Chapter 3: Housing stock

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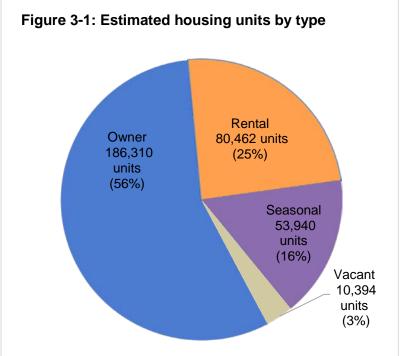
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Housing stock overview

Vermont has an estimated 331,106¹ homes, 186,310 of which are currently used or intended for owner occupancy (56%), 80,462 of which are used or intended for renters (24%), and 53,940 of which are used as seasonal or vacation homes (16%). The estimated remaining 10,394 are vacant² (3%). Vermont has a high rate of homeownership, at 71%, which Vermont ranks 7th in the nation.³ Vermont's distribution of owners and renters is similar to other states other states with largely rural and predominantly white populations such as Maine and West Virginia.

The composition of Vermont's housing stock varies widely by county. Chittenden County has the highest share of rental housing (36%), containing 31% of the state's overall rental stock. Orange County has the state's highest rate of owner housing (70%), with comparatively few seasonal or rental homes.



Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003, B25004) from housingdata.org.

¹ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25001, B25003, B25004) housingdata.org.

² Includes homes which are vacant for various reasons, including abandoned homes, homes in foreclosure, under renovation or held vacant for personal reasons of the owner.

³ U.S. Census Bureau: Quarterly Vacancy and Homeownership Rates by State and MSA, 2019

Figure 3-2: Housing stock by county

County	Owner units	% Owner	Rental units	% Rental	Seasonal units	% Seasonal	Total units
Addison County	10,901	64%	4,321	26%	1,687	10%	16,909
Bennington County	11,263	55%	4,406	21%	4,911	24%	20,580
Caledonia County	9,170	59%	3,473	22%	2,891	19%	15,534
Chittenden County	41,345	61%	24,604	36%	1,650	2%	67,599
Essex County	2,187	44%	627	13%	2,120	43%	4,934
Franklin County	14,120	65%	5,066	23%	2,479	11%	21,665
Grand Isle County	2,496	49%	645	13%	1,962	38%	5,103
Lamoille County	7,692	60%	3,093	24%	2,081	16%	12,866
Orange County	10,121	70%	2,503	17%	1,917	13%	14,541
Orleans County	9,154	56%	2,801	17%	4,446	27%	16,401
Rutland County	18,585	57%	7,641	23%	6,408	20%	32,634
Washington County	18,191	62%	7,341	25%	3,899	13%	29,431
Windham County	13,200	45%	6,495	22%	9,539	33%	29,234
Windsor County	17,885	54%	7,446	22%	7,950	24%	33,281

Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003, B25004) from https://doi.org/10.2017/journal.org/

Seasonal homes

Seasonal homes currently make up roughly 17% of Vermont's housing stock, which is the second highest in the nation.⁴ Maine ranks first in the nation and New Hampshire ranks third. Most states with high percentages of vacation homes were rural states like Vermont. Vermont's least populous counties, Grand Isle and Essex, also had the highest percentage of vacation homes (43% and 38%, respectively), while its most densely population county, Chittenden County, had the smallest (2%).

Vermont's seasonal homes have been slowly increasing in number over time, both in absolute numbers and as a share of the overall housing stock.

⁴ IPX1031 Research, based on Census Bureau estimates.

Figure 3-3: Seasonal housing stock

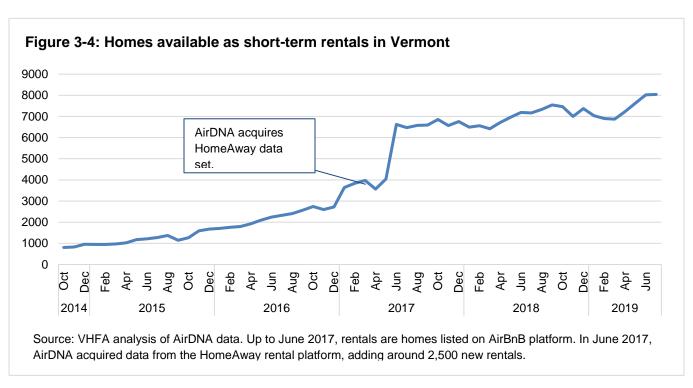
Year	Estimated seasonal homes	Estimated total housing units	% of stock
2000	43,060	294,382	15%
2010	50,198	322,539	16%
2017	53,940	320,712	17%

Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003, B25004) from housingdata.org. U.S. Decennial Census, 2000, 2010 (Table DP-1).

Short term rentals

As of July 2019, there were 8,041 homes available as short-term rentals on the platforms Airbnb and HomeAway,⁵ according to industry analyst AirDNA. This represents roughly 2.5% of Vermont's overall housing stock. This analysis includes only rentals where the entire unit is available for rent, rather than a room in the unit, as these rentals are more likely to impact the housing stock as a whole, potentially displacing their use for homebuyers or full-time renters.

The number of listed short-term rentals has increased dramatically since this data was first tracked in 2014, when fewer than 1,000 homes were listed. Short-term rentals are not a new phenomenon in Vermont, and it is possible that some of the new short-term rentals were previously listed on other platforms or rented some other way. In 2017, AirDNA acquired data from the platform HomeAway, adding approximately 2,500 new units to



⁵ HomeAway encompasses several popular short-term rental platforms, including Vrbo.

the data set.⁶ Aside from this addition to the data set, the increase in short-term rentals over time has been fairly gradual, with the largest period of growth in short term rentals occurring in summer 2019.

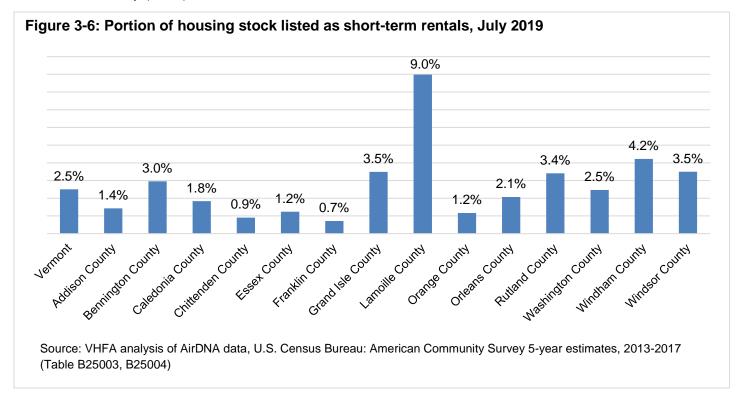
Vermont's short-term rentals are widely dispersed throughout the state, with Windham, Windsor, Lamoille and Rutland counties containing the largest portion of the stock. These counties contain many of Vermont's largest ski resorts, as well as other recreational opportunities.

