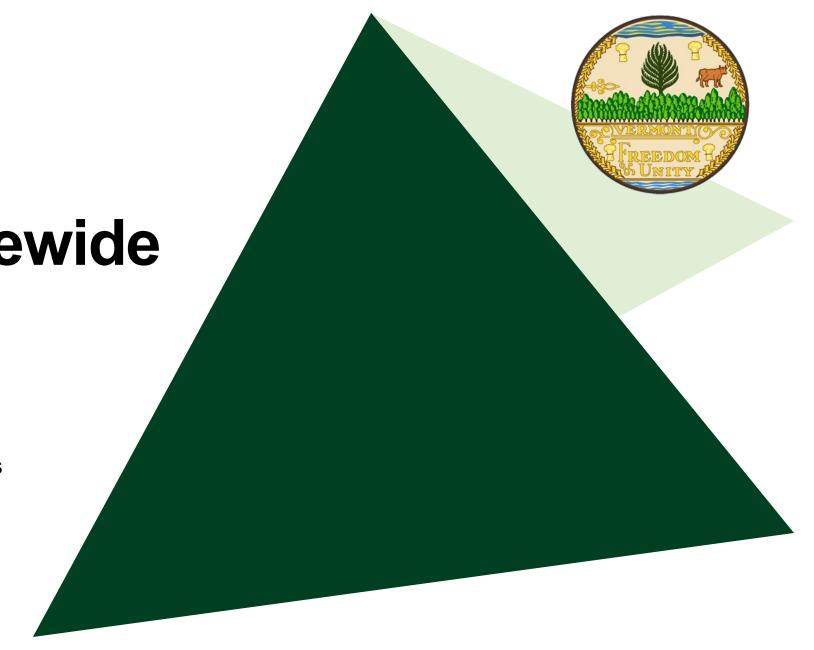
Vermont Statewide Economic Planning

Gap Analysis and Recommendations



Gap Analysis – Key Themes



The gap analysis demonstrates that infrastructural, workforce, and business challenges serve as a barrier to economic growth

Six overarching themes emerged from the Current State Assessment, Agency interviews, and program evaluation results. These themes each represent a barrier or gap for the state's economic recovery and growth. Each theme is described below and then followed by a more detailed gap analysis.



Housing

A shortage of quality, affordable homes hinders population growth and business attraction and retention efforts.



Business Attraction, Retention, & Growth

Vermont's ability to attract, retain and grow businesses has been limited by the State's **emphasis on local sectors** and relatively high cost of doing business.



Water Infrastructure

Water infrastructure upgrades are a critical need for the state and an avenue to catalyze economic growth, especially in underserved, remote areas.



Labor Shortages

Vermont has experienced widespread labor shortages that were exacerbated due to the pandemic and classified by the USCOC as most severe.



Transportation Infrastructure

Much of Vermont's **transportation infrastructure** is reaching the end of its useful life and there is a lack of transportation options for **Vermont's aging population**.



Broadband

Vermont has experienced challenges in terms of rural broadband availability, service quality, and data collection.

^{*}Out of the six states in New England, Vermont and New Hampshire have the most severe workforce shortages as characterized by the USCOC. Rhode Island, Massachusetts, and Maine are categorized as more severe; and Connecticut is categorized as least severe.

Gap Analysis – Inclusion Rationale



Initial gaps were identified based on findings in the Current State Assessment, stakeholder interviews, and program evaluations

The below table maps the six gaps to the analysis inputs: Agency Interviews, Current State Assessment, and Program Evaluations. A 🗸 + indicates that a gap was more emphasized in an input than a 🗸. Overall, housing was the only gap that was highlighted across all three sources with high emphasis. The remaining gaps were primarily drawn from two of the three sources.

Con	Decarintian	Inclusion Rationale			
Gap	Description	Interviews	Current State Assessment	Program Evaluations	
Housing	A shortage of quality, affordable homes is hindering population growth and business attraction and retention.	√ +	√ +	√ +	
Business Attraction, Retention, and Growth	To help support the state's economic recovery and growth, there is a need to prioritize business attraction and retention.		✓ +	✓ +	
Water Infrastructure	Water infrastructure upgrades are a critical need for the state and a tool to catalyze economic growth, especially in underserved, remote areas.	√ +		✓	
Labor Shortages	Vermont has experienced widespread labor shortages that were exacerbated due to the pandemic.	√ +	✓		
Transportation Infrastructure	There is a critical need to reinvest in major transportation upgrades and support Vermont's aging population with transportation options.	✓	✓		
Broadband	With only 30% of Vermonters having access to 100/100 Mbps broadband service, there is a need to reshape the state's broadband infrastructure.	✓		✓	
	VEV.	Mentioned in 1-2 interviews	Mentioned in Current State Assessment	Aligned with indicator(s) in bottom 60% based on portfolio impact	
	KEY: ✓+	Mentioned in 3+ interviews	Key finding of Current State Assessment	Aligned with indicator(s) in bottom 30% based on portfolio impact	

Gap Analysis



Vermont's housing shortage has implications for business and population growth



Housing

A **shortage of quality, affordable homes** is hindering population growth and business attraction and retention. The rate of housing growth is expected to slow to less than 0.2% by 2025, and many existing units need significant repairs.



Slow Growth Rate: The growth rate of new homes has slowed such that housing supply is falling behind demand. Per the Vermont Housing Needs Assessment, from 2010-2020, the new housing growth rate was 0.22% and is expected to fall to 0.18% by 2025. This growth rate falls well below VHFA's projected demand of 30,000-40,000 new homes by 2030. Due in part to the low supply of housing, the state has a median home listing price (\$368,000) that is 5.5 times the median household income.*



Aging Housing Stock: With 25% of the state's housing units built in 1939 or earlier, Vermont has one of the oldest housing stocks in the country. Many of these older units necessitate repairs and updates as they are out of compliance or uninhabitable: VHFA estimates that 12,000 owner-occupied units and 7,000 rental units demonstrated at least one housing quality issue.



High Cost of Homeownership: Homeownership is out of reach for many Vermont residents as 36% of Vermont households are cost-burdened by high housing costs (per VHFA) and the state has the 5th highest property tax rate nationwide (via Bankrate).*



High Development Costs: Property development costs have risen substantially compared to other parts of the country, due to the pandemic, supply chain issues, and zoning costs. In a 2021 VHFA survey, 86% of project developers responded that they were experiencing higher development costs beyond typical year-to-year increases.



Several sources point to the lack of and critical need for affordable housing throughout the state (1/2)



Housing

A **shortage of quality, affordable homes** is hindering population growth and business attraction and retention. The rate of housing growth is expected to slow to less than 0.2% by 2025 and many existing units need significant repairs.

