



# Vermont Statewide Economic Planning

Current State Assessment

September 2022



## Summary of economic insights

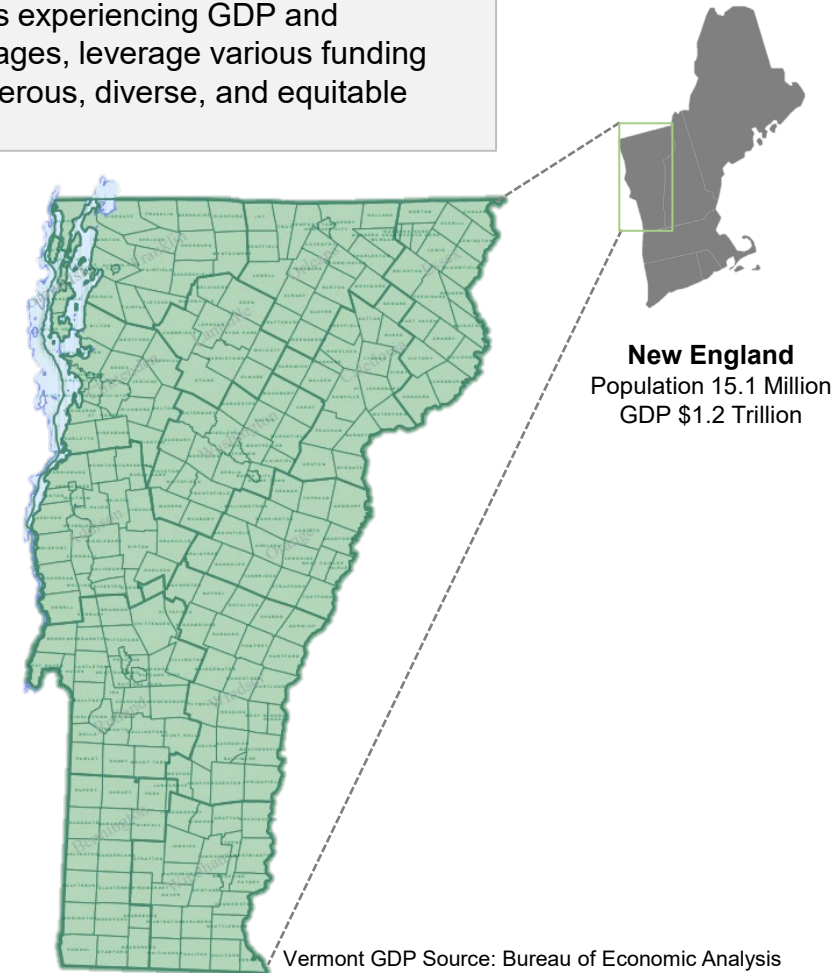
- 1 The majority of Vermont's GDP contribution (63.5%) stems from **local sectors**. Although local economies can support increased stability and economic activity for local communities, bolstering tradable sectors can help attract outside investment and talent into the State. A key local sector includes **Health Care, Education, and Social Services**, which contributes 12.8% of the State's GDP. This can partially be attributed to Vermont's aging cohort, with individuals 60+ accounting for 27.1% of the population (compared to 22.3% nationally). The state can look to sectors such as **Manufacturing and Finance and Insurance**, which contribute 10% and 5.6% of the State's GDP, respectively, as it looks for opportunities to grow its tradable economy.
- 2 The State has experienced **rapid employment loss** in large industries, such as **Health Care and Social Assistance, Retail Trade, and Manufacturing**. Vermont can leverage recent funding to support the recovery of declining industries and foster growth in emerging industries, like Professional and Technical Services.
- 3 Income distribution in Vermont is concentrated in middle-income jobs, with **far fewer high-income employment opportunities**. Furthermore, 80.4% of jobs in Vermont **pay below the statewide living wage of \$68.3K**. This makes it challenging for individuals to afford basic necessities such as childcare, food, health insurance, and transportation.
- 4 Vermont has a well-educated population, with 39.7% of the State holding a bachelor's degree or higher (compared to the national average of 32.9%). However, the State's economy is primarily sustained by jobs that require a **lower level of education**, with **56.9% of residents** working in occupations that do not require a post-secondary degree. These occupations often coincide with industries which were **disproportionately impacted by the pandemic**, such as Accommodation and Food Services.
- 5 Vermont continues to experience a **deficit of quality, affordable housing options**. With a median home list price that is six times the median household income and the 5<sup>th</sup> highest property tax rate nationwide, homeownership is out of reach for many Vermonters. The growth of housing supply has also stagnated while many existing units are of substandard quality. This makes it challenging for Vermont to attract and retain talent.
- 6 As Vermont continues its road to recovery, the State can take an **ecosystem approach** to address business, workforce, housing, and transport needs. This may include strategies to **align education and workforce programming** with expected business needs, support the growth of **new industry clusters**, or create programming to **improve the affordability and quality of housing options**.