Figure 3-5: Short-term rentals by county and year

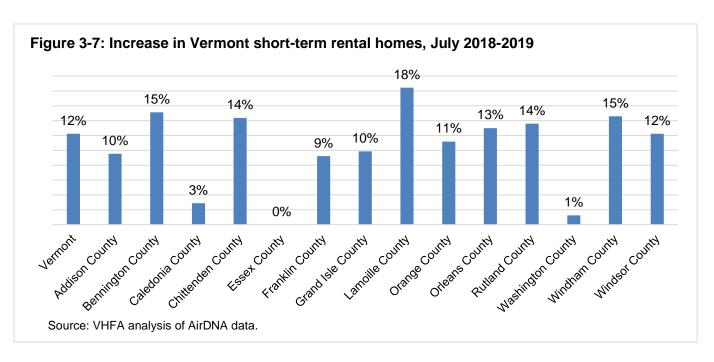
County	2015	2016	2017	2018	2019
Addison County	53	90	206	220	241
Bennington County	87	155	471	529	609
Caledonia County	54	95	230	277	285
Chittenden County	144	240	461	536	613
Essex County	13	17	47	61	61
Franklin County	34	52	128	141	154
Grand Isle County	13	34	156	162	178
Lamoille County	153	284	785	976	1156
Orange County	39	64	127	152	169
Orleans County	71	107	315	300	339
Rutland County	108	312	978	979	1112
Washington County	140	263	607	717	726
Windham County	182	301	939	1076	1233
Windsor County	180	311	1023	1038	1165
Vermont	1271	2325	6473	7164	8041
Source: VHFA analysis of AirDNA data					

⁶ Some units listed on HomeAway (including Vrbo) may have already also been listed on AirBnB prior to AirDNA acquiring HomeAway data. The number of Vermont short-term rentals increases by roughly 2,500 homes between May and June 2017, when AirDNA acquired the new data, suggesting that these units are ones that were not previously listed on AirBnB.

Lamoille County has by far the largest rate of short-term rentals, accounting for 9% of its overall housing stock. Franklin County has the smallest percentage of short-term rentals (0.7% of its stock), closely followed by Chittenden County (0.9%).



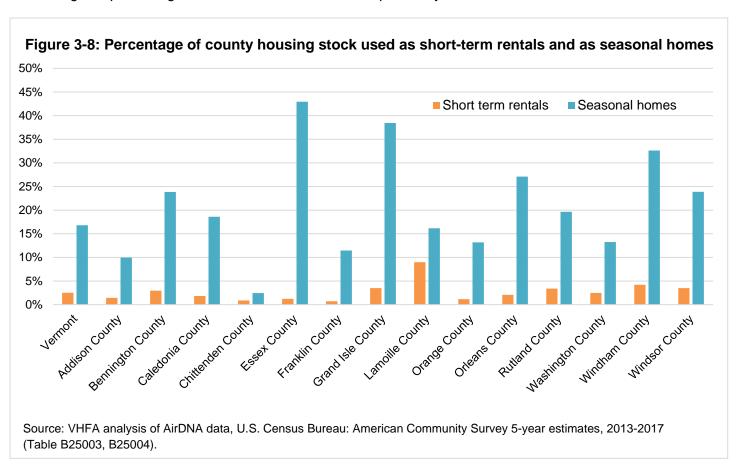
Recent increases in the number of short-term rentals has varied among the counties. Vermont short-term rentals increased 12% from 2018 to 2019. Lamoille County saw the largest increase in short-term rentals (18%), while Caledonia, Essex and Washington Counties had increases of less than 3%. Although Chittenden County has comparatively few short-term rentals, it had a larger than average increase.



It is difficult to determine which portion of the housing stock short-term rentals are drawn from. Our primary understanding of Vermont's housing stock by tenure and usage comes from the American Community Survey (ACS), which considers homes occupied if the people living in the home will be there for more than two months. All other homes are considered vacant, including seasonal homes. ACS surveys do not have a separate category for short-term rentals. Short-term rentals would likely appear on the survey as occupied owner or renter homes if the short-term rental is a secondary usage for the primary resident (e.g. a family that rents out their primary home one weekend a month). If the home is always or nearly always used as a short-term rental, it will be included in the vacant stock, categorized as either "for rent" or "seasonal" depending on the owner's usage and characterization of the unit on the survey.

As of July 2019, 72% of homes listed as short-term rentals in Vermont were available for the entire month. This suggests that most short-term rentals do not have a separate primary usage, and are in fact being removed from the overall housing stock to serve as short-term rentals. This implies that most short-term rentals are included in either for-rental or seasonal housing counts.

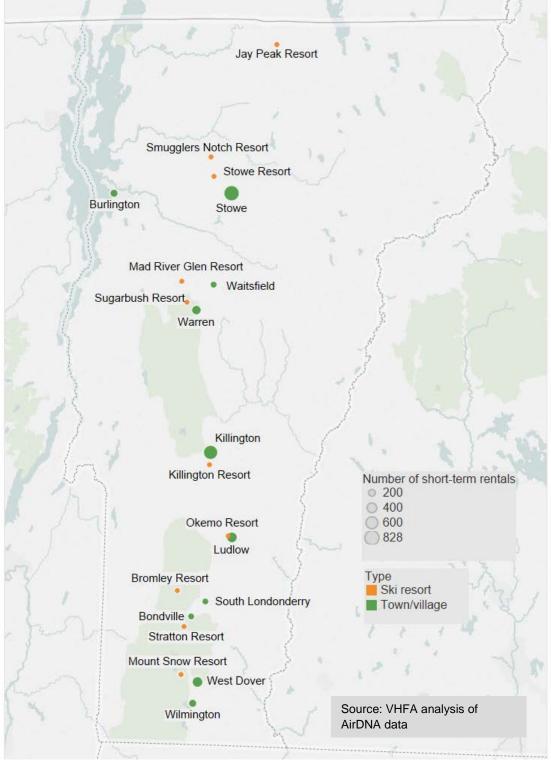
Perhaps surprisingly, there is not a strong correlation between a county having a large proportion of short-term rentals and a large proportion of seasonal homes. For instance, Essex County has the largest percentage of seasonal homes in the state, but among the smallest percentage of short-term rentals. Lamoille County has by far the highest percentage of short-term rentals, but comparatively few seasonal homes in its stock.



