged. And rather than shrinking to 630,000, North Dakota grew 20% to 760,000 while the nation's capital grew 27% to 702,000.

In the case of the Census, projections based on past data could not foresee the impact of an urban revival or growth in federal government and associated jobs on Washington, DC, or the effects of the greatest economic contraction since the Great Depression on a rural state like Vermont, nor could it anticipate an oil boom in North Dakota.

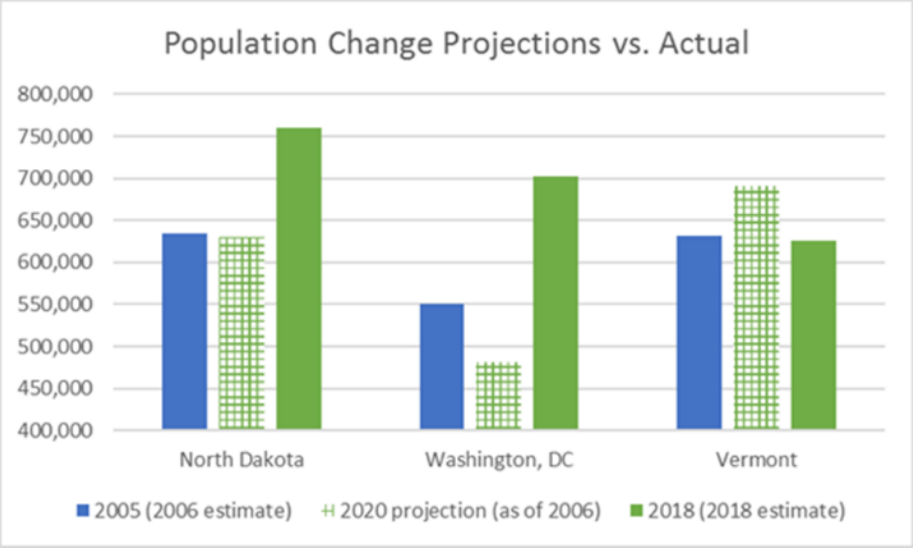


Figure 33. U.S. Census projections from 2006 vs. actuals.

In 2013, Vermont's Agency of Commerce and Community Development produced two scenarios of population projections. The first (Scenario A) projected the state's population through 2030 based on a recurrence of patterns from the 1990s. The second (Scenario B) replicated the much slower 2000s. As seen in Figure 34, Scenario B currently looks far more accurate, though even it underestimated the internal shift toward some of the metro counties.

The balancing act: monitoring for changes in trends but not jumping to premature conclusions

Just as past trends shifted unexpectedly in the last century, current trends and projections are almost certain to miss demographic disruptions that will be driven by social, economic, and environmental phenomena.

Climate-induced migration is one area that increasingly draws attention, observation, and anticipation. In some ways Vermont seems relatively well positioned to attract migrants from coastal areas. After all, Vermont property values are expensive compared to the national average but affordable relative to coastal cities like Boston and New York. And, while scientists certainly expect Vermont to be impacted by climate change, the state is projected to remain more habitable than many regions. On the other hand, the state's tight housing market could certainly be a constraint on attracting and retaining a significant number of in-migrants on short notice.

Importantly, while it is prudent for policymakers to plan for the possibility of such shifts, it would be irresponsibly speculative to count on changes happening within a certain timeframe or to a particular magnitude. Projections can be a useful tool for long-term planning, but only if the underlying assumptions are well understood and data are continually monitored to detect new trends.

In short, all demographic projections carry significant uncertainty that should be considered and tracked but not viewed as being set in stone. Existing and emerging trends should certainly be identified, analyzed, and – when appropriate – addressed.

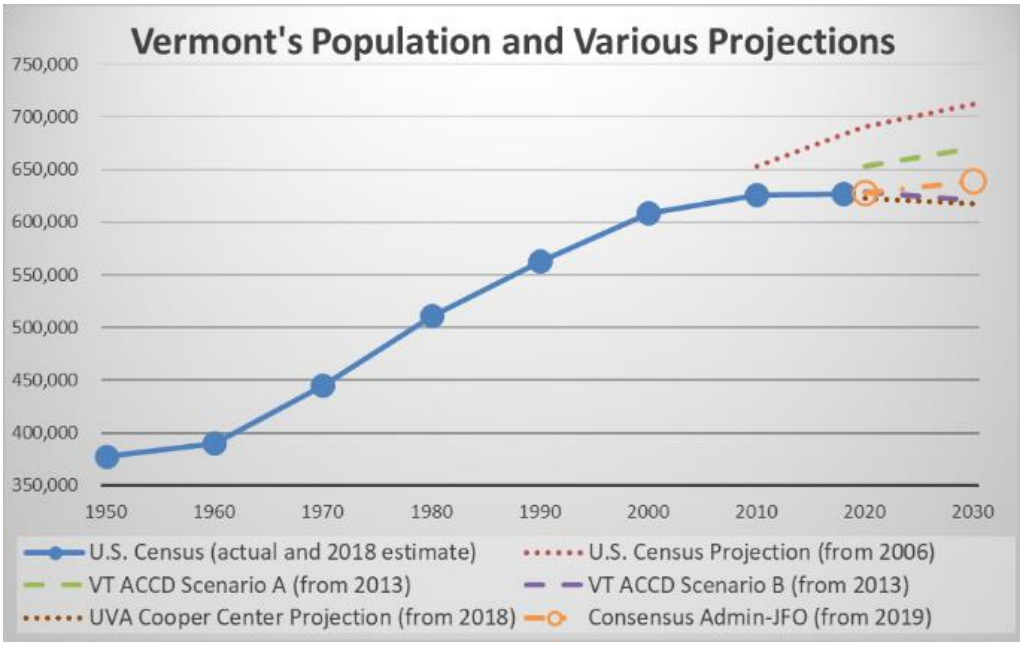


Figure 34. Vermont's population and various projections.

8. Some Trends Are Less Likely to Change than Others

As Chapter 7 demonstrates, population projections should be used to understand what is likely to happen if current trends continue. But what if trends change? For this reason, it's useful to pause and assess the likelihood of the three trends continuing over the next one to two decades.

Trend #1: More Seniors, Fewer Children, and Fewer Working-age Adults
Confidence in Trend: High

Fertility and mortality rates seem unlikely to take a dramatic turn. Immigration and domestic migration are thus the wildcards, dependent on federal policy, the availability of jobs, incomes relative to cost of living, and the disruption caused by global phenomena such as war, famine, and climate change.

Such factors could certainly blunt or accentuate this trend by increasing or decreasing the number of working-age adults and children. Given the large proportion of baby boomers in the state that will reach retirement age in the next decade, however, this trend is very unlikely to hit an actual turning point anytime soon.

Trend #2: More Metropolitan, Less Rural
Confidence in Trend: Moderate to High

Recent centuries have been marked by people moving from rural areas to metro areas. There have, however, been periodic countertrends over time, particularly in high-amenity rural areas such as Vermont. This century's job growth has overwhelmingly taken place in cities, but the fact that Gallup reports so many Americans want to live in rural areas (Appendix C) indicates that another countertrend isn't out of the question – and that the recreational opportunities offered by many Vermont counties would make them desirable destinations. There are very real reasons that this decade's job creation has been concentrated in metro areas but, as with Trend #1, it's at least within the realm of possibility that a national or global event could change migration patterns.

Trend #3: More Households with Fewer People
Confidence in Trend: Moderate

Household size isn't so much a single trend as it is a weighted average of various types of households. For decades, single-person households became increasingly popular while married-with-children families decreased. Those trends, combined with fewer children in households that did have children, resulted in a steady decrease in household size. However, an additional type of household – the non-family household – has also been on the rise. Multigenerational households, homesharing, and immigration all feed into these non-family households which could be fostering a countertrend at the national level. In fact, Census data showed an uptick in American family size for the first time in well over a century.[24]

To be clear, Census data on Vermont does not show a corresponding uptick. To the contrary, the increase in single-person households has driven a continued decrease in household size, leaving Vermont statistically tied for the smallest average household in the nation. But the fact that the trend is slowing or turning at the national level at least opens the possibility of Vermont following suit. Also, if the housing market remains tight in the Burlington metro area and if younger generations continue to be less wealthy than their predecessors, then it's possible fewer people will be able to afford to live alone.

[24] Fry (2019). "The number of people in the average U.S. household is going up for the first time in over 160 years."

9. In-migration Is Critical on Many Levels

States with low birth rates (like Vermont) must rely on domestic and international migrants in order to maintain or grow their population and achieve generational balance. The importance of domestic migration to Vermont can be seen by contrasting the migration patterns of baby boomers to millennials, while the importance of immigrants can be seen by contrasting Vermont to other states and immigrants to native-born residents.

Domestic migration in Vermont

Domestically, a massive influx of baby boomers fueled Vermont's growth in the late 20th century, but subsequent generations have reversed course and moved to cities.

To understand the impact of the baby boom in Vermont, this paper started by reviewing the 1960 Census. It turns out that children born in the 1950s weren't overrepresented in Vermont in 1960. In fact, 1950s children made up virtually identical proportions of the U.S. and Vermont populations, just under 22% (Figure 35).

Over the coming decades, however, loads of 1950s-born in-migrants moved to Vermont. By the time they were 30-somethings in 1990, their ranks had swelled by 17%, from less than 85,000 to nearly 100,000. Nationally, immigration boosted the ranks of the age group by a more modest 7%.

By comparison, children born in the 1980s are nearly the same age now as 1950s children were in 1990. So, how did their growth rate compare? Nationally, immigration picked up, giving the United States 22% more 1980s-born adults than the nation had in 1990. Yet in Vermont an exodus left that state with 12% fewer members of the cohort (Figure 36). Such outmigration has a ripple effect both in terms of workers entering their peak working years as well as for parents of the next generation of children.

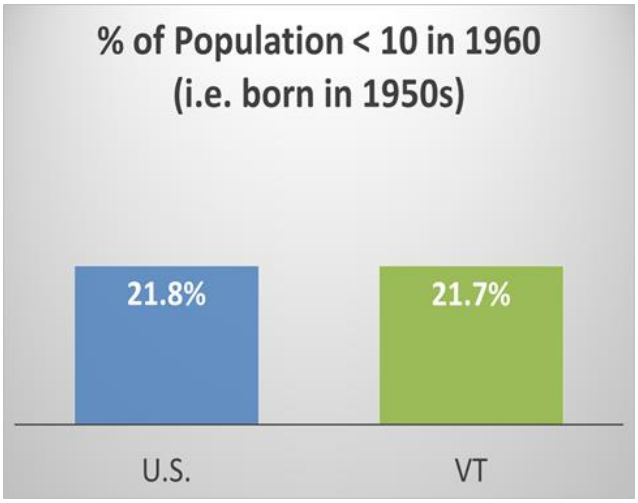


Figure 35. Proportion of U.S. and Vermont residents born in the 1950s as of 1960. Data from U.S. Census.