Subtheme	Supporting Insights	Source
	• 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 prior to 2010, this rate is expected to slow to less than 0.2% by 2025.	VHFA Housing Needs Assessment
Slow Growth Rate: The growth rate of new homes has	• Similarly, the growth rate of new rental homes has gradually declined. Since 2010, non-vacation occupied rental homes increased at an average annual rate of 0.3% (compared to 0.6% from 2000-2010).	VHFA Housing Needs Assessment
slowed such that the housing supply is falling behind demand for new housing.	 Compared to other states, Vermont has an extremely low percentage of homes available for rent or sale. In 2020, Vermont had the third lowest housing vacancy rate in the country (2.4%). 	Vermont Housing Finance Authority
	• The median home listing price in December 2021 (\$368,000) was 5.5 times higher than the state's median household income (\$67,674). This indicates that homeownership is not accessible to all state residents.	U.S. Census Bureau; FRED
Aging Housing Stock: Vermont's older housing stock	 Many housing units offer indicators of substandard quality, such as a lack of heat source, complete kitchen facilities, or plumbing. In 2017, 12,000 owner-occupied units and 7,000 rental units demonstrated at least one of these housing quality issues. 	VHFA Housing Needs Assessment
requires repairs and updates.	• 25% of Vermont's housing units were built in 1939 or earlier (compared to 12% in the rest of the country).	Vermont Digger
This has also contributed to high vacancy rates.	• In order to grow Vermont's population and attract and retain young people to the state, there exists a need for new and upgraded housing to support this growth.	State Agency Interview
	Vermont has the 5th highest average property tax rate nationwide (1.9%).	Bankrate
High Cost of Homeownership: Several	 Although the state's overall homeownership rate has remained constant since the 1990s, homeownership is declining among younger households (25-34). 	VHFA Housing Needs Assessment
indicators demonstrate that homeownership is out of reach for many Vermont residents.	• 36% of Vermont households are cost-burdened by high housing costs , this can make paying for home maintenance and repairs difficult and increase their risk of housing instability, eviction, and homelessness.	VHFA Housing Needs Assessment
	• In the overall program evaluation findings, Rate of Homelessness / Housing Stability was one of the lowest ranked indicators (1.3 out of 10), demonstrating a potential gap in programming.	Program Evaluations



Several sources point to the lack of and critical need for affordable housing throughout the state (2/2)



Housing

A **shortage of quality, affordable homes** is hindering population growth and business attraction and retention. The rate of housing growth is expected to slow to less than 0.2% by 2025 and many existing units offer indicators of substandard quality.

	Subtheme	Supporting Insights	Source
	High Development Costs: Property development costs	 In a VHFA survey, 86% of project developers answered that they were experiencing higher development costs beyond typical year-to-year increases. 64% of respondents reported that they had abandoned or substantially delayed starting a project due to cost. 	VHFA The State of Residential Development in Vermont in 2021
(P)	have risen substantially compared to other parts of the	Between 2020 and 2021, the average cost of a proposed development for a Vermont apartment funded by Low-Income Housing Tax Credits awarded by VHFA rose 9% to \$333,774 per unit (compared to an 8% national average).	Vermont Housing Finance Authority
	country, due to the pandemic, supply chain issues, and zoning costs.	 One study found that housing development costs are increasing faster in Vermont compared to the rest of the country, and affordable rental housing development costs are increasing at an even high pace. 	VHFA Housing Cost Study
	-	 VHFA found that one contributor to high development costs is that Vermont's housing developments lack economies of scale; high upfront costs associated with local land use regulations and zoning codes act as a barrier to development. 	VHFA Housing Cost Study



Challenges associated with business attraction, retention, and growth have hindered Vermont's capacity to attract outside investment



Business Attraction, Retention, and Growth

To help support the state's economic recovery, there is a **need to prioritize business attraction**, **retention**, **and growth**. 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 attract outside investment and talent to the state. Two subthemes emerged that are contributing to this gap: the need for continued support for tradeable sectors and the relatively high cost of doing business in the state.



Need for Continued Support for Tradeable Sectors: Vermont currently has a limited set of programs that focus on targeting businesses in tradeable sectors. The state's key business attraction, retention, and growth program (VEGI) excludes applicants in certain local sectors, however, the program budget and magnitude is smaller in scale. Furthermore, recent funding for business attraction, retention, and growth programming (the Economic Recovery Grants Program and Economic Recovery Bridget Program) expectedly has focused on COVID-impacted sectors, which also coincide with local sectors.



High Cost of Doing Business: Compared to other states in New England and across the country, Vermont has a relatively higher cost of doing business, which can limit business attraction, retention, and growth. In the 2022 CNBC Top States for Business Poll, although Vermont was ranked #14 out of 50 in the country in terms of *Business Friendliness*, it ranked #39 for *Cost of Doing Business* with a relatively high top corporate tax rate of 8.5%. This represents the tenth highest corporate tax rate in the US. In addition, in the 2023 Tax Foundation's State Business Tax Climate Index, Vermont was ranked #44. Other factors, such as a relatively high price of electricity and lengthy permitting processes (or duplication of permits) also contribute to this challenge.



Emphasis on local sectors and an unfavorable business environment are limiting business attraction



Business Attraction, Retention, and Growth

To help support the state's economic recovery, there is a **need to prioritize business attraction**, **retention**, **and growth**. 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 attract outside investment and talent to the state. Two subthemes emerged that are contributing to this gap: the need for continued support for tradeable sectors and the relatively high cost of doing business in the state.

Subtheme	Supporting Insights	Source
	 A review of recent business attraction and retention programs (including the Economic Recovery Grants Program and Economic Recovery Bridget Program) in the state indicate that they either lack an industry focus or focus on COVID-impacted (mainly local) sectors. 	Program Evaluations
Need for Continued Support for Tradeable Sectors: Vermont currently has a limited set of programs that focus on targeting businesses in	 Compared to tradable sectors, local sectors are not as resilient to economic shocks, such as the most recent one imposed by the pandemic. From 2019-2020, local sectors observed the highest rates of employment loss in Vermont, including: Accommodation and Food Services (-30.3%); Arts, Entertainment, and Recreation (-29.4%); and Retail Trade (-8.2%). 	Bureau of Labor Statistics
tradeable sectors.	• Employer Growth was one of the lowest ranked indicators in terms of overall impact (with an impact rating of 1.2 out of 10). Of all the indicators associated with <i>Grow the Economy</i> , this indicator had the lowest overall impact rating and was the only one not included in the top four. This suggests that there is a lag in programs that support employer growth.	Program Evaluations
High Cost of Doing	 In the 2022 CNBC Top States for Business Poll, although Vermont was ranked #14 out of 50 in the U.S. in terms of Business Friendliness, it ranked #39 for Cost of Doing Business with a relatively high top corporate tax rate (8.5%). 	CNBC
Business: Compared to other states nationwide and in New	At 8.5%, Vermont has the ninth highest state corporate tax rate.	World Population Review
England, Vermont has a relatively higher cost of doing business, which can limit	• In the 2023 Tax Foundation State Business Tax Climate Index, Vermont was ranked #44 due to its high property tax and corporate tax rates. Compared to other New England states, New Hampshire ranked #6, Massachusetts ranked #34, Maine ranked #35, and Rhode Island ranked #42.	Tax Foundation
business attraction and retention.	Vermont's average retail price of electricity (16.34 cents/kWh) is well above the U.S. average (11.10 cents/kWh).	U.S. Energy Information Administration
	According to one industry leader, duplication of permits (Act 250 and local permits) is a deterrent to business growth.	VermontBiz 7

Gap Analysis



Upgraded drinking water, wastewater, and stormwater infrastructure is needed to support economic growth in underserved areas



Water Infrastructure

Currently, 150 communities in the state do not have access to water and/or sewer services. **Water infrastructure upgrades are a critical need** for the state and represent an opportunity to catalyze economic growth, especially in underserved, remote areas.