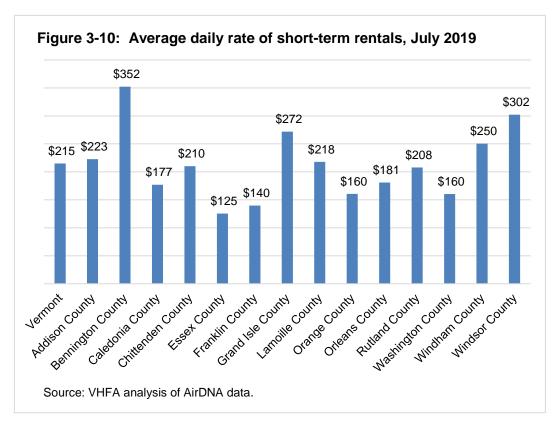
⁷ See American Community Survey (ACS) 2017 Subject Definitions.

However, reviewing Vermont's towns and villages with the largest number of short-term rentals provides insight to the pattern. With the exception of Burlington, all of the top ten towns for short-term rentals are in very close proximity to one of Vermont's major ski areas. Towns surrounding Jay Peak and Smugglers Notch resorts also rank in the top 15 towns. This suggests that Vermont's ski industry, more than its large number of seasonal homes, is the major factor influencing the presence of short-term rentals.

Figure 3-9: Vermont's top towns for short term rentals and largest ski resorts



Reviewing the average daily rates of short-term rentals demonstrates the strong financial incentives for owners to list homes as short-term rentals. The average shortterm rental in Vermont is listed for \$215 per night. The median gross rent for Vermont apartments is \$945 per month.8 At that rate, a property owner would only need to rent the home for five days in a month to make more than renting it out full-time.9 In addition, in strong short-term rental markets, short-term rental property owners can avoid landlord-tenant laws and the possible risk and cost of evictions.



Short-term rental rates in

Vermont do not closely match regular rental rates or home prices by county. Chittenden County's home sale and rent prices are by far the highest in the state, but it is not among the highest for short-term rentals. This suggests that short-term rental prices in Vermont are influenced by other factors, such as area hotel prices and local demand for short-term rentals.

Researchers in a variety of U.S. communities have begun to study the effect of short-term rentals on housing prices and resident incomes. Several studies have suggested that short term rentals may significantly inflate home prices in the vicinity. ¹⁰ However, there is little research available on the impact of short term rentals on prices in rural states, making it difficult to draw comparisons with Vermont's housing market.

⁸ Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25064) from <u>housingdata.org</u>

⁹ This assumes that the average rental is similar to the average short-term rental in quality and location, which may not be the case in reality.

¹⁰ These include this recent analysis for Washington, DC. by Z. Zou that also reviews prior studies in other cities.

Figure 3-11: Vermont rental vacancy rate

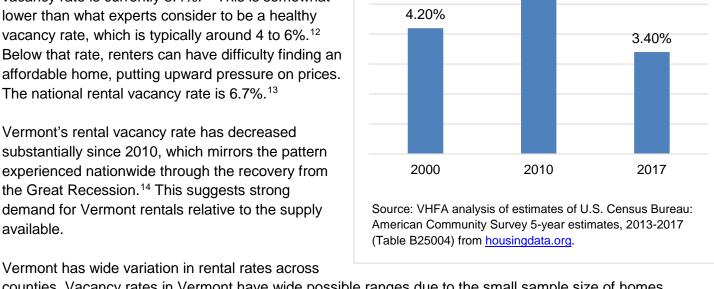
7%

Vacancy rates

Rental vacancies

The renter vacancy rate is the number of homes for rent compared to the total number of homes used or intended for renter households. Vermont's rental vacancy rate is currently 3.4%. 11 This is somewhat lower than what experts consider to be a healthy vacancy rate, which is typically around 4 to 6%. 12 Below that rate, renters can have difficulty finding an affordable home, putting upward pressure on prices. The national rental vacancy rate is 6.7%.¹³

Vermont's rental vacancy rate has decreased substantially since 2010, which mirrors the pattern experienced nationwide through the recovery from the Great Recession.¹⁴ This suggests strong demand for Vermont rentals relative to the supply



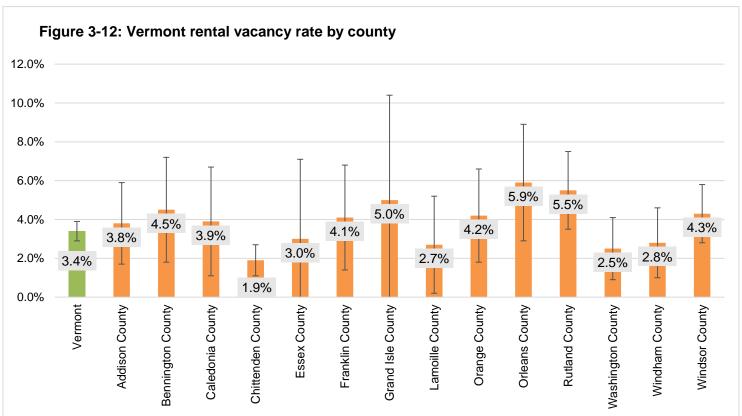
counties. Vacancy rates in Vermont have wide possible ranges due to the small sample size of homes available for rent during a given survey period. However, even when accounting for these margins of error, Chittenden, Washington, and Windham Counties have lower than ideal vacancy rates. In particular, Chittenden County's vacancy rate of 1.9% is well below that of a healthy rental market. For more discussion on the causes and effects of Vermont's rental vacancies, review Chapter 4: Renters.

¹¹ VHFA analysis of estimates of U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25004) from housingdata.org and estimates provided by Claritas.

¹² Lincoln Institute of Land Policy, "The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States", 2018.

¹³ Federal Reserve Bank of St. Louis, Rental Vacancy Rate for the United States [RRVRUSQ156N], as of October 2019.

¹⁴ Federal Reserve Bank of St. Louis, Rental Vacancy Rate for the United States [RRVRUSQ156N].



Source: VHFA analysis of estimates of U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017. Margins of error are shown with vertical lines within the bar for each county's point estimate. Reliable vacancy estimates are available for Vermont, Chittenden County, Rutland County and Windsor County. Estimates for other counties should be used with caution. The rate represents the estimated portion of "For Rent" homes that are not seasonal units as a percentage of all estimated occupied and vacant rental homes that are not seasonal. The portion of vacant rental homes that are not seasonal is estimated by assuming the same seasonal home rate as exists for the occupied housing stock.

