



MAD RIVER VALLEY - ECONOMIC STUDY

Understanding the underlying economic conditions within the Mad River Valley to help plan for future growth and development

June 2014

BIRCHLINE PLANNING LLC

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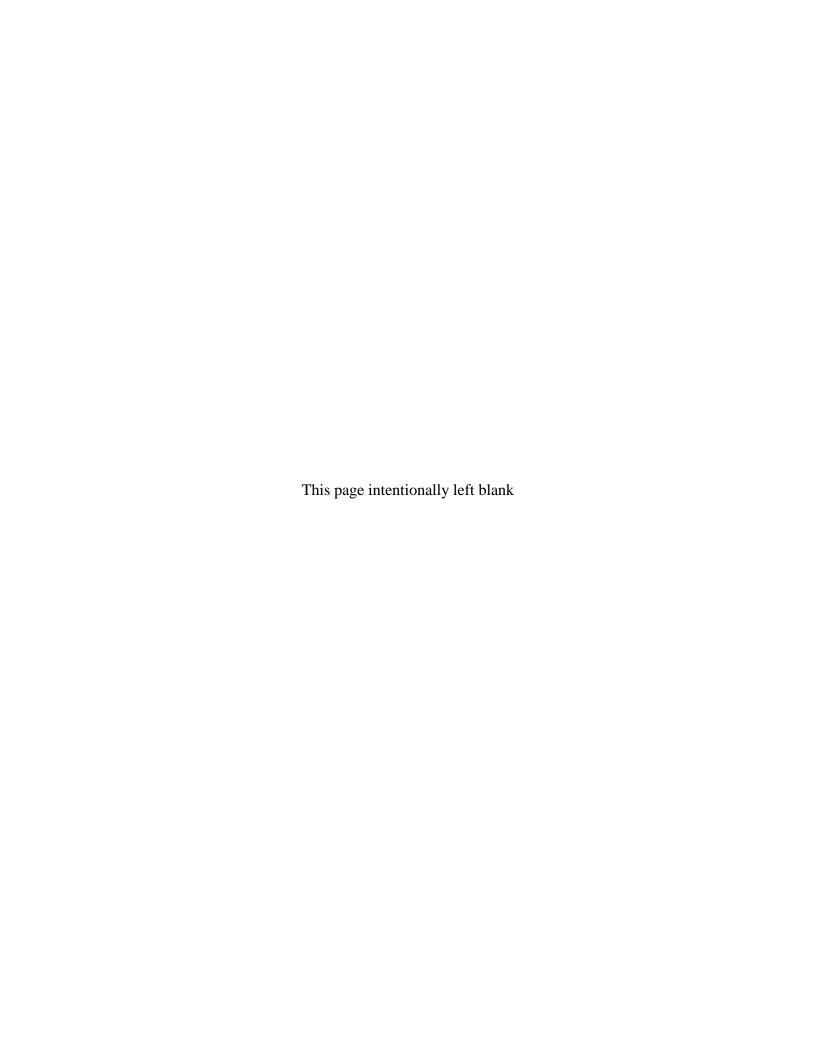


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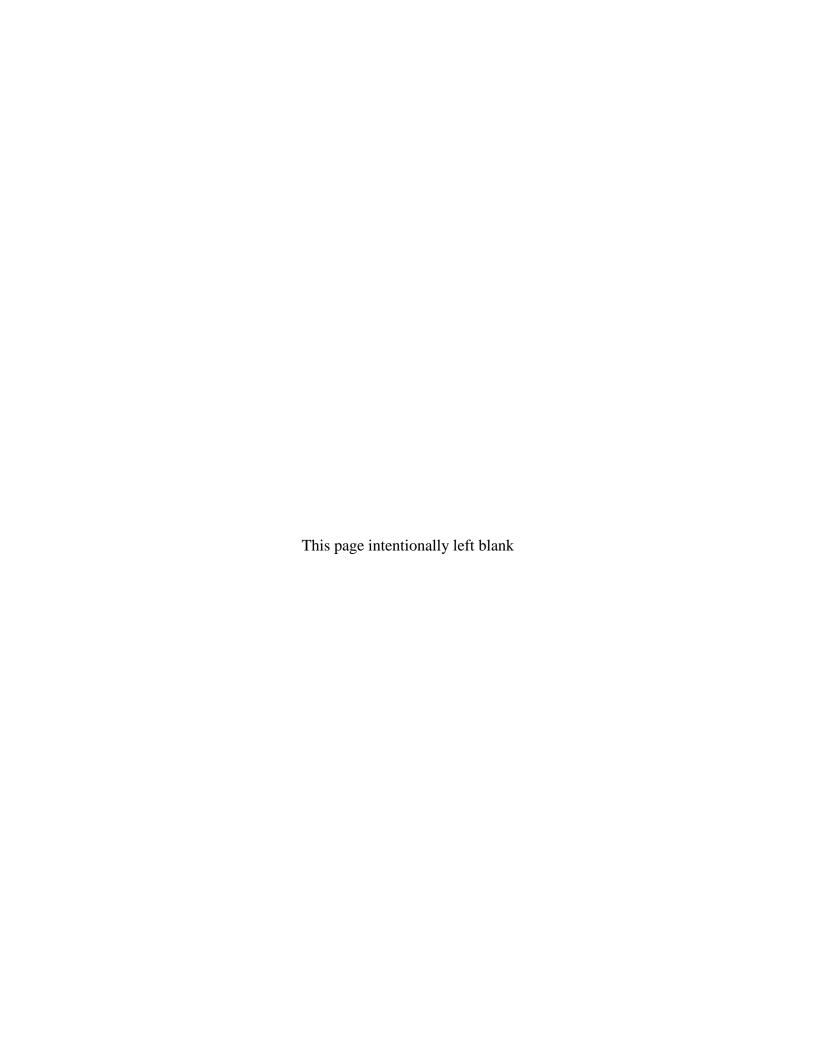
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Shari DeFlavio
Russ Bennett
Robin Morris
MRVPD Steering Committee
Joshua Schwartz, Executive Director, MRVPD



Executive Summary

STUDY PURPOSE

The Steering Committee of the Mad River Valley Planning District commissioned this Economic Study to undertake a fact-based assessment of the Mad River Valley's economy. The core purposes of this project, which are intended to *facilitate policy development and implementation in support of economic vitality and resilience* by the Towns of Warren, Fayston and Waitsfield, are:

- 1. To understand and quantify The Valley's economic profile and economic health, by assessing relevant quantitative data and conducting qualitative interviews with area stakeholders
- 2. Identify and describe industry sectors of strategic economic importance
- 3. Establish an economic baseline to:
 - a. Help the MRV and its towns describe the location, type and scale of desired economic development
 - b. Help the MRV and its towns develop policies, projects and programs necessary to foster balanced, sustainable, and resilient economic growth, especially in the strategic economic sectors
 - c. Provide a basis for assessment over time.
- 4. Recommend policies and initiatives that support economic resilience and vitality, in light of the results of this Study.

CONSULTANT TEAM

Assisting the MRVPD is a consulting team consisting of professional economists and planners. Following a Request for Proposal process, the team led by SE Group was selected. The project has been completed by the team of:

- Mark Kane SE Group / Director of Community Planning and Design
- Juli Beth Hinds, AICP Birchline, LLC / Principal
- Doug Kennedy, Doug Kennedy Advisors

The three firms brought together expertise in resort community planning, economic analysis and policy planning to the work. The Consulting Team has worked together in numerous contexts, many focusing on communities and areas heavily influenced by seasonal tourism.

The Consulting Team worked closely with Joshua Schwartz, Executive Director of the Mad River Valley Planning District, throughout the Project to ensure relevant data points and trends were highlighted.

METHODS AND SOURCES

By design, the work under this Project was "data heavy". The Consulting Team wanted to make sure that, as it evaluated the components of the local economy, it did so using relevant, empirical data. To that end, the Consulting Team combined a wide variety of relevant statistical datasets from the past decade, complimented by empirical research on past trends in business operations gleaned from business listings and news archives. The decision to focus primarily on more "current" data sets was intentional; while longer-term trends might be observationally interesting, the fact is that more contemporary influences in tourism, agriculture, business finance and public investment have significantly altered the MRV's economic landscape. Understanding and responding to these influences is the most important consideration relative to developing new policies and priorities.

The Consulting Team also wanted to assure that reliance on statistics was balanced with consideration of factors "on the ground". An array of local stakeholders were engaged during the process to get ideas from, bounce ideas off and, in general, help the Team explore more fully how the local economy is working. As appropriate, this insight has been woven into the analysis to impart a more nuanced position.

The details of the methods and full documentation of sourced referenced is included in the Report.

KEY FINDINGS AND OBSERVATIONS

The Baseline Economic Analysis covered some broad topical areas: population, housing, business sector analysis, employment, etc. While the data reviewed is extensive, the tone of the Report is decidedly more "conversational". The Consulting Team didn't want to bury important details under statistical cover; so when practical we have highlighted the key points from our perspective. The details of the analysis are provided in the Report. A few very important observations were noted in the work:

1. There are four (4) basic sectors that make up the local economy; Agriculture, Recreation & Tourism, Professional Services and Manufacturing. While the broader economy includes a

lot of other elements (including retail), these four sectors have a core contribution to the local economy. Understanding them is critical to developing an effective economic policy for the Mad River Valley ("MRV" or "The Valley").

- 2. The MRV is an attractive place to live and visit. The population of The Valley has grown more than the region and state in the recent past.
- 3. Household incomes are derived from a wider variety of sources than in other places. This diversity of income is indicative of a more affluent population AND suggestive that MRV is a place where people come to live and run a business.
- 4. While the MRV generally has more affluence, it also has stratification of incomes: those younger than 30 make less than their peers in Vermont.
- 5. The school system in The Valley bucks the statewide trend for both attainment and enrollment. Population inflow for people younger than 20 suggests people are moving to MRV with children, or having children who are then enrolled in the school system.
- 6. Housing costs and housing conditions are a problem. MRV households are nearly twice as likely to be paying more than \$2,000 per month for housing as compared to Washington County residents as a whole. Housing stock is dominated by 1960's-70's era condominiums, which are not as energy efficient and lack the design qualities of more contemporary homes.
- 7. Employment in The Valley has grown significantly more than for Vermont in the recent past. The Service sector dominates with Sales/Office contributing the plurality.
- 8. Unemployment has followed state and national trends over the recessionary period from 2008-2011, but the MRV appears to have "anticipated" the downturn somewhat earlier.
- 9. A significant percentage of workers in MRV appear to be working at home. The rate of working at home is in excess of twice the State average.
- 10. Leisure and Hospitality provides the majority of employment in the MRV (32%) with relatively low volatility. Manufacturing, Professional Services and Agriculture have had more variability in employment since 2000. The resorts play a major role in dampening employment volatility.

11. Seasonal variations in economic activity are pronounced, as is typical of resort-oriented communities. Lodging occupancies range from 27 to 33% with many options closed during the off-season. The MRV is generally more stable as compared to similar mountain resort oriented communities.

KEY RECOMMENDATIONS

The Report outlines a variety of policy considerations that can be used to inform future decision-making. Perhaps the most important aspects of this policy discussion are:

- 1. **Seasonality is here to stay**. Focusing efforts toward policies that address seasonal economic variability and any potential acerbation that changing weather related to Global Climate Change might cause is advisable.
- 2. The **agricultural economy**, while not a behemoth in scale or scope, represents a bridge from the past to the future. The nature of agriculture is changing to local food, value-added, and boutique production. The economics of agriculture are changing too. We suggest embracing a new set of policies to support transition in this sector. The upside is that these policies benefit other sectors as well.
- 3. **Recreation and tourism are the stalwarts** of the MRV economy. While it might be easy to rest on your laurels, our recommendation is to keep pressing dealing with seasonality. Given climate change and the evolving mountain resort industry, a focus on supporting year-round options makes sense.
- 4. The "dark horse" in our analysis was the **tangible impact of Professional Services** on the local economy. Like agriculture, while it is not a major player in terms of economic output, this sector intersects with "Quality of Life" metrics: Good schools, good recreational environment, scenic landscape and sense of community.
- 5. Highlighting the **dynamic nature of the manufacturing sector** was also an interesting outcome of the Study. While it is true that a few prominent businesses started in the MRV have moved elsewhere for lack of industrial infrastructure, it is also true that many businesses developed here, stay. While the size of these businesses might be small, our review of the situation suggests The Valley is and can continue to be a real incubator for businesses.

Project Overview and Goals

PURPOSE

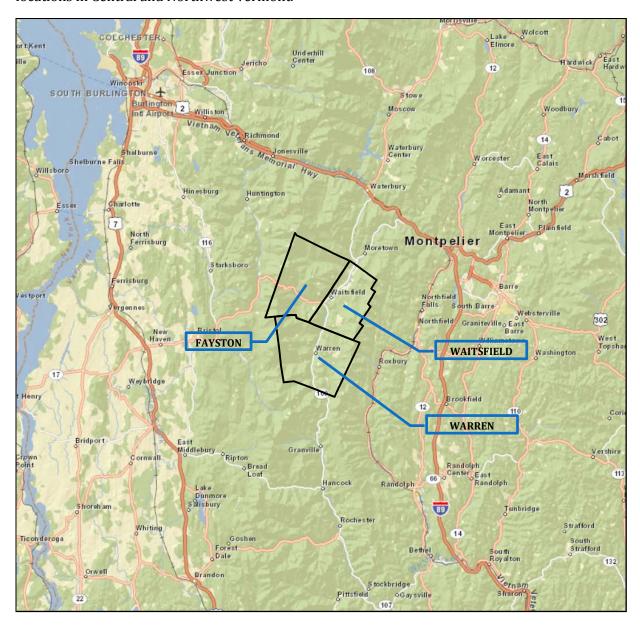
The Steering Committee of the Mad River Valley Planning District commissioned this Economic Study to undertake a fact-based assessment of the Mad River Valley's (MRV) economy. The core purposes of this project, which are intended to *facilitate policy development and implementation in support of economic vitality and resilience* by the Towns of Warren, Fayston and Waitsfield, are:

- 1. To understand and quantify the Valley's economic profile and economic health, by assessing relevant quantitative data and conducting qualitative interviews with area stakeholders
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STUDY AREA

The Study Area includes the Towns of Fayston, Waitsfield, and Warren. Within this report we will refer to either the Study Area or the Mad River Valley (MRV); both terms are used interchangeably within the context of this report.

The map below shows the location of the three communities relative to roadways and key locations in Central and Northwest Vermont.



METHODS, SOURCES AND APPROACH

The Consulting Team's approach to this project has been quantitative and qualitative. To accomplish the mandate of stressing **facts** when describing the economy of the MRV, the consulting team worked diligently to assemble relevant and current information on many dimensions of the local economy from published and reliable sources. In addition the Consulting Team wanted **context** for these facts, which was obtained through discussions with many key stakeholders.

Our basic approach included the following:

1. The statistical analysis prepared for this Report is focused on providing time series and geographic comparisons for the defined Study Area. Where possible, data has been provided for the period year 2000 to current, and geography based-data has been provided for the Study Area, Washington County and Vermont. it is important to note that complete data is not available in all instances. A variety of data sources were used, working with the Mad River Valley Planning District's Annual Data Reports as a base source.