Drinking Water Quality: Expanded drinking water infrastructure accessibility and quality represents an area for improvement throughout the state. One Environmental Protection Agency estimate indicates that 10% of Vermont's drinking water is impaired due to nuisance plants or animals (foreign). An American Society of Civil Engineers (ASCE) report on Vermont's infrastructure rated the state's infrastructure for drinking water a score of C (mediocre: requires attention).



Clean Water and Wastewater Accessibility: Lack of core water and wastewater infrastructure in parts of the state may be a limiting factor for population and business growth. In particular, agriculture businesses highlighted the need for upgraded major infrastructure, including wastewater facilities and sewers. In addition, old wastewater infrastructure led to 144 sewer overflows from 2020 through 2022. The ASCE report indicated that the state's wastewater infrastructure is "at risk" (with a corresponding score of D+).



Stormwater Infrastructure Issues: Bolstering stormwater infrastructure can help the state manage runoff and build resilience in the case of extreme weather events (e.g. Tropical Storm Irene).* Per the ASCE report, Vermont's stormwater infrastructure received a score of C- (mediocre: requires attention).

^{*}Per NOAA, Vermont's annual average precipitation has increased 6 inches since 1960, especially in mountainous regions. Projections indicate that precipitation will continue to increase in the future.



Three subthemes highlight core water infrastructure challenges, including drinking water, clean water, and stormwater



Water Infrastructure

Currently, 150 communities in the state do not have access to water and/or sewer services. **Water infrastructure upgrades are a critical need** for the state and represent an opportunity to catalyze economic growth, especially in underserved, remote areas.

	Subtheme	Supporting Insights	Source
	Drinking Water Quality:	 One estimate indicates that 10% of Vermont's drinking water is impaired due to nuisance plants or animals. 	Environmental Protection Agency
G	Expanded drinking water infrastructure accessibility and	 An American Society of Civil Engineers (ASCE) report on Vermont's infrastructure rated the state's infrastructure for drinking water a score of C (mediocre: requires attention). 	American Society of Civil Engineers
Y	quality represents an area for improvement throughout the state.	 Access to Water Infrastructure was one of the lowest ranked indicators in terms of overall impact (with an impact rating of 1.6 out of 10). This suggests that there is an opportunity to improve impact by bolstering programs that expand water infrastructure. 	Program Evaluations
		More than 200 Vermont villages lack community wastewater systems.	American Society of Civil Engineers
	Clean Water and Wastewater Accessibility: Lack of core water and wastewater infrastructure in parts of the state may be a limiting factor for population and business growth.	 Water and sewer accessibility and affordability represents a significant unmet need throughout the state. A lack of access to clean water and infrastructure can be a limiting factor to economic growth. 	State Agency Interview
m ³		 The lack of core water infrastructure and wastewater pretreatment represent two key areas that need investment. In particular, agriculture businesses need upgraded major infrastructure, including wastewater facilities and sewers. 	State Agency Interview
		Old wastewater infrastructure led to 144 sewer overflows from 2020 through 2022,.	American Society of Civil Engineers
		• The ASCE report indicated that the state's wastewater infrastructure is "at risk" (with a corresponding score of D+).	American Society of Civil Engineers
	Stormwater Infrastructure Issues: Bolstering stormwater	• Per the ASCE report, Vermont's stormwater infrastructure received a score of C- (mediocre: requires attention).	American Society of Civil Engineers
	infrastructure can help the state manage runoff and build resilience in the case of extreme weather events.	 With Vermont's population growth during COVID and anticipated future growth, there is a need to invest in necessary infrastructure to support this growth, with an emphasis on resilience. 	State Agency Interview



Widespread labor shortages have impacted broader economic recovery throughout the state



Labor Shortages

Vermont has experienced widespread labor shortages that were exacerbated by the pandemic. This has created operational challenges for both the State government and the broader business community. Four subthemes contributing to the state's labor shortage are detailed below.



Workforce Attraction and Retention: Vermont's workforce size has declined as the state continues to experience challenges recruiting and retaining talent. This was demonstrated by the US Chamber of Commerce's categorization of Vermont's workforce shortage as "most severe," with 49 available workers for every 100 open jobs. VermontBiz also estimates that there has been a 30,000 reduction in 25-45 year-olds over the past two decades.



Skills Gaps: Even as job openings have steadily increased, there is a misalignment in skills possessed by the workforce and those required by employers. In the 2022 Vermont Chamber of Commerce Business Outlook Survey, 65% respondents cited "finding qualified employees" as the one of the top three issues facing their business (second only to pandemic-related issues).



Shifting Workforce Preferences: Looking at the state's post-COVID economy, there has been a shift in employee preferences in favor of remote work and greater flexibility. A UVM survey of 600+ Vermonters found that 55% plan to telecommute to work more after the COVID-19 pandemic. This has the potential to exacerbate labor shortages in key industries that require in-person work.



Lack of Workforce Supports: The COVID-19 pandemic reduced access to quality, affordable childcare and made it challenging for individuals who left the workforce during the pandemic to return to work. According to Let's Grow Kids, 3 out of 5 of Vermont's youngest children do not have access to the childcare that they need.



Workforce attraction and retention issues, misalignment of skills, shifting preferences, and lack of childcare all contribute to labor shortages



Labor Shortages

Vermont has experienced **widespread labor shortages** that were exacerbated due to the pandemic. This has imposed operational challenges both internally (within State government) and externally. Four subthemes have contributed to the state's labor shortage as detailed below.