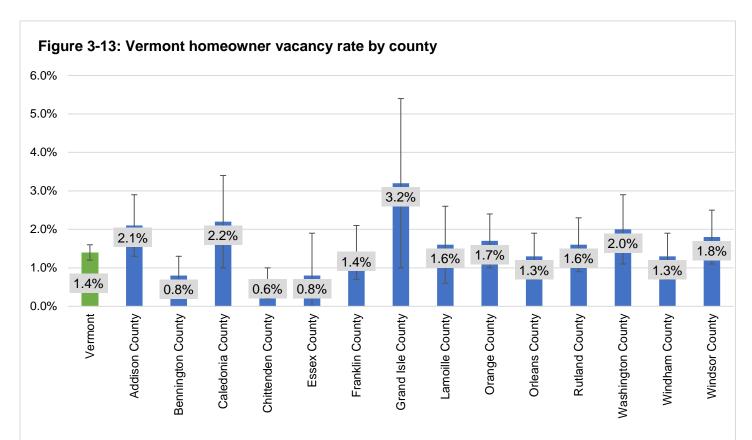
Homeowner vacancies

The homeowner vacancy rate is the number of homes on the market compared to the total number of homes used or intended for homeowner households. The vacancy rate can be a useful indicator for assessing demand for homes. Vermont's homeowner vacancy rate is estimated at 1.4%. ¹⁵ Housing experts consider housing markets healthiest with owner vacancy rates of between 1.3 and 2%. ¹⁶ When the vacancy rate is below that level, it can be difficult for homebuyers to find homes to purchase due to limited stock available. The national homeowner vacancy rate is 1.3%. ¹⁷

¹⁵ VHFA analysis of estimates of U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25004) from https://doi.org/10.1007/journal.org and estimates provided by Claritas.

¹⁶ <u>Lincoln Institute of Land Policy</u>, "The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States", 2018.

¹⁷ Federal Reserve Bank of St. Louis, Homeowner Vacancy Rate for the United States [RHVRUSQ156N], as of October 2019.



Source: VHFA analysis of estimates of U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017. Margins of error are shown with vertical lines within the bar for each county's point estimate. The rate represents the estimated portion of "For Sale" homes that are not seasonal units as a percentage of all estimated occupied and vacant homeowner homes that are not seasonal. The portion of vacant owner homes that are not seasonal is estimated by assuming the same seasonal home rate as exists for the occupied housing stock.

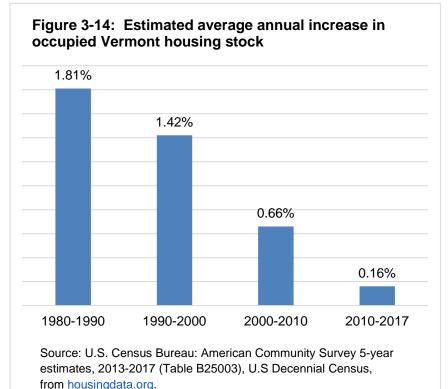
Vermont's estimated homeowner vacancy rates have considerable margins of error, due to its small sample size of homes for sale at any given time during a survey period. However, it appears that several Vermont counties have homeowner housing markets that are tighter than optimal. In particular, Chittenden County's homeowner vacancy rate is no more than 1% at its highest possible range, indicating that demand is surpassing the supply.

While higher vacancy rates make it easier for homebuyers to find homes, and can keep prices from rising too quickly, they can also indicate the presence of substandard quality homes, which can remain vacant for extended periods since fewer homebuyers can afford or are willing to invest the time and energy to improve them. A few Vermont counties appear to have slightly higher owner vacancy rates than ideal, although the error ranges for all counties make it possible that their rates are within healthy levels.

Housing supply

Despite these clear indicators of demand, Vermont has produced only a small number of new homes in the past two decades. From 2010 to 2017, Vermont's occupied primary housing stock grew by an average of just 0.16% per year, or an average of 419 homes per year. Some areas of the state have slightly higher rates of housing stock growth. Chittenden County's housing stock grew by an average of 1% per year between 2010 and 2017.

Vermont's housing growth rate has declined considerably since the 1980s, when it was increasing at a rate of 1.81% per year. Housing experts point to several causes contributing to this long-standing decline in home construction, ¹⁹ including increasing costs for construction materials, labor



shortages, regulatory restrictions and local opposition to development.

The size of Vermont's year-round housing stock is affected by a number of different dynamics including residential construction, conversions to other uses, and homes removed from the housing stock. According to the U.S Department of Housing and Urban Development, 0.33% of the nation's occupied renter stock and 0.15% of occupied owner stock is lost each year to due to destruction, conversion to other usage, or other causes.²⁰ At that rate,²¹ Vermont would lose 1,247 renter units and 1,392 owner housing units by 2025,²² further tightening Vermont's already constrained housing supply.

¹⁸ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003), U.S Decennial Census, from housingdata.org.

¹⁹ Joint Center for Housing Studies of Harvard University "The State of the Nation's Housing 2019"

²⁰ U.S. Department of Housing and Urban Development "American Housing Survey Components of Inventory Change: 2011–2013." Table B15.

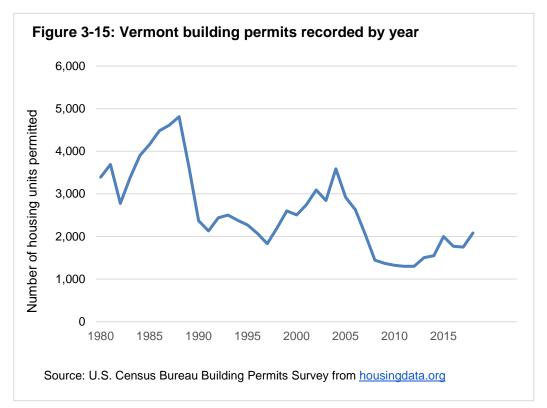
²¹ HUD does not produce a report on housing stock loss rates by state, therefore this estimate is derived from national housing loss rates by tenure. However, the overall loss rates for the Northeast (0.36%) are similar to the national rate (0.39%).

²² U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003), U.S Decennial Census, from housingdata.org

Building permits

Vermont's building permit patterns are more volatile than its pattern of housing growth, at its highest in the mid-1980s, with a smaller peak in the early 2000s.²³ However, the actual number of building permits far exceeds the actual occupied stock produced according to Census Bureau estimates. In 2012, the lowest year on record, there were 1,301 permits recorded, compared to the 419 primary homes actually created, according to the analysis above.

There are several possible reasons for this discrepancy:



- A building permit may be recorded for projects that were later canceled or abandoned.
- According to the Census Bureau, college residence halls, some assisted living facilities,²⁴ and shelters are included as housing units in the Building Permits Survey, but would not be included in the American Community Survey.²⁵
- A large number of building permits may be for seasonal homes. Seasonal homes are considered vacant in the American Community Survey and are not included in counts of the occupied housing stock. From 2010 to 2017, 3,742 homes were added to Vermont's seasonal housing stock. While some of these new seasonal units may have been converted from primary use, they could account for a significant share of Vermont's building permits.

The effect of this decline in construction is reflected in Vermont's low rental and owner vacancy rates. Without increased construction, Vermont's home sale and rental markets will continue to grow tighter, with prices likely to continue to increase.

²³ U.S. Census Bureau Building Permits Survey from housingdata.org. Relies on construction permits recorded by municipalities, and therefore includes only towns and villages that require building permits.

²⁴ Does not include facilities intended for 24-hour skilled nursing care.