Additional sources include:

- American Community Survey
- Applied Population Laboratory -University of Wisconsin
- Census Explorer
- Census of Business
- Environmental Systems Research Institute
- Federal Reserve Bank Boston
- HUD State of the Cities Data System

- Longitudinal Employment HH Dynamics -U.S. Census
- Mad River Valley Planning District
- Sugarbush Resort
- U.S. Bureau of the Census
- Vermont Department of Health
- Vermont Department of Labor
- Vermont Department of Taxes
- Vermont Department of Tourism & Marketing
- Vermont Housing Database
- 2. Interviews & insights were gleaned from multiple perspectives and sectors, both within the MRV and at State agencies such as the Vermont Department of Agriculture and the Vermont Land Trust. See Appendix 1 for a list of those interviewed as part of this study.
- 3. Current and past economic studies and surveys from within the MRV and in other resort areas were reviewed. These included surveys of Waitsfield businesses and recently completed VDAT Project Reports. Outside the MRV, the team drew on work by the Kingdom Trails Association, and a study entitled the "Sea to Sky Mountain Biking Economic Impact

Study - Whistler Report" prepared in 2010 by the Western Canada Mountain Bike Tourism Association.

KEY ORGANIZING PRINCIPLES

This work started by identifying several important "organizing principles" that play an important, and at times overlooked, role in the MRV's economy - and that are critical to effective policy development.

1. **Seasonality and fluctuations.** In Vermont, it is common for local economies to experience some seasonal variation. Approximately 45 percent of the Study Area's employment base is in industries that have significant seasonal variation. As a result, Study Area economic activity peaks at approximately 126 percent of the annual average during the winter and falls to 81 percent of the annual average during April, resulting in an annual variation range of 45 percent. In contrast, the Vermont-wide economy peaks at approximately 116 percent of the annual average in December and falls to 92 percent of the annual average during April, resulting in an annual variation range of only 24 percent.

Key Data Points: *Sales & employment by industry; Monthly employment by industry*

2. **Population growth occurs in the 35-45 age cohort, but declines in the 18-34 age cohort.** Since the 1980s the MRV's population growth has been higher than statewide averages, although data since the onset of the financial crisis are not definitive as to whether this trend has continued. However, the growth has occurred in specific age demographics, and overall the MRV has lost 18 to 34 year olds as a share of its population. This has important implications for the MRV's labor market, particularly in tourism, agriculture and services – three of the most seasonally-influenced sectors.

Key Data Points: *US Census data by age cohort, 1980-2010*

3. There is a pronounced mismatch between the age, condition and supply of residential, agricultural and commercial buildings and contemporary needs. When compared to Vermont and indeed even other resort areas within the State, the MRV has an over-abundance of older condominiums built in the 1960s and 1970s, as well as a considerable number of commercial properties that have not been upgraded to contemporary standards. In addition, the MRV's many barns are important visual and historic resources, but modernization for agricultural re-use typically is cost-prohibitive and the market for other adaptive re-use is limited. New development and construction are often controversial, and there is a common belief that the existing stock of buildings "should" be re-used even where costs and code-related issues are significant. This

complicates discussion and evaluation of affordable and workforce housing, historic preservation, and commercial development.

Key Data Points: *US Census data on year housing units constructed, housing values vs. household incomes, commercial real estate listings, sales values, and days on market*

4. **Data and information challenges**. Twin issues with data and information affect how the MRV's residents, stakeholders and governing bodies make decisions. First, many economic measures important to the MRV, such as the share of day skier expenditures captured within the MRV and the share of income generated by work-at-home businesses, are not captured by conventional data and reporting measures. Second, there are many versions of "conventional wisdom" about the MRV and its economy, such as trends in lodging occupancy, labor market dynamics, and the relative share of the economy represented by ski areas. It is difficult to gain and maintain public or popular consensus on important trends and data, and by extension, to make policies that address related economic issues correctly.

Key Data Points: Geographic origin of ticket purchases and passholders; employment by commuting distance or work at home; household income distribution; share of income from non-wage sources; monthly ski area employment; lodging occupancy

5. The MRV as a Leading Indicator. The MRV's small size belies its outsize role in Vermont as a "leading indicator" for important economic and cultural trends. Sugarbush was among the first areas in Vermont to see the boom in condominium construction in the 1960s and 1970s; Mad River Canoe and Green Mountain Coffee Roasters were early "success stories" for Vermont products in the 1980s and 1990s; it has been a model region for the activities and successes of the Vermont Land Trust's easement purchase program; and the MRV's local food economy and the Mad River Food Hub are leading models for Vermont. The MRV suffered disproportionately from Tropical Storm Irene's effects in 2011, and is also likely to see substantial economic effects from climate change in the future. Understanding and embracing the MRV's role as a "leading indicator" can help shape policy development and discussions with State and Federal agencies about future investments and strategies – provided there is a consistent message based on a strong understanding of facts.

Key Data Points: *New commercial construction; grants, business loans, and value of new building permits.*

Defining Economic Sectors

INTRODUCTION

The economic story of the Mad River Valley is not simply described by the influence of Sugarbush Resort and Mad River Glen. While the contribution of winter outdoor recreation to the local economy cannot (nor should be) overlooked, to truly define policies that serve the long-term interests of the region requires digging deeper into what happens on a day to day basis. This study began with this fundamental premise – "there is more going on than you might think".

WHAT HAPPENS HERE ECONONOMICALLY, AND WHY?

As far back as 1985 when the Mad River Valley Steering Committee commissioned a "Survey of the Business Climate of the Mad River Valley", there has been an effort to ensure that policies consider the full measure of what is going on in the local economy. This 1985 survey was done, in part, to jump start efforts to "diversify" the local economy following a particularly low year in the tourism economy. While businesses interviewed during the survey suggested "added-sum amenities" and to "further diversify the MRV's economy", the survey report did not provide a clear roadmap for such suggestions. The pulse the survey was reading appears to be vanguard of what has become a larger trend at mountain resorts and their host communities on a national scale: A recognition that winter alone is not sustainable. As the study notes, "simply adding more visitors at peak periods will not enhance the situation".

In 1990 the Mad River Valley Economic Study Group initiated a process to "to discuss the economic climate of the Mad River Valley and how that climate might be improved". Again, poor ski seasons were mentioned as part of the backstory to this work, but one of the foundational elements of the work was "what's wrong with the MRV's economy". The study group's thesis was that the winter tourism-orientation of the local economy resulted in low wages, lack of jobs for skilled employees, disproportionate ratio of seasonal employment, under-utilized facilities and commercial space and over-dependence on ski area for the bottom line. While the study group trod some similar ground to the earlier efforts, they did spell out with more clarity some of the aspirations for this diversification – development of "off-season" tourism and promotion of "clean,

¹ Squires, Jeffrey F.,, <u>Survey of the Business Climate in the Mad River Valley.</u> Prepared for Mad River Valley Steering Committee. June 1985.

ii Summary of Meeting. Mad River Economic Study Group. November 28, 1990.

iii Ibid, page 2.

well-paying, non-tourist based industries". The latter of these was referenced in light of then "recent" creation of small communication, computer and technology based industries.

Jump forward to 1992 and the discussion around economic development in the Mad River Valley continued. This time the discussion of diversity identified the incubation of "cottage industries" (food processing, manufacturing, craft-oriented), the identification of a key "non-ski" facility (i.e. recreation, arts, and/or events), and better promotion of the MRV for the "off-season".iv

In January 2002, 82 businesses responded to a Mad River Valley Chamber of Commerce survey. Of the 82 respondents, 77 percent identified themselves as "primary tourist" businesses.

Even the most recently completed draft reports for the Towns of Waitsfield and Warren prepared for the V-DAT project fully recognize the important role that the tourism economy plays in the MRV. In fact, the March 2014 Draft Report for Waitsfield suggests that 56% of the retail visitation is by people from outside of the MRV.

Much of the V-DAT work focuses on addressing the market potential within the two major population/commercial centers of the MRV. Most of the emphasis on this marketing potential is placed on the tourism sector.

The VDAT information suggests, among other things:

- Waitsfield (and Warren) to build on some branding and identity guidance suggested in the report which capitalizes on the "rustic charm" of the area.
- Focus on addressing gateways into/out-of the communities to improve curb appealenhancing the "public realm".
- Expand linkages to the Mad River Path system
- Promotion of "General Merchandise", "Specialty Merchandise" and restaurant retail uses

While the V-DAT strategies clearly embraces the importance of the regional tourism economy it doesn't speak as loudly to the broader goals for diversification that have been part of the discourse in the MRV for decades. It also does not speak clearly on the relationship between town and the Mad River Valley, in terms of brand identity or economic development strategy.

iv Shupe, Brian. "Follow-up to October 6, 1992 Economic Development Meeting". October 30, 1992.

v Vermont Downtown Action Team (V-DAT) - Waitsfield Draft Report, March 2014. Page 10.

STAKEHOLDER INTERVIEWS - WHAT WE HEARD

The qualitative interviews done through this Study were essential to placing the quantitative data in the appropriate context. We asked a series of questions of key local, regional and statewide stakeholders, centered on trying to understand more fully what is shaping economic activities. Again, the MRV's small size and limited data sets make qualitative interviews and assessments essential to context – at the same time that these assessments can be colored by individual experiences, or discounted as anecdotes when used for policy.

The Consulting Team's charge has been to listen for themes that are consistent with data observations, or that point to potential policy solutions. Key questions asked of all participants were:

- **Physical conditions**: Do the physical conditions of available spaces limit or otherwise constrain the ability of restaurants, lodging, retail and other businesses to succeed in the MRV? What types of specific issues or limitations do different types of businesses find? What is the cost implication of the age and condition of the MRV's stock of existing buildings? Is land available and suitable for new construction?
 - o Business inventory
 - o Space inventory (Wastewater Needs Assessment, realtors)
 - o Contractors, agents and property managers
 - o Assessing the "mismatch" between what's available and what's needed.
- **Business expansion & relocation**: Why are businesses choosing to come to or expand in the MRV? What are the drawbacks or factors that have to be overcome? Why do businesses move out of the MRV? What aspects of the MRV's regulations and governance affect business, and how?
 - o Interviews & discussions with current business owners
 - Discussions with those that have left the MRV
- What are the missing links: What elements or support are missing that would foster greater stability, resilience against seasonality, improved marketing, expanded market share, improved occupancy, and other measures of economic health?

The Mad River Valley's small size and location at the periphery of Vermont's major labor markets (i.e., Barre-Montpelier and Burlington-Colchester-Essex) make the MRV's economy more sensitive to smaller economic trends and disruptions. By virtue of having a small but highly interconnected and engaged population, the initiative and impact of one individual or business also has an outsized effect – for better and for worse. In light of this the Consulting Team looked in particular at how the economy is understood, and what questions or perceptions often drive conversations around policy.

These questions and perceptions include:

A number of persistent "either/or" perceptions that color policy discussions, particularly on growth, housing and seasonality. There are a number of fundamental issues in the MRV to which

residents and stakeholders tend, at times, to answer one of two opposite ways. These "either/or" perceptions often are held not only by MRV residents, but also by staff at State or regional agencies working with the MRV on permitting, transportation, grants or other policies. Many of the specific data analyses performed in this study directly address and attempt to provide quantitative data related to these perceptions. Common "either/or" perceptions include:



- a. "The MRV is rich/poor compared to the rest of Vermont."
- b. "Summer is/isn't busier than winter for traffic, restaurants and lodging."
- c. "Population and housing growth is rampant/stagnant."
- d. "There is too much/too little space for parking in Irasville and Bridge Street."
- e. "Traffic is increasing/declining on Route 100."
- f. "The amount of lodging available is too much/too little."
- g. "Activities at Sugarbush are causing all the MRV's growth/decline."
- h. "Housing prices are skyrocketing/falling quickly."
- i. "We have too many/too few young people working in the MRV."
- j. "There is plenty of/far too little affordable housing in the MRV."
- k. "Most people in the MRV commute a long distance/work from home/make money outside Vermont but live here."
- 1. **A proliferation of organizations and initiatives, with only a handful of common core groups**: A 2012 count by the MRVPD turned up 87 non-governmental organizations in the

MRV, or one for every 53 of the MRV's 4,600 year-round residents. Many represent overlapping interests or purposes. Having "organizational sprawl" can tend to increase the degree to which people with common perceptions ally with one another, reducing consensus and common understanding of economic conditions and possible responses. Conversely, this level of engagement is a testament to the social capital that individual residents of the MRV are willing to invest in causes they believe in.

- 2. **Common and often complex questions regarding economic conditions in the MRV.**Many study participants and stakeholders noted a common set of questions that are asked about the MRV's economy. Responses to these questions often mirror the "either/or" perceptions noted above, and include:
 - a. "So many companies start in the MRV but then leave for other parts of Vermont, or outside the State. Why can't the MRV hang onto businesses that start here?"
 - b. "Restaurants aren't making it in the MRV. What's going wrong?"
 - c. "The Town says it's pro-business, but then projects are held up at the DRB forever. Why is the zoning process so difficult?"
 - d. "B&Bs and hotels have constant turnover of ownership and are always for sale. Why can't they make it in the MRV?"
 - e. "No one can seem to hold onto their employees, but yet the economy overall is struggling and people are out of work. Why is this?"
 - a. "Wedding business seems to have grown but not everyone is prospering. Why are some people benefiting but not others?"
 - b. "What can anyone do about seasonality and creating a four-season resort here?"

All of these issues point to the outsized role individual businesses, individual leaders and individual landowners can have, at various points, in the MRV's economy. With its small size and relative isolation, ownership and investment decisions tend to be both highly visible in the community, and to have a more notable effect on local economic activity. Using the metaphor of a spider web, the smaller the web, the greater the reverberation of an impact in one location and the greater the impact of a small tear. For example, Mad River Canoe's wages paid in 1998 accounted for approximately 12.7 percent of total wages paid in the Study Area during that year, creating a substantial decline in overall wages when operations were moved out of the MRV.

Based on our interviews and conversations with stakeholders we also observed where individuals have an outsize effect on the MRV economy. Examples of this include:

- A. **Recreational access:** Issues related to the expansion of mountain biking trails and connectivity how to expand opportunities while addressing individual landowner concerns.
- B. **Abutter issues**: In many cases greater flexibility of (as one example) venues to host events of weddings, which is identified in this Study as an economic limitation for the MRV, is constrained by the role that abutting property owners play in the development review process.
- C. **Business ownership and decisions:** closing B&B, closing a restaurant or retail shop can, in such a small community, create a psychological as well as economic "hole" in the community.
- D. **Agricultural operations and leased land:** Individual landowner decisions can deny a farmer access to a parcel, require re-negotiation and/or disrupt farm operations. Farmers also may retire, sell, or shift operations.
- E. **Entrepreneurship:** Many MRV businesses are closely associated with one individual; when individual decisions are made, the impacts may be generalized to the economy as a whole.

WHAT ARE THE SECTORS THAT MAKE UP THE ECONOMY OF THE MRV?

So the fundamental question we must answer is "what are the components" of this local economy? As will be discussed in detail later, based on the qualitative and initial quantitative review, we observed four core contributors ("sectors") to the economy of the Mad River Valley:

Agriculture/Food Systems

Has been here since the beginning; this is the legacy economy. While traditional farming practices (dairy operations and forestry) have long been the basis for economic activity in this sector, the trend over the past decade has been expansion of niche agricultural products, value-added agriculture, agri-tourism and a general "diversification" of what agriculture is. The connection between this sector and the working landscape and land use of the MRV is vital.

Recreation/Tourism

Is here because of the physical land base and ski areas. The primary driver has been the winter recreational opportunities, but, as will be discussed, non-winter and non-ski recreation as well as broader "tourism" influences are beginning to define this sector. Recent expansion of mountain biking trails outside of the traditional "resort" environment (i.e. Blueberry Lake) in exemplary of this more "diverse" recreational profile.