## Despite its dependence on local sectors, Vermont has an opportunity to diversify its economy and attract outside investment

As one of six states in New England, Vermont is comprised of 14 counties and stretches across 9,616 square miles. Historically, the State has led the country and the New England region in the production of specialty and gourmet goods and agricultural products. However, the COVID-19 pandemic introduced challenges for the State's economy and workforce, with headline industries experiencing GDP and employment loss between 2019-2020. Vermont now has the opportunity to build on its comparative advantages, leverage various funding sources, and capitalize on political will to recover from the impacts of the pandemic and build a more prosperous, diverse, and equitable economy and workforce.

Key statistics	
<b>Population</b> (2020)	<b>624,340</b>
<b>GDP</b> (2021)	<b>\$36.2B</b>
<b>Median household income</b> (2020)	<b>\$63,477</b> <i>Compared to \$64,994 in the U.S.</i>
<b>Top industries</b> (2021, by total annual wages)	Health Care and Social Assistance (\$2.9B), Manufacturing (\$1.8B), Professional and Technical Services (\$1.6B)
<b>Top employers</b> (2020)	UVM Medical Center (8,711), University of Vermont (5,300), State of Vermont (5,000)
<b>Labor force</b> (by place of occupation, 2022)	<b>333,575</b> <i>2.3% unemployment rate compared to 3.6% in the US</i>
<b>Education</b> (2020)	<b>39.7%</b> population with bachelor's degree or higher, compared to <b>32.9%</b> in the US <i>22 colleges and 4 out-of-state colleges with campuses in Vermont</i>

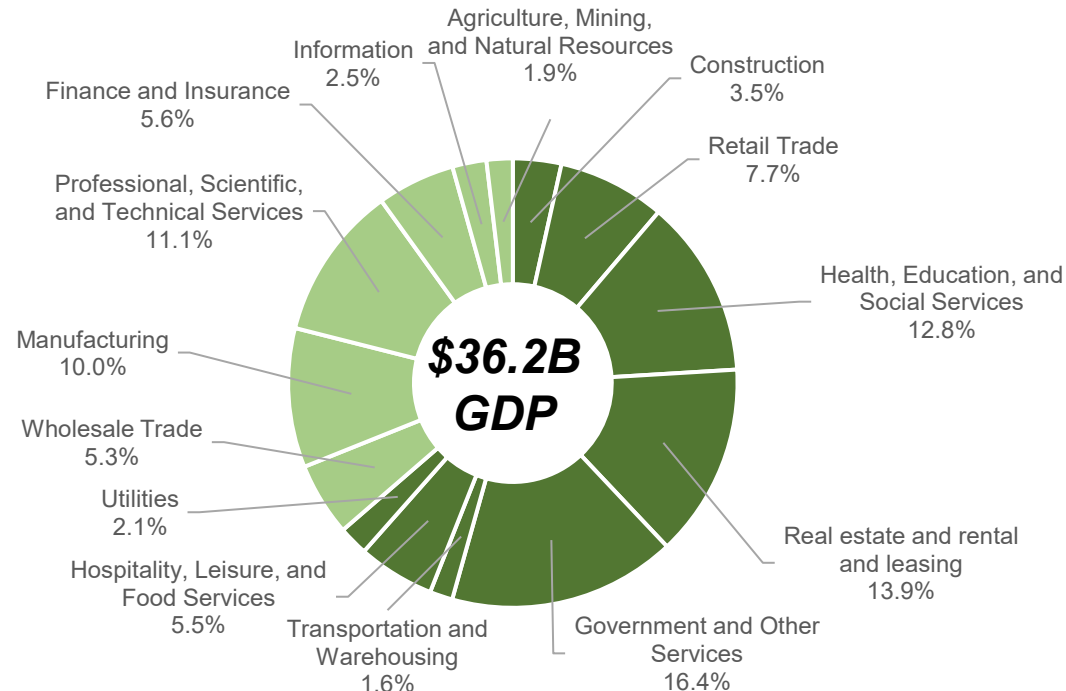
Sources: American Community Survey (ACS, 2020), the Bureau of Labor Statistics, Statista, and the Vermont Department of Labor. Datasets utilized within this report were updated as of July 2022 and are subject to seasonal adjustments.