	Subtheme	Supporting Insights	Sources
	Workforce Attraction and Retention Issues: Vermont's workforce size has declined as the	Vermont's workforce size has decreased by 14.3% between 2017-2021.	Vermont Department of Labor
	state continues to experience challenges recruiting and retaining high-quality young	 US COC categorized Vermont's workforce shortage as "most severe" with 49 available workers for every 100 open jobs. 	US Chamber of Commerce
	talent.	• Within the last two decades, there has been a 30,000 reduction in 25-45 year olds.	VermontBiz
	Skills Gaps: Even as job opening levels have steadily increased, there is a misalignment in	 Job openings levels have grown 67% from 2017 (15,000 monthly) to 2022 (25,000 monthly), indicating larger trends in labor shortages that predated the pandemic. 	Bureau of Labor Statistics
	skills possessed by the workforce and those required by employers. This has the potential to impact some of the state's key industries that require in-person work.	Vermont has the fourth largest labor shortage in the country at 1.59 jobs per unemployed persons.	CareerCloud
		• In the 2022 Small Business Outlook Survey, 65% respondents cited "finding qualified employees" as one of the top three issues facing their business (second only to pandemic-related issues).	Davis and Hodgdon
	Shifting Workforce Preferences: Looking at	• 55% (of 610 surveyed Vermonters) plan to telecommute to work more after the COVID-19 pandemic.	VTDigger
	the state's post-COVID economy, there has been a shift in employee preferences in favor	 Labor shortages have impacted the agriculture industry's ability to recover from the pandemic. This is partially because agriculture jobs require in-person work and the COVID-19 pandemic led to many early retirements. 	State Agency Interview
	of remote work and greater flexibility.	Vermont was ranked the 41st best state for remote work in the U.S.	WalletHub
	Lack of Workforce Supports: The COVID-19	3 out of 5 of Vermont's youngest children do not have access to the childcare that they need.	Let's Grow Kids
	pandemic reduced access to quality, affordable childcare and has made it challenging for individuals who left the workforce during the pandemic to return to work.	 There are only about 12,380 childcare spaces available for Vermont's infants, toddlers, and preschoolers and only 8,090 of these spots are classified as high quality. Meanwhile, 21,131 children under the age of 5 will need some form of childcare. 	Let's Grow Kids



Aging infrastructure and limited transit options for older Vermonters are critical issues for future transportation planning



Transportation Infrastructure

As much of Vermont's **transportation infrastructure** is reaching the end of its useful life, there is a critical need to reinvest in major transportation upgrades. In addition, there is a need to support **Vermont's aging population** with transportation options, such as for medical care or community social activities.



Aging Infrastructure and Substandard Quality: Vermont's roadway transportation infrastructure has been hindered by age and quality issues. Overall, bridge quality has steadily improved over the last five years, however, the average age is well over the national average. Per the ASCE, the average age for Vermont's bridges is 59 years, compared to the national average of 44 years; one estimate indicates that 60% of Vermont's bridges are beyond their useful life. In comparison, road conditions are deteriorating, with pavement conditions below the state's goal and only 39% of roads in good condition.



Aging Population Transit Needs: As Vermont's population ages—Vermont Agency of Transportation projects the number of residents over 65 will increase 60% by 2030—there is a challenge in meeting this demographic's transportation needs and building awareness about the available services. This is especially difficult in the southeast and northeast where public transit is less accessible.



Transportation is currently challenged by aging infrastructure and struggles to meet the needs of an aging population



Transportation Infrastructure

As much of Vermont's **transportation infrastructure** is reaching the end of its useful life, there is a critical need to reinvest in major transportation upgrades. In addition, there is a need to support **Vermont's aging population** with transportation options, such as for medical care or community social activities.

	Subtheme	Supporting Insights	Source
		 The average age for Vermont's bridges is 59 years, compared to the national average of 44 years; one estimate indicates that 60% of Vermont's bridges are beyond their useful life. 	American Society of Civil Engineers
	Aging Infrastructure and	 Road conditions are deteriorating, with pavement conditions below the state's goal and only 39% of roads in good condition. 	American Society of Civil Engineers
	Substandard Quality: Vermont's roadway transportation infrastructure has been hindered by age and quality issues.	 Despite ongoing projects to repair major infrastructure reaching the end of its useful life (i.e. highways and bridges designed to be used for 70 years), these efforts have been disrupted due to ongoing supply chain issues. Inflation has also stretched project budgets. 	State Agency Interview
		 Although there is an opportunity to draw upon IIJA and IRA over the next 5-8 years, Vermont is heavily reliant on federal funding for its transportation projects. This can lead to challenges for the state to meet match requirements in order to fund these projects. 	State Agency Interview
		Looking ahead, transportation electrification is a state priority.	State Agency Interview
	Aging Population Transit Needs: As Vermont's population ages and the Vermont Agency of Transportation projects the number of residents over 65	• In the current Elders and Persons with Disabilities (E&D) Transportation Program, 43% of trips are used to access critical care services and medical appointments; 34% are used to access adult day programs and senior meals; 23% are for shopping, social/personal, and vocational.	Vermont Agency of Transportation
		 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. 	Vermont Department of Disabilities, Aging, and Independent Living
	will increase 60% by 2030, there is a challenge in both meeting this demographic's	• The number of older Vermonters (65+) is projected to increase 60% over the next ten years to account for 27% of the population by 2030.	Vermont Agency of Transportation
	transportation needs and building awareness.	 In a State Plan on Aging survey, older Vermonters ranked transportation to family, friends, entertainment, and social events as the most difficult to access. 	Vermont Agency of Transportation 13



Access to broadband was identified as a barrier to economic recovery as it impacts workforce, education, and business connectivity



Broadband

With only **30% of Vermonters** having access to 100/100 Mbps broadband service in 2022, there are challenges in terms of rural availability, broadband quality, and data collection. As demonstrated throughout the pandemic, access to reliable broadband is critical for education, workforce participation, and business activity. Communities that are underserved are undercutting their economic growth potential and ability to recruit and retain businesses and talent.



Rural Broadband Availability: While there are statewide concerns regarding access to broadband—23% of the state does not have broadband access—rural regions of the state are significantly underserved. The Vermont 10-Year Telecommunications Plan indicates that less than 17% of rural communities are serviced by multiple providers with 25/3 Mbps service, the minimum access standard.



Broadband Quality: There are significant issues with broadband speed throughout the state: only 30% has access to 100/100 Mbps service; 78.5% has access to 100/20 Mbps service; and 81.4% has access to 25/3 Mbps service.



Data Collection and Quality: Collecting accurate data on broadband accessibility across the state emerged as a challenge to increasing broadband access. Data collection challenges include geographic data gaps and a lack of data availability on broadband pricing and speed. The implications of data collection issues are widespread. For example, the Federal Communications Commission mapping used to formulate federal awards severely overestimates Vermont's broadband access. Vermont Community Broadband Board indicates that ~20,000 addresses shown as having high-speed internet do not, which could lead to a potential loss of \$100-200 million in funding.



Three subthemes highlight broadband challenges, including rural broadband availability, broadband quality, and data collection



Broadband

With only **30% of Vermonters** having access to 100/100 Mbps broadband service in 2022, there are challenges in terms of rural availability, broadband quality, and data collection. As demonstrated throughout the pandemic, access to reliable broadband is critical for education, workforce participation, and business activity. Communities that are underserved are undercutting their economic growth potential and ability to recruit and retain businesses and talent.