Major Components of the Mad River Valley Economy

Comes here. Could move, but come here. An area that often does not get a lot of "press", the professional services sector might just be the unsung hero of the local economy. While zeroing in on what constitutes this sector is difficult, it is obvious from some of the baseline economic data that the Mad River Valley supports many homebased professionals. The jump in population in the 35-44 age cohort, and continued robustness in K-12 school enrollment while other areas of Vermont see persistent declines, are strong indicators of the vitality of this sector.

Starts here. Has a limited scale, and is focused on incubation. As discussed above, the framework for manufacturing in the Mad River Valley has been one of "incubation". As will be described below, significant pressures and physical limitations have and will continue to shape what is possible for manufacturing.

Professional Services

Manufacturing /Incubation

As will be evident through the forthcoming economic baseline analysis, these four sectors, while core, do not equally contribute to the economy nor do they represent all the facets of economic activities in the MRV. They do, however, have profound influence on the trajectory and perceptions of the local economy.

SECTOR-SPECIFIC OVERVIEWS

To help organize and frame our analysis and consideration of these sectors, we have developed working definitions of each. While the quantitative data for some of these sectors might cross-over various "industries" as defined by economic censuses, these definitions are still helpful to organize the data and eventually policy around.

AGRICULTURE / FOOD SYSTEM

Components of the economy focused on making, producing and distributing natural resource based goods or value-added products.

RECREATION / TOURISM

Components of the economy that are directly related to the use and enjoyment by locals or visitors of the outdoors, cultural arts, facilities and events.

PROFESSIONAL SERVICE

Ideas we make and export

MANUFACTURING / INCUBATION

Things we make and export

The core sectors outlined above – agriculture, recreation and tourism, professional services, and manufacturing – each required an additional set of important questions for stakeholders, and for the Consultant Team's baseline economic assessment.

These are described in detail below.

ECONOMIC SECTOR

SECTOR	OBSERVATIONS/CONSIDERATIONS
AGRICULTURE/ FOOD SYSTEMS	There is a perceived resurgence of agriculture and farm-to-table. How many farmers or producers are actively selling products, and how many acres does this represent? What is the volume of business coming through the Food Hub, and what are the limitations? What do ag producers, retailers and processors see as the "missing links" or constraints to doing more (e.g. labor, SF, infrastructure, distance to market, competition)?
RECREATION	Mountain biking seems to be emerging as a major new driver, but the published maps do not reflect the extent of available trails. Alpine and Nordic skiing are 'givens,' but vary dramatically year to year with weather. Polo may be returning, the Couples Club field is actively used and rented, and tennis continues to be active. However, the horse shows were lost and the MRV used to have fishing guides. Ice skating went to Waterbury. Swimming is limited by facilities. Paths are available, but not paved; does that affect rentals, lodging, or 'leakage'?
+ TOURISM	There is a perception that restaurants and many inns can't make it in the MRV, though events such as weddings have gained in popularity. What recreation facilities are missing, sending potential stays outside the MRV? What if anything do restaurants need to be more stable?
PROFESSIONAL SERVICES	There is a perception that much of the MRV's economic dynamism is coming from 'footloose' service professionals who choose to live in the MRV for lifestyle reasons, and who are not reliant on the MRV for income stability. Who are these professionals, and where is their income derived? What 'leakage' and investment do these professionals represent (i.e. purchasing homes and some services locally, but making other investments or purchases outside the MRV)? What local sectors are supported by these professionals? Are there limitations on the growth of this sector or, conversely, opportunities that have not been tapped?
MANUFACTURING /INCUBATION	Total wages from manufacturing have jumped. What are the driving businesses? Which have left the MRV, and is there a critical mass or tipping point where companies like Merrill Boots leave or expand? Can the MRV come to terms with acting as an incubator, knowing that certain physical limitations will ultimately limit the extent of expansion within the community?

Baseline Economic Analysis

OVERVIEW

The first and foremost responsibility of this study was to provide a sound and solid baseline economic analysis of the MRV. The components of this analysis address the "big ticket" elements of the local economy:

- POPULATION Defining the "who" aspects of The Valley economy; how many people, their ages, and how demographics have changed.
- HOUSEHOLD INCOME Evaluating the sources and amounts of income
- EDUCATION Educational quality and school population within The Valley
- HOUSING Affordability and quality
- EMPLOYMENT Who is working and where
- ECONOMIC TRENDS Comparison of how the MRV economy has fared over the past decade relative to the state and region
- INDUSTRY SECTORS The composition and contribution of industry sectors
- SEASONALITY The flow of the economy within a year
- TIMELINE The evolution of the MRV's economy

NOTES

Source references for this information are provided at the endnotes to the Report. Throughout this section we have provided a "Take Away" element that summaries of our key observations from the data. These observations are directly correlated to the data provided in the corresponding section or may also introduce some qualitative input based on our stakeholder process.



LOOK FOR THESE SUMMARY SECTIONS

TAKE AWAY:

→ THE STUDY AREA IS RELATIVELY ATTRACTIVE TO PERSONS MOVING INTO VERMONT – OR FROM OTHER PARTS OF VERMONT.

POPULATION - WHO IS 'THE MAD RIVER VALLEY'?

THE FIRST CHARACTERIZATION QUESTION IS "WHO" – Who lives in the Mad River Valley? How old are they, when did they come here, and from where? And, importantly, how much is the "who" changing? There has been a perception that the MRV is a "High Growth" area, which affects and shapes policy and decision-making, particularly with respect to zoning and development review. This in turn affects economic vitality and resilience.

This study represents an important opportunity to assess recent facts and trends. To that end, we have concentrated our analysis on the period generally from 2000 to the most recently available data. While longer-term economic data might be interesting, the fact is that over the past decade or so the local, state and national economies have undergone significant structural change as well as major economic cycles. Therefore, relying on more recent data to help determine relevant trends is appropriate.

Reviewing recent data we observed that within the Study Area population growth was:

- *Very* strong during the 1990s
- Well above average for Vermont during the 2000s, but below the U.S. level, and
- *On par with regional trends since 2010.* Population growth in virtually the entire state has stabilized during the past three to four years, and many Vermont towns' populations are declining.

Comparative Population Change (1990 - 2011)¹

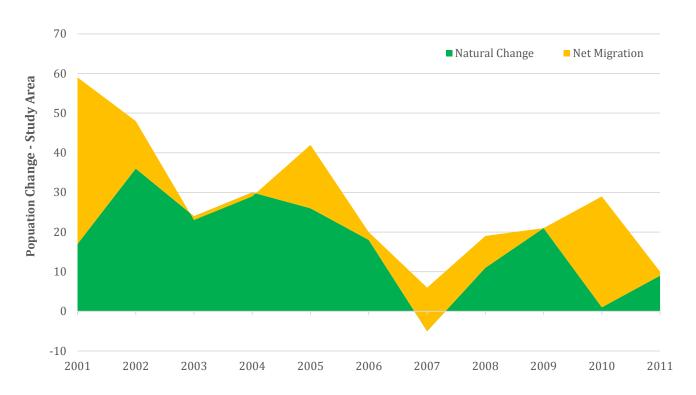
	1990	2000	2010	2011	% Change 1990-'10
Waitsfield	1,422	1,659	1,719	1,722	20.9%
Warren	1,172	1,681	1,705	1,707	45.5%
Fayston	846	1,141	1,353	1,358	59.9%
MRV Study Area	3,440	4,481	4,777	4,787	38.9%
%					
Change		30.3%	6.6%	0.2%	
Washington County	54,928	58,039	59,534	59,626	8.4%

	1990	2000	2010	2011	% Change 1990-'10
% Change		5.7%	2.6%	0.2%	
Vermont	562,767	608,827	625,741	625,498	11.2%
% Change		8.2%	2.8%	0.0%	
U.S.	248,709,873	281,424,600	308,745,538	309,138,711	24.1%
% Change		13.2%	9.7%	0.1%	

Study area population growth was *very* strong during the 1990s, well above average for Vermont during the 2000s (but below the U.S. growth rate) and apparently, on par with regional trends since 2010. It is worth noting that population in virtually the entire state has stabilized during the past three to four yours.

Study Area population increased by just over 300 persons between 2000 and 2011 – comprised of two factors: 1) Natural Increase – the number of births versus the number of deaths; and 2) Net Migration – the number of persons who moved *into* the Study Area versus the number of persons who moved *out* of the study area. The percentage of growth from each source is important to this analysis. The following graphic shows population growth over the 2000 to 2011 period by source: Natural Increase & Net Migration.

Source of Population Change: Natural Increase & Net Migration: Study Area (2001 – 2011)²



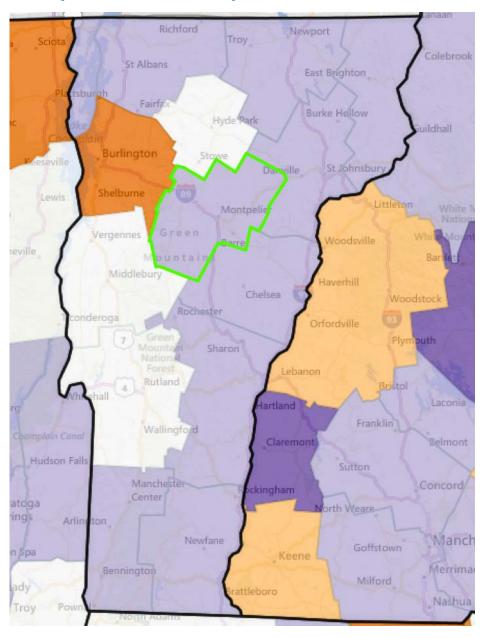
Overall, natural increase accounted for 61 percent of the Study Area's population increase (a net increase of births over deaths of 183 persons), while net migration accounted for the other 39 percent (a net gain of 118 move-ins after "move-outs" are subtracted). By comparison, natural increase accounted for 84 percent of Washington County's population increase during the same period, while net migration accounted for only 16 percent.

TAKE AWAY- POPULATION CHANGE:

→ THE STUDY AREA IS RELATIVELY ATTRACTIVE TO PERSONS MOVING INTO VERMONT — OR FROM OTHER PARTS OF VERMONT.

Washington County's 14 percent rate of net migration is in the typical range for most Vermont counties. The graphic below shows county level migration rates (Per 100 Individuals) for the period 2000 to 2010.

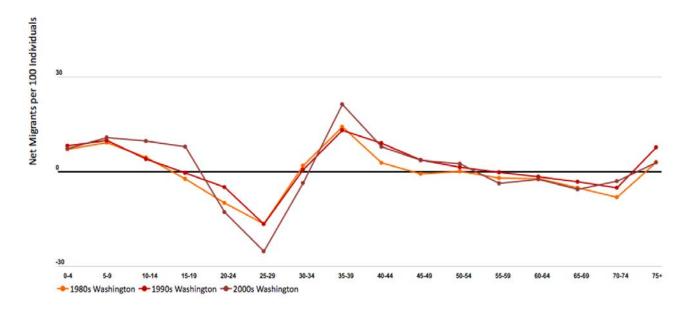
Net Migrants Per 100 Individuals by County; Vermont and Surrounding Areas (Period 2000 - 2010)³





Significantly, net migration rates vary significantly by age group, as shown in the following graphic containing Washington County data. The graphic shows net migration rates – over the 2000 to 2010 period – by age group.

Net Migration Rates by Age Group: Washington County (1980s, 1990s, 2000s)⁴



Note the following regarding the above graphic for the County:

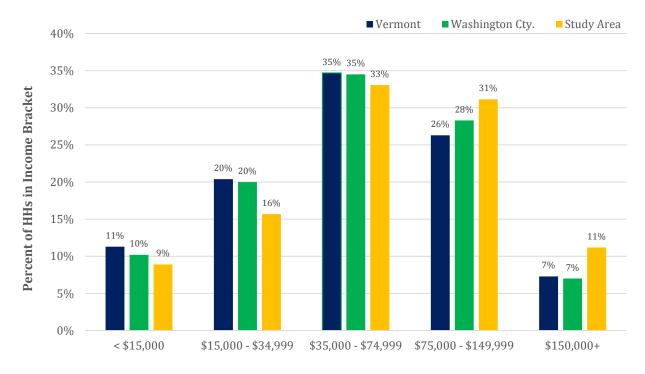
TAKE AWAY - MIGRATION:

- → MIGRATION RATES ARE POSITIVE FOR PERSONS UP TO 20+/- YEARS HOUSEHOLDS ARE MOVING INTO THE AREA WITH SCHOOL-AGED CHILDREN;
- → MIGRATION RATES ARE SHARPLY NEGATIVE FOR PERSONS AGED 20 TO 34 YEARS RECENT HIGH SCHOOL/COLLEGE GRADUATES AND 'STARTER' HOUSEHOLDS ARE LIKELY TO MOVE OUT OF THE AREA;
- → MIGRATION RATES ARE POSITIVE FOR PERSONS AGED 34 TO 42+/- YEARS TRADITIONAL FAMILIES TEND TO MOVE INTO THE AREA.

HOUSEHOLD INCOME - WHO WORKS, AND FOR HOW MUCH?

The next task was to characterize the MRV's income (both wage earnings, and income from other sources) and labor force characteristics. The following graphic shows a simple distribution of Study Area households by income bracket, with a comparison to Washington County and Vermont. The data is for 2012.

Distribution of Households by Income Bracket (2012)⁵

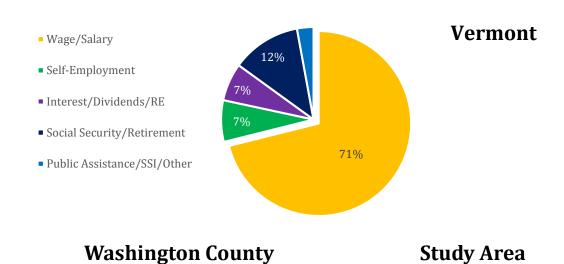


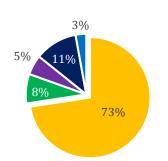
42 percent of the Study Area's households have incomes in excess of \$75,000; this compares to 33 percent for Vermont and 35 percent for Washington County. Further, the median household income in the Study Area is \$62,745; this compares to \$54,168 for Vermont and \$57,276 for Washington County.

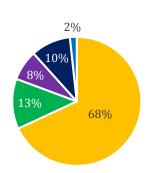
The following graphics compare Vermont, Washington County and the Study Area in terms of income by source – the percent of breakdown of all household income from the following sources (2012 data):

- Wage & Salary;
- Self-Employment;
- Interest/Dividends/Net Real Estate
- Social Security/Retirement Income
- Public Assistance/Supplemental Security Income (SSI)/Other

Household Income | Breakdown by Source (2012)6







Two differences are quickly apparent: 1) Self-Employment income is a far more important source of household income in the Study Area than in Vermont or the remainder of Washington County; and 2) Interest/Dividends/Real Estate are a more significant source of income in the Study Area than in Vermont or the remainder of the county.

TAKE AWAY- HOUSEHOLD INCOME:

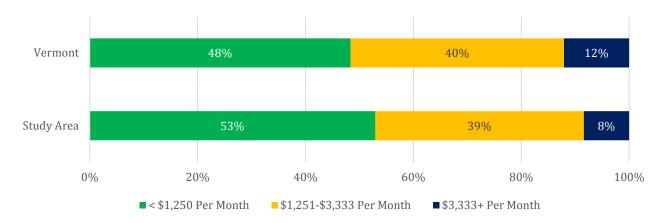
- → STUDY AREA HOUSEHOLDS ARE MORE AFFLUENT THEN THOSE IN THE REMAINDER OF WASHINGTON COUNTY AND VERMONT. AFFLUENCE RESULTS IN HIGHER SPENDING PER CAPITA ON A LOCAL BASIS
- → STUDY AREA RESIDENTS SEEM TO MAKE THEIR MONEY A DIFFERENT WAY.
- → OVERALL, STUDY AREA RESIDENTS ARE LESS DEPENDENT ON INCOME FROM WAGES EARNED WORKING FOR SOMEONE ELSE AND MORE LIKELY TO HAVE INDEPENDENT INCOME OR TO BE SELF-EMPLOYED.
- THIS MEANS THAT A LARGER PORTION OF THE MRV'S POPULATION IS LESS AFFECTED BY UPS AND DOWNS IN THE LOCAL ECONOMY THAN IS TYPICAL IN SURROUNDING AREAS.