²⁵ These units are recorded separately as Group Quarters in the American Community Survey.

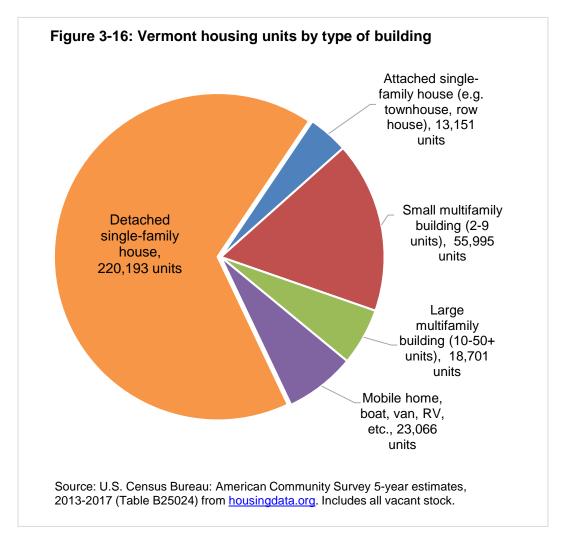
Housing stock characteristics

Building type

The majority of Vermont's housing stock (63%) is composed of single family detached homes, which is comparable to the national rate of 62%. ²⁶ Overall, Vermont's housing stock is distributed similarly to the national housing stock, although it has fewer large multifamily buildings (5% compared to 13% nationally).

Vermont has some key variations in building types between demographic groups and counties:

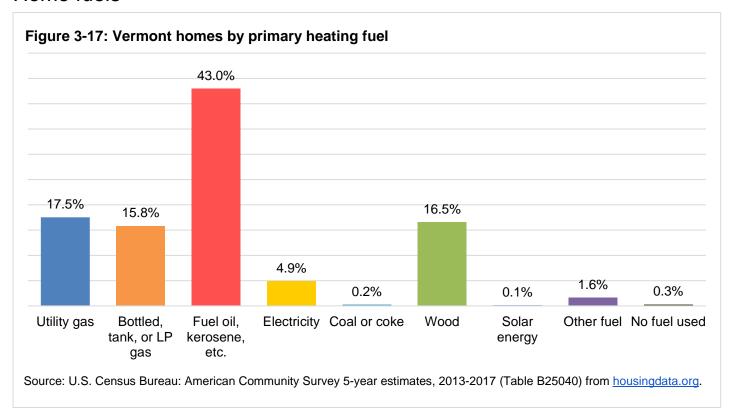
- More Vermont renters live in single family homes than we see nationally. 27% of renter households live in single family homes,
 - compared to just 9% of renters nationwide.
- Mobile homes are a small but significant part of the housing stock across Vermont, ranging from 13% of the overall stock in Grand Isle County to 4% of the stock in Chittenden County.
- 52% of Vermont's largest multifamily buildings (50+ units) were located in Chittenden County, although the county contains only 25% of Vermont households.²⁷



²⁶ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25024).

²⁷ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25003) from housingdata.org

Home fuels



- 43% of Vermont's homes use fuel oil or kerosene as a primary heating source, compared to just 5% nationwide.²⁸ Using fuel oil or kerosene as a heating source can be problematic for households, as prices for these fuels are not regulated by the states as natural gas and electricity are. This can lead to substantial price fluctuations, making it difficult for households to predict heating bills. However, the percentage of Vermont homes using fuel oil or kerosene is declining, down from 48% in 2010.²⁹
- Vermont has a large percentage of homes using wood as fuel source, with 16.5% using wood compared to
 less than 2% nationwide. However, the survey does not differentiate between types of wood fuel, therefore
 modern pellet stoves, cast-iron stoves and fireplaces all appear in the same category in the survey.
- Solar energy remains very rare in Vermont, with only an estimated 379 households using it as a primary fuel source.
- Use of utility gas³⁰ was much more common in Chittenden County, at 57%, than in other areas of the state. Most Vermont counties have utility gas usage at less than 3%. This reflects the overall pattern of development in Vermont, which tends to be much more compact in Chittenden County than in other areas, making utility gas line construction more economically viable. New homes are also more likely to use natural gas (utility, bottled or tank) than older homes, which are more likely to use fuel oil, kerosene, or coal.
- The 0.3% of homes in Vermont with no fuel used represents 707 occupied homes, which either do not use heat or have no heating equipment.³¹

²⁸ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25040).

²⁹ U.S. Census Bureau: American Community Survey 1-year estimates, 2010 (Table B25040).

³⁰ That is, natural gas pumped through an underground network of pipes from a central system.

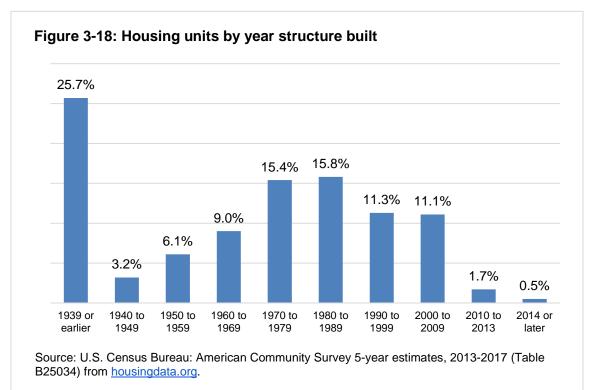
³¹ See American Community Survey (ACS) 2017 Subject Definitions. Unheated housing may potentially include occupied vans, boats or RVs.

Age of homes

Vermont's housing stock is older than the country as a whole. The median Vermont home was built in 1974, compared to 1977 nationwide.³² Over a quarter of Vermont's housing stock was built before 1939.

Vermont's rental housing stock is older than its owner-occupied stock. The median home occupied by renters was built in 1964, while the median owner home was built in 1976.³³ 36% of renter-occupied homes were built before 1939.

Lamoille County has Vermont's newest housing stock overall, with 1981 as a median year of construction, followed by Chittenden and Grand Isle Counties



in 1978. Vermont's oldest stock is in Rutland County, where the median home was built in 1969.

Older housing stock is of concern for several reasons. Homes built before 1978 are likely to have lead paint, which can be a major health risk, especially for young children. Homes built before 1980 may have asbestos, which requires professional remediation if disturbed during renovations. Older homes are often less energy-efficient than newer homes, leading to higher energy cost-burden for households living in these homes.³⁴

³² U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25035) from housingdata.org

³³ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25037)

³⁴ For more discussion on energy cost-burden, see **Chapter 5: Homeowners**.