	Subtheme	Supporting Insights	Source
		23% of the state (nearly 70,000 businesses and residences) does not have broadband access.	Emergency Broadband Action Plan
	Rural Broadband Availability: While there are statewide concerns regarding	Less than 17% of rural census blocks have a choice between multiple providers who provide wired, 25/3 Mbps service, the minimum service standard.	Vermont 10-Year Telecommunications Plan
	access to broadband, rural regions of the state are	Approximately 51,000 properties do not currently have access to 25/3 Mbps service and do not have a path to coverage. These areas are primarily on the perimeter of towns or in the most rural areas.	Vermont 10-Year Telecommunications Plan
	significantly underserved.	 Access to reliable broadband and cell service, particularly in rural areas, was identified as an unmet need. This hindered the agriculture industry's ability to recover from the COVID-19 pandemic, as many businesses shifted to ecommerce. 	State Agency Interview
	Broadband Quality: There are significant gaps in	Only 30% of the state has 100/100 Mbps broadband service. 78.5% has access to 100/20 Mbps service and 81.4% has access to 25/3 Mbps service.	Department of Public Service
	broadband speed accessibility throughout the state.	Access to Broadband was in the middle/low band of the overall program evaluation findings, with an impact rating of 2.7 out of 10. This indicates that there is an opportunity to improve upon the state's existing broadband programming.	Program Evaluations
	Data Collection and Measurement: Collecting accurate data to capture	The FCC map incorrectly indicates that more than 95% of Vermont households have broadband access. Roughly 20,000 households are misrepresented as having broadband access when they do not. Each location could bring in an additional \$5,000-\$10,000 in federal funding (\$100-\$200M total).	Vermont Community Broadband Board (Seven Days)
	broadband accessibility across the state emerged as a challenge to increasing broadband access.	Vermont's broadband access data is overestimated due to several factors: FCC standards do not account for the state's geography and topography or the age and capacity of DSL networks.	Vermont Community Broadband Board (Vermont Public) 15

Gap Analysis Sources

Sources (1/2)



- Rural Broadband Availability Emergency Broadband Action Plan, https://publicservice.vermont.gov/sites/dps/files/documents/Emergency%20Broadband%20Action%20Plan%20final%20draft%205-5-20.pdf
- Rural Broadband Availability Vermont 10-Year Telecommunications Plan, https://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/State_Plans/Telecom_Plan/Final%20Draft_10%20Year%20Telecom%20Plan%206%2010%2021.pdf
- Broadband Quality PSD, https://publicservice.vermont.gov/telecommunications-and-connectivity/broadband-high-speed-internet-availability-Vermont
- Data Misrepresentation Vermont Community Broadband Board (Seven Days), https://www.sevendaysvt.com/vermont/feds-are-underestimating-vermonts-broadband-problems-officials-say/Content?oid=37183426
- Data Misrepresentation Vermont Community Broadband Board (Vermont Public), https://www.vermontpublic.org/local-news/2023-03-22/vermonts-challenge-to-fcc-broadband-map-is-not-going-well

Business Attraction, Retention, and Growth

- Need for Continued Support for Tradeable Sectors Bureau of Economic Analysis, https://www.bea.gov/data/gdp/gdp-state
- Need for Continued Support for Tradeable Sectors
 — Bureau of Labor Statistics,
 https://www.bls.gov/iag/tgs/iag_index_naics.htm
- High Cost of Doing Business CNBC, https://www.cnbc.com/2022/07/13/top-states-for-business-vermont.html
- High Cost of Doing Business Tax Foundation, https://taxfoundation.org/2023-state-business-tax-climate-index/
- High Cost of Doing Business World Population Review, https://worldpopulationreview.com/state-rankings/corporate-tax-rates-by-state
- High Cost of Doing Business U.S. Energy Information Administration, https://www.eia.gov/electricity/state/
- High Cost of Doing Business Vermont Biz, https://vermontbiz.com/news/2023/april/09/vermont%E2%80%99s-construction-industry-challenges-opportunities-abound

VERMONT

Housing

- Slow Growth Rate VHFA Housing Needs Assessment, https://outside.vermont.gov/agency/ACCD/ACCD_Web_Docs/Housing/Housing-Needs-Assessment/VT-HNA-FEB-20.pdf
- Slow Growth Rate VHFA, https://www.vhfa.org/news/blog/understanding-vermont-vacant-homes
- Slow Growth Rate U.S. Census Bureau, https://data.census.gov/table?q=median+income&g=040XX00US50&tid=ACSST5Y2021.S1901
- Slow Growth Rate FRED, https://fred.stlouisfed.org/series/MEDLISPRIVT
- Aging Housing Stock VHFA Housing Needs Assessment, https://outside.vermont.gov/agency/ACCD/ACCD_Web_Docs/Housing/Housing-Needs-Assessment/VT-HNA-FEB-20.pdf
- Aging Housing Stock Vermont Digger, https://vtdigger.org/2023/04/09/vermonts-aging-homes-put-extra-strain-on-states-housing-crisis/
- High Cost of Homeownership Bankrate, https://www.bankrate.com/real-estate/property-tax-by-state/#by-state
- High Cost of Homeownership VHFA Housing Needs Assessment, https://outside.vermont.gov/agency/ACCD/ACCD_Web_Docs/Housing/Housing-Needs-Assessment/VT-HNA-FEB-20.pdf
- High Development Costs VHFA The State of Residential Development in Vermont in 2021, https://www.vhfa.org/sites/default/files/publications/State-Residential-Development-2021.pdf
- High Development Costs VHFA, https://www.vhfa.org/news/blog/developer-survey-reports-widespread-cost-increases-and-delays-related-pandemic
- High Development Costs VHFA Housing Cost Study, https://acrpc.org/wp-content/uploads/2021/04/VHFA-Housing-Cost-study-January-2020.pdf

Gap Analysis Sources

Sources (2/2)

Labor Shortages

- Workforce Attraction and Retention Issues VermontBiz, https://vermontbiz.com/news/2018/june/22/ventriss-employers-leading-way-close-skills-gap
- Workforce Attraction and Retention Issues Vermont Department of Labor, http://www.vtlmi.info/laus.cfm
- Workforce Attraction and Retention Issues VNEWS, https://www.vnews.com/Column-Gray-051422-46361094
- Workforce Attraction and Retention Issues U.S. Chamber of Commerce, https://www.uschamber.com/workforce/the-states-suffering-most-from-the-labor-shortage?state=vt
- Skills Gaps Bureau of Labor Statistics, https://www.bls.gov/charts/state-job-openings-and-labor-turnover/state-job-openings-rates.htm#
- Skills Gaps Career Cloud, https://www.careercloud.com/news/labor-shortage
- Skills Gaps Davis and Hodgdon, https://www.dh-cpa.com/client_media/files/pdf/Biz-Economic-Survey 2022. pdf
- Shifting Workforce Preferences WalletHub, https://wallethub.com/edu/best-states-for-working-from-home/72801
- Shifting Workforce Preferences VTDigger, https://vtdigger.org/2020/05/07/many-vermonters-interested-in-telecommuting-after-covid-19-crisis-survey-finds/
- Lack of Workforce Supports Let's Grow Kids, https://letsgrowkids.org/
- Lack of Workforce Supports Let's Grow Kids, https://letsgrowkids.org/crisis