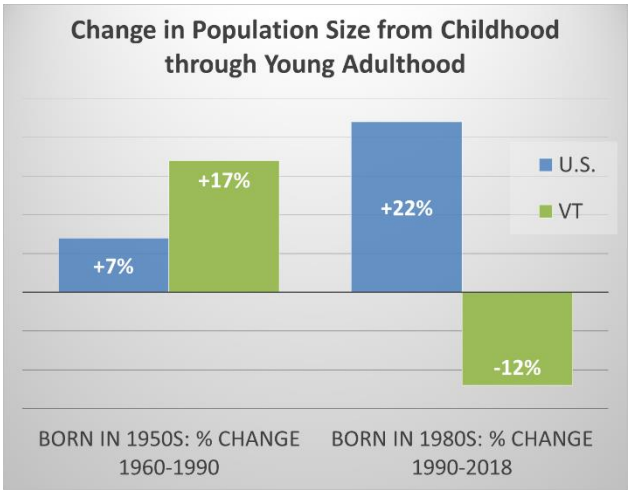


Figure 36. Baby boomer vs. millennial migration. Change in population from childhood through young adulthood. Data from U.S. Census – 1960 and 1990 decennial census and 2018 American Community Survey.

Immigration

Nationally immigrants provide a counterbalance to generational ebbs and flows. For example, while native-born Americans have a large population of baby boomers and a significantly smaller population of Generation Xers, the latter generation is bolstered by the largest cohort of immigrants (Figure 37). In addition, immigrants tend to have higher birth rates than native-born Americans, which provides a further counterbalance to aging generations. Without immigrants, the U.S. population would have a larger drop-off from baby boomers to Generation X – much like Vermont's variance.

Recent immigration has come from the south (Latin America) and west (Asia) into the American South and West (Figure 38). The declining share received by the Northeast has concentrated in urban areas, leaving rural northern New England with less than half the proportion of immigrants as the U.S. overall and one of the slowest population growth rates (Figures 39,40).

Nonetheless a July 2019 analysis from the Federal Reserve Bank of Boston illustrates the growing importance of immigration to northern New England. The study shows the three states added nearly 60,000 immigrants from 1990 to 2017, a growth rate of 63%, while the region's native-born population increased by less than 12%. Notably, the Bank's analysis also showed that immigration was particularly impactful in relatively slow-growing communities with small populations of youth, that the quintile of towns with the lowest native-born growth rates had their population losses (11.5%) offset by immigration, and that the quintile with the second lowest growth rate attracted the largest share by far.[25]

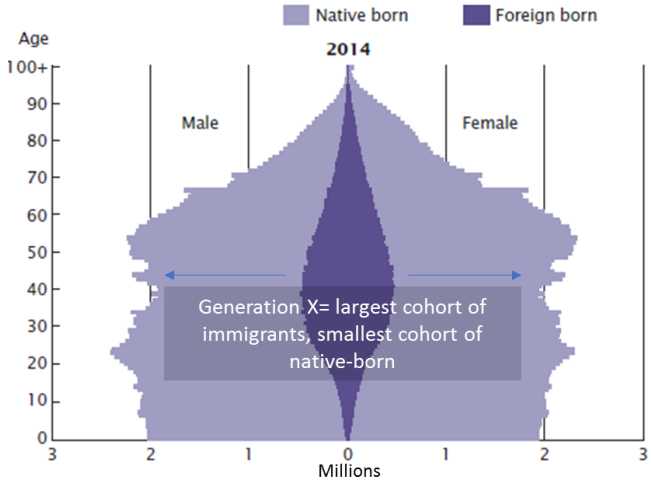


Figure 37. Age and sex structure of U.S. population. Graph from U.S. Census. Overlaid arrows/comments added by Tax Structure Commission. Note that children of immigrants are not shown distinct from other native-born residents.

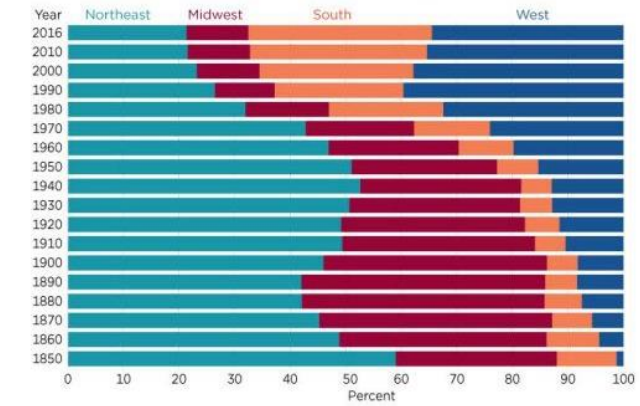


Figure 38. Share of foreign-born population by region, 1850-2016. Graph from U.S. Census.

[25] Sullivan, Riley (2019). "Aging and Declining Populations in Northern New England: Is There a Role for Immigration?"

In other words, immigration is bolstering the population in some of the areas that need it most and could play an increasingly important role in the future. The changing nature of federal immigration policy shrouds any forecasts in uncertainty however.

Vermont is one of the slowest growing states in the nation despite having relatively neutral net domestic migration. Low birth rates and low international migration, which often are aligned as immigrants tend to have higher birth rates, keep Vermont's overall growth rate lower than states with far more out-migrants.

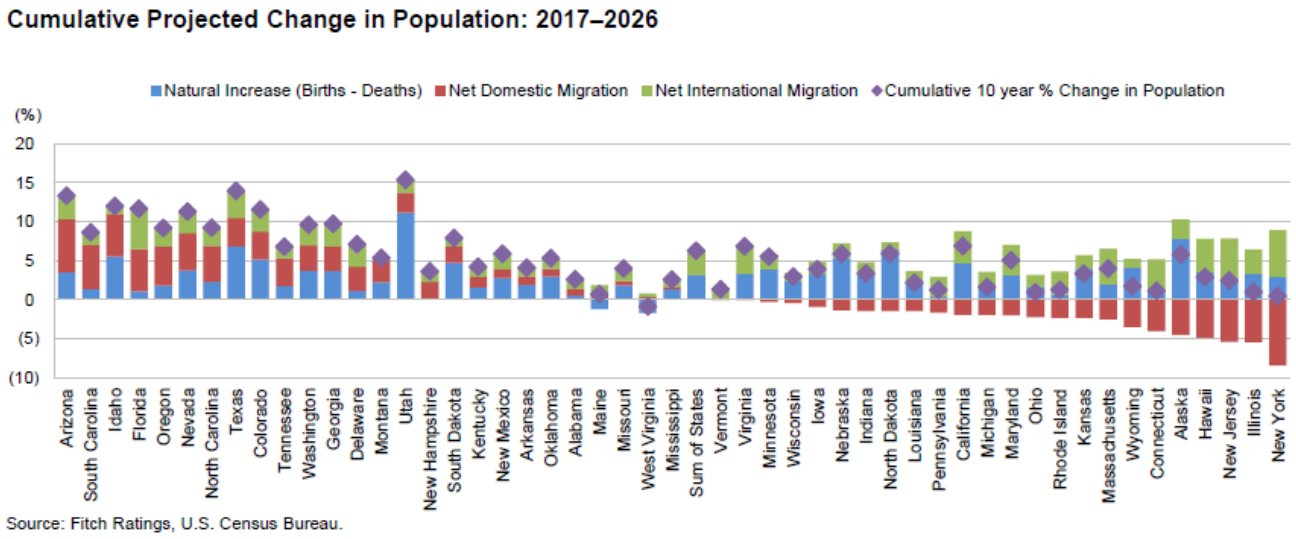


Figure 39. Cumulative projected change in population, 2017-2026, sorted by net domestic migration. Graph from Fitch Ratings.

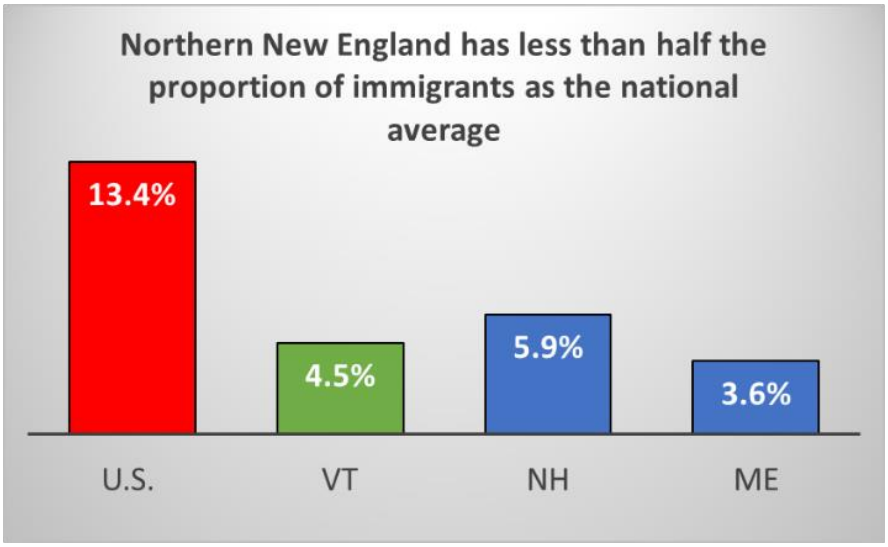


Figure 40. Foreign-born persons as proportion of overall population. Data from 2017 U.S. Census American Community Survey five-year estimates (data from 2013-2017).

FINDINGS

The Commission views the following findings as one set of building blocks that will contribute to future deliberations and, ultimately, recommendations for the future of Vermont's tax structure. The Commission hopes the findings will also be useful to state agencies and community organizations as they plan for population changes and necessary adjustments to the ways they serve Vermonters.