OK – people who live in the Study Area are affluent – that must mean the jobs in the Study Area pay a lot – right?... and what about younger workers, how are they doing in the Study Area?

The following two graphics compare Vermont and the Study Area from the following perspective: Looking only at workers who live in the Study Area (or Vermont) **and** who are aged less than 30 years, the graphic shows their distribution by monthly income. Note that these workers may work in the Study Area (or Vermont), or elsewhere.

Resident Workers Aged Less Than 30 Years

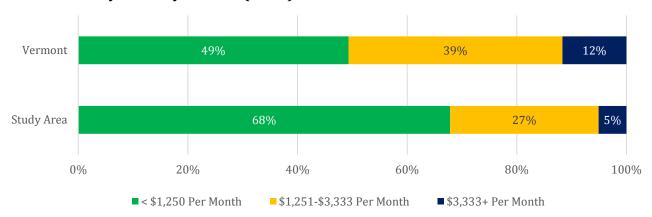
Distribution by Monthly Income (2011)⁷



The following chart is similar, but in this instance shows the distribution by monthly income for workers aged less than 30 years who work in the Study Area or Vermont as a whole. These workers may or may not live in the Study Area or Vermont as a whole.

Workers Aged Less Than 30 Years |

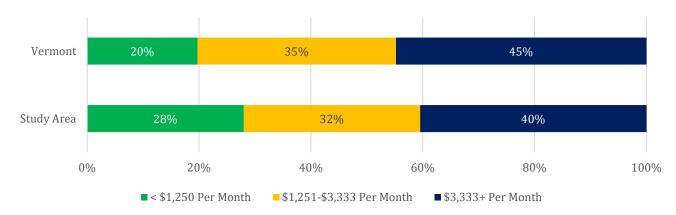
Distribution by Monthly Income (2011)⁸



Similar comparisons are shown for workers aged 30 to 54 years in the two graphics below.

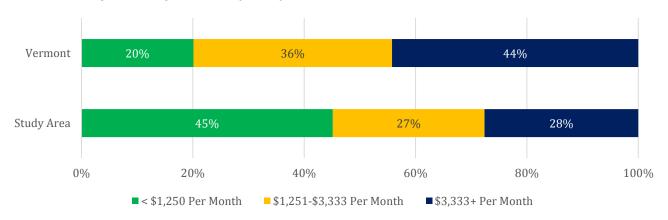
Resident Workers Aged 30 to 54 Years |

Distribution by Monthly Income (2011)9



Workers Aged 30 to 54 Years

Distribution by Monthly Income (2011) 10



TAKE AWAY - WORKER INCOME:

- → STUDY AREA RESIDENT WORKERS AGED LESS THAN 30 YEARS GENERALLY WORK FOR LOWER PAY THAN THEIR PEERS IN THE REMAINDER OF VERMONT.
- → SIMILARLY, WORKERS AGED LESS THAN 30 YEARS WHO WORK IN THE STUDY AREA GENERALLY WORK FOR LOWER PAY THAN THEIR PEERS IN THE REMAINDER OF VERMONT.

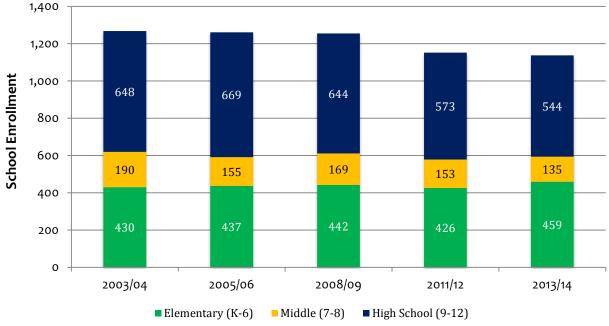
EDUCATION – ENROLLMENT AND ACHIEVEMENT

A number of factors may 'drive' a household's decision to move to or live in a particular community. For households with school-aged children, or those who face the prospect of having school-aged children, one major factor can be the relative quality of the public school system. Each of the Study Area's three towns (Fayston, Warren, and Waitsfield) has its own elementary school, covering grades K through 6. MRV students then attend Harwood Middle School and Harwood Union High School for grades 7 through 12 (Students from Duxbury, Moretown and Waterbury also attend the middle and high schools). MRV schools are assessed from several perspectives below.

Enrollment - Regionally – and certainly in Vermont as a whole – school enrollment levels have generally decreased in recent years, a factor of both demographic/age groups shifts and relatively slow overall growth in the state. While broad demographic trends are hard to resist, it is apparent that highly regarded school systems have experienced smaller enrollment decreases. The graphic below shows enrollment trends in schools attended by MRV children (Elementary enrollment combined for Fayston/Waitsfield/Warren Schools).

School Enrollment Trends |

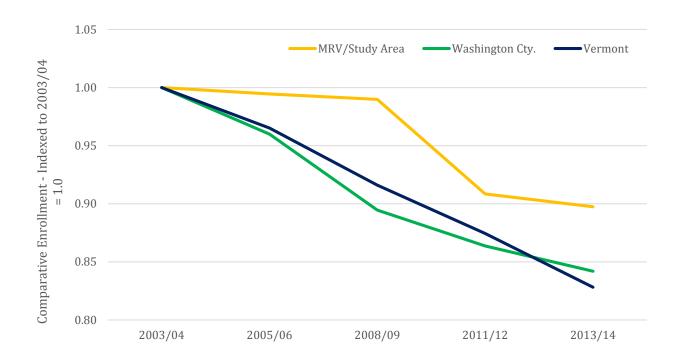
Public Schools Attended by MRV Children (2003/04 – 2013/14)¹¹



It is significant to note that enrollment in the schools that serve MRV children alone (Fayston, Waitsfield, Warren Elementary Schools) increased by 6.7 percent during the 2002/03 to 2013/14 period. This runs significantly counter to the regional trend, and suggests that in-migration to the three communities is being generated by households with school-aged children. Moreover, while the combined elementary, middle and high school population has experienced enrollment declines, these declines have been significantly less than those at the county and statewide levels. Combined, enrollment in these schools declined by just over 10 percent between 2003/04 and 2013/14.,The graphic below compares this trend with enrollment trends at the Washington County and statewide levels below, with 2002/03 enrollment indexed to = 1.0.

Comparative Enrollment Trends

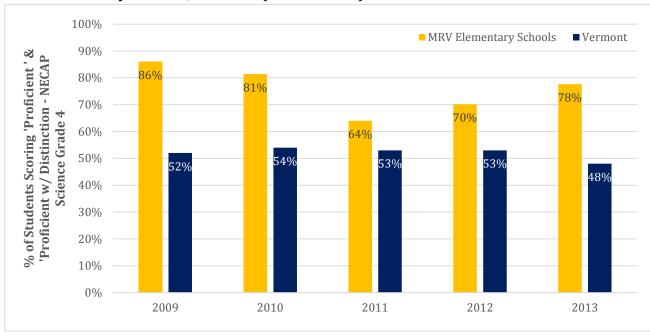
Schools Serving MRV Students; Washington County Schools, Vermont Schools / Enrollment Indexed to 2002/03 = 1.0 (2003/04 - 2013/14)



Achievement – the New England Common Assessment Program (NECAP) offers one approach to comparing achievement in MRV schools relative to achievement at the statewide level. The graphic below compares test results for the three MRV elementary school with test results for the entire state for the period 2009 to 2013, showing the percentage of students earning 'Proficient' and 'Proficient with Distinction' test scores.

Percent of Students Scoring 'Proficient' and 'Proficient with Distinction' on NECAP Science Grade 4 Test |

MRV Elementary Schools, Vermont (2009 - 2013)12



TAKE AWAY - EDUCATION:

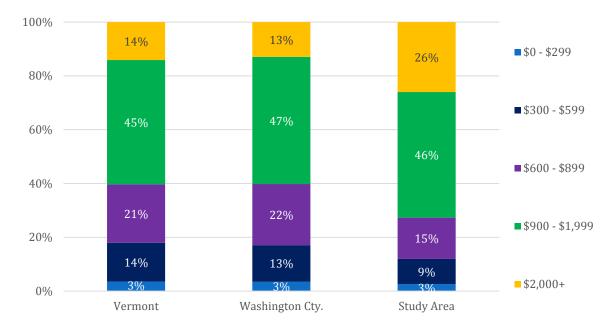
- → IN-MIGRATION TO THE THREE COMMUNITIES IS BEING GENERATED BY HOUSEHOLDS WITH SCHOOL-AGED CHILDREN
- → MRV STUDENTS HAVE BEEN FAR MORE SUCCESSFUL IN TERMS OF NECAP TEST SCORES; HIGH ACHIEVING SCHOOLS SYSTEMS ARE TYPICALLY MAGNETS FOR HOUSEHOLDS WITH CHILDREN.

HOUSING – AFFORDABILITY, AGE AND CONDITION

Having identified that households in the Study Area are generally more affluent and the schools within the MRV are outperforming the rest of the state in achievement, an obvious question is what is the condition of the physical housing stock that support these families?

Housing is a major component of 'cost of living.' The following graphic compares Study Area households with Vermont and Washington County households in terms of monthly housing cost, showing the distribution of households by how much they pay for housing on a monthly basis.

Households Distributed by Monthly Cost of Housing (2012)¹³



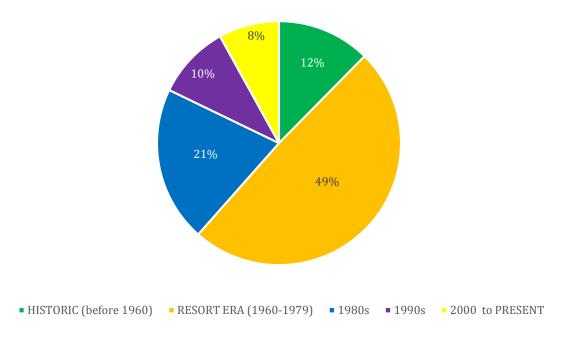
Data show that 26 percent of the Study Area's households have housing costs exceeding \$2,000 on a monthly basis; this compares to only 14 percent of Vermonters and 13 percent of Washington County households. Median monthly housing costs are the same in Vermont and Washington County, at \$1,076. However, median monthly housing costs in the Study Area are 29 percent higher, at \$1,382.

TAKE AWAY- HOUSING AFFORDABILITY:

- → IT COSTS MORE TO LIVE IN THE STUDY AREA THAN IN SURROUNDING AREAS OF WASHINGTON COUNTY.
- → STUDY AREA HOUSEHOLDS ARE MORE AFFLUENT THAN THE VERMONT NORM SO WHAT ARE THEIR SOURCES OF INCOME?
- → 72% OF HOUSEHOLDS ARE PAYING MORE THAN \$900/MONTH FOR HOUSING WHILE 58% OF HOUSEHOLDS EARN LESS THAN \$75,000 PER YEAR.

The graphic below provides a snapshot on the age of housing within the MRV. The categories defined below relate, in part, to broader resort development trends commonly seen in New England.

Age of Housing Stock within the Study Area¹⁴



What is most striking about the observed distribution is that nearly 50% of the housing within the Study Area was built between 1960 and 1979. This was an age of relatively Spartan construction methods with little consideration for energy efficiency. This was also the age when housing was dominated by condominium development. It is not surprising to see a significant increase in

housing stock within that time period. For many resorts, on a national scale, the 60s and 70s were a period of great expansion.

Having observed this snapshot for the Study Area a logical follow-up is whether the pattern seen is consistent with Vermont and other Vermont ski towns. A similar graphic is provided below.

Age of Housing Stock - Vermont Ski Town Comparison¹⁵



Interestingly, the Study Area has significantly less "historic" housing than Vermont as a whole.

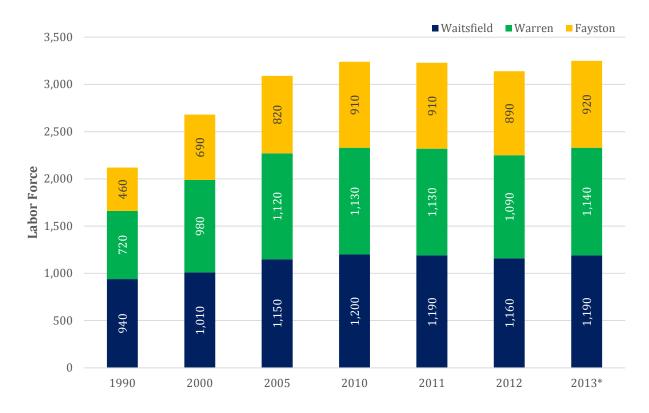
TAKE AWAY- HOUSING CONDITION AND AGE:

- → NEARLY HALF OF THE VALLEY'S HOUSING STOCK DATES FROM THE RESORT "BOOM" ERA WHEN CONDOMINIUM DEVELOPMENT PREDOMINATED AND BUILDING ENERGY EFFICIENCY, MATERIALS WERE DIFFERENT.
- → THE VALLEY HAS A PROPORTIONALLY LARGER SHARE OF OLDER RESORT-ERA HOUSING STOCK THAN OTHER RESORT AREAS, AND TWICE THE PROPORTION OF THE STATE AS A WHOLE

EMPLOYMENT – TRENDS AND WORKFORCE CHARACTERISTICS

There are many anecdotes and conceptions of what industries – or particular businesses – 'drive' the Mad River Valley economy. The following graphic shows change in the Study Area's total labor force (by town) over the 1990 to 2013 period.

Labor Force Change: MRV/Study Area (1990 - 2013)¹⁶



The following graphic shows change in the Study Area's total employment (by town) over the 1990 to 2013 period.vi

Employment Change: MRV/Study Area (1990 - 2013)¹⁷



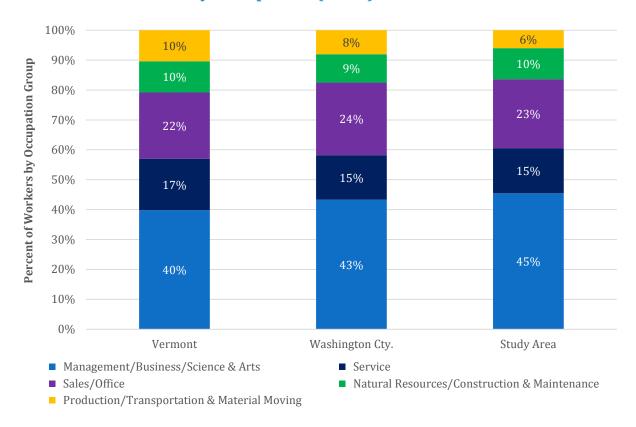
TAKE AWAY - LABOR/EMPLOYMENT GROWTH:

- → OVERALL, THE STUDY AREA'S LABOR FORCE GREW BY **21 PERCENT** BETWEEN 2000 AND 2013. THIS COMPARES TO 7 PERCENT FOR WASHINGTON COUNTY AND 5 PERCENT FOR VERMONT. OVER THE SAME PERIOD THE POPULATION OF THE STUDY AREA GREW BY 38.9%.
- → OVERALL, STUDY AREA EMPLOYMENT GREW BY **20 PERCENT** BETWEEN 2000 AND 2013. THIS COMPARES TO 5 PERCENT FOR WASHINGTON COUNTY AND 3 PERCENT FOR VERMONT.

vi Only covered employment included – self-employed and other non-covered jobs not included.