Transportation Infrastructure

- Aging Infrastructure and Substandard Quality American Society of Civil Engineers, https://infrastructurereportcard.org/wp-content/uploads/2016/10/Report-2023-VT-IRC-FINAL-WEB.pdf
- Aging Population Transit Needs Vermont Agency of Transportation, https://vtrans.vermont.gov/sites/aot/files/publictransit/documents/PTPP%20Final.pdf
- Aging Population Transit Needs Vermont Department of Disabilities, Aging, and Independent Living,

https://asd.vermont.gov/sites/asd/files/documents/VT%20State%20Plan%20on%20Aging%202 023 2026.pdf



Water Infrastructure

- Drinking Water Quality Environmental Protection Agency, https://mywaterway.epa.gov/state/VT/water-quality-overview
- Drinking Water Quality American Society of Civil Engineers, https://infrastructurereportcard.org/wp-content/uploads/2016/10/Report-2023-VT-IRC-FINAL-WEB.pdf
- Clean Water and Wastewater Accessibility American Society of Civil Engineers, https://infrastructurereportcard.org/wp-content/uploads/2016/10/Report-2023-VT-IRC-FINAL-WEB.pdf
- Stormwater Infrastructure Issues American Society of Civil Engineers, https://infrastructurereportcard.org/wp-content/uploads/2016/10/Report-2023-VT-IRC-FINAL-WEB.pdf
- Stormwater Infrastructure Issues Precipitation Estimates, https://statesummaries.ncics.orgchil/chapter/vt/



Recommendations highlight opportunities to evaluate the efficacy of or improve upon existing programming and policies



Housing

H1. Work with local governments to address regulatory barriers and reduce duplicative permitting at the state and local levels to enable increased affordable housing development.

H2. Target funding and resources towards programs that expand affordable housing and/or improve the livability of vacant or damaged housing.



Business Attraction, Retention, & Growth

BA1. Identify up to three tradable sectors or clusters where the state has a competitive advantage and develop a strategy to support growth in these clusters.

BA2. Streamline or reduce barriers to business attraction, retention, and growth.



Water Infrastructure

WI1. Expand funding for core water infrastructure programs in areas of greatest need and increase awareness for the programs via community outreach.

WI2. Conduct an assessment of existing hazard mitigation programs to understand impact, need, and gaps in funding.



Labor Shortages

LS1. Further analyze new workforce development programs to understand utilization and need; consider expanding programs with the greatest impact.

LS2. Explore avenues to increase childcare capacity to enable workforce participation.

LS3. Expand resources targeting workforce relocation.

LS4. Offer a regional lens to marketing efforts.



Transportation Infrastructure

TI1. Maximize federal funding to upgrade infrastructure, prioritizing 1) projects that are most in need or would otherwise be unviable and 2) future transportation priorities (e.g., electrification).

TI2. Expand and market transportation options to meet the needs of Vermont's growing population over 65.



Broadband

B1. Work with the Broadband Equity Access and Deployment program to gather complete, high-quality broadband data.

B2. Maximize federal funding sources to complete broadband projects in rural and underserved areas that would otherwise not be viable.



Targeting resources to repair vacant units and reduce regulatory barriers will help expand affordable housing and lower development costs

Subtheme	Recommendation	Rationale	Owner	Relevant Programs	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
High Development Costs; High Cost of Homeownership	H1. Work with local governments to address regulatory barriers (such as zoning and local land use policy) and reduce duplicative permitting at both state and local levels to promote affordable housing development.	 ✓ Regulatory barriers can drive up the cost and practicality of building affordable housing ✓ Easing zoning restrictions can streamline project implementation ✓ Many localities have additional regulatory and zoning restrictions not required by state 	ACCD	Zoning for Great Neighborhoods (ACCD)	 West Central Vermont CEDS – Goal #1 Attract New Workers and Expand Labor Force Northern Vermont CEDS – Goal #5 Promoting the Quality of Life in Communities East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Housing: Engage municipalities to implement practices in ACCD's Zoning for Great Neighborhoods Guide to incrementally remove zoning barriers to housing development in areas planned for growth. Permit Reform: Advocate for less duplicative and overlapping federal, state and local permitting processes.	California Project Homekey: California ended single-family- only zoning in the state and allows Project Homekey sites exemption from environmental review requirements.
Slow Growth Rate; Aging Housing Stock	H2. Target funding and resources towards programs that expand affordable housing and/or improve the livability of vacant or damaged housing.	✓ Repairing vacant units is typically more cost effective than building new units. For example, VHIP was the most cost effective of the three housing programs included in the program evaluation (VHIP spent \$31,355 per unit compared to VHCB at \$120,557 per unit and RHP at \$124,455 per unit)	ACCD	Vermont Housing Improvement Program (ACCD)	 West Central Vermont CEDS – Goal #1 Attract New Workers and Expand Labor Force Northern Vermont CEDS – Goal #5 Promoting the Quality of Life in Communities East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Housing: Implement actions in partner regional plans that support increases in housing supply through the development of perpetually affordable, workforce, and market rate housing in geographic areas designated for growth and located near public transit. Northern Vermont CEDS – Community Development: Determine housing needs in the Northern Vermont region across a range of income levels.	Minnesota Rental Rehabilitation Deferred Loan Program: Provides financing options for moderate rehabilitation to owners of existing smaller scale, permanent rental housing. Pennsylvania Whole- Home Repairs Program: Funds county agencies to address habitability and safety concerns and expand affordable housing (ARPA funded).

Recommendations



Growing businesses in tradeable sectors and reducing barriers to business growth can increase economic activity