Housing quality

According to the U.S. Department of Housing & Urban Development (HUD)'s housing quality standards,³⁵ housing quality can be assessed through 13 key factors:

Criteria	Requirement
Sanitary facilities	The dwelling unit must include private sanitary facilities in proper operating condition.
Kitchen and waste disposal	The dwelling must have suitable space and equipment to store, prepare and serve food and dispose of refuse in a sanitary manner.
Space and security	The dwelling must provide adequate space and security for the family. The dwelling unit must have a least one bedroom or living/sleeping room for every two persons.
Thermal environment	The dwelling must have safe and adequate heating or cooling facilities to provide a thermal environment that is healthy for the human body.
Illumination and Electricity	Each room must have adequate natural or artificial illumination to permit normal indoor activities and to support the health and safety of occupants. Fixtures and wiring must not pose a fire hazard.
Structure and Materials	The dwelling unit must be structurally sound and must protect the occupants from the environment.
Interior Air Quality	The dwelling unit must be free of air pollutant levels that threaten the occupants' health.
Water supply	The water supply must be free of leaks or contamination.
Lead-based paint	Homes at risk of lead-based paint may not have deteriorated painted surfaces.
Access	Access to the unit must be possible without unauthorized use of other properties. The building must provide an alternate means of exit in case of fire.
Site and neighborhood	The site and neighborhood must be reasonably free from disturbing noises and reverberations or other dangers to the health, safety, and general welfare of the occupants.
Sanitary condition	The dwelling unit and its equipment must be in sanitary condition, free from refuse and vermin infestation.
Smoke Detectors	Each level of the dwelling unit must have functional smoke detectors.

The Census Bureau offers only minimal data that can be used to determine the extent to which Vermont's housing stock conforms to these basic quality standards:

- 2,350 occupied housing units, or 0.9% of Vermont's housing stock lack complete kitchen facilities.³⁶
- 1,282 occupied housing units, or 0.5% of Vermont's housing stock lack complete plumbing facilities.³⁷

³⁵ <u>U.S. Department of Housing & Urban Development</u>, Housing Choice Voucher Program Guidebook, Chapter 10.

³⁶ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25052)

³⁷ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25048)

707 occupied housing units, or 0.3% of Vermont's housing stock are unheated.³⁸

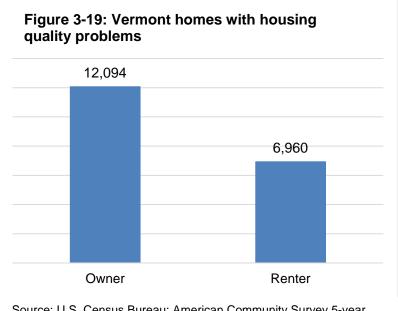
However, the Public Use Microdata Sample (PUMS) for the American Community Survey (ACS) allows for multi-factor analysis, making it possible to review combined criteria that signal possible housing quality issues. Households were flagged with potential quality issues if they had any of the following criteria:

- The heating fuel type was coal or the home lacked a heat source.
- The housing unit lacked complete kitchen facilities.
- The housing unit lacked complete plumbing facilities.
- The housing unit was a mobile home built before 1979.³⁹
- The housing unit was a rental unit built before 1939 with rent less than \$500 per month.⁴⁰
- The housing unit was an owner home with an estimated property value of \$75,000 or less (excluding mobile homes or RVs/vans/boats).

This analysis suggests that there are at least 19,054 Vermont households that live in homes with serious housing quality issues. This number almost certainly undercounts the total number of households with housing problems because many issues such as poor sanitary conditions, inadequate weatherization and poor interior air quality would not necessarily be reflected in the criteria above.

Lead-based paint risk

Unless it is properly mitigated, lead-based paint can be a serious housing quality issue. Lead paint was used in many homes prior to the 1970s. Exposure to the paint occurs via dust or chips from painted surfaces or



Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 Public Use Microdata Sample (PUMS)

contaminated soil. Ingesting lead can lead to a variety of health problems, especially in young children. This can result in slowed growth and development as well as problems with learning, behavior, hearing and speech.⁴¹ According to the Vermont Department of Health, 420 children under the age of six tested positive for elevated levels of lead in their blood in 2018.⁴²

An estimated 191,325 homes, or 58% of Vermont's housing stock was built before 1978, when lead-based paint was banned for residential use in the United States. Roughly 95,860 homes were built before 1950, when

³⁸ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B25040). This includes homes which either do not use heat or have no heating equipment. See <u>American Community Survey (ACS) 2017 Subject Definitions.</u> Housing units in this data set may potentially include occupied vans, boats or RVs.

³⁹ The National Manufactured Housing Construction and Safety Act was passed in 1976 and required basic safety and quality standards for mobile homes. 1979 is the closest year available in the PUMS data.

⁴⁰ This criteria was used to identify rental stock that is more likely to be in poor condition. The gross rent is not impacted by rental assistance. According to the <u>HUD's</u> "American Housing Survey Components of Inventory Change: 2011–2013", homes built before 1940 and homes where renters paid less than \$600 in rent were more likely to be demolished or condemned, signaling potential poor quality.

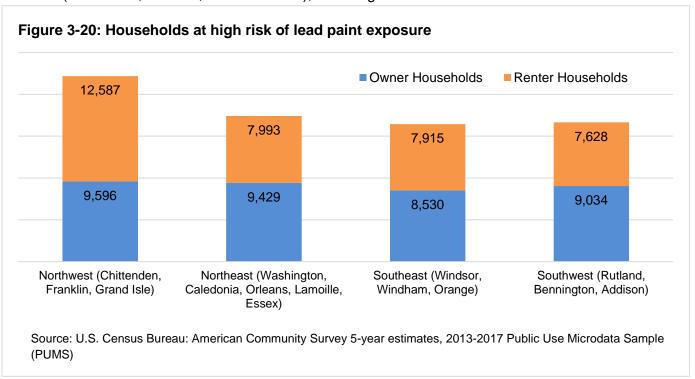
⁴¹ Center for Disease Control

⁴² Vermont Department of Health, "Lead Poisoning Prevention: Report on 2018 Program Outcomes and Activities"

lead paint was widely used. Lead paint can be removed or encapsulated to make homes safer, but this process can be very expensive, with an average cost of \$10,000 for whole-home abatement.⁴³

An analysis of ACS PUMS data⁴⁴ suggests that 36,589 Vermont homeowner and 36,123 Vermont renter households are at particularly high risk for lead paint exposure, as they live in homes built before 1978 and earn less than 80% of the area median income. These households live in homes that may have lead-based paint and are also likely to struggle to afford the high costs of abatement.

Analysis of high risk households by geographic area⁴⁵ shows that proportionally, renters are at higher risk for lead paint exposure than homeowners. Risk is fairly evenly distributed by area, although the Northwest part of the state (Chittenden, Franklin, and Grand Isle), has a higher number of renters at risks.



Lead paint remediation

Vermont requires owners of rental properties built before 1978 to comply with Essential Maintenance Practices (EMPs)⁴⁶ to reduce the risks of lead paint. The owner or property manager must complete approved EMP training, conduct annual inspections for any lead paint hazards, report deteriorated paint to tenants and promptly make appropriate repairs. Property owners are required to submit annual statements certifying compliance to the Vermont Department of Health.