The following graphic compares the distribution of workers, by Occupation, for Vermont, Washington County and the Study Area. vii

Worker Distribution by Occupation (2012)¹⁸



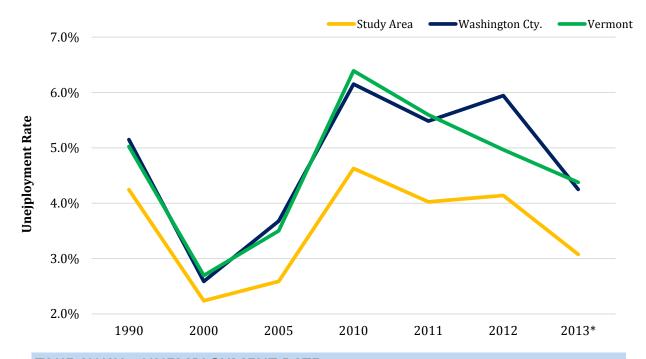
Although the differences are not dramatic, it is apparent that a relatively higher segment of Study Area workers' occupations are in Management/Business/Science & Arts, particularly when compared to the state as a whole.

vii Note that *Occupation* refers to the worker's job description, not to the industry in which they are employed.

The following graphic compares Study Area, Washington County and Vermont unemployment rate changes over the period 1990 to 2013.

Unemployment Rate Changes

MRV/Study Area, Washington County, Vermont (1990 - 2013)¹⁹



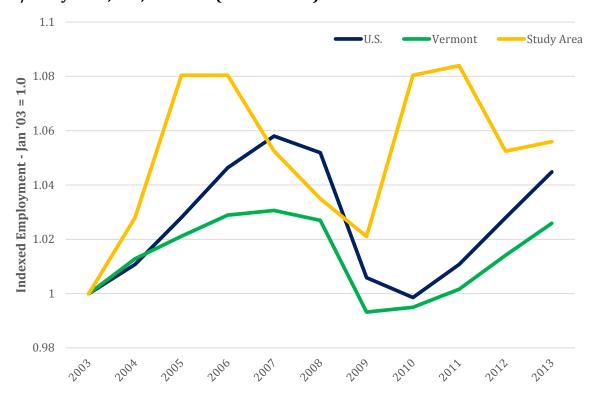
TAKE AWAY - UNEMPLOYMENT RATE:

→ ALTHOUGH THE STUDY AREA'S CYCLE OF UPS AND DOWNS IN THE UNEMPLOYMENT RATE IS SIMILAR TO THAT FOR THE COUNTY AND STATE, IT IS APPARENT THAT THE STUDY AREA TYPICALLY ENJOYS A LOWER UNEMPLOYMENT RATE.

The following graphic compares the Study Area, Vermont and the U.S. in terms of changes in employment over the 2003 to 2013 period. In each instance, employment has been indexed to 2003 Level = 1.0 to compare relative changes over time.

Indexed Employment Comparison:

MRV/Study Area, U.S., Vermont (2003 - 2013)²⁰



TAKE AWAY - EMPLOYMENT TRENDS:

→ THE STUDY AREA APPEARED TO 'ANTICIPATE' THE LATE-2000S DOWNTURN, BASED ON EMPLOYMENT.

Worker Flows

It is apparent that there is a daily flow of workers/traffic into and out of the Mad River Valley – for employment purposes. Based on this, the Consulting Team sought data to test the following hypotheses:

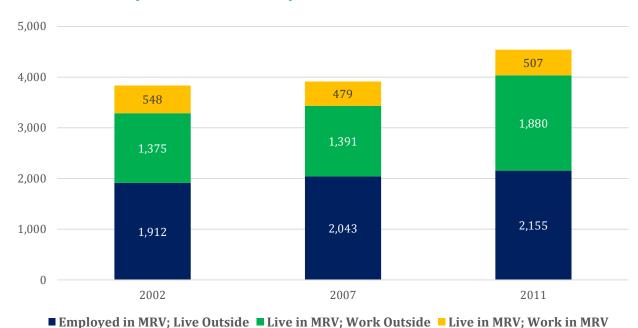
- A. Anecdotally, it appears that an unusually large share of the MRV's working population works principally or exclusively from home. The "typical home-based professional" is characterized as having an earned income higher than the MRV or Vermont average, having the ability to purchase or rent housing in the MRV at the higher end of the median range of housing values, and choosing to live in the MRV for quality of life (i.e. recreation, visual, environmental, educational access and quality) reasons.
- B. Because of the seasonality of employment, lack of entertainment options in the MRV, and the housing stock "mismatch," some portion of seasonal labor must be "imported" (i.e. commutes in) from lower-cost OR more "18-to-34-friendly" areas for the agriculture, tourism and recreation sectors. This cohort represents some income "exported" from the MRV.
- C. The MRV is at the periphery of, but still within, the "Fifty-Minute Commute" radius to the State's two largest labor markets Barre/Montpelier/Waterbury and Burlington/South Burlington/Essex Junction as well as Burlington International Airport. This proximity allows the MRV to serve as a "Bedroom Community" or work-at-home base for individuals employed in larger regional and out-of-state markets where wages and incomes generally are higher than those derived from most MRV-based employment. This cohort represents income "imported" to the MRV.

We have gathered and analyzed data that may provide a detailed view of these flows, with the intent of understanding to what extent the study area is dependent on outside businesses – and to what extent the study area provides employment for non-residents.



The following graphic compares years 2002, 2007 and 2012 in terms of major commuting flows to/from the Study Area: 1) Workers who live outside the study area, but work inside the Study Area; 2) Workers who live in the Study Area, but work outside the Study Area; and 3) Workers who live <u>and</u> work in the Study Area.

Worker Flows (2002, 2007, 2011)²¹



Overall, the data shows that the segment of workers who *live & work* in the Study Area declined from 14.3 percent to 11.2 percent of the total between 2002 and 2011. The absolute value declined as well, from 548 to 507 workers.

At the same time, anecdotal evidence suggests that the number of work-at-home persons is well above average in the Study Area; this is borne out by data regarding self-employment elsewhere in this report. However, the extremely high reported numbers (40+/- percent) appear *not* to be borne out by the data; the actual value is closer to 15.3 percent.

TAKE AWAY - WORKER MOBILITY:

- → THE PERCENTAGE OF EMPLOYED PERSONS WORKING AT HOME WITHIN THE STUDY AREA 15.3 PERCENT / WASHINGTON COUNTY 7.9 PERCENT / VERMONT 7.1 PERCENT.
- → THE PERCENTAGE OF STUDY AREA WORKERS WORKING AT HOME IS MORE THAN TWICE THE STATEWIDE AVERAGE.

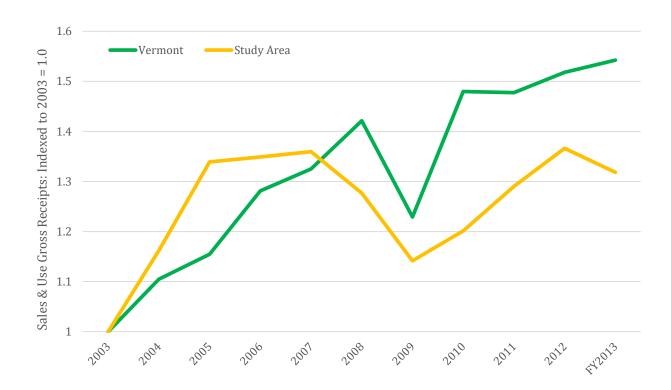
OK – it looks like the Study Area economy has grown significantly faster than the county or state economy in recent years – but how do its cycles compare to regional/national trends?

ECONOMIC ACTIVITY – GENERAL TRENDS

The following graphic compares indexed Sales & Use Gross Receipts for the Study Area and Vermont for the period 2003 to FY2013. Again, the data is indexed to 2003 = 1.0 for purposes of comparison.

Indexed Sales & Use Gross Receipts:

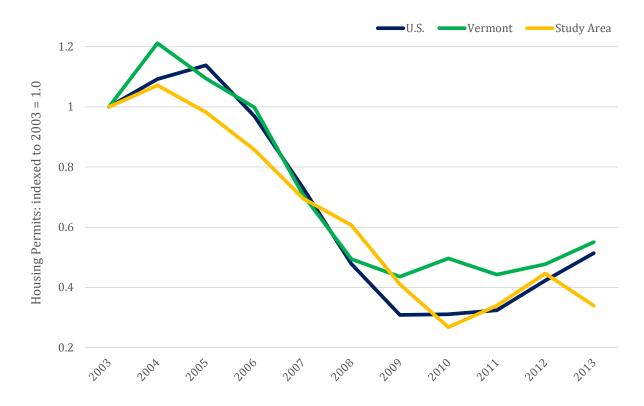
MRV/Study Area, Vermont (2003 - FY2013)²²



Housing permit activity is an excellent indicator of the health of an economy and is often used as a predictor of future trend. The following graphic compares indexed housing permits – over the 2003 to 2013 period – for the Study Area, Vermont and the U.S. Again, the data is indexed to 2003 = 1.0 for purposes of comparison.

Indexed Housing Permits:

MRV/Study Area, U.S., Vermont (2003 - 2013)²³



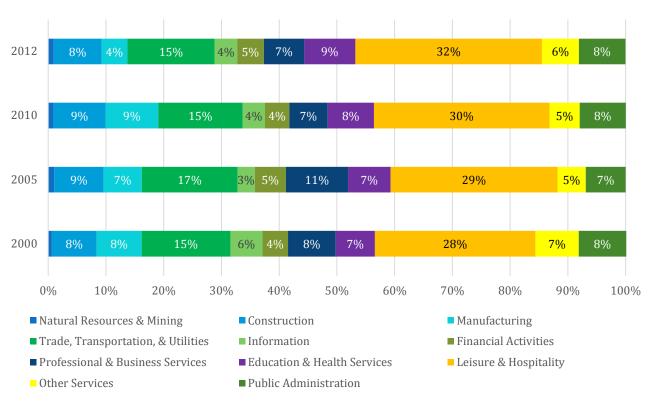
TAKE AWAY - ECONOMIC ACTIVITY:

- → OVERALL, STUDY AREA TRENDS ARE REASONABLY SIMILAR TO STATEWIDE TRENDS BUT REFLECT LESSER GROWTH DURING THE ENTIRE PERIOD SHOWN.
- → HE STUDY AREA DIDN'T ESCAPE THE SEVERE DOWNTURN IN HOUSING ACTIVITY OF THE LATE 2000S AND SHOWS AN OVERALL TREND THAT IS VERY CLOSE TO THE STATEWIDE AND NATIONAL TRENDS.

INDUSTRY SECTORS – EMPLOYMENT TRENDS

The following graphic compares the distribution of Study Area employment by industry, over the period from 2000 to 2012. For each year (2000, 2005. 2010, 2012) the percentage of workers by industry is shown.

Trend in Distribution of Study Area Employment by Industry (2000 – 2012)²⁴



TAKE AWAY - EMPLOYMENT DISTRIBUTION:

→ LEISURE & HOSPITALITY HAS CONSISTENTLY BEEN THE MAJOR SOURCE OF EMPLOYMENT IN THE STUDY AREA, CURRENTLY (2012) ACCOUNTING FOR 32 PERCENT OF EMPLOYMENT. OTHER SIGNIFICANT CONTRIBUTORS INCLUDE TRADE/TRANSPORTATION/UTILITIES AND PROFESSIONAL & BUSINESS SERVICES.

The following table addresses volatility in industry employment – the percent by which employment varied from the mean (up or down) over the 2000 to 2012 period.

Industry Employment Volatility (2000 - 2012)

	Variance from Mean Employment Level (2000 - 2012)		
	Negative	Positive	
Natural Resources & Mining	-37%	+23%	
Construction	-16%	+10%	
Manufacturing	-36%	+34%	
Trade, Transportation, & Utilities	-9%	+15%	
Information	-21%	+26%	
Financial Activities	-14%	+23%	
Professional & Business Services	-17%	+40%	
Education & Health Services	-20%	+13%	
Leisure & Hospitality	-15%	+8%	
Other Services	-12%	+15%	
Public Administration	-5%	+5%	
Totals	-9%	+7%	

TAKE AWAY – EMPLOYMENT VOLATILITY:

→ BOTH MANUFACTURING AND PROFESSIONAL/BUSINESS SERVICES HAVE SHOWN SIGNIFICANT VOLATILITY OVER THE PAST 12 YEARS. BY CONTRAST, CONSTRUCTION AND LEISURE/HOSPITALITY HAVE BEEN RELATIVELY STABLE SOURCES OF EMPLOYMENT.

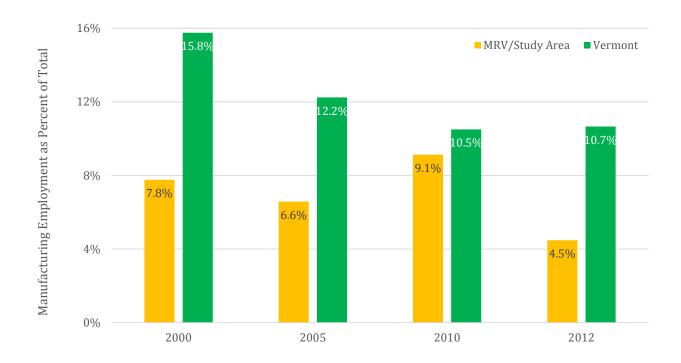
Focus on Manufacturing

As noted, manufacturing employment has been relatively volatile in the MRV between 2000 and 2012; manufacturing employment ranged from 4.5 to 9.1 percent of total employment. It is worth noting that, by contrast with the entire state, manufacturing employment is relatively less significant in the MRV.

The graphic below compares the MRV with Vermont, showing Manufacturing employment as a percent of the total over the 2000 to 2012 period.

Manufacturing Employment as Percent of Total Employment

MRV/Study Area, Vermont (2000 - 2012)²⁵



Focus on Recreation/Skiing

Expenditures by skiers are a significant generator of revenue for the MRV. In combination, Sugarbush and Mad River Glen generate approximately 385,000 skier-visits on an annual basis. Based on available data, it is estimated that approximately 48 percent of these skier-visits are 'day skiers \sim persons who drive to and from their residence for one day of skiing - and that 52 percent are 'overnight skiers' - persons who spend at least one night away from home.

Although Vermont's tourism data collection system is barely adequate, estimated per diem expenditures by skiers (Day & Overnight) have been estimated based on a series of tourism studies. It is estimated that the average 'overnight skier' spends \$119.55 in Vermont on a daily basis, while the average 'day skier' spends \$66.31 in Vermont on a daily basis. These figures include expenditures for: Lodging; Restaurants; Skiing/Recreation; Shopping; Gasoline; Groceries; Transportation; Entertainment; and other. Based on these values, the table below provides an *estimate* of annual spending by skiers visiting Sugarbush and Mad River Glen.