## Vermont's \$36.2 billion economy is primarily sustained by local sectors such as Health Care, Education, and Social Services

The 'tradability' of a sector is an important concept in economic development. A tradable sector is one whose output can be traded regionally, nationally or internationally – i.e., it contributes to an economy by bringing revenue into a region. Tradable sectors attract investment and talent to the State and grow the regional economy. Tradable businesses may include factories, professional service firms, and tech companies. A local sector is one that primarily serves a local economy and may include, for example, healthcare providers, real estate, and government functions. Vermont's economy is relatively diverse – with no one sector accounting for more than 16.5% of GDP – and primarily structured to service its local population. This diversity can insulate the State from economic downturns; however, it also means that the State is less responsive to economic peaks.

**63.5% of Vermont's GDP contribution stems from local sectors**



### Tradable sectors

Sectors whose output can be traded regionally, nationally or internationally

**Note:** The sectors listed on this slide are the standard classifications reported by the Bureau of Economic Analysis. The sectors that are presented in subsequent slides are reported using data from the Bureau of Labor Statistics.

### Local sectors

Sectors that predominantly serve the State's economy

Source: Bureau of Economic Analysis GDP Data

# Employment loss in key industries like education and public administration is eroding Vermont's economic base

A Location Quotient (LQ) indicates the concentration of employment of a given sector in Vermont compared to national averages. For example, the State has an LQ of 0.75 in the Information sector, meaning that it has 75% of the jobs per capita compared to the US average. Factors impacting the concentration of industries in the State may include available resources (e.g., skilled workforce, natural resources) and access to infrastructure and finance (e.g., public transit).

Economic industries in Vermont	Vermont					United States	
	Employment (2021)	Annual wage per job (2021)	Employment LQ (2021)	Employment growth (2017-21)	Employment growth (2019-20)	Employment (2021)	Employment growth (2017-21)
NAICS 62 Health Care and Social Assistance	52.3K	\$56.3K	1.30	-4.9%	-5.7%	21.8M	2.6%
NAICS 44-45 Retail Trade	34.8K	\$38.3K	1.23	-8.0%	-8.2%	15.4M	-3.2%
NAICS 31-33 Manufacturing	28.6K	\$64.1K	1.26	-3.1%	-6.4%	12.4M	-0.8%
NAICS 72 Accommodation and Food Services	25.8K	\$27.7K	1.14	-21.7%	-30.3%	12.2M	-10.6%
NAICS 54 Professional and Technical Services	16.8K	\$98.2K	0.91	10.1%	0.4%	10.0M	9.9%
NAICS 23 Construction	15.7K	\$57.6K	1.12	-0.7%	-6.6%	7.6M	6.9%
NAICS 61 Educational Services	15.6K	\$51.7K	0.70	-57.7%*	-6.5%	12.2M	-2.8%
NAICS 56 Administrative and Waste Services	12.3K	\$53.2K	0.73	1.1%	-7.9%	9.1M	-0.2%
NAICS 92 Public Administration	10.2K	\$77.6K	0.74	-43.7%*	-2.5%	7.4M	1.0%
NAICS 48-49 Transportation and Warehousing	8.8K	\$53.8K	0.69	-2.6%	-6.8%	6.9M	16.8%
NAICS 42 Wholesale Trade	8.6K	\$75.0K	0.82	-7.2%	-4.0%	5.7M	-3.5%
NAICS 52 Finance and Insurance	8.5K	\$98.2K	0.75	-2.4%	-1.1%	6.2M	4.0%
NAICS 81 Other Services, except Public Administration	8.0K	\$42.7K	1.04	-7.6%	-12.4%	4.2M	-6.5%
NAICS 71 Arts, Entertainment, and Recreation	4.2K	\$29.8K	0.99	-12.9%	-29.4%	2.3M	-14.9%
NAICS 51 Information	4.1K	\$71.0K	0.75	-11.1%	-8.7%	3.0M	1.1%
NAICS 11 Agriculture, Forestry, Fishing and Hunting	3.5K	\$37.7K	1.49	5.1%	-0.4%	1.3M	-1.1%
NAICS 53 Real Estate and Rental and Leasing	3.0K	\$54.1K	0.72	-0.5%	-8.6%	2.3M	1.4%
NAICS 55 Management of Companies and Enterprises	2.0K	\$117.2K	0.47	1.2%	1.9%	2.3M	2.8%
NAICS 22 Utilities	1.6K	\$100.5K	1.08	-4.0%	-2.8%	803.7K	-1.4%
NAICS 21 Mining, Quarrying, and Oil and Gas Extraction	0.6K	\$65.0K	0.64	-1.9%	-3.5%	512.9K	-17.8%
<b>TOTAL</b>	<b>265K</b>	<b>\$56.9K</b>	<b>-</b>	<b>-14.3%</b>	<b>-8.7%</b>	<b>143.8M</b>	<b>-0.1%</b>