1) **Vermont attracted a lot of baby boomers. As baby boomers age, Vermont gains seniors and loses working age adults and children.**
    - The baby boomers' share of total population is nearly a quarter larger in Vermont than the nation as a whole (25.3% of Vermont vs. 20.8% of the U.S. were age 55-72 in 2018).
    - New Hampshire and Maine have similar age distributions to Vermont. As a result, the three states project to be the oldest in the nation by 2030 when all baby boomers are over 65.
    - As of the last census (2010), fewer than 42,000 Vermonters were 75 or older. By 2030, that figure is projected to double to nearly 86,000.

2) **Vermonters are shifting toward its one metropolitan area and away from rural areas.**
    - Since 2000, three counties around Burlington have grown by more than eight percent, while the other 11 counties have either lost population or are virtually unchanged.
    - Throughout the nation, rural areas have lost population as younger generations in particular move to metropolitan areas. Vermont and Maine are the two most rural states in the nation.

3) **More households with fewer people result in household growth without population growth.**
    - The proportion of one-person households has grown five times as fast in Vermont over the last several years as in the nation as a whole.
    - The average Vermont household is five percent smaller than it was in 2000. Vermont households are statistically tied with North Dakota and Maine as the smallest in the nation.

4) **Population changes will put downward pressure on personal income tax.**
    - Vermont has benefited in recent years from substantial income tax receipts from the large cohort of baby boomers progressing through their peak earning years.
    - Younger baby boomers (age 55-64 in 2018) currently account for more than a fifth of tax returns and more than a quarter of personal income tax dollars. As the state's most populous age cohort progresses through their senior years, their decreasing incomes will no longer contribute as disproportionately high of a share of income tax revenue.

5) **Relative to other states, Vermont's tax structure provides more income tax stability.**
    - Due to varying state tax breaks, seniors tend to pay less state income tax than non-seniors pay at similar income levels – in several cases, less than half as much.
    - As of 2013, Vermont was one of the top three states for senior/non-senior parity and, as such, is positioned to avoid the larger revenue drop-offs faced by states that treat retirement income dramatically different than the federal government. The state's medical deduction and partial social security exemption, passed in 2018, can be expected to widen Vermont's senior-to-non-senior ratio, but not as wide as many states.
    - The trade-off for greater stability is a reduced comparative advantage for seniors, a relevant consideration as states compete for both wealthy seniors and workers.

6) **Population changes will likely have minimal impact on consumption tax for several years.**
    - Compared to other age groups, seniors tend to spend more on mostly non-taxable services, such as health care, rather than the taxable goods favored by younger cohorts.
    - This drop could be partially mitigated due to seniors tending to work and spend later in life, because seniors as a whole are now wealthier than other generations, and because the state benefits from tourism by empty nesters and recent retirees from nearby states.

7) **Of the trends outlined in this paper, "More Seniors" seems the least likely to reverse course in the coming decade.**
    - The trend of "More Households with Fewer People" is the most susceptible of the three in that it has recently shifted nationally, though not in the northeast, and there are social and economic pressures that could make shared housing preferable to living alone for some people.
    - Existing and emerging trends should be tracked, analyzed, and – when appropriate – addressed.

8) **In-migration, both domestic and international, is crucial for maintaining population stability, achieving generational balance, and addressing workforce shortages… which will then benefit the State's revenue system.**
    - Domestic in-migration of baby boomers fueled Vermont's late 20th century growth and international immigrants have helped bolster many smaller towns– even though northern New England attracts only one-third the proportion of immigrants as the nation as a whole.
    - Predictive models should recognize the potential for in-migration to be driven by climate change and other social phenomena, but they cannot count on it happening at a certain timeframe or to a particular magnitude.

APPENDICES

Appendix A – Methodology

This paper surveys data on three demographic trends, the impact of those trends on how Vermonters earn, spend, and live, and accordingly the impact on three of Vermont's key revenue sources: income tax, sales tax, and property tax. When possible, the paper offers context of whether a Vermont trend or impact is consistent with national and regional trends.

When focusing on Vermont, this paper uses Consensus Administration and Joint Fiscal Office projections of 2019-2030 populations by single year of age. When making regional and national comparisons, the paper uses data from the University of Virginia Cooper Center for both Vermont and other states' projections in order to provide a consistent comparison. Cooper Center data is also used when projecting to 2040.

Similarly, while data from the Vermont Department of Taxes provides the most precise picture of Vermont, data from the U.S. Census Bureau is used for both Vermont and other states when making comparison national and regional comparisons. The Census's five-year American Community Survey is used, rather than the one-year, in order to maximize reliability.

Appendix B – More Seniors (Additional Information and Graphs)

A comparison of age distribution across northern New England shows a similar pattern between the three states (Figure 41). A comparison of the seven oldest states show a few similarities but also several distinctions (Figure 42). For example, northern New England is especially underrepresented with children and young adults (older millennials/younger Gen Xers) and has a particularly high concentration of boomers compared to the other aging states. Florida and West Virginia have particularly high concentrations of the oldest seniors.

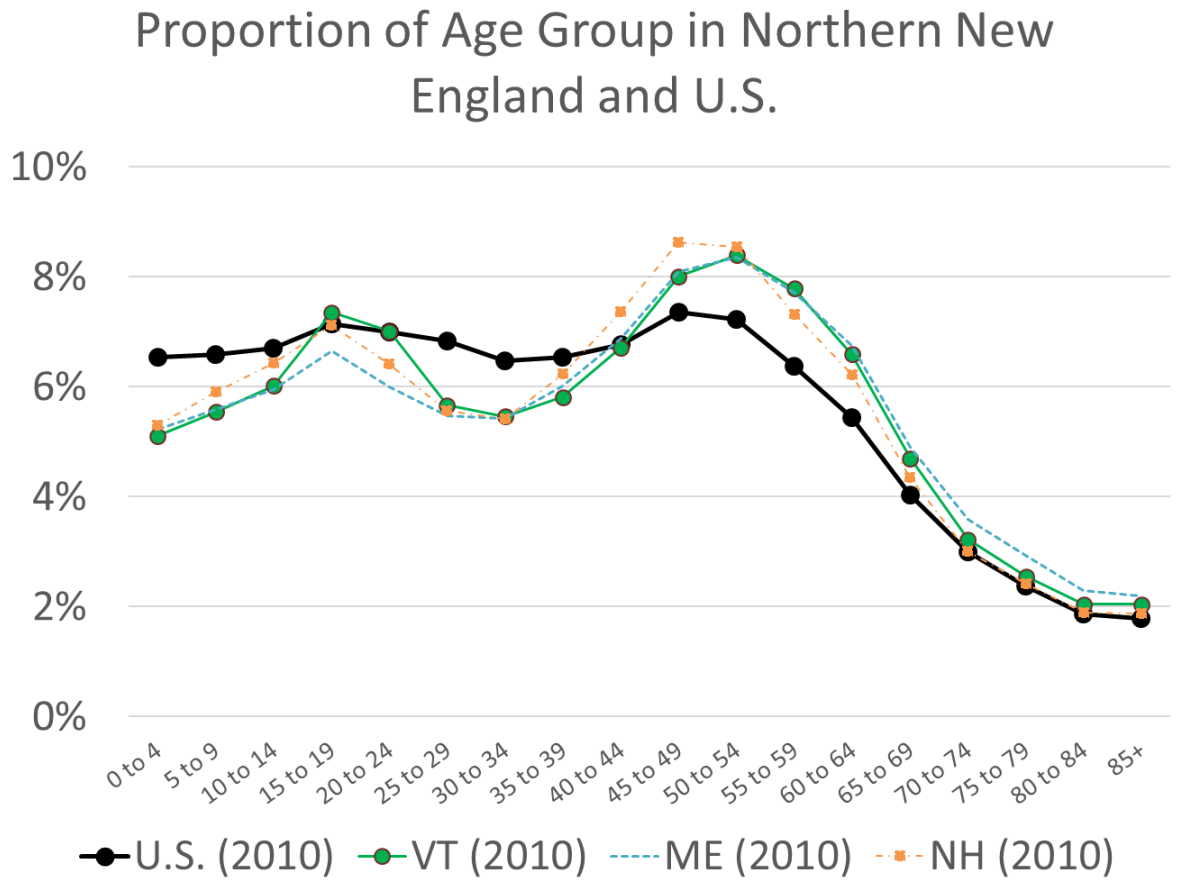


Figure 41. Age distribution of U.S. compared to northern New England states. Data from U.S. Census decennial census.

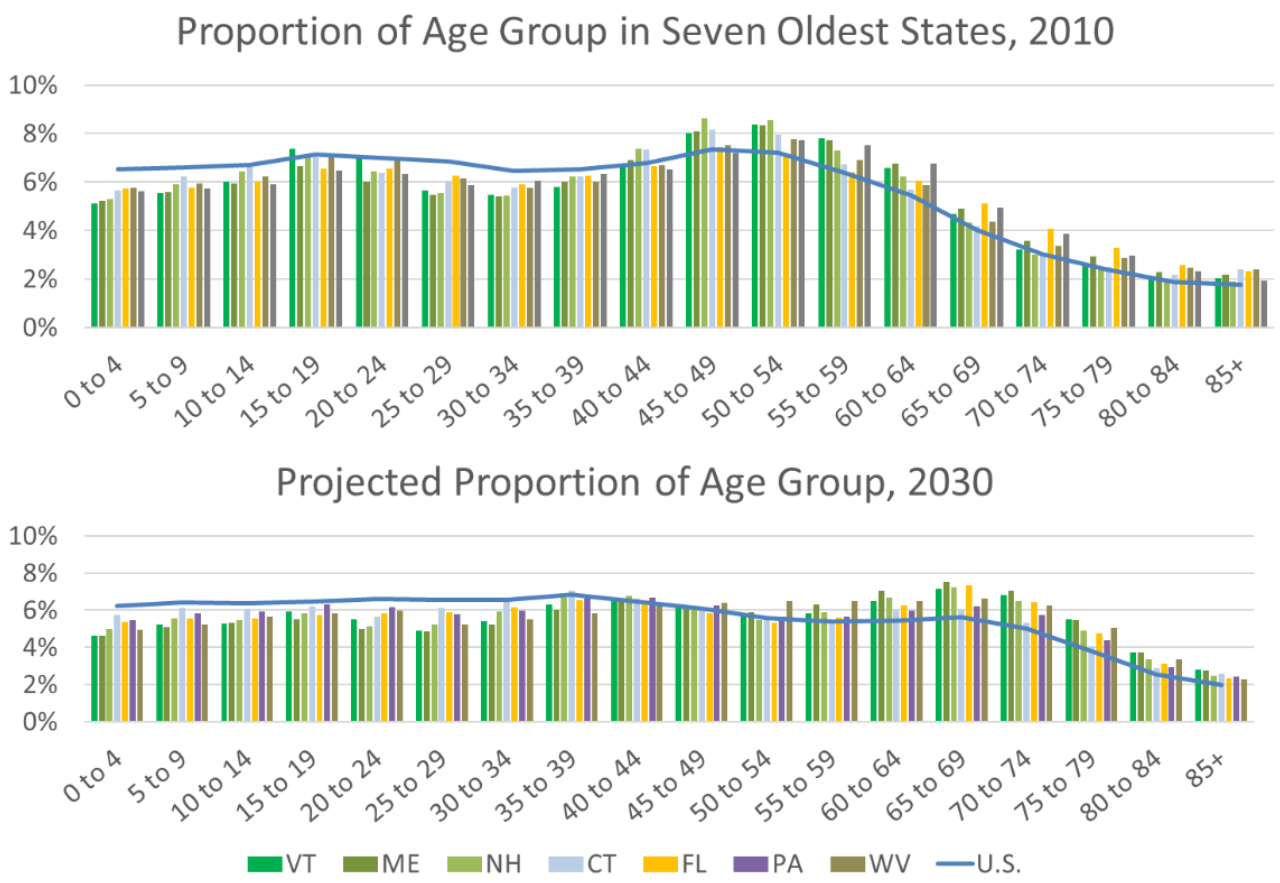


Figure 42. Population of U.S. and seven oldest states, 2010 from Census and 2030 projections from UVA Cooper Center.