Annual Skier Expenditures: Sugarbush & Mad River Glen Skiers²⁶

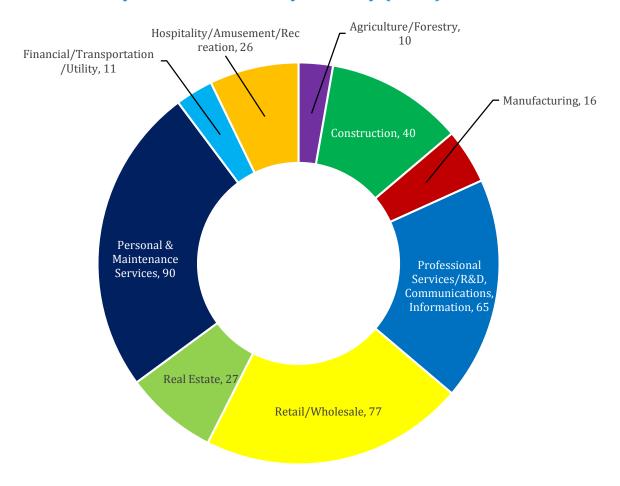
	Approximate Annual Skier-Visits	Estimated Per Diem Expenditures	Total Expenditures (\$Millions)
Overnight	186,485	\$119.55	\$22.29
Day	198,515	\$66.31	\$13.16
Total	385,000		\$35.46

In total, it is estimated that Sugarbush and Mad River Glen skiers generate a *direct* total of over \$35 million in expenditures, the majority of which occur in MRV/Study area. Expenditures at this volume can be expected to have secondary impacts, creating additional jobs both locally and regionally.

INDUSTRY SECTORS – ECONOMIC ACTIVITY

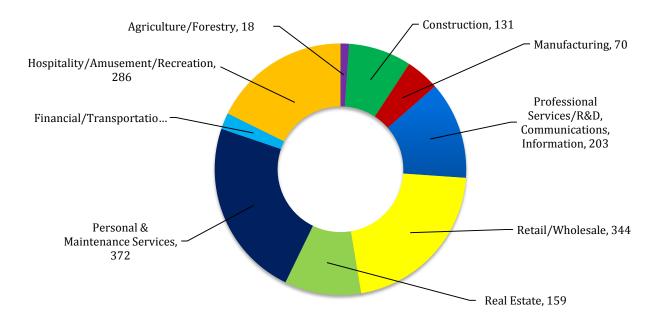
At a finer level, a detailed inventory of businesses/employers in the Study Area was developed as a means of assessing the local economy. A summary of the inventory is shown in the table below, showing Number of Businesses by Industry, Average Employment, viii and Gross Sales. The charts below show the number of Study Area business establishments, total employment, and gross sales (in thousands of dollars) by detailed industry.

Number of Study Area Businesses by Industry (2013)²⁷

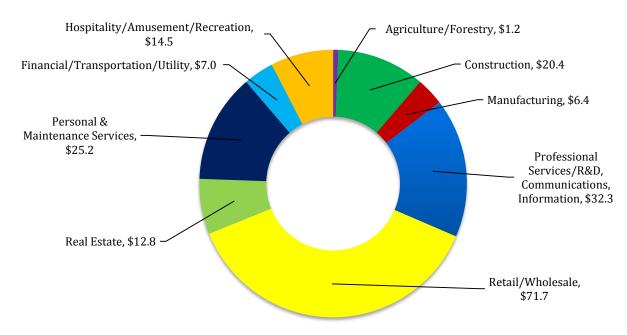


viii Employment figure is average over the course of one year – data for 2012.

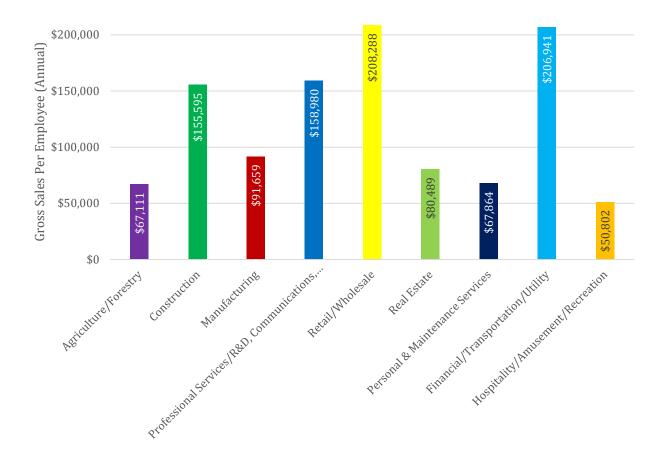
Number of Employees by Industry (2013)²⁸



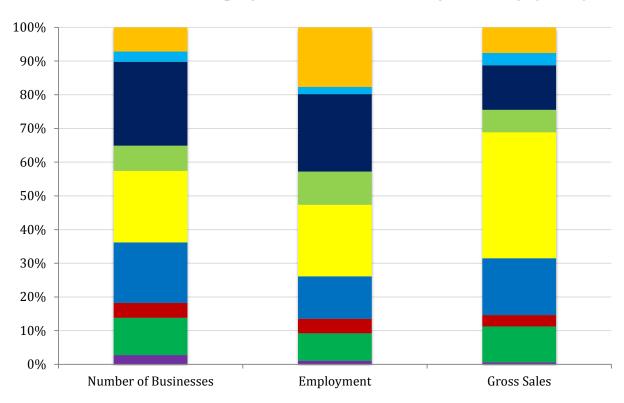
Gross Sales (Millions) by Industry (2013)²⁹



Gross Sales per Employee by Industry (2013)



Comparative Percentage Breakdowns: Number of Businesses, Employment & Gross Sales by Industry (2013)



- Agriculture/Forestry
- Manufacturing
- Retail/Wholesale
- Personal & Maintenance Services
- Hospitality/Amusement/Recreation

- Construction
- Professional Services/R&D, Commun., Info.
- Real Estate
- Financial/Transportation/Utility

The table following breaks down the MRV's businesses by detailed industry category.

MRV Business Inventory by Type³⁰

Industry	Number Businesses	Average Employment	Gross Sales (\$Millions)
Agriculture/Forestry	10	18	\$1.2
Construction	40	131	\$20.4
Communications/Information/Publish	11	40	\$19.4
Manufacturing	16	70	\$6.4
Real Estate Activities	27	159	\$12.8
Retail	65	316	\$52.8
Professional Services/R&D	54	163	\$12.9
Services	90	372	\$25.2
Hospitality/Amusement/Recreation	26	286	\$14.5
Financial	8	27	\$6.7
Transportation/Utility	3	7	\$0.4
Wholesale	12	28	\$18.8
Totals	362	1,617	\$191.5

TAKE AWAY- INDUSTRY SECTORS:

- → MANUFACTURING ACCOUNTS FOR ONLY 4 PERCENT OF EMPLOYMENT AND 3 PERCENT OF GROSS REVENUES;
- → PROFESSIONAL SERVICES ACCOUNTS FOR 10 PERCENT OF EMPLOYMENT AND 7 PERCENT OF GROSS REVENUES;
- → HOSPITALITY/TOURISM ACCOUNTS FOR 19.2 PERCENT OF EMPLOYMENT AND 8.4 PERCENT OF GROSS REVENUES (BASED ON DEFINED NAICS CODES FOR HOSPITALITY/TOURISM ACTIVITIES);
- → 'FOOD SYSTEMS' ACCOUNTS FOR 8 PERCENT OF EMPLOYMENT AND 12 PERCENT OF GROSS REVENUES (BASED ON VERMONT FARM TO PLATE INVESTMENT PROGRAM'S DEFINITION OF INDUSTRIES INVOLVED IN VERMONT'S 'FOOD SYSTEM').

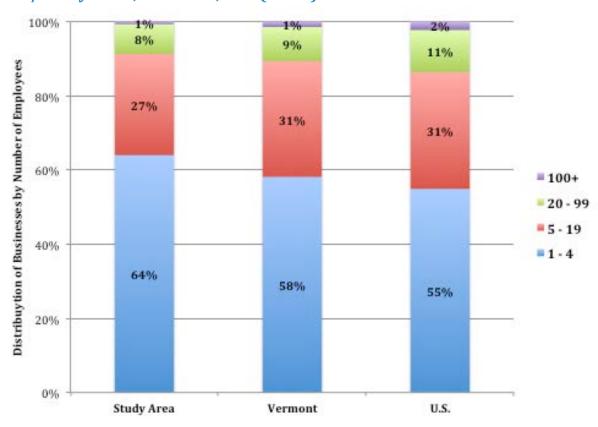


Data regarding the distribution of businesses by size (Number of Employees) was also collected for the Study Area (2000 - 2011) along with current (2011) comparative data for Vermont and the U.S. The results are shown in the table and graphic below.

Business Distribution by Number of Employees (2000 - 2011)³¹

		% Distribution of Businesses by Number of Employees Number of Employees			
Study Area					
		1 - 4	5 - 19	20 - 99	100+
	2000	63%	27%	9%	0.7%
	2005	64%	27%	7%	1.3%
	2011	64%	27%	8%	0.7%
Vermont					
	2011	58%	31%	9%	1.5%
U.S.					
	2011	55%	31%	11%	2.3%

Distribution of Businesses by Number of Employees: MRV/Study Area, Vermont, U.S. (2011)



TAKE AWAY - BUSINESS SIZE:

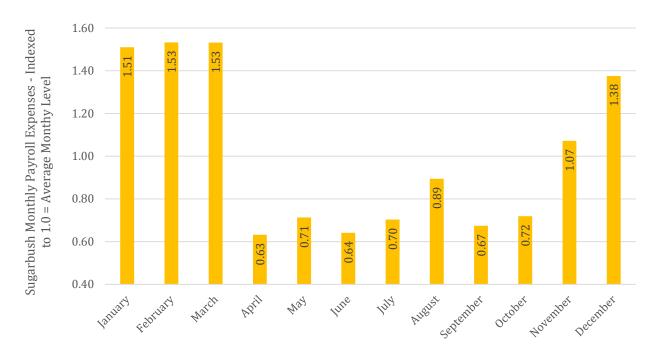
- → WITHIN THE STUDY AREA THE DISTRIBUTION OF BUSINESSES BY EMPLOYMENT SIZE DID NOT CHANGES SIGNIFICANTLY OVER THE 2000 TO 2011 PERIOD.
- → THE DISTRIBUTION OF STUDY AREA BUSINESSES TENDS TO BE SKEWED MORE TOWARD THE SMALL THAN THE DISTRIBUTION FOR VERMONT OR THE U.S. 64 PERCENT OF STUDY AREA BUSINESSES EMPLOY ONLY ONE TO FOUR PERSONS; COMPARATIVE VALUES ARE: VERMONT 58 PERCENT; U.S. 55 PERCENT.

SEASONALITY – ACTIVITY WITHIN THE YEAR

Vermont as a whole is more dependent on tourism/travel than most states, with summer, foliage and winter representing three clear peaks in tourism/travel activity. As such, the statewide employment and wages show some variation through the seasons. Given the evident importance of Sugarbush/Mad River to the Study Area economy, it has long been assumed that the 'local economy' is highly susceptible to seasonal ups and downs; this is assessed below.

The following graphic reflects the seasonality of Sugarbush's employment patterns through the year. The graphic is an indexed representation of total payroll on a month-to-month basis, with 1.0 equal to the average monthly payroll level.

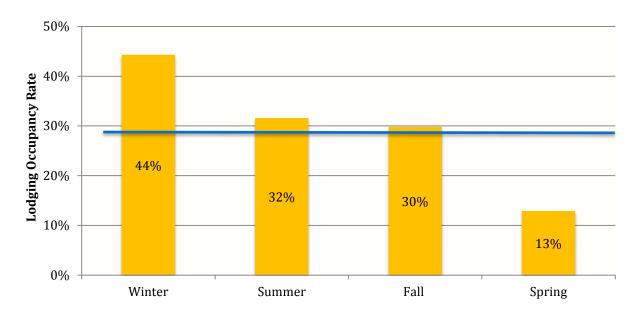
Indexed Monthly Payroll Variation - Sugarbush (FY 2012, 2013)³²



Sugarbush resort's monthly payroll expenses vary significantly during the year, ranging from 0.63 percent of the average in April to 1.53 percent of the average in February and March. Clearly, there is a substantial drop-off in activity from March to April.

From 1996 to 2008, season-by-season average lodging occupancy data was gathered for lodging facilities located in the MRV. While the data shows minor year-to-year variations, broad patterns are quite consistent, with annual occupancy levels ranging from 27 to 33 percent; during the entire 13-year survey period, occupancy averaged 30 percent. Not surprisingly, occupancy varied dramatically from season to season, with a high in winter and a low in spring. This is shown in the graphic below, which shows averaged seasonal occupancy levels during the entire survey period.

Seasonal Lodging Occupancy; MRV Lodging Facilities (1996 - 2008)33



During the period surveyed, lodging occupancy varied significantly from season to season, ranging from a low of 13 percent in spring to a high of 44 percent in winter. It should also be noted that lodging availability also varied from season to season. During the period surveyed an average of approximately 1,000 lodging rooms were available; this compares to off-season periods, when an average of approximately 500 lodging rooms were available. In short, a significant segment of the MRV's lodging capacity closed during off-seasons. Thus the higher occupancy rate in winter also reflects a significantly higher volume of business.

Seasonality can also be viewed more broadly, using tax receipt data. The graphic below shows variations in month-to-month total Sales & Use Receipts, comparing the Study Area (Data only available for Waitsfield/Warren), Washington County and Vermont. 1.0 equals the *average* monthly level.

Indexed Total Sales & Use Receipts (2010 - 2012)³⁴

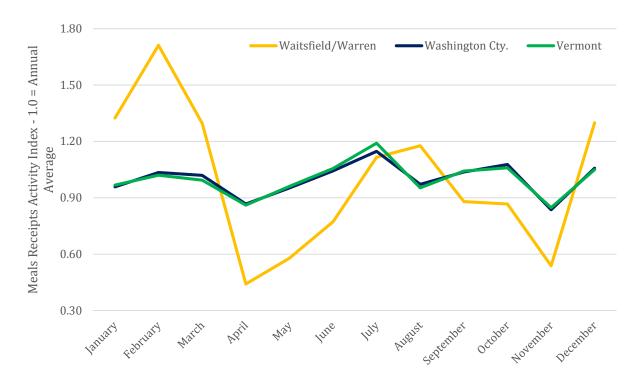


TAKE AWAY - SALES AND USE RECEIPTS:

→ WHILE THE STUDY AREA'S MONTH-TO-MONTH PATTERN DOES NOT CONFORM TO THE STATEWIDE OR COUNTYWIDE PATTERN, THE OVERALL LEVEL OF VARIATION DOES NOT EXCEED THE NORM. WHILE THE VERMONT DATA SHOWS THE LEAST VARIATION, WASHINGTON COUNTY SHOWS THE MOST VARIATION FROM HIGH TO LOW.

A similar analysis was applied to Rooms & Meals receipts, indicators that are more closely tied to travel/tourism activity. See the graphic below.

Indexed Total Rooms & Meals Receipts (2010 - 2012)35

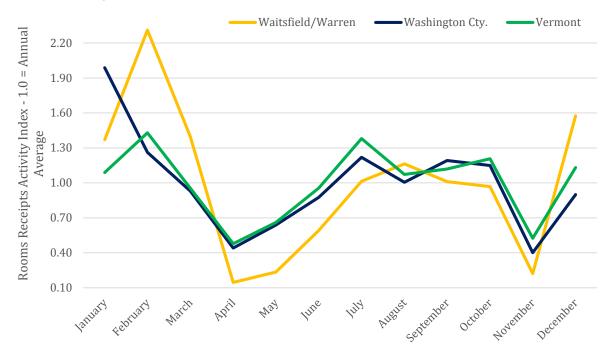


TAKE AWAY - ROOMS AND MEALS RECEIPTS:

→ THE STUDY AREA SHOWS SUBSTANTIAL SEASONALITY USING ROOMS & MEALS AS AN INDICATOR WITH A RANGE FROM 32 TO 164 PERCENT OF THE MONTHLY AVERAGE; THIS FAR EXCEEDS THE MONTH-TO-MONTH VARIATION AT THE COUNTY OR STATEWIDE LEVEL.