Subtheme	Recommendation	Rationale	Owner	Relevant Programs	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Need for Continued Support for Tradeable Sectors	BA1. To grow tradeable sectors, identify up to three sectors or clusters where the state has a competitive advantage and develop a strategy to support growth in these clusters. These could potentially include: finance and insurance, manufacturing, and professional, scientific, and technical services (currently ~25% of the state's GDP).	 ✓ Vermont's GDP primarily consists of local sectors (63.5%), which are less resilient to economic shocks ✓ Tradeable sectors can attract outside investment and talent to the state 	ACCD	Vermont Employment Growth Incentive; Elevate Vermont (ACCD)	West Central Vermont CEDS – Goal #3 Business Development and Job Creation Northern Vermont CEDS – Goal #2 Cultivating Business Growth East Central Vermont CEDS – Goal #2 An Innovative Business Environment Southern Vermont CEDS – Objective #2 Expand our Business Infrastructure	West Central Vermont CEDS – High Wage Employers: To add high wage employment, attract businesses with high location quotients and encourage the growth of those already in Vermont. Northern Vermont CEDS – Cultivate, Attract, and Grow Businesses: Supporting the formation and growth of export-oriented businesses. Southern Vermont CEDS – Enhance business retention, expansion, and attraction efforts. Define emerging clusters in high wage, high growth job sectors.	Massachusetts Life Science Credits: Offers various tax incentives to life sciences companies. New York Business Incentives: Includes a directory of state credits and incentives broken down by industry, including: mfg, development and expansion, and research and development.
High Cost of Doing Business	BA2. Evaluate ways to streamline or reduce barriers to business attraction, retention, and growth. Barriers addressed could include: duplicative permitting processes; corporate tax rate structures; and high costs energy and transportation.	 ✓ Vermont has a relatively high cost of doing business compared to other states in the region ✓ Even with targeted business incentives (above), barriers and the cost of doing business could still be prohibitive to business growth 	ACCD; Vermont Chamber of Commerce; RDCs and RPCs; VEDA	Zoning for Great Neighborhoods (ACCD); Vermont's Permitting and Compliance Portal	West Central Vermont CEDS – Goal #3 Business Development and Job Creation Northern Vermont CEDS – Goal #2 Cultivating Business Growth East Central Vermont CEDS – Goal #2 An Innovative Business Environment Southern Vermont CEDS – Objective #2 Expand our Business Infrastructure	Northern Vermont CEDS – Enhance Economic Competitiveness: Supporting the development of innovation-based industry clusters that create high-wage jobs. West Central Vermont CEDS – Permit Reform: Advocate for less duplicative and overlapping federal, state and local permitting processes.	California Governor's Office of Business and Economic Development: Centralizes economic development and business assistance, including regulatory and permitting compliance.



Water Infrastructure recommendations are focused on expanding projects in underserved regions and analyzing flood hazard mitigation programs

Subtheme	Recommendation	Rationale	Owner	Relevant Programs	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Drinking Water; Clean Water and Wastewater Accessibility	WI1. Expand funding for programs that address lack of core water infrastructure in areas of greatest need, such as the Healthy Homes On-site program. To increase program awareness and utilization, conduct widespread community outreach in rural areas.	 ✓ By repairing/replacing failed household water and wastewater systems for low and middle income households, the Healthy Homes Onsite program has high impact in areas not served by community systems ✓ This ARPA-funded program was oversubscribed during its first two years 	ANR	Healthy Homes On-site Program (ANR)	 West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #3 Improving and Expanding Infrastructure East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Water and Wastewater Funding: Provide greater priority to projects focused on economic and community development. This includes projects located in smart growth locations, areas with unmet housing need, and areas where housing costs are misaligned with area median income. Northern Vermont CEDS – Planning Solutions: Increasing the water and wastewater capacity available for new development in the District's villages, downtowns, and industrial/enterprise areas.	New York Septic System Replacement Fund: Provides funding to counties to help homeowners replace cesspools and septic systems. The Wisconsin Fund: Funds a portion of the cost for the repair, rehabilitation, or replacement of existing failing private on- site wastewater treatment systems.
Stormwater Infrastructure Issues	WI2. Conduct an assessment of existing hazard mitigation programs to understand impact, need, and gaps in funding.	well very manages four flood hazard mitigation programs with both state & federal funding, including the new \$14M Flood Resilient Communities Fund. Understanding the utilization, impact, and challenges of these programs (i.e. local match in the Hazard Mitigation Grant Program) can inform future funding and program needs	VEM	Hazard Mitigation Programs (VEM)	 West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #1 Building Economic Resilience East Central Vermont CEDS – Goal #1 A Resilient Region Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Water and Wastewater Planning: Plan for future water supply, wastewater, and stormwater needs and to complete preliminary engineering reports which are necessary to make informed decisions regarding project affordability, effective impact on climate change resilience. Northern Vermont CEDS – Community Planning: encourage and facilitate Municipal Emergency Operations Plans, Hazard Mitigation Plans, Protective Zoning (flood resilience).	New Hampshire's Multi-hazard Mitigation Plan: Offers centralized statewide guidance, programming, and resources.



Assessing recent ARPA workforce development efforts and incentivizing childcare educators can help ease labor market challenges

Subtheme	Recommendation	Rationale	Owner	Relevant Program	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Skills Gaps	LS1. Further analyze recent federally funded workforce development and apprenticeship programs to understand utilization and need; consider expanding programs with the greatest impact.	✓ Vermont has spent upwards of \$70M on ARPA workforce development programs, but it is critical to understand the greatest areas of need to guide future funding and programming	ACCD, VSC, and UVM	ARPA workforce programs	 West Central Vermont CEDS – Goal #4 Workforce Development and Employee Retention Northern Vermont CEDS – Goal #4 Developing the Workforce East Central Vermont CEDS – Goal #3 A Robust and Ready Workforce 	West Central Vermont CEDS – Develop Partnerships that Build Pathways to Promising Careers: Facilitate connection across public and private labor force stakeholders to improve workforce training, education alignment, and collaboration at the regional level. Northern Vermont CEDS – Develop a Competitive Skilled Workforce: Conduct planning activities with regional partners to promote alignment of economic and workforce development goals.	Connecticut's Office of Workforce Strategy and Chief Workforce Officer: Centralized position to guide statewide workforce development efforts and analyze program performance.
Lack of Workforce Supports	LS2. Explore avenues to increase childcare capacity to enable workforce participation. This could include expanding workforce recruitment, retention, and training programs for early childcare educators or enabling alternative childcare arrangements (athome centers).	✓ Let's Grow Kids estimates that Vermont needs an additional 2,500 early childhood educators ✓ Most Vermont programs target expanding childcare facilities and capacity without training educators ✓ Lack of accessible, affordable childcare has negatively impacted labor force participation	AHS	Childcare Workforce Retention Bonus Program (AHS)	 West Central Vermont CEDS – Goal #1 Attract New Workers and Expand Labor Force Northern Vermont CEDS – Goal #4 Developing the Workforce East Central Vermont CEDS – Goal #3 A Robust and Ready Workforce Southern Vermont CEDS – Objective #4 Enhance our Social Infrastructure 	West Central Vermont CEDS – Childcare: Engage stakeholders in the childcare field and potential funders to identify existing sites that could support childcare facilities and assist with accessing funds for costs associated with business start-up, associated workforce development, and construction.	DC's Early Childhood Educator Pay Equity Fund: Provides supplemental compensation for educators. Arkansas Early Childhood Educator Scholarships: Uses \$40M in ARPA funding to cover scholarships for early childhood teachers to obtain a relevant degree/credential.