Appendix C - More Metro (Additional Information and Graphs)

From the U.S. Census:

Urban (defined at Census block level)

"In order for a block to qualify as urban, it must have a density of 1,000 people per square mile."
"In 2000, the Census Bureau expanded the classification to include two types of urban areas: urbanized areas and urban clusters. Urbanized areas are areas with 50,000 or more people. Urban clusters are areas with at least 2,500 but fewer than 50,000 people."[26]

Rural (defined at Census block level)

"Rural is defined as all population, housing, and territory not included within an urbanized area or urban cluster."

Metro Areas (defined at county level)

"Metropolitan statistical areas, or metro areas, are delineated by the U.S. Office of Management and Budget (OMB). Each metro area consists of one or more counties that contain a core urban area of 50,000 or more population, plus additional counties that have a high degree of social and economic integration with the urban core. They are typically partly urban and partly rural, and can contain many cities, in whole or in part. Each metro area generally includes a large city and its nearby suburbs, as well as some sparsely settled territory that is in some degree reliant on the urban core for employment. About 83.7% of the U.S. population lived in metro areas in 2010."

	Where Americans would like to live*	Where Americans actually live**
	%	%
Big city	12	20
Small city	17	20
Suburb of a big city	21	19
Suburb of a small city	10	7
Town	12	16
Rural area	27	15

*Based on interviewing conducted Nov. 13-18, 2018; **Based on interviewing conducted in September, October and November 2018

GALLUP

Table 3. Where Americans would prefer to live compared with where they actually live. Data and table from Gallup.[27]

[26] Ratcliffe et al. (2016). "Defining Rural at the U.S. Census Bureau."
[27] Newport (2018). "Americans Big on Idea of Living in the Country."

Appendix D – Smaller Households (Additional Graphs)

The following data is from the U.S. Census American Community Survey for the period 2013-17 (and, where noted, 2005-2009).

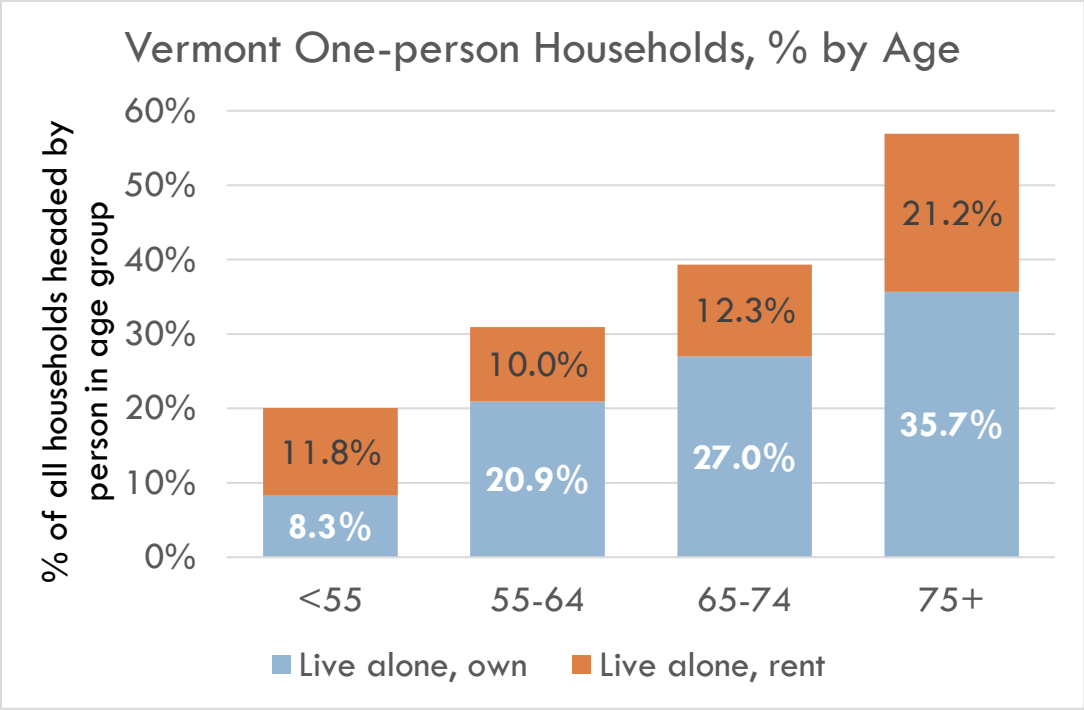


Figure 43. Vermont one-person households as a percentage of all households headed by a member of age cohort.

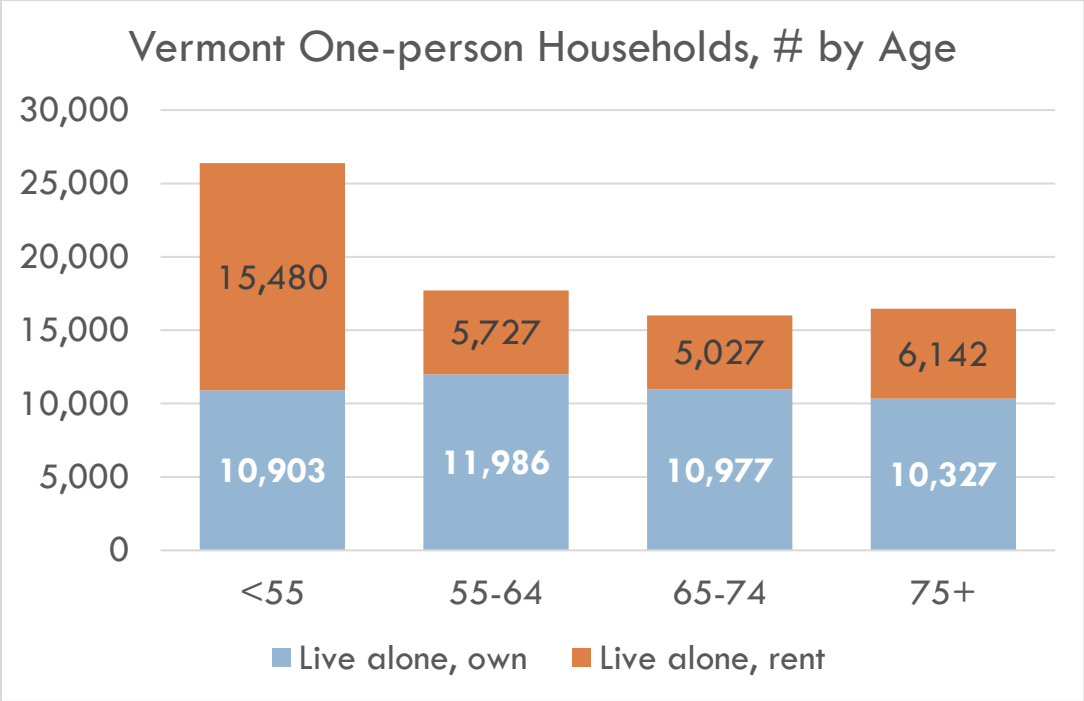


Figure 44. Number of one-person households by age cohort.

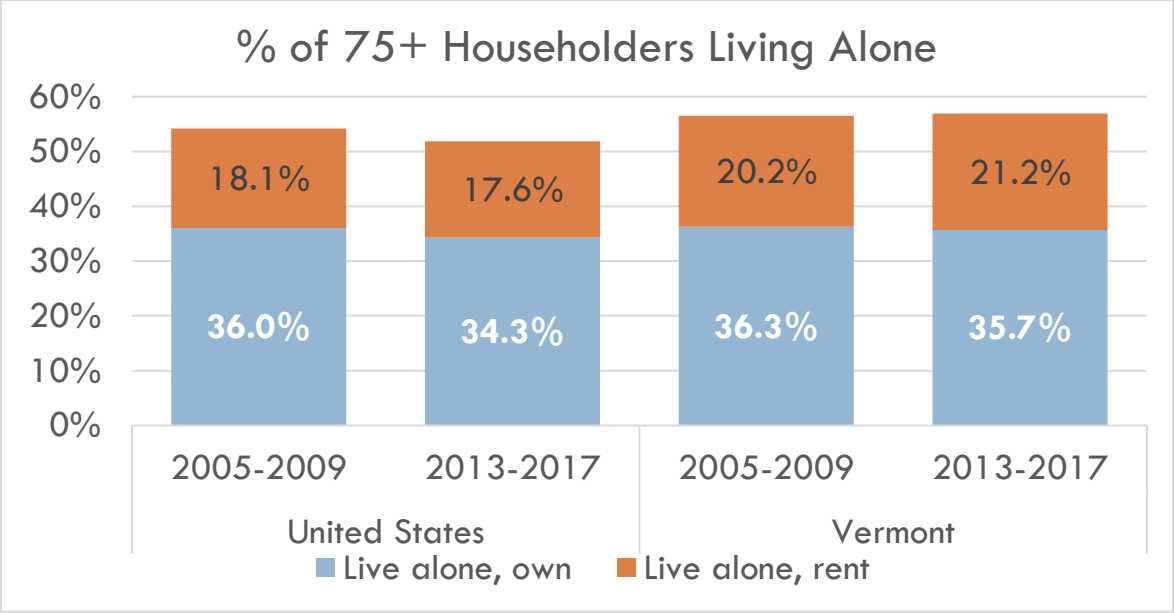


Figure 45. One-person households as a percentage of all households headed by a person 75+.