The state has limited tools to enforce Essential Maintenance Practices. The Vermont Department of Health, Environmental Health Division estimates that roughly 25% of rental property owners submit certifications

⁴³ National Association of Realtors

⁴⁴ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 Public Use Microdata Sample (PUMS)

⁴⁵ The smallest geographic level for PUMS data is by Public Use Microdata Areas (PUMAs), which in Vermont are groups of three or more counties. This is done to ensure survey anonymity.

⁴⁶ Under 18 V.S.A. § 1759.

required by Essential Maintenance Practices.⁴⁷ However, compliance continues to improve each year and the department continues to provide outreach on requirements.

The U.S. Department of Housing and Urban Development (HUD) offers funding to landlords or homeowners for properties occupied by families with household incomes that are 80% or less than the county median income that also have a child age six or younger in the household. Vermont has two different programs administering this funding and assistance: the Vermont Housing & Conservation Board's (VHCB) Lead-Based Paint Program and the City of Burlington's Lead Program.

Figure 3-21: Vermont lead paint remediation programs

Program	Average units remediated per year (Estimated)	Total units remediated (all time)	Average amount per project (Estimated)	Total spent on program (Estimated)
Vermont Housing & Conservation Board's (VHCB) Lead-Based Paint Program	115	2,900+	\$10,500	\$33,500,000+
City of Burlington's Lead Program	44	662	\$7,275	\$4,816,261

Between the two programs, roughly 3,562 homes have been remediated since 1980. This represents just under 5% of the Vermont homes at high risk for lead paint, although some may have been remediated at personal cost, and not all of these have small children living there. However, it remains clear that lead paint continues to threaten the health of many Vermonters.

Weatherization

Poorly insulated dwellings can pose significant health and safety risks, especially in Vermont, which has wideranging temperature extremes. Extreme hot and cold temperatures within a home can be fatal, particularly for elderly people or people with pre-existing health conditions. As mentioned previously, Vermont's older housing stock makes it more likely that it has a high number of homes in need of weatherization.

⁴⁷ The Department of Health relies on owners to self-report. However, the Department will occasionally verify filings during health inspector's field observations or as a result of a tip or complaint.

Figure 3-22: Homes weatherized through the Vermont Office of Economic Opportunity

Program year	Estimated average energy savings	Average household savings	Units in single family buildings	Units in multifamily buildings	Total units
2016	24%	\$368	498 (64%)	276 (36%)	774
2017	24%	\$442	533 (60%)	360 (40%)	893
2018	29%	\$663	512 (62%)	309 (38%)	821
2019	34%	\$745	573 (75%)	194 (25%)	767

Vermont programs offer loans and grants for weatherization projects for households earning less than 80% of Area Median Income (AMI), have a member that receives Supplemental Security Income (SSI) or receive seasonal fuel assistance through the Low-Income Home Energy Assistance Program (LIHEAP). The Vermont Office of Economic Opportunity (OEO), which administers the Vermont Home Weatherization Assistance Program (HWAP), assisted 767 households in FY2019. Around 30% to 40% of homes weatherized each year are renter occupied. The program's average investment is \$9,193 per household.

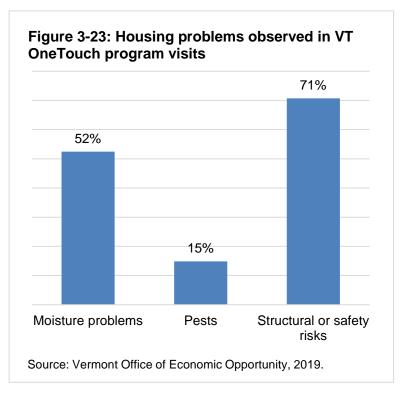
Since 1980, the program has assisted an estimated 57,768 Vermont homes,⁴⁸ which is about 22% of Vermont's occupied housing stock.⁴⁹ However, even once weatherization is addressed, these homes may still have other health and safety issues, including lead paint, pests, and structural issues.

⁴⁸ The Vermont Office of Economic Opportunity notes that weatherization technology and resources have advanced significantly in recent years, therefore the homes weatherized prior to 2000 (29,844) may not be adequately weatherized by today's standards.
⁴⁹ This assumes there are no homes that have been weatherized more than once. Vermont Office of Economic Opportunity allows reweatherization of projects done prior to 1993 with Department of Energy funds and prior to 2002 with State funds, if the previous work is now considered inadequate.

Other housing quality issues

A small number of Vermont homes have been surveyed for housing quality issues through Vermont's One Touch program, administered through the Vermont Office of Economic Opportunity. Auditors visiting Vermont homes through OEO's weatherization programs survey households about other housing quality issues and connect clients with social services.

A survey of 1,396 visits since 2017 found that 52% of homes had moisture related problems, including plumbing or roof leaks, drainage problems, visible mold, or rotted building areas. Fifteen percent had pest problems, with the majority related to rodent infestations. 71% had various structural issues, including defective or missing smoke or carbon monoxide detectors, wiring issues,



inadequate stair or porch railings, and windows or doors that would not open for exit. Of these, issues related to smoke or carbon monoxide detectors were the most commonly cited safety risks.

It is difficult to compare these results to Vermont's housing stock as a whole, since only homes eligible for weatherization were surveyed. However, based on the data available, missing smoke or carbon monoxide detectors and moisture problems appear to be the most common housing quality issues.⁵⁰ Pests and major structural issues were much less common.

Rental housing

The safety of many rental homes in Vermont is not regularly monitored or surveyed, leading to uncertainty about the type and scope of problems within this significant portion of Vermont's housing stock.

Improving the quality of Vermont's rental housing stock is a primary objective of the legislatively appointed Rental Housing Advisory Board. Created by Act 188 of 2018, the Board is an advisory group to the Governor, General Assembly, the Vermont Housing Council, and appropriate State agencies on issues related to rental housing statutes, policies and regulations. In 2019, the Board submitted to the General Assembly a report⁵¹ containing recommended changes to better support decent, safe and sanitary housing.

Subsidized rental stock

Vermont has 13,592 rental apartments in 505 different apartment complexes that were built through publicly-funded programs, including U.S. Department of Housing & Urban Development (HUD) programs, USDA Rural

⁵⁰ Excluding lead paint and weatherization.

⁵¹ Rental Housing Advisory Board, "Act 188 of 2018 – Rental Housing Advisory Board recommendations for January 2019"

Development program, Vermont Housing & Conservation Board (VHCB) grants, the Low-Income Housing Tax Credit (LIHTC), and Vermont Affordable Housing Tax Credits. Comprising 18% of the state's rental homes, they are subsidized and monitored through public programs.