Employment is less concentrated in the State compared to national averages (LQ < 0.75)

Employment concentration in the State reflects national averages (LQ = 0.75 - 1)

Employment is more concentrated in the State compared to national averages (LQ = 1.01 - 1.25)

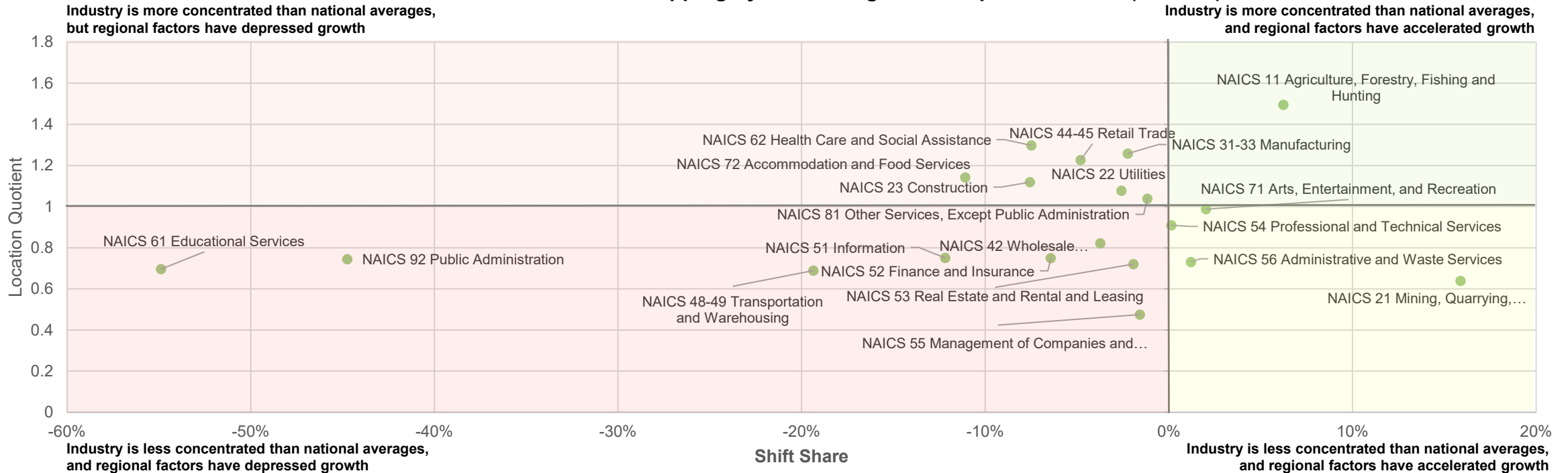
Employment is highly concentrated in the State compared to national averages (LQ = 1.26+)

\*BLS did not report employment values at the local ownership level in 2021.

# Vermont's Agriculture industry has the highest employment concentration and regional factors have accelerated its growth

Shift-share analysis is a model used to identify the causes of industry growth within a region. The analysis separates national level economic growth from industry and regional trends. In the chart below, the x-axis depicts the regional competitive effect for Vermont, i.e., what percent of industry employment growth can be attributed to unique local characteristics (e.g., geography, population characteristics, natural resources, etc.).