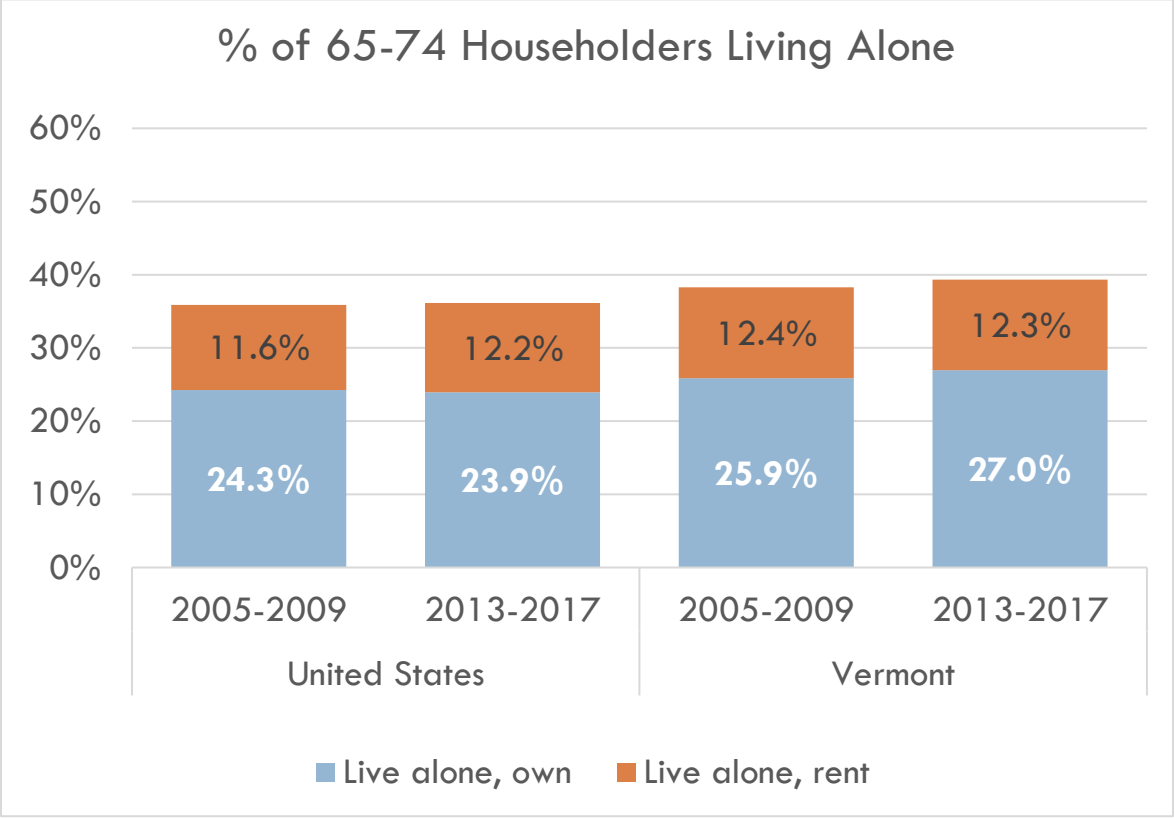


Figure 46. One-person households as a percentage of all households headed by a person 65-74.

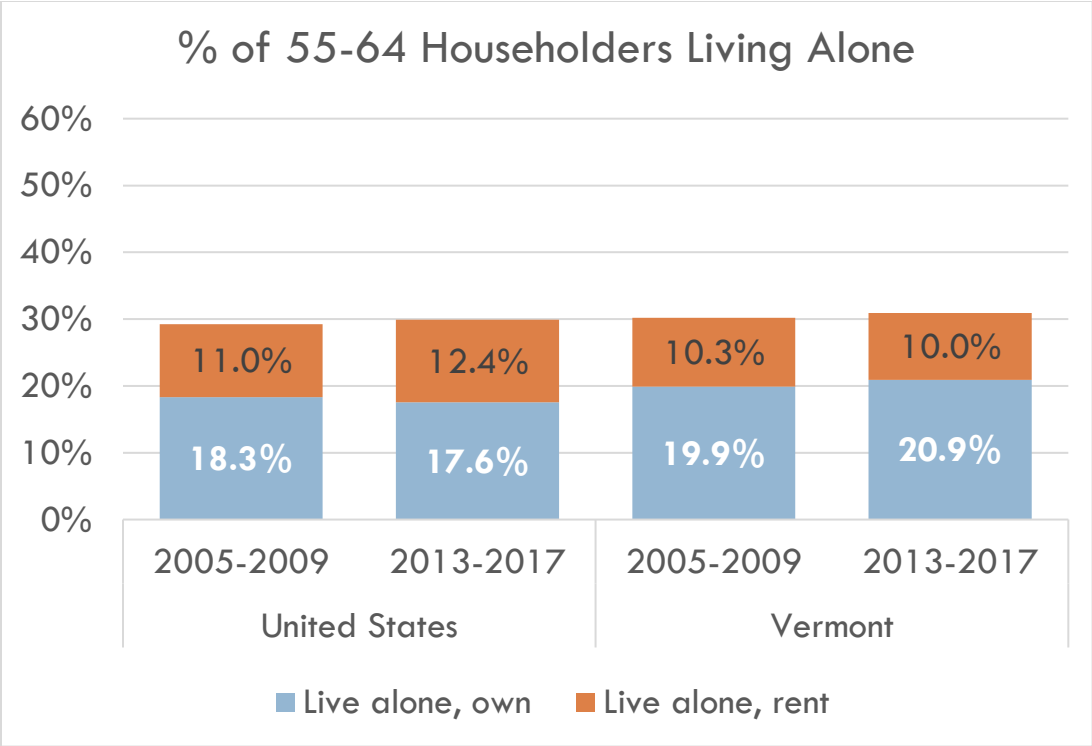


Figure 47. One-person households as a percentage of all households headed by a person 55-64.

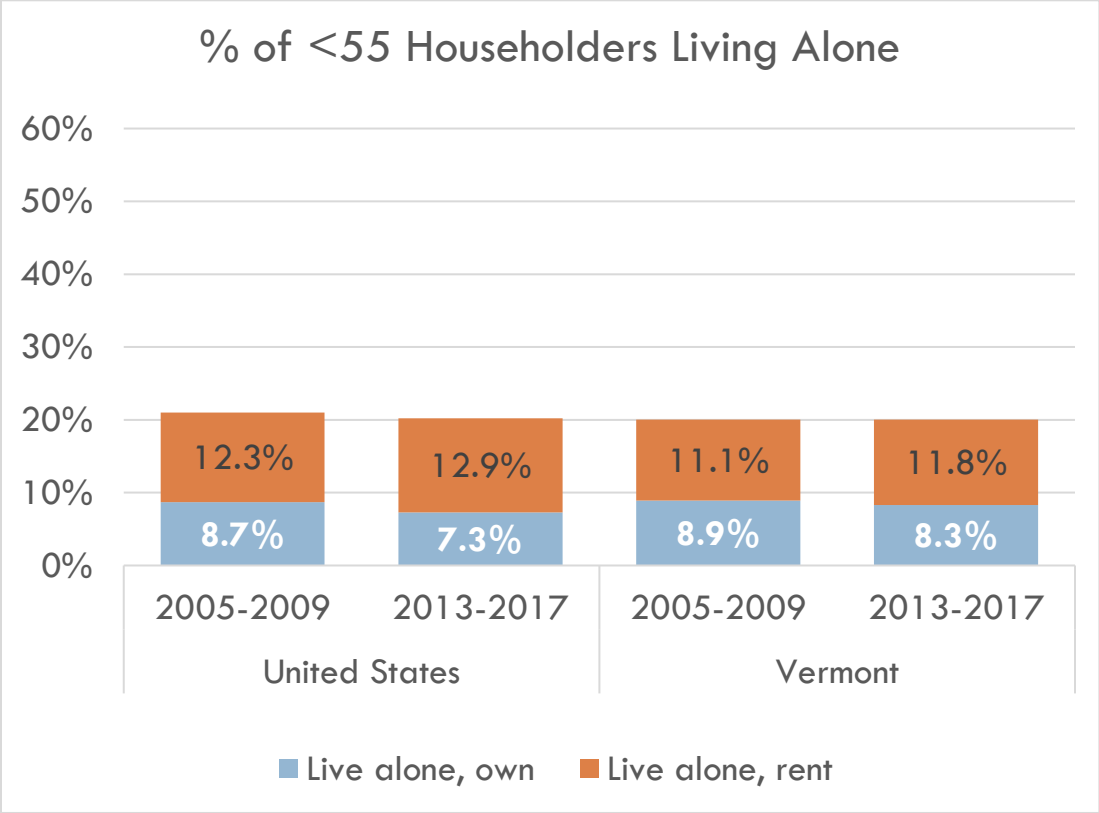


Figure 48. One-person households as a percentage of all households headed by a person <55.