U.S. Department of Housing & Urban Development (HUD) housing

As of 2019, HUD reported physical inspections scores⁵² for twelve Public Housing developments and 157 multifamily developments in Vermont that received some form of HUD funding. HUD grades physical inspections on a 1-100 scale based on its housing quality standards described above, with properties rated below 60 considered failing.

None of Vermont's twelve Public Housing developments failed inspection. The average inspection score was 91. Only one of the 157 multifamily property failed inspection,⁵³ with six more receiving a score of less than 70. The average score for multifamily properties was also 91. Nationwide, the average public housing score is 82, with 9.8% of the stock failing inspections. The average multifamily score was 88 nationally, with 3.7% total failing inspection.

This suggests that although Vermont has some HUD-funded properties in need of improvement, its stock is in much better condition that the national average.

Other subsidized stock

The remaining 336 affordable apartment complexes are managed by a variety of housing organizations, listed above. The requirements for public funding vary, but all of the housing program funders have property maintenance standards, with regular required inspections. Furthermore, a majority of Vermont's subsidized housing is managed by non-profits who are mission-driven to provide quality housing to tenants. Therefore, this stock is considered to be in at least comparable condition to the HUD-examined properties, if not in superior condition.

Market-rate rental stock

The quality of Vermont's market rate rental stock is more difficult to assess. Unlike the subsidized stock, most of Vermont's market rate rental housing is not subject to regular inspections and oversight. These 62,622 homes are currently inspected sporadically or only upon request, especially those located outside of the six towns that require apartment registration and/or inspections (Barre, Brattleboro, Burlington, St. Albans, St. Johnsbury and Winooski). Outside of these towns, requests by tenants or landlords to town health officers initiate the inspection of a rental property.

Vermont has a Rental Housing Health Code⁵⁴ with requirements similar to HUD's housing quality standards. Some towns have their own additional rental health codes. However, there are currently only limited mechanisms in place for enforcing these standards. Many Town Health Officers are volunteers who do not have formal experience in housing safety issues, and are also tasked with non-housing public health responsibilities. In addition, many Vermont towns conduct only complaint-based investigations.

⁵² HUD Real Estate Assessment Center: Physical Inspection scores, as of March, 2019

⁵³ The property in question is Cummings Street Family Housing in Montpelier. Although this property failed inspection in 2018, prior inspections in 2014 and 2016 earned scores of 87 and 85, respectively.

⁵⁴ Vermont Department of Health: Rental Housing Health Code.

Vermont town health officers have reported encountering a range of problems during inspections including:

- Septic system failures
- Animal control
- Pest infestations
- Air contaminants
- Solid and hazardous waste issues
- Emergency/disaster condemnation
- Lead paint/EMP and asbestos issues
- Rental housing health issues⁵⁵

A recent interim report prepared by the Vermont Department of Health⁵⁶ under Act 48 reported 640 yearly complaints submitted to Town Health Officers in towns that do not have a code enforcement program. While not all towns responded to the survey, the Vermont Department of Health estimated 747 complaints for the state as a whole, assuming that the rate stayed constant throughout the population. This number is far smaller than the 6,960 rental homes that VHFA estimates are at high risk for serious housing quality issues.⁵⁷ The low rate of reporting compared to known housing stock quality problems suggests that Vermont renters may not be aware of their rights or may not feel that their complaints will be adequately investigated. The majority of violations discovered from the complaints were for fire safety issues (smoke alarms, carbon monoxide detectors and fire extinguishers), lead paint, problems with electrical systems, and waste removal.

Vermont Legal Aid prepared a 2018 report on rental housing quality issues.⁵⁸ It found that the most commonly reported code violation was for mold (34% of complaints to the Department of Health). The second most common complaint was for pests (15%), particularly bedbugs. The report found that most tenants were not well-informed about what rights they have and how they could report code violations.

Owner housing quality

Housing quality for owner-occupied homes in Vermont is even less well-documented than its market-rate rental stock. However, the available data does suggest there are many homes with serious quality issues.

The American Community Survey's (ACS) estimates of vacant homes, in addition to homes for rent, for sale, or seasonal, includes a category called "other vacant". Homes can fall into this category for many reasons, including homes that are under renovation or homes held vacant for personal reasons of the owner. However, since this category can also include foreclosed or abandoned homes, it is often used by housing researchers as an indicator of area housing stock decline. Vermont has 10,323 such homes, accounting for roughly 3% of Vermont's housing stock. This number is small enough that it does not indicate a cause for concern. However, some Vermont towns have much higher rates of "other vacant" homes:

⁵⁵ Meg McCarthy, Vermont Department of Health, VT Housing Conference 2018 presentation.

⁵⁶ Rental Housing Safety Interim Report 2019

⁵⁷ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 Public Use Microdata Sample (PUMS)

⁵⁸ Vermont Legal Aid, "Renters at Risk The Cost of Substandard Housing", 2018

⁵⁹ American Community Survey (ACS) 2017 Subject Definitions.

⁶⁰ Lincoln Institute of Land Policy, "The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States", 2018.

⁶¹ U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B251004) from https://doi.org/10.2017/journal.org/

Figure 3-24: Top 10 Vermont towns with greatest number of "Other vacant" homes

Town/city	Number of "other vacant" homes	Percent of total housing stock
Rutland City	548	6.9%
Brattleboro	292	4.9%
St. Johnsbury	206	5.9%
Rockingham	169	6.6%
Newbury	135	9.7%
Fair Haven	114	9.3%
Troy	72	8.3%
Barton	69	4.7%
Plymouth	48	5.3%
Readsboro	41	7.5%

Source: U.S. Census Bureau: American Community Survey 5-year estimates, 2013-2017 (Table B251004) from https://doi.org/10.2017/journal.org/

Even if all "other vacant" homes shown in the table were actually abandoned or foreclosed, these rates would still be well below those of cities that have large-scale blighted areas. ⁶² However, the higher than average rates of "other vacant" homes suggest that these towns may have more homes with serious housing quality issues compared to the state as a whole.

Another indicator is the sale prices of Vermont housing stock. 695 homes⁶³ in Vermont sold for less than \$100,000, which accounted for 9.5% of home sales in 2018.⁶⁴ The median non-mobile home sold for \$220,000. A review of homes listed on Zillow⁶⁵ that are priced below \$100,000 demonstrated that the majority of these homes have immediately obvious quality issues.⁶⁶

⁶² Lincoln Institute of Land Policy, "The Empty House Next Door: Understanding and Reducing Vacancy and Hypervacancy in the United States", 2018.

⁶³ Analysis excludes mobile home sales, which tend to have much lower prices.

⁶⁴ Vermont Property Transfer Tax (PTT) records. Total excludes mobile home sales.

⁶⁵ Zillow is an online home sale platform. It is widely used by home sellers, including for homes sold by owner and by Realtors.

⁶⁶ For further discussion of housing prices, see **Chapter 5: Homeowners**.