Finally, as a broader measure of month-to-month variation, Sale/Use and Rooms/Meals were combined in an indexed analysis, as shown below.

Indexed Sales/Use and Rooms/Meals Receipts Combined (2010 - 2012)³⁶



TAKE AWAY - INDEXED RECEIPTS

- → THE STUDY AREA SHOWS MORE VARIABILITY THAN THE COUNTY OR STATE ON A COMBINED BASIS; HOWEVER, THE RANGE OF VARIABILITY IS FAR LESS EXTREME THAN THAT FOR THE SUGARBUSH OR MEALS/ROOMS INDICES SHOWN ABOVE:
 - STUDY AREA RANGE FROM 81 TO 126 PERCENT OF AVERAGE TOTAL RANGE 45 PERCENT
 - WASHINGTON COUNTY RANGE FROM 82 TO 122 PERCENT OF AVERAGE TOTAL RANGE 40 PERCENT
 - VERMONT RANGE FROM 92 TO 116 PERCENT OF AVERAGE TOTAL RANGE 25 PERCENT.

How does seasonality in The Valley compare to that in other resort oriented communities?

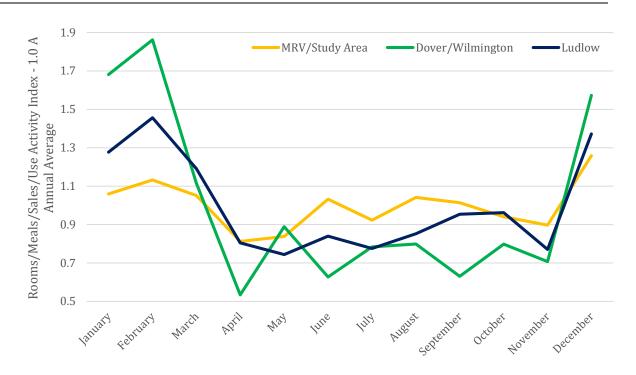
For purposes of comparison, data was collected for two other Vermont communities that have local economies that are heavily influenced by the ski business:

- Dover/Wilmington Mount Snow Resort & Haystack/Hermitage Club (475,000+/- Skier-Visits in recent years);
- Ludlow Okemo Mountain Resort (600,000+ Skier-Visits in recent years).

For purposes of comparison, combined monthly Meals/Rooms and Sales/Use gross receipt data was collected for each community, to provide a direct comparison with the MRV data shown above. The results of this analysis are shown in the graphic below with an indexed analysis of seasonal variation, with 1.0 equal to the annual average level.

Comparative Seasonality Analysis: MRV, Dover and Ludlow

Indexed Total Rooms & Meals Receipts (2010 - 2012)³⁷



The analysis indicates that seasonality is more pronounced in Dover/Wilmington and Ludlow than in the MRV. As noted above, the MRV monthly variation is from 81 to 126 percent of the average, a total swing of 45 percent.

- Dover/Wilmington monthly activity varied from a low of 53 percent of the average
 (April) to a high of 186 percent of the average (February) a total range of 133 percent ~
 an extreme level of seasonality;
- Ludlow monthly activity varied from a low of 74 percent of the average (May) to a high of 146 percent of the average (February) a total range of 71 percent;

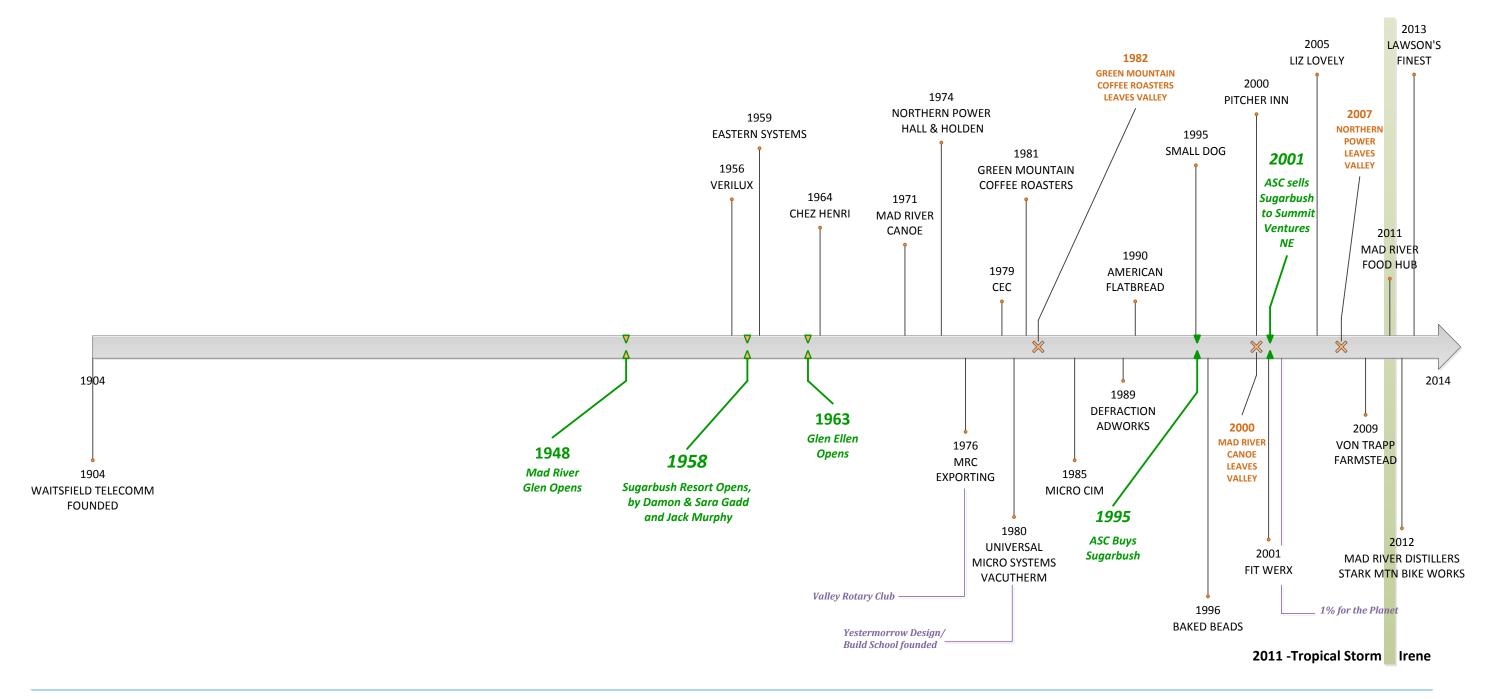
In comparison with Dover/Wilmington and Ludlow, the MRV appears to have developed a 'better rounded' local economy.

TAKE AWAY - COMPARATIVE SEASONALITY:

- → THE STUDY AREA SHOWS MORE VARIABILITY THAN THE COUNTY OR STATE ON A COMBINED BASIS; HOWEVER, THE OVERALL RANGE OF VARIABILITY IS FAR LESS EXTREME THAN THAT FOR THE SUGARBUSH OR MEALS/ROOMS INDICES SHOWN ABOVE:
- → STUDY AREA RANGE FROM 81 TO 126 PERCENT OF AVERAGE TOTAL RANGE 45 PERCENT;
- → WASHINGTON COUNTY RANGE FROM 82 TO 122 PERCENT OF AVERAGE TOTAL RANGE 40 PERCENT;
- → VERMONT RANGE FROM 92 TO 116 PERCENT OF AVERAGE TOTAL RANGE 25 PERCENT.
- → SEASONALITY IS LESS EVIDENT IN THE MRV/STUDY AREA THAN IN TWO OTHER VERMONT MOUNTAIN RESORT COMMUNITIES: DOVER/WILIMINGTON AND LUDLOW.

TIMELINE – ECONOMIC DEVELOPMENT IN THE VALLEY

Beyond the empirical analysis of manufacturing business volatility, we have also noted the anecdotal evidence of businesses moving in, growing up, and in a few cases, moving out. To better illustrate this point we have reviewed news articles and postings over a twenty-year period, as well as business histories from websites and news articles, to document more specifically examples aspects of this economic dynamism. While not a complete accounting of business ebb and flow, it does help further reinforce the observations of many that the limitations on achieving scale in manufacturing within the MRV have an impact on the evolution of manufacturing businesses. A more complete timeline and summary of business listings is provided as APPENDIX 2.



KEY FINDINGS AND OBSERVATIONS

Key Findings and Observations

SEASONALITY IS REAL AND WILL CONTINUE TO BE

Developing a quantitative understanding of how the Mad River Valley economy cycles on a seasonal basis is critical. While it is obvious that the economy peaks during the winter months

with corresponding employment and dollar impacts, there also appear to be several counter-cyclical industries, such as property management and landscaping, and summer tourism services that may counter the winter high to summer low cycle. There are also important steps, such as developing

Seasonality is clearly a factor in the Study Area, more so than in Vermont as a whole. However, it is important to note that this seasonality has existed in local business patterns over a significant number of years. As such, the local economy has 'adjusted' to this

weatherized facilities able to host larger events that may help extend both capacity and the length of the season for weddings and other events. Some policy measures at the town level, such as adjusting conditional use criteria and parking standards, may be able to support development and operation of these key facilities. Recognizing that seasonal influences will drive economic outcomes might provide a strong basis for policy development.

AGRICULTURE/ FOOD SYSTEMS - AN EVOLVING INDUSTRY

The emergence of the local food movement has without question changed the perception of the MRV as a farming community, reflecting significant transitions and emerging businesses in the MRV. Where many communities faced concerns about the potential for land conversion and development as traditional dairying declined, the Valley's history of protecting open space associated with agricultural uses largely ensured that this type of large-scale conversion would not occur. Instead, operations have simply shifted on the land to keep pace with local food and production opportunities. As it stands now the DeFreest farm is doing most of the traditional "commodity" farming and dairying, while multiple small-scale agricultural enterprises (such as elderberries, Yak, VT Bean Crafters, Liz Lovely, VT Whey-Fed Pig Company, etc.) are starting to make their presence and products apparent. Farming has become more diverse and its presence in the economy extends from CSA's (Community Supported Agriculture) to a role in the wedding business; it is now a "Food System".

While the quantitative economic data does not suggest that the agricultural sector has an outsized role in economic activity on a day-to-day basis, the general consensus is that the sector is in dynamic transition, is growing and, perhaps most importantly, is well aligned with and supports

KEY FINDINGS AND OBSERVATIONS

other, larger economic sectors such as recreation and tourism. Supporting this dynamism through land use policies and inter-agency cooperation offers a chance to bridge "past and future" and to continue to keep working lands in agricultural use. There are a number of unexpected but important considerations. First, in a nod to the Valley's history, its many historic hill farms (See MRV Hill Farm Documentary at https://vimeo.com/90008538) that are ideal for grazing are proving to be economically viable for specialty products and may need to be the focus either of conservation investments, or different policies to support construction of important buildings and structures. Operations at the Mad River Food Hub were, without question, "mission-critical" to the economic viability; today, the availability of the functional slaughter facilities is believed by many to be the "missing link". The State of Vermont Department of Agriculture Farmland Access program is and has been critical to supporting this shift, and works in strong partnership with the Vermont Land Trust; the Valley's Conservation Partnership may shift its focus from conventional land transactions to a more active focus on farming and food business support.

RECREATION / TOURISM – TAKING MANY FORMS

Within the lodging component of this sector it seems there is a "seven-year itch" associated with owners. This means that perceptions should, ideally, shift to understand that the sale and turnover of properties is normal and to be expected, and is not necessarily a symptom of a bad economy. There seems to be some support for development or redevelopment for updated lodging options, focused on addressing the needs of the modern visitor which are not met in some of the Valley's larger properties, which date from the 1960s and 1970s. Recognizing the evolving visitation patterns within the MRV and tracking efforts by Sugarbush to position itself relative to non-winter recreation, activities and events should be a priority.

Perhaps one of the most expressed concerns for participants in this sector is the troubles with permitting under Act 250. While long a "poster child" for developer outrage, it seems the more contemporary concerns relate to the lack of flexibility in land use decisions as it relates to the dynamic/seasonal nature of places like the MRV.

An essential area of policy to support greater yearround economic activity concerns current policies related to catering permits, occupancy, parking, provisions limiting the number of events per year, all of

which are conditions imposed by town Development Review Boards (usually through conditional use review) and all of which affect the ability to conduct event-based programs. The Towns have, individually, made important improvements on some of these fronts. Regulations addressing the

KEY FINDINGS AND OBSERVATIONS

adaptive reuse of historic structures for wedding and other events were adopted in Waitsfield and have facilitated projects. Some language exists in Warren, none in Fayston. Event space also plays prominently in the V-DAT efforts which suggest finding better, more adaptable **year-round** space would be supportive of the tourism economy.

PROFESSIONAL SERVICES AND THE COMMUTING WORKER

Perhaps one of the most surprising finding of the Study relates to the interesting role of the services sector, particularly the professional services component. The large percentage (roughly 15 percent of the workforce, twice the State average) of work-at-home professionals and telecommuters is very unique to the MRV and appears to be supported by the recreation, innovation and agriculture economies, and to some extent, the Valley's quality schools. These individuals also contribute to the economy by making the MRV their place of residence, by shopping locally, by using local services, and investing social capital in the community. Beyond the local professional service work, we also have the "Fifty-Minute Radius" workers who are essentially "importing" income, from an economic standpoint.

What may be attracting this workforce could simply be the nexus of the physical environment and social assets, rather than specific economic policies. The proliferation of conservation land (and non-conserved agricultural land), a robust and growing trail network, the proximity to the ski areas and ancillary services (enough to attract & keep people) they provide, high quality schools, and the reasonable ability to get up and down Route 100 and access to the airport (which is close enough, but not *too* close) are certainly in play. Adding to this dynamic is the fact that the MRV has three top-ten elementary schools and a private high school.

Beyond those attributes we also observed that the MRV does have available housing, which includes affordable options. Investment in the housing stock is a positive on the whole from an economic standpoint, if not necessarily from a social standpoint when development is proposed. The higher cost of housing seems to be balanced out, for the professional worker segment, by higher incomes derived from work-at-home or "fifty-minute radius" employment.

MANUFACTURING/INCUBATION – THE VALLEY AS A CATALYST

The historic of manufacturing within the MRV has included an enviable list of iconic Vermont business that got their starts within The Valley. Some of those business went from home-spun to corporate, and moved on to larger spaces in Barre and Waterbury where highway access was better and natural gas is available. While the contribution of the manufacturing sector as measured by gross sales or employment is the lowest of the four evaluated, its role as a catalyst for

KEY FINDINGS AND OBSERVATIONS

innovation and as a way of attracting entrepreneurs may be critical. Much of the sentiment related to this perceived attract-incubate-vacate dynamic has been one of disappointment: In the case of high-profile businesses that have left the Valley, there has been continuing social discussion on why can't we keep these businesses. The lack of supportive infrastructure, lack of highway accessibility and energy costs, clearly are factors – and in the absence of an interstate expansion or new energy supply, both of which are unlikely and probably undesirable, this dynamic should not be seen as a "failure" on the part of the Valley.



Perhaps understanding the positive attributes that this dynamic of incubation provides might be the basis for some policy contributors. For example, the role that Waitsfield Valley Telecomm might play in supporting new manufacturing businesses.