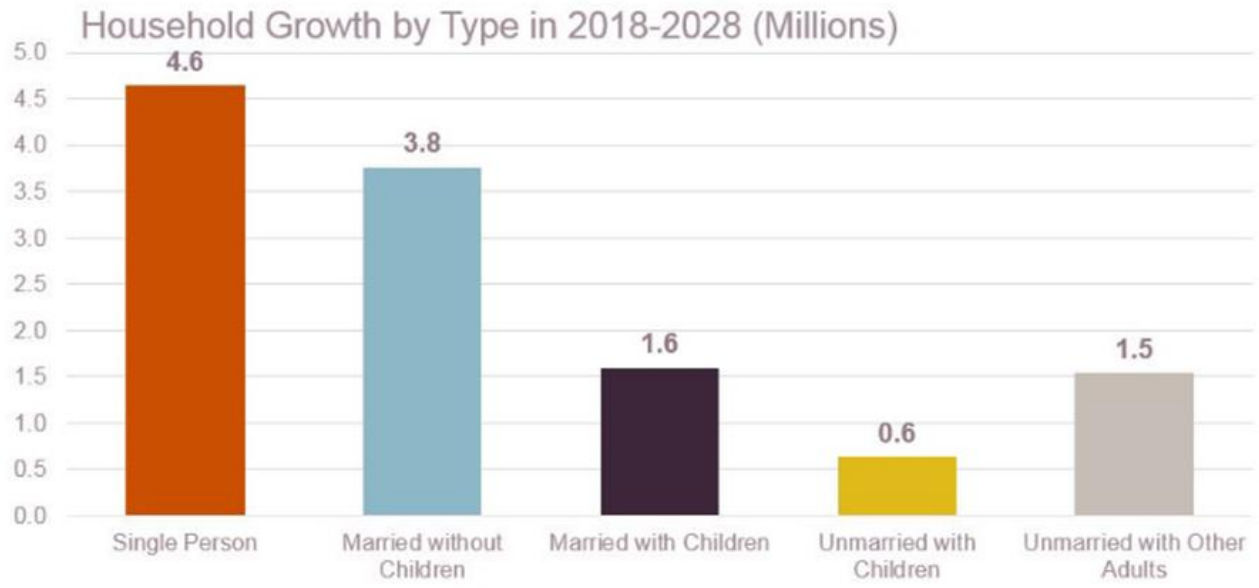


Figure 49. Harvard's Joint Center for Housing Studies (JCHS) expects growth in one and two-person households nationally to far outpace other compositions over the coming decade. Graph from JCHS.

Appendix E – Income Tax (Additional Tables and Graphs)

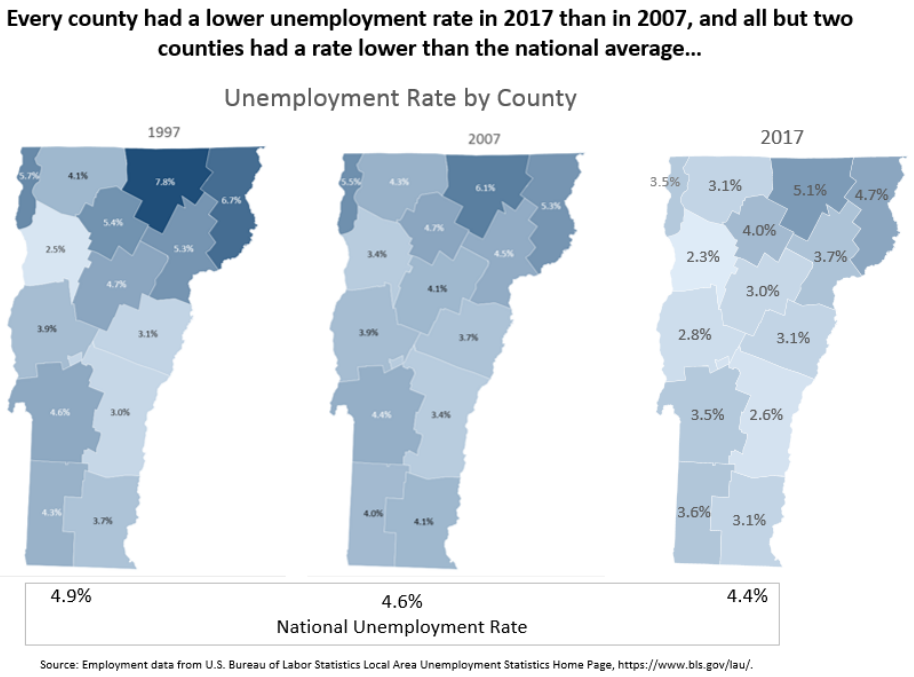


Figure 50. Unemployment rate by Vermont county, 1997, 2007, 2017.

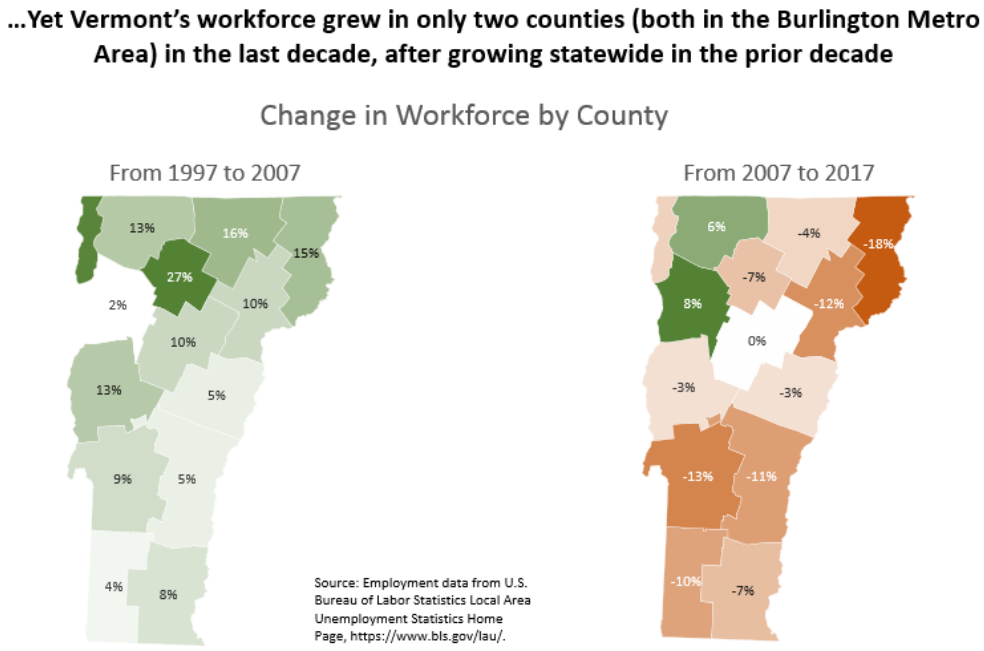
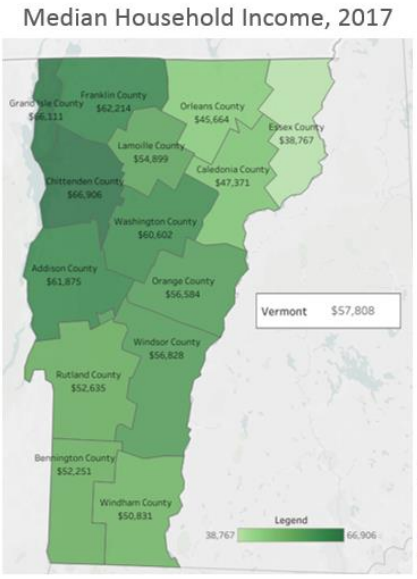


Figure 51. Change in workforce by Vermont county, 1997-2007 and 2007-2017.

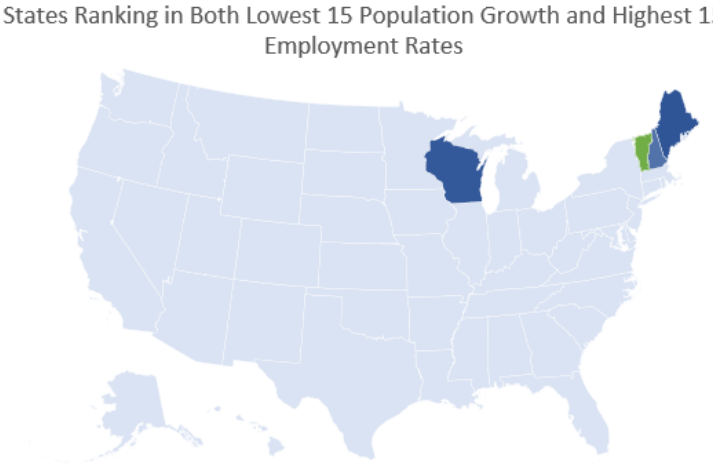
The three counties in the Burlington Metro Area have the highest incomes in the state. Two contiguous counties are above the state median. The other nine counties are below the state median.



Source: Data from Census Bureau, 2017. Map from https://www.housingdata.org/profile/

Figure 52. Median household income by county.

Vermont is the only state that ranks in both the ten highest employment rates and ten slowest growing populations. Three other states rank in the top 15 in both categories. Two are Vermont's northern New England neighbors.



Source: Employment data from U.S. Bureau of Labor Statistics Local Area Unemployment Statistics, https://www.bls.gov/lau/. Population data from U.S. Census Bureau, County Population by Characteristics: 2010-2017, https://www.census.gov/data/tables/2017/demo/popest/counties-detail.html

Figure 53. States ranking in both highest employment and slowest population growth.

Appendix F – Tax Breaks Related to Seniors

<table>
<tr><td></td><td colspan="7">State Taxes and Tax Breaks Related to Seniors</td></tr>
<tr><td></td><td>CT</td><td>ME</td><td>MA</td><td>NH</td><td>NY</td><td>RI</td><td>VT</td></tr>
<tr><td>Military pensions</td><td>100% exempt</td><td>100% exempt</td><td>100% exempt</td><td rowspan="5">N/A (only taxes dividend and interest income)</td><td>100% exempt</td><td rowspan="3">$15,000 of federally taxable exempt if income up to $100,000 married jointly ($80,000 for single), threshold adjusts with inflation</td><td rowspan="5">Not exempt</td></tr>
<tr><td>Other pensions</td><td>Not exempt. As of 2018, requires pension payers to withhold income tax</td><td rowspan="3">$10,000 exempt (this deduction is reduced by any social security and railroad benefits, but not impacted by military pensions)</td><td>MA state and local government pensions 100% exempt; pensions from other state and local governments that don't tax MA public pensions are also 100% exempt</td><td rowspan="3">New York state and local pensions 100% exempt; out-of-state pensions, private pensions and retirement plans qualify for $20,000 exclusion</td></tr>
<tr><td>Defined Contribution Plans (e.g. 401(k))</td><td>Not exempt</td><td>Not exempt</td></tr>
<tr><td>IRAs</td><td>Not exempt</td><td>Not exempt</td><td>Not exempt</td></tr>
<tr><td>Social Security (also see next table)</td><td>Additional exemption for all plus income-based exemption</td><td>100% exempt</td><td>100% exempt</td><td>100% exempt</td><td>Additional income-based exemption</td><td>Additional income-based exemption</td></tr>
</table>

Property Tax Breaks	Property tax credits up to $1,250 if >=65 with income up to $43,000 for married jointly ($1,000 and $35,300 for singles)	Property tax credits up to $1,200 if >=65 with income up to $54,167 for married jointly ($34,167 for singles), compared to $750 if <65; in addition, not senior-specific, the homestead exemption provides a reduction of up to $20,000 in the value of home for property tax purposes	Homeowner and renter credit up to $1,100 if >=65 with income up to $88,000 married jointly ($58,000 single, 73,000 HoH); >60 can also reduce property taxes up to $1,000 through volunteer work; in addition, not senior-specific, some municipalities offer residential exemptions that can reduce property tax by varying amounts (e.g. up to $2,709 in Boston)	Elderly exemption off assessed home value with income and asset thresholds set by municipality at three tiers: 65-74, 75-79, 80+; Separate program for education property tax relief based on income (20-100%) for property owners with income up to $40,000 for married and HoH($20,000 for singles)	Enhanced School Tax Relief (STAR) for >=65 with income <=$86,300 and is based on first $68,700 of home value. >=65 with income <$38,000 (higher in NYC) also qualify for reduction in taxable assessment, depending on municipality. By comparison, Basic STAR has income limit of $500,000 and no age limit and is based on first $30,000 of home value.[28]	Elderly exemption off assessed home value with income, length of ownership, and residency thresholds set by municipality	Not senior specific, up to $8,000 in Property Tax Adjustment for incomes up to ~$136,000 (based on income for all ages)
Other Taxes or Tax Breaks	Gift tax ranges from 7.2% to 12% when agg. value of gifts to an individual since 2005 exceeds $2M						Tax credit worth 24% of Elderly or Perm. Totally Disabled Tax Credit

[28]New York State Department of Taxation and Finance (2019). "Types of STAR."