**Vermont NAICS level sectoral mapping by LQ and regional competitive effect (2017-21)**



**REGIONAL FACTORS HAVE ACCELERATED THE GROWTH OF VERMONT'S AGRICULTURE, FORESTRY, FISHING, AND HUNTING INDUSTRY**

Though Manufacturing and Health Care and Social Assistance still represent strengths for Vermont in terms of employment concentration, Agriculture, Forestry, Fishing, and Hunting offers the highest employment concentration. The industry also experienced more rapid growth within the State than in the US between 2017-2021. Vermont has an opportunity to expand value-adding agricultural activities that can both contribute to GDP and the proportion of tradeable sectors. As the State looks to diversify its economic base, it can consider opportunities to catalyze growth within tourism (Accommodation and Food Services and Retail Trade) and capitalize on the relatively high employment concentration of these industries.

## Nearly two-thirds of the resident Vermont workforce work in lower-skilled occupations

- Vermont’s resident workforce (that is, employed adults residing in Vermont) is approximately 329,000.
- 43.1% of Vermont’s resident workforce is employed in occupations requiring post-secondary education. This generally aligns with education attainment in the State, with 39.7% of residents holding a Bachelor’s degree or higher.
- While the Hospitality industry contributes 5.5% of the State’s GDP, Service industry jobs represent about 16.7% of resident occupations, second only to Sales and Office occupations. With the negative implications of the pandemic on employment in the Hospitality industry, many residents working in service occupations likely experienced disproportionately negative impacts of COVID-19, including job loss and/or wage reduction.

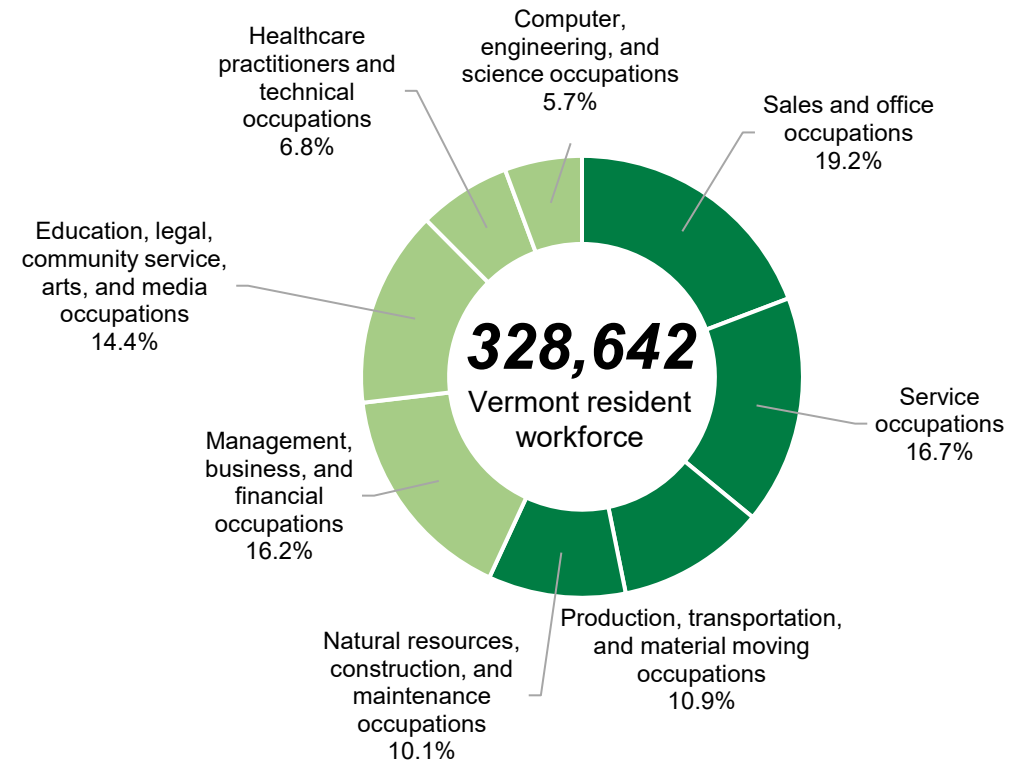
**Note:** The data shown here is **occupational** data from the American Community Survey (ACS, 2020) – note that this is different from the **economic sector** data presented on the previous pages. Additionally, the total workforce figure shown here differs from the labor force figure on the previous pages because the data is from different years (2021 on the previous page and 2020 here).

### EDUCATION AND HEALTH CARE IS A KEY COMPONENT OF VERMONT’S ECONOMY AND WORKFORCE

GDP contribution from the Education and Health Care industry has remained relatively stable over the last decade (12.5% in 2011 and 12.8% in 2021), signaling the industry’s continued importance to the State.