Targeted workforce attraction efforts can leverage financial incentives and marketing to draw in prospective residents

Subtheme	Recommendation	Rationale	Owner	Relevant Program	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Workforce Attraction & Retention Issues; Shifting Workforce Preferences	LS3. Expand funding and programming focused on workforce relocation, such as the Worker Relocation Incentive Program.	 ✓ Worker Relocation Incentive Program is currently oversubscribed ✓ There is a lack of additional programming related to worker attraction 	ACCD	Worker Relocation Incentive Program (ACCD)	 West Central Vermont CEDS – Goal #1 Attract New Workers and Expand Labor Force East Central Vermont CEDS – Goal #3 A Robust and Ready Workforce Northern Vermont CEDS – Goal #4 Developing the Workforce Southern Vermont CEDS – Objective #1 Increase Our Population 	West Central Vermont CEDS – Marketing and Support: Seek grant funding to support on-going marketing efforts by project partners and local employers to attract new workers to the West Central Vermont Region.	Ascend – West Virginia: Addresses both retention and attraction-related challenges by spreading payments over a two-year period. Tulsa Remote: Capitalizes on shifting preferences towards remote work by paying remote workers to relocate to Tulsa.
	LS4. Offer a regional lens to marketing efforts and materials that highlight the recreational, professional, and educational opportunities available to Vermont's permanent residents.	 ✓ Marketing materials currently offer a statewide lens as opposed to a regional lens ✓ Each region offers unique opportunities that are worth highlighting, as they may attract different populations 	ACCD; RDCs	Tourism and Marketing Materials (ThinkVT) (ACCD)	 West Central Vermont CEDS – Goal #1 Attract New Workers and Expand Labor Force East Central Vermont CEDS – Goal #3 A Robust and Ready Workforce Northern Vermont CEDS – Goal #4 Developing the Workforce Southern Vermont CEDS – Objective #1 Increase Our Population 	West Central Vermont CEDS – Marketing and Support: Seek grant funding to support on-going marketing efforts by project partners and local employers to attract new workers to the West Central Vermont Region. Southern Vermont CEDS – Utilize SoVermont marketing materials to highlight the intersection of quality of life and opportunity to attract qualified talent from outside of the region. East Central CEDS – Promote and expand welcome resources for new residents and visitors in order to advertise quality of life and relocation opportunities.	Massachusetts Regional Tourism Councils: Offers a regional and town-level overview of the recreational and tourism opportunities available. Moving to Georgia: Offers tailored guidance related to finding a job, enrolling in public schools, registering a vehicle and more to support individuals as they relocate to Georgia.



Investing federal funding in priority projects and expanding transit options for older Vermonters can help address critical transportation needs

Subtheme	Recommendation	Rationale	Owner	Relevant Programs	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Aging Infrastructure and Substandard Quality	TI1. Maximize federal funding to upgrade transportation infrastructure, prioritizing 1) projects that are most in need or would otherwise be unviable and 2) future transportation priorities, such as electrification.	 ✓ There is an influx of federal funds targeting transportation infrastructure that could help make progress on repairs/upgrades ✓ There are opportunities to prioritize funding sources that do not require local match 	VTrans	Statewide Transportation Improvement Program; National Electric Vehicle Infrastructure Program (VTrans)	 West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #3 Improving and Expanding Infrastructure East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Roads and Bridges: Cooperate with municipalities, VTrans, and other stakeholders to plan, engineer, fund, and perform the repair or reconstruction of roads and bridges integral to supporting and growing the Region's economy. Renewable Transportation Fuels: Work with municipalities and relevant stakeholders to plan for local renewable transportation refueling networks and infrastructure.	Maine Department of Transportation BIL Funding: Details Bipartisan Infrastructure Law transportation funding opportunities and solicits partnerships with communities or other eligible applicants.
Aging Population Transit Needs	transportation options to meet the needs of Vermont's growing population over 65, such as local transportation networks (i.e. CIDER and SSTA) and the Elders and Persons with Disabilities Transportation Program. In conjunction, conduct community outreach campaigns to market these services.	 ✓ The number of older Vermonters (65+) is projected to increase by 60% over the next ten years ✓ 83% of older Vermonters currently rely on their personal car for transportation ✓ Public transit is less accessible for older Vermonters in the southeast and the northeast 	VTrans	Elders and Persons with Disabilities Transportation Program (VTrans)	 West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #5 Promoting the Quality of Life in Communities East Central Vermont CEDS – Goal #5 Quality of Life and Place Southern Vermont CEDS – Objective #4 Enhance our Social Infrastructure 	East Central Vermont CEDS – Adapting to an Aging Population: The region's aging population is raising concerns about long-term economic sustainability. Countering this demographic shift will require a better understanding of the challenges of attracting people to live in this area, as well as the amenities and social infrastructure that are needed to retain them.	 Pennsylvania Department of Transportation: Offers a range of transit programs for seniors, including free public transit, a shared-ride program, and dedicated seniors transport. Boston's Age Strong Shuttle: Provides residents over 60 with free transportation to non-emergency medical appointments.



Gathering high-quality broadband data and maximizing federal funds to complete broadband projects will help expand access throughout the state

Subtheme	Recommendation	Rationale	Owner	Relevant Programs	CEDS Alignment (Goals)	CEDS Alignment (Actions)	Peer Programs
Data Collection and Quality	B1. Work with Vermont's Broadband Equity Access and Deployment (BEAD) program to gather complete, high-quality broadband data through tactics such as household and business surveys.	✓ Establish more accurate measures of broadband speed, pricing, and access as recent surveys have overestimated broadband service and accessibility throughout the state	PSD; VCBB	PSD Broadband Mapping	West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #3 Improving and Expanding Infrastructure East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure	West Central Vermont CEDS – Data: Cooperate with the University of Vermont Office of Engagement, and other statewide and regional economic development organizations, to develop an Integrated Data and Research Infrastructure to create the "capacity for the state of Vermont to have extensive access to data across scales and sectors."	South Carolina Broadband Office: Collects data directly from service providers instead of relying on the FCC for data. The interactive site also allows citizens to submit projects or fill out surveys. Wisconsin Broadband Office: Combines both state and federal household service data to understand statewide access.
Rural Broadband Availability; Broadband Quality	B2. Maximize federal funding sources to complete broadband projects in rural and underserved areas for projects that would otherwise not be viable.	✓ Low population density areas have typically been overlooked for traditional broadband projects ✓ Last-mile projects are not always commercially feasible	PSD; VCBB	ARPA Broadband Infrastructure Projects; CPF Broadband Infrastructure Projects	 West Central Vermont CEDS Goal #5 Infrastructure and Resilience Northern Vermont CEDS – Goal #3 Improving and Expanding Infrastructure East Central Vermont CEDS – Goal #4 Infrastructure and Homes for Growth Southern Vermont CEDS – Objective #3 Improve our Physical Infrastructure 	West Central Vermont CEDS – Broadband: Assist Communication Union Districts and existing service providers in accomplishing universal broadband access within the Region (including rural areas) and plans to implement high-speed broadband service expansion in areas planned for growth. Northern Vermont CEDS – Infrastructure funding: Identify funding at the state and federal levels to develop and improve regional infrastructure including broadband and cellular service.	Maine Broadband Coalition: Details federal funding opportunities, including requirements and how to apply. The state was recently awarded \$28M by the U.S. Department of Commerce for rural broadband projects.