In addition to the categories above, railroad retirement benefits are exempt from state taxation in all 50 states, per the Railroad Retirement and Railroad Unemployment Insurance Acts.

Table 4. Northeastern State Tax Breaks Related to Seniors

Federal Treatment of Social Security Income		
If combined income* is:		**SS Benefits are:**
Single/Separate/HoH/Widow(er)	**Married Joint**	
<$25,000	<$32,000	100% exempt
$25,000-$34,000	$32,000-$44,000	up to 50% taxable
>$34,000	>$44,000	up to 85% taxable

Table 5. Federal exemption for social security income. Combined income is non-social security income (including tax-exempt interest) plus 1/2 of social security benefits.

Additional Exemption of Social Security Income by Northeastern States							
Most state income taxes are based off federal Adjusted Gross Income (AGI), meaning that the portion of social security benefits that is exempt from federal tax is also exempt from state income tax. In addition, most states provide additional exemptions.							
	CT	**ME**	**MA**	**NH**	**NY**	**RI**	**VT**
Single/ Separate/ HoH^/ Widow(er)^*	***AGI up to $75,000^:*** SS benefits are 100% exempt >$75,000: 75% exempt	100% exempt	100% exempt	N/A (only taxes dividend and interest income)	100% exempt	up to $80,000*: 100% exempt	up to $45,000: 100% exempt
						>$80,000: No exemption	$45,000-$55,000: Phased out exemption
							>$55,000: No exemption
Married Joint	***AGI up to $100,000^:*** SS benefits are 100% exempt >$100,000: 75% exempt	100% exempt	100% exempt	N/A (only taxes dividend and interest income)	100% exempt	up to $100,000*: 100% exempt	up to $60,000: 100% exempt
						>$100,000: No exemption	$60,000-$70,000: Phased out exemption
							>$70,000: No exemption

Appendix G – Vermont's Changing Age Structure

The U.S. Census has produced a set of materials called "From Pyramid to Pillar" that provides a visualization of how the national age structure is changing (Figure 54).[29]

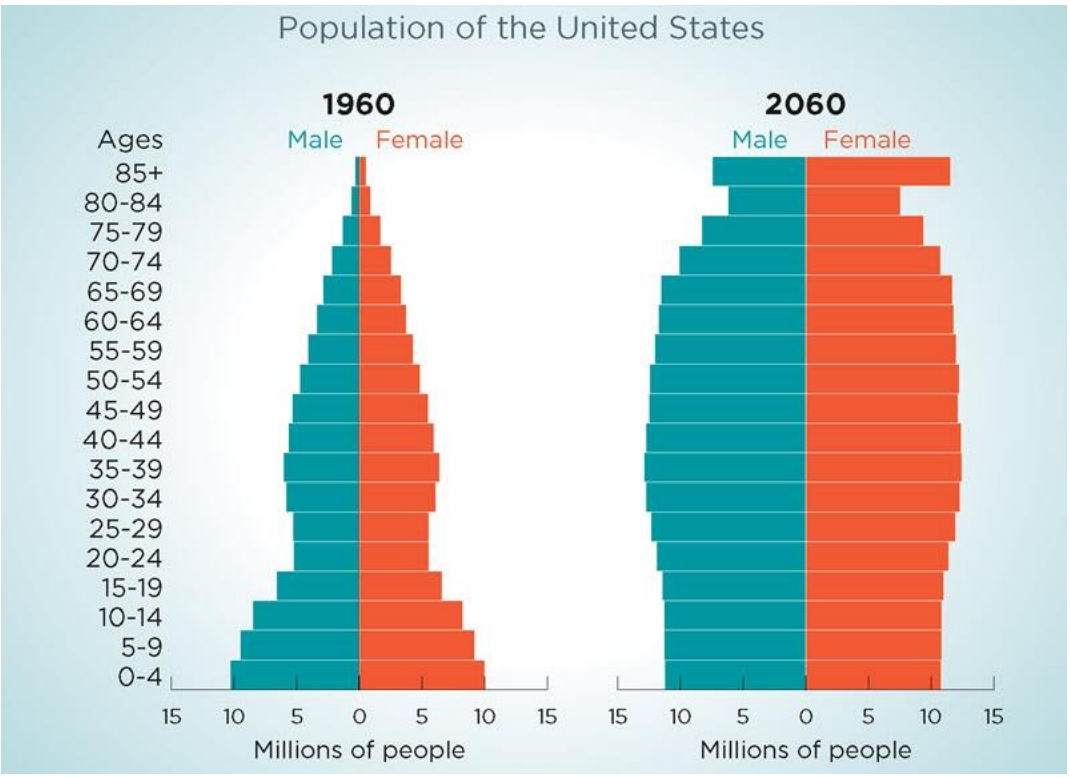


Figure 54. U.S. age structure, 1960 actual and 2060 projected. Graph from U.S. Census Bureau National Population Projections 2017.

A similar visual can be created at the state level using data from the decennial census as well as state projections.

How did we get here?

Ninety years ago, Vermont's age structure looked like the traditional "population pyramid." More than one in three (37%) Vermonters were under 20 years old, each of the subsequent age cohorts gradually decreased in size, and less than nine percent were 65 or older (Figure 55).

[29] U.S. Census Bureau. "From Pyramid to Pillar." A three-minute video is available at https://www.census.gov/programs-surveys/popproj.html

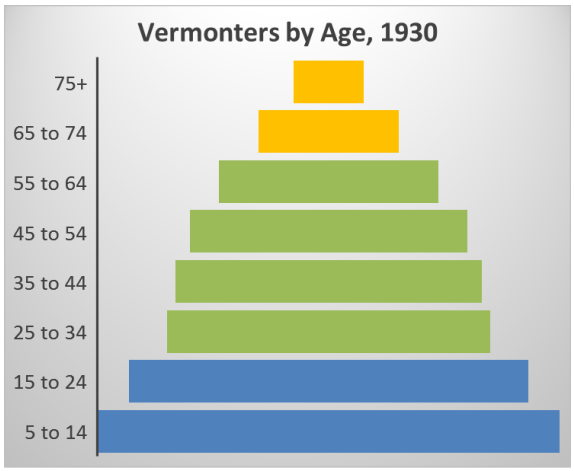


Figure 55. Vermont age structure in 1930 (not including 0-4 year-olds). Seniors 65+ in gold, youth <25 in blue. Data from 1930 Census.

A drop in births during the Great Depression and World War II was followed by a post-war baby boom, which combined with a drop in childhood mortality to disrupt the pyramid (Figure 56).

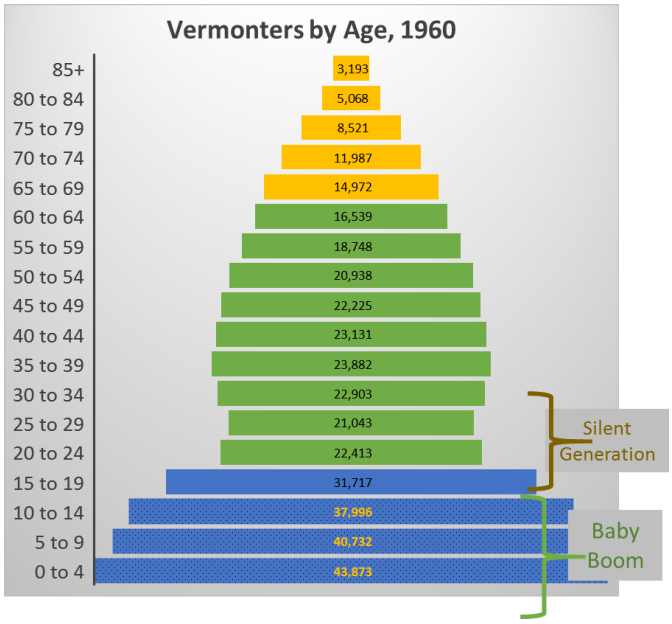


Figure 56. Vermont age structure in 1960. Seniors 65+ in gold, youth <20 in blue. Baby boomers in dots. Data from 1960 Census.

Falling mortality rates then led to longer lifespans. For example, a child born in the U.S. in 1930 could expect to live until 63, while a child born in 1975 could expect to live to 73, and a child born in 2010 could expect to live to 79.[30] These longer lifespans serve to broaden the top of the age structure (Figure 57).

At the same time, falling birth rates served to shrink the age structure's base. U.S. fertility rates fell by nearly 50% from the mid-1950s to the mid-1970s and have stayed low for the last forty years. By mid-21st century, Vermont's population structure will likely resemble a pillar. But first it must manage the transition of its largest

[30] Jacobs (2016). "Soaring Numbers of Elderly Reshaping U.S. Economy."

cohort from the workforce to retirement (Figure 58).[31]

Net In-migration Boosted VT Baby Boomers Nearly 20% in 50 Years

Age Cohort	In VT in 1960	In VT in 2010
Born ~early 1950s (5-9 in 1960 Census, 55-59 in 2010)	40,732	**48,739**
Born ~late 1950s (0-4 in 1960 Census, 50-54 in 2010)	43,873	**52,493**

Table 6. Growth over time in Vermont residents born in the 1950s.