### Occupations of Vermont residents, 2020

Source: U.S. Census Bureau, American Community Survey



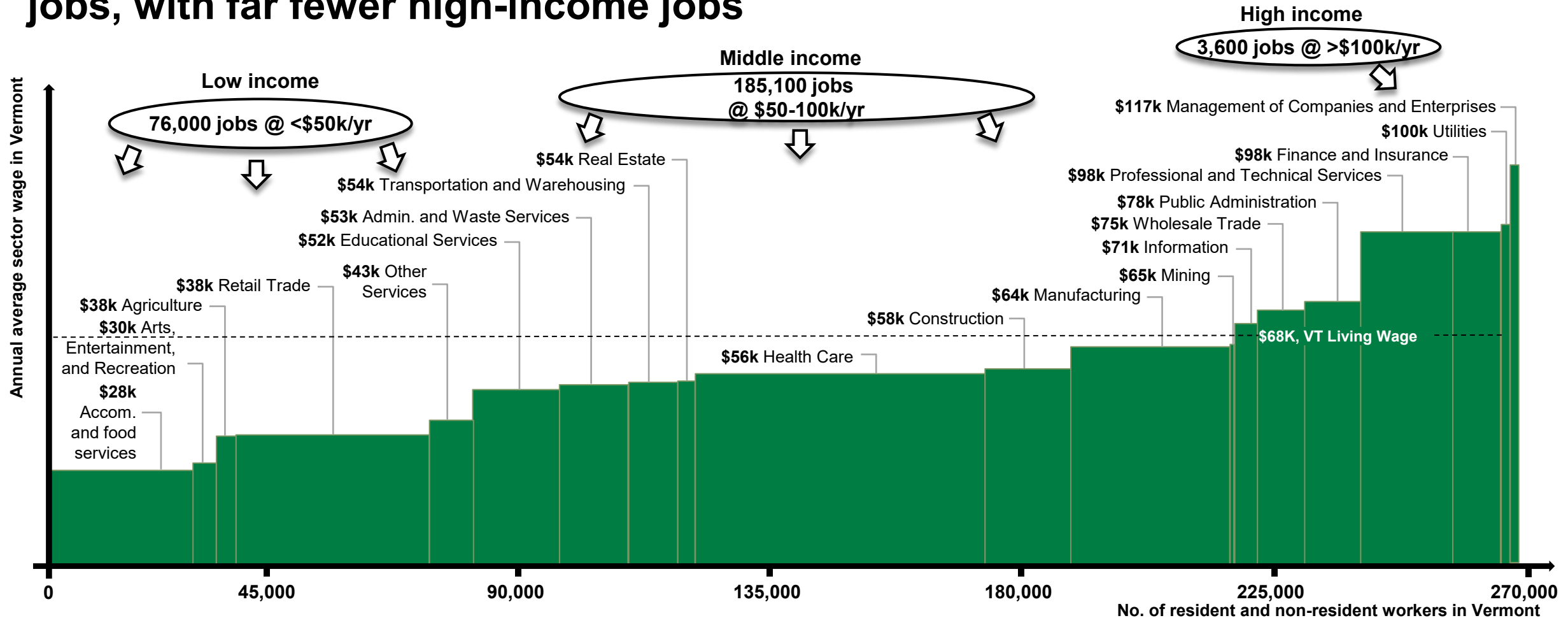
**Occupations requiring post-secondary education**

Occupations that generally, at a minimum, require a post-secondary certificate or degree to learn the skills necessary to perform the job

**Occupations requiring a high school diploma or less**

Occupations that generally do not require a post-secondary certificate, Associate, Bachelor’s or professional degree