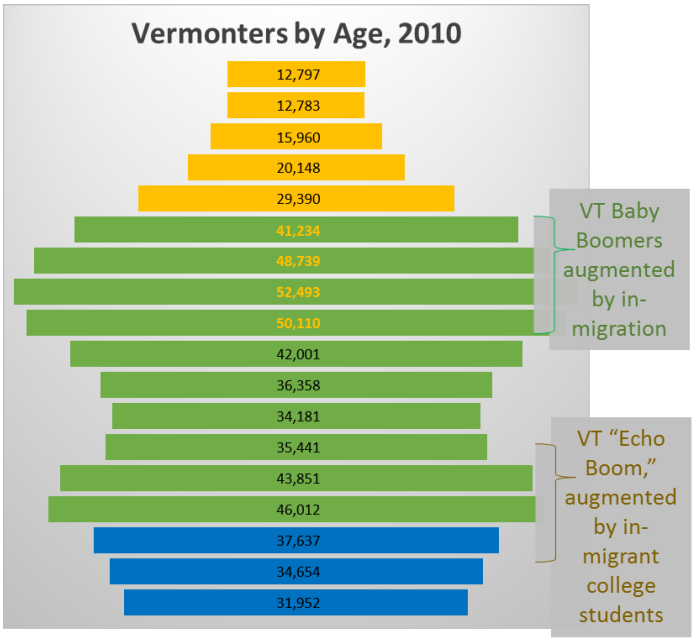


Figure 57. Vermont age structure in 2010. Seniors 65+ in gold, youth <20 in blue. Baby boomers in dots. Data from 2010 Census.

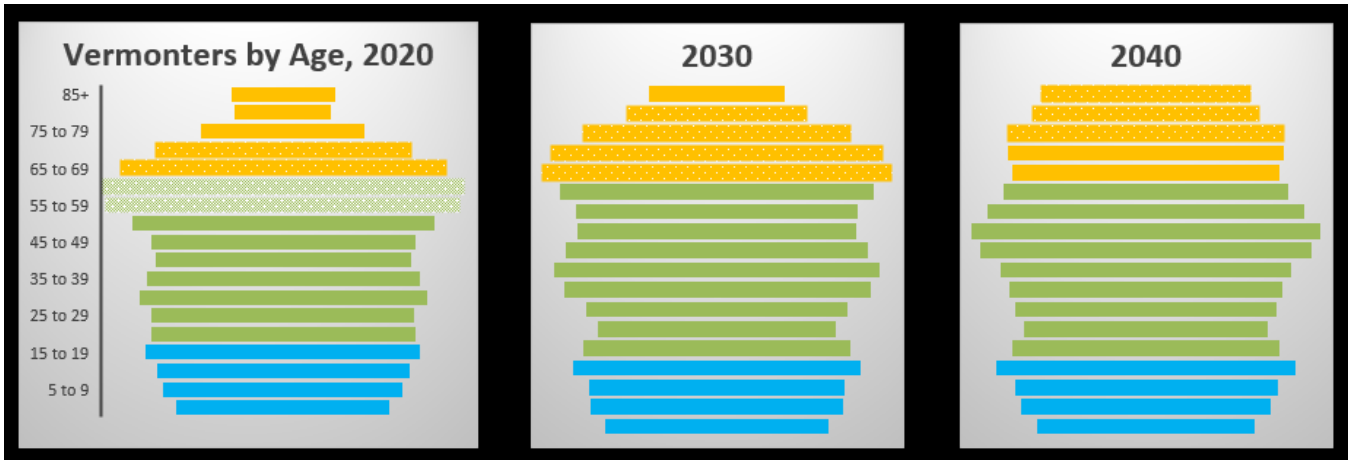


Figure 58. Projected Vermont age structure for 2020, 2030, 2040. Seniors 65+ in gold, youth <20 in blue. Baby boomers in dots. Data from UVA Cooper Center.

[31] Jacobs (2016).

References

Board of Governors of the Federal Reserve System. *2016 Survey of Consumer Finances.* https://www.federalreserve.gov/econres/scfindex.htm

Brewer, Ben, Karen Smith Conway, and Jonathan C. Rork. "Protecting the Vulnerable or Ripe for Reform, State Income Tax Breaks for the Elderly: Then and Now," Public Finance Review, Vol. 45, No. 4. 2017.

Campbell, Graham and Chloe Wexler. "Taxpayer Migration by Age and Income: Evidence from the IRS." Vermont Legislative Joint Fiscal Office Issue Brief. August, 26, 2019. https://ljfo.vermont.gov/assets/Publications/Issue-Briefs/3bed2c98d0/Age-and-Income-Issue-Brief-Final.pdf

Chamie, Joseph. "The Rise of One-Person Households." February 22, 2017. http://www.ipsnews.net/2017/02/the-rise-of-one-person-households/

Cromartie, John. "Rural Areas Show Overall Population Decline and Shifting Regional Patterns of Population Change." United States Department of Agriculture Economic Research Service. September 5, 2017. https://www.ers.usda.gov/amber-waves/2017/september/rural-areas-show-overall-population-decline-and-shifting-regional-patterns-of-population-change/

Felix, Alison, and Kate Watkins. "The Impact of an Aging U.S. Population on State Tax Revenues." Economic Review, Federal Reserve Bank of Kansas City, no. Fourth Quarter 2013 (2013): 34. https://www.kansascityfed.org/publicat/econrev/pdf/13q4Felix-Watkins.pdf

Fitch Ratings. "U.S. States and the Growth Implications of an Aging Population," October 24, 2018.

Fry, Richard. "The number of people in the average U.S. household is going up for the first time in over 160 years." 2019. Fact Tank. Pew Research Center.

Inman. "Room to roam: Top 10 US states with largest lot sizes." December 6, 2011. https://www.inman.com/2011/12/06/room-roam-top-10-us-states-with-largest-lot-sizes/

Jacobs, Karen. "Soaring Numbers of Elderly Reshaping U.S. Economy." *Federal Reserve Bank of Atlanta Economy Matters* (blog), March 21, 2016. https://www.frbatlanta.org:443/economy-matters/annual-report/2015/soaring-numbers-of-elderly-reshaping-us-economy.

Johnson, Kenneth, Katherine J. Curtis and David Egan-Robertson. "Frozen in Place: Net Migration in sub-National Areas of the United States in the Era of the Great Recession." *Population and Development Review*, Vol. 43, Issue 4, December 2017. https://doi.org/10.1111/padr.12095

Johnson, Kenneth, and Daniel Lichter. "Rural Depopulation: Growth and Decline Processes over the Past Century." Rural Sociology. January 21, 2019.

Jones, Kenneth. "Tourism Benchmark Study, 2017." 2018. https://accd.vermont.gov/sites/accdnew/files/documents/VDTM/BenchmarkStudy/VDTM-Research-2017BenchmarkStudyFullReport.pdf

Kurz, Christopher, Geng Li, and Daniel J. Vine. “Are Millennials Different?,” Finance and Economics Discussion Series 2018-080. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2018.080

Manchester, Joyce and Seán Sheehan. "Vermont’s Population: Single-Year-of-Age Numbers for 1996 through 2030." Vermont Legislative Joint Fiscal Office Issue Brief. August 8, 2019. https://ljfo.vermont.gov/assets/Publications/Issue-Brief/5d4183d9ba/Vermont_s_Population_by_Single_Year_of_Age_1996-2030.pdf

Mullis, Natalie. “The Great Slowcovery & Sustainability of State Budgets.” National Conference of State Legislatures Annual Summit. August 8, 2017.

Nelson, Peter. "Patterns of Demographic Change Across New England." Lincoln Land Institute 2019 Economic Perspectives on State and Local Taxes. May 6, 2019. https://www.lincolninst.edu/sites/default/files/sources/events/nelson_-_patterns_of_demographic_change_across_new_england.pdf

Newport, Frank. "Americans Big on Idea of Living in the Country." Gallup. December 7, 2018. https://news.gallup.com/poll/245249/americans-big-idea-living-country.aspx

New York State Department of Taxation and Finance. “Types of STAR.” Updated October 22, 2019. https://www.tax.ny.gov/pit/property/star/types.htm.

Office of Governor Phil Scott. “New Vermont Law Reduces Personal Income Taxes by $5 Million for Social Security Recipients.” July 27, 2018. https://governor.vermont.gov/press-release/new-vermont-law-reduces-personal-income-taxes-5-million-social-security-recipients

Ratcliffe, Michael, Charlynn Burd, Kelly Holder, and Alison Fields. “Defining Rural at the U.S. Census Bureau.” U.S. Census Bureau, December 2016. https://www.census.gov/content/dam/Census/library/publications/2016/acs/acsgeo-1.pdf.

U.S. Census Bureau. “From Pyramid to Pillar: A Century of Change, Population of the U.S.” https://www.census.gov/library/visualizations/2018/comm/century-of-change.html.

U.S. Census Bureau. “Life Off the Highway: A Snapshot of Rural America.” The United States Census Bureau. December 8, 2016. https://www.census.gov/newsroom/blogs/random-samplings/2016/12/life_off_the_highway.html.

U.S. Census Bureau. “State Population Totals: 2010-2018.” https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html.

U.S. Department of Agriculture Economic Research Service. "County Typology Codes." https://www.ers.usda.gov/data-products/county-typology-codes/

U.S. Department of Agriculture Economic Research Service. "Rural Areas Show Overall Population Decline and Shifting Regional Patterns of Population Change.” https://www.ers.usda.gov/amber-waves/2017/september/rural-areas-show-overall-population-decline-and-shifting-regional-patterns-of-population-change/.

U.S. Department of Labor, Bureau of Labor Statistics. *Consumer Expenditure Surveys.* https://www.bls.gov/cex/

U.S. Department of Transportation, Bureau of Transportation Statistics. "Household Spending on Transportation." *Transportation Economic Trends.* https://www.bts.gov/browse-statistical-products-and-data/transportation-economic-trends/tet-2018-chapter-6-household.

University of Georgia, Terry College of Business, Selig Center for Economic Growth. "Golden Rules: Evaluating Retiree-Based Economic Development in Georgia." August 2013. https://www.terry.uga.edu/media/documents/selig/golden-rules-2013.pdf.

University of Virginia, Weldon Cooper Center for Public Service, Demographics Research Group. "Projections for the 50 States and D.C." https://demographics.coopercenter.org/national-population-projections