## Income distribution in Vermont is concentrated in middle-income jobs, with far fewer high-income jobs



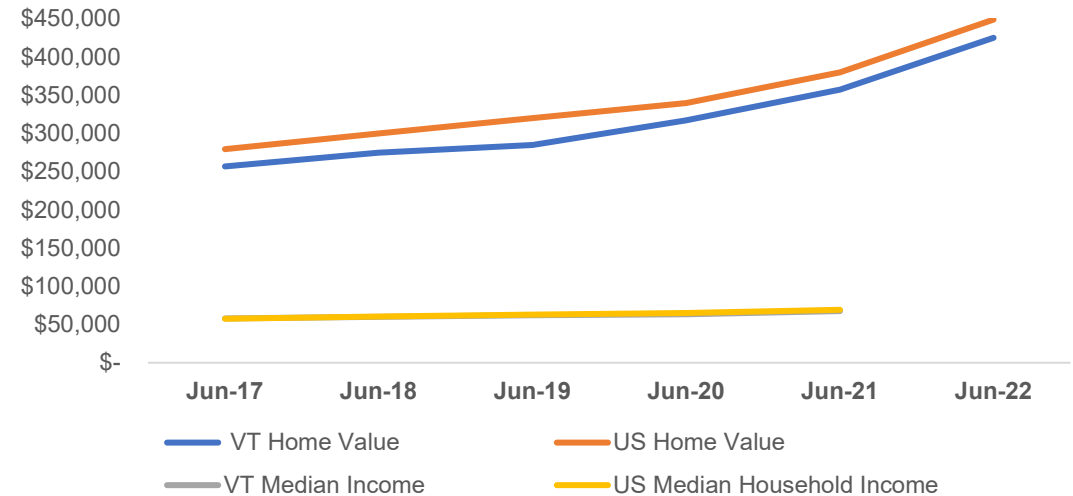
Vermont faces an affordability problem: **81% of jobs pay below the statewide living wage** of \$68K. The state has the fifth highest average property tax rate of (1.9%), behind New Jersey (2.5%), Illinois (2.3%), New Hampshire (2.2%), and Connecticut (2.1%), adding to the relatively high cost of home ownership. Furthermore, many housing units offer indicators of substandard quality, such as a lack of heat source, lack of complete kitchen facilities, lack of plumbing, and more.

Sources: The data shown here is economic sector data from the Bureau of Labor Statistics. This differs from the **occupational** data from the American Community Survey (ACS, 2020). The living wage was sourced from Living Wage MIT. Median Housing List Price: FRED

# Homeownership is still out of reach for some Vermont residents, making it challenging to retain and attract top talent

- Although Vermont’s housing supply grew from 2010 to 2020, the growth rate has gradually stagnated. While the number of homes in Vermont increased at an average rate of 1% annually in 2010, this rate is expected to slow to less than 0.2% by 2025.
- Vermont’s median home listing price in June 2022 (\$425,000) was over 6 times higher than the median household income in the State (\$67,674). This indicates that homeownership is not accessible to all State residents despite relatively high credit scores.
- Vermont has the fifth highest average property tax rate of (1.9%), behind New Jersey (2.5%), Illinois (2.3%), New Hampshire (2.2%), and Connecticut (2.1%), further demonstrating the relatively high cost of home ownership in the State.
- Vermont’s median rent listing price of \$1,115 per month represents 19.8% of the gross income of the typical Vermont resident, which is below the 30% threshold for rent-burdened families.

Median Home Values and Median Income, 2017-21/22



## UNMET HOUSING NEEDS ARE HIGHEST AMONG LOW-INCOME HOUSEHOLDS

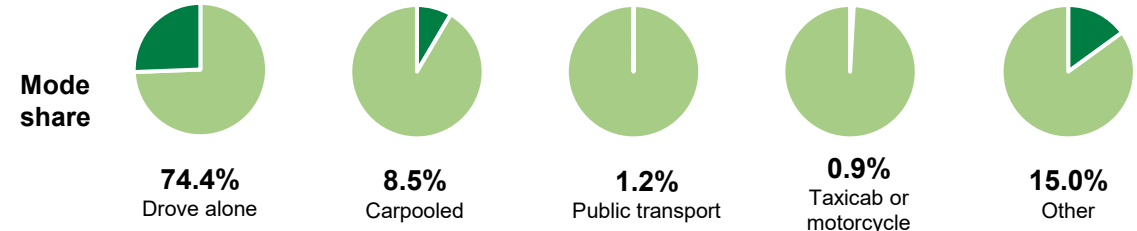
According to the Housing Needs Assessment published by the VHFA, 36% of Vermont households are cost-burdened by high housing costs, increasing their risk of housing instability, eviction, and homelessness. These households are more susceptible to economic shocks and have lower capacity to adjust to higher housing prices. The State will need to build a minimum of 5,800 homes and apartments by 2025, and more than triple that to address the broader affordability crisis.

## Housing List Prices

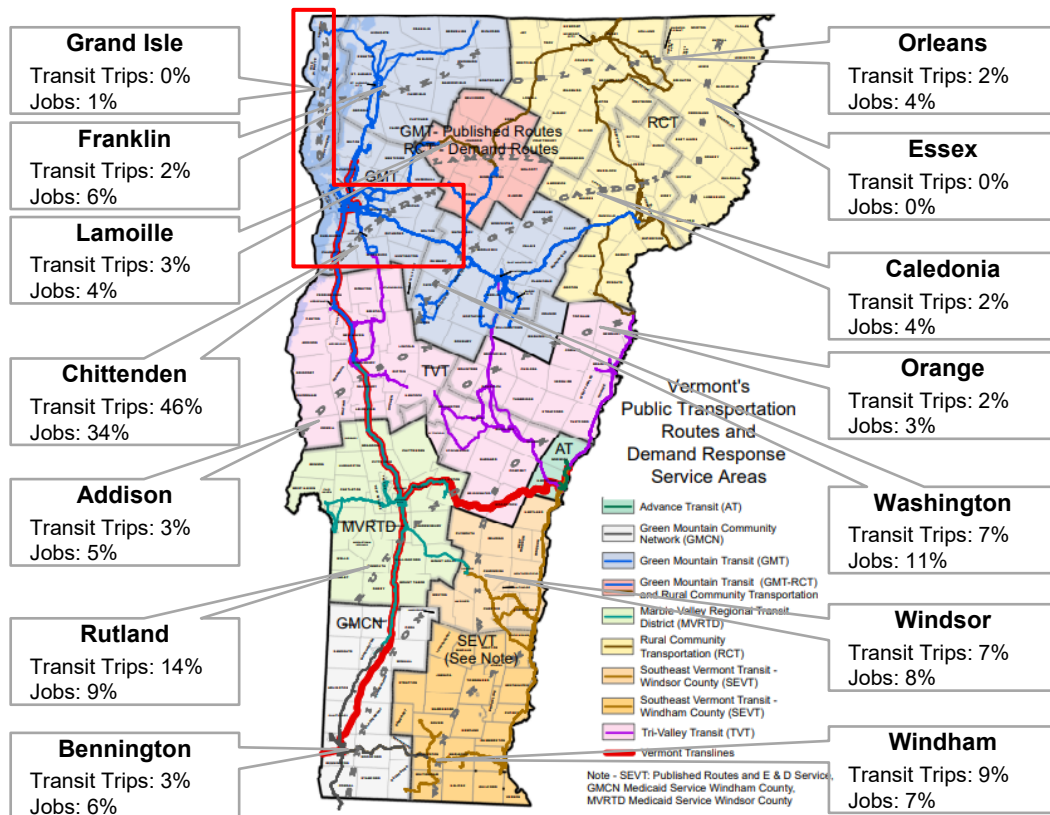
Indicator	U.S.	Vermont	Delta (Vermont to US)
Median list price (2022)	\$449,000	\$425,000	-5.5% ↓
Median rent list price (2022)	\$1,191	\$1,115	-6.6% ↓
Median Income (2021)	\$69,021	\$67,674	-2.0% ↓

# Vermont can capitalize on infrastructural strengths in highly concentrated counties to grow its economic base

As Vermont's population ages, there is a challenge in meeting this demographic's transportation needs. **83% of older Vermonters currently rely on their personal car for transportation.** At a regional level, public transit was less accessible for older Vermonters in **the southeast and the northeast**— the two regions with the highest percentages of older adults.



## Chittenden County comprised nearly 50% of all public transit trips in 2020



Metric	Description	Chittenden	Grand Isle
<b>AllTransit™ Performance Score</b>	Aggregate score for performance across jobs, economy, health, equity, transit quality, and mobility (out of 10)	<b>3.2</b>	<b>1.0</b>
<b>Transit Access to Jobs</b>	Jobs accessible within a 30-minute transit commute on average for households	<b>52,841</b>	<b>295</b>
<b>Transp. Costs</b>	Percent of income for average transportation costs for block groups within 1/2 mile of transit	<b>20.1%</b>	<b>24.4%</b>
<b>Households Near Transit</b>	Percent of households within 1/2 mile of transit	<b>55.7%</b>	<b>2.0%</b>

## HOUSEHOLD ACCESS TO TRANSIT VARIES WIDELY ACROSS COUNTIES, MAKING IT CHALLENGING TO COMMUTE TO JOBS AND SCHOOLS

Transit trips across Vermont tend to be the highest in the counties that also comprise the most jobs across the State. Although 34% of the State's jobs are found in Chittenden County, transit access is limited across other counties. This makes it challenging for individuals who lack their own private vehicles to pursue these opportunities.