RETAIL - A BALANCING ACT

Retail has - and will continue to be - a mainstay of the Valley economy; accounting for a significant number of community businesses and employment. While retailers oriented toward the local populace are able to maintain relatively steady operations on year-round basis, retailers with an evident orientation toward non-locals are subject to the seasonal variation that is endemic to the local economy. This results in fluctuations in revenue and employment. Perhaps of more significance, retailers in all markets are facing up to the paradigm shift related to internet retailing. This will continue to cause a 'shake-out' in the industry as consumers opt to do their shopping online. Retailers that offer follow-up services and a high degree of personalization will likely fare best in this market. According to the recent VDAT study, 51 cents of every dollar spent in The Valley comes from outside of the MRV. While this suggests the local retail sector is more diverse than just supporting tourism, it also shows how significant non-local sales activity is. Understanding the balance in retail between local and visitor and seeking opportunities to appeal to both seems critical.

Recommendations for Policy

OVERVIEW

One of the primary goals for the study is to help provide a sound foundation for the development of policies to help promote broader economic objectives. Another crucial goal is to identify additional (and potentially non-traditional) monitoring measures that the MRVPD and other partners can use to track progress or dynamics over time. Based on our qualitative and quantitative assessment we have developed the following as a "framework" within which to consider policy changes, and to begin to assess some new data points and trends that should help with developing supportive policies – as well as productive, informed community conversations about the Valley's economy.

The first table below looks at some of the economic factors and contexts that were identified in this study, in terms of what can't (with any realism) be addressed, what could be addressed, and what factors are "tricky": Not immune to policy, but complicated by land ownership, personal relationships, and financial limitations.

WHAT CAN'T BE FIXED

WHAT COULD BE ADDRESSED

- Access to I-89
- Energy supply (natural gas availability)
- Paving the Mad River Path
- Climate (more rain)
- Larger industrial sites
- Space for largerscale housing development

- Workforce housing, seasonal rentals for laborers
 - Cost of renovating within existing footprints, structures
- Creating a programmable space with event capacity
 - Wastewater capacity
- New energy technologies (digesters) to reduce costs
- Permitting support for expanded nonski activities at ski areas
- Easing business-related permitting (change-of-use, signs)
- Conversations about creating more accessible, point-to-point, lowergradient trails

WHATS "TRICKY"

- "Boringness"
- Customer service attitudes
- Increased availability of trail information where landowner permission is informal or not publicized
- Investments in private property upgrades
- Assisting landowners and farmers with lease agreements or access
- Standing and impact of abutters in permit process

Following from this, the table below as well as the tables in Appendix 2, presents some suggestions for policies and indicators that might be tracked going forward as a means of

evaluating success in implementation. These are broken down into the four main sectors identified and while not exhaustive or highly detailed, they do provide a framework for discussion between the MRVPD and its member communities, various state agencies and the broader community.

SECTOR	INDICATORS AND POLICY ISSUES
RECREATION AND TOURISM	OVERALL Work to develop a MRV Recreation Plan which can broadly consider the range of opportunities within this sector, address community and visitor need and provide guidance on implementation. Lodging Quantitative Indicators • Reduced lodging ownership turnover • Higher occupancy rate (year-round average) • Higher occupancy rate in off season • New or renovated value priced option • Greater market share
	 Policy Issues Creating a campground or RV park Providing suitable policies or investment (i.e. CDBG) for modernizing available lodging, especially mid-priced Mid- or value-priced lodging Restaurants
	 Quantitative Indicators Reduced ownership turnover/greater 'longevity' year-to-year Improved numbers (year-round average) Improved numbers in off season Greater share of market vs. Waterbury Expansion of existing restaurants Greater share of food purchased locally Spin-off of food-related businesses
	 Policy Issues Wastewater capacity and finance availability Labor & Housing "Customer Service" Training and Thinking Branding Integration

SECTOR	INDICATORS AND POLICY ISSUES
SECTOR	Events
RECREATION AND TOURISM	 Quantitative Indicators Increased occupancy of venues New mid-priced wedding/event venue open Policy Issues Chamber addressed all three select boards to communicate the value of wedding business to The Valley economy. There was a greater understanding of the many restrictions on occupancy, parking and events and the Select Boards became more comfortable with the types of requests that were made. Reducing neighbor issues in local permitting
	Skiing & Ski Resorts
	 Quantitative Indicators Increased numbers for summer programs Investment in new summer program, Policy Issues Formal local support in USFS/Act 250 proceedings
	Local permitting support for expansion or changes to SHARC
	Mountain Biking
	 Quantitative Indicators More trails on private land allowed to be publicly identified Agreement with landowner(s) to increase publicly-accessible and marketed beginner/intermediate terrain Joint marketing effort among Chamber, organizations & resorts Increase in market share vs. Burke, others
	Policy Issues Marketing activities on private land Fragmentation among interest groups
AGRICULTURE	Farms and farm production
	 Quantitative Indicators Number of Farmland Access Program start-ups Number of retail food outlets Volume of processing through Mad River Food Hub Policy Issues Specific Town plan policies supporting adaptive re-use of historic structures, and construction of new ones (including supportive uses such as modern slaughter facilities) Conservation priority shifting to hill farms Zoning standards to support farm "retail" operations Integrated marketing to support local food/ag products within MRV

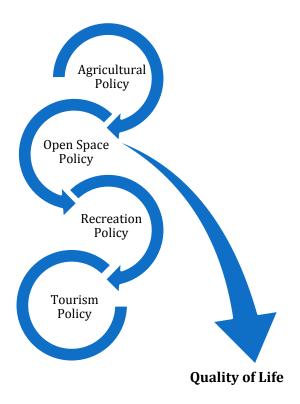
SECTOR	INDICATORS AND POLICY ISSUES
PROFESSIONAL SERVICES	 Quantitative Indicators Educational attainment Net migration – inflow Workers at Home
	 Policy Issues Attracting or Maintaining the Service/Lifestyle Sector: Should The Valley simply focus on attracting people through "lifestyle support"? Should this group (the ones who work from home or commute, or the ones that actually might spin off some jobs) be organized or supported in some way?
MANUFACTURING/INCUBATION	 Quantitative Indicators Business Sector analysis Gross sales Manufacturing Employment
	 Policy Issues Continual review of infrastructure needs and availability. Evaluate role of Waitsfield Valley Telecomm in supporting "new" types of manufacturing; software and web services There can be land use and regulatory policies that recognize and facilitate the kind of turnover and flexibility that has supported The Valley.

INTEGRATED DIVERSITY

While the Study provides a lot to think about, what is probably the most essential policy directive is that **economic thinking needs to be**

integrated across all dimensions of policy development. Whether it's changes that might be undertaken at the municipal scale, cooperative planning with other agencies or public-private initiatives, the idea of "integrated diversity" seems most appropriate. While the MRV has long sought to diversify its economy, the fact is that the Valley's economy *is* diverse. What seems to be most important now is to assure that the diversity observed is supported AND interconnected.

As we observed, agricultural policies can (and do) involve conservation uses of open space, which clearly influences recreation and tourism and supports the high quality of life that undergirds the professional services sector. Exploring both the depth of those influences and the opportunities they afford should be a focus of all policy development. These policies



also influence "Quality of Life" which certainly weaves itself into decision-making.

THE ROLE OF MUNICIPAL GOVERNMENT IN ECONOMIC VITALITY

In preparing this report, and in similar efforts for other rural and recreation-focused communities, the phrase "the town should" often has been used when specific actions are discussed. In practice, what "the towns" – meaning the Towns of Warren, Fayston and Waitsfield and the Valley's Union Municipal Districts - can do in the way of implementation is limited by statutory authority, by the amount of staff time and discretionary budget available after other responsibilities are carried out, and by the independent actions and decisions of the appointed boards such as Planning Commissions and Development Review Boards on specific items (i.e. zoning and individual development approvals). The Consulting Team and stakeholders involved in this report have worked to sort through what actions and policies fall, genuinely, within the authority and capacity of a town or towns to carry out. In many cases, municipal bodies cannot effect a recommendation, but can provide incidental or foundational support – such as applying for the grant funds used to

prepare this economic study. Throughout the recommendations sections that follow, this distinction is made with as much specificity as possible, in an effort to foster clear discussion and well-articulated actions in the future.

Town Plan

→ In economic development and land use chapters of the Town Plan, identify key economic uses and functions for the Mad River Valley and discuss policies required to support them.

This recommendation gets at an important finding of this Study: certain land uses and allowances are "missing" from The Valley, are identified as being important to reducing seasonality or increasing economic robustness, and/or have been constrained during the development review process by concessions to adjacent property owners. It also addresses the significant transitions in agriculture, which needs new types of structures - as well as the opportunity to have supporting uses in the Valley - to continue to adapt, grow and thrive. Agriculture in the future won't look like traditional, 19th- and 20th-century dairying – but is vital to The Valley's economy, quality of life, traditions and identity. Making affirmative statements in a Town Plan to this effect provides a stronger basis for managing community conversations as well as development review in the future.

The following policy statements might provide the necessary framework to support a more diverse portfolio of economic sectors.

"The Town Plan recognizes that agriculture is adapting and changing, and that new land arrangements, agricultural buildings, and support services are needed to support a vital and robust agricultural future for the community. The Town Plan recognizes that agriculture in the future may not "look like" conventional Valley floor dairy or traditional hill farming, and will involve new types of structures visible to the community such as greenhouses or processing and distribution facilities. "

"It is a policy of the Town to promote adaptive re-use of existing structures to support agriculture, but also to recognize and where needed facilitate the development of new uses, structures and support services – including certified, inspected and state-of-the-art slaughter services - that are crucial to the emerging future of agriculture in the Town and Valley."

"Every effort should be made to accommodate and facilitate development and successful operation of uses identified as crucial to reducing seasonality and increasing economic resilience in the Town and the Valley. These uses include:

- Facilities suitable for hosting events and functions
- Hotels, hostels, motels and lodging
- Campgrounds, including RV campgrounds
- Sports and recreation facilities, indoor and outdoor, including skating rinks, swimming, tennis, biking, skiing, Frisbee or disc golf,
- Agriculture and associated support systems necessary for value-added agriculture, including certified slaughter, food processing or distribution, indoor cultivation, and agricultural research facilities as well as on- and off-premise sites for the sale of locally-produced or locally-processed products. "

"Consideration in the Development Review and particularly the Conditional Use process should be given to balancing abutter concerns with potential economic benefits to the Town and the Valley."

"Consider adding zoning standards that provide greater allowance for event venues (e.g. longer daily and hours of operation, longer seasons of operation, allowance for amplified music and gathering spaces outdoors, larger parking areas, etc.). Address landowner concerns through the use of measures such as landscaped screening and fencing, use of grasscrete or permeable areas for parking, and management plans or notifications to abutters to ensure compliance with mitigating conditions."

"Consider reducing or eliminating required minimum parking ratios and maximum impervious cover limitations for adaptive re-use of sites and buildings in areas where these standards may hinder redevelopment and where re-use and redevelopment is beneficial. These areas include [Sugarbush Access Road, Sugarbush Village, Sugarbush North base area, Route 17/Route 100 intersection, Waitsfield Village]."

Zoning and Conditional Use Standards

Establishing Town Plan policies that support economic resilience is a crucial first step, which should be followed by serious consideration of how the towns' actual land use and development review standards might be adjusted. The intent of integrating proactive economic policies and principles into zoning in the towns of Fayston, Warren and Waitsfield is to help applicants and review boards recognize and balance conservation and "neighborhood character" issues such as noise or traffic with the economic value of the uses and activities identified in this report. Among the most important uses that would be at issue in the development review process are multiseason event venues, restaurants, lodging properties, adaptive re-use and renovation of structures, and agricultural support services and buildings such as greenhouses or processing facilities.

Research and discussions in this study pointed out the particular impact (often adverse) of the conditional use review process for Valley enterprises. There are two main recommendations of this Report for zoning.

1. Permitted/Conditional Uses and Definitions

First, all three municipalities should evaluate what uses are allowed, and how (permitted versus conditional) in each zoning district, and how different uses are defined. The focus should be on three questions:

(1) Are there "missing" uses that are desirable or should be allowed, and if allowed would enhance economic resilience? Some of these might include expanded professional or home-based occupations, publicly-available trails, and broader categories of service or retail uses rather than specific types (i.e. "general retail under 5,000 SF" rather than "antique stores, clothing stores, specialty food stores," etc.)

Could uses that are conditional be changed to permitted? As discussed in more detail below, conditional use review is a major hurdle to the approval of new and renovated buildings and uses in the Valley. Where uses have been approved without controversy or particular problems that need conditions and supplemental review, making these permitted uses would show a "good faith" effort to facilitate economic adaptation.

(2) **Do the use definitions reflect contemporary economic activity?** Within the limitations of Chapter 117, amending definitions to reflect the changes in agriculture, retail, technology, and how people live and shop in 2014 will also benefit the review process and enable the community to make accurate statements of what is desirable.

To be most effective, review should be coordinated with the Zoning Administrator, identifying cases where the use definitions have limited or left open questions about recent applications or key uses such as value-added agriculture, new types of restaurants or retail food establishments, and particularly event venues.

2. Conditional use standards

The language of conditional use review in most Vermont communities, including the MRV, focuses on "minimizing the adverse impact" of changes in land use. Throughout this report, we have identified potential changes in land use or buildings that would increase the Valley's resilience and advance crucial economic sectors that support the Valley's overall quality of life. If these proactive changes in land use are reviewed for their "potential negative impacts" alone, it is easy to lose focus in the process of development review on the positive impact of dynamic change. It is also easy to engage in speculation when standards are written in a very generic way, rather than focusing on the specific types and degrees of impacts that would be unacceptable, and how to minimize or mitigate these.

It is recommended that each community carefully review its standards, and consider adopting amendment language that supports the concept of flexibility and dynamism, especially for key uses that reduce seasonality and contribute to economic vitality. Considerations should include:

When are special studies such as traffic or fiscal impact analysis truly required to assess impacts that would, if realized, affect Town budgets, finances or operations? Special studies represent a real cost to applicants hoping to open or change a business. Discussion and review imposes a time and in some cases a staff or consulting cost on the town. In cases of building reuse or new buildings in existing areas, on existing roads, or already well-served by municipal services, may not contribute to the quality of decision-making. As discussed throughout the report, the size and scope of Valley businesses does not tend to be large, and may not be sufficient to trigger an actual impact to municipal services. Understanding the current capacity of schools and roads also can help boards decide when studies are warranted – and when they are not.

What is the duration and character of the potential noise, traffic, or visual impact of the proposed use, and is it unexpected or genuinely out of character compared to other locations near similar uses? All land uses can be said to have "adverse impacts," and any change to a neighborhood can be feared to be "adverse." Focusing specifically on the duration and nature of potential adverse effect, and how it relates to other similar sites in the Valley (i.e. the neighborhoods around existing inns or bed and breakfasts) can help put potential impacts into context.

SAMPLE CONDITIONAL USE LANGUAGE

A generic example of how this approach could play out in the zoning text follows:

- (X) For conditional use review, additional information may be requested by the DRB to determine conformance with these regulations, including one or more of the following:
- a) existing site features
- c) existing and proposed structural elevations,
- d) existing and proposed parking and loading areas, and pedestrian paths,
- f) proposed outdoor lighting, landscaping and screening, <u>including measures proposed to reduce</u> potential noise or visual impacts on immediately abutting properties,
- i) traffic, visual, and fiscal impact assessments as needed if the proposed use is of a scope or scale greater than other existing operations in the town and Valley or represents a significant (i.e. 50% or greater) change in density, units or employment in an existing facility. Traffic assessments should detail the time and duration of expected peak periods of use, and fiscal impact assessments should discuss how the proposed use would address Valley economic needs such as but not limited to increasing shoulder-season activity or promoting adaptive re-use of structures.
- (A) General Review Standards.
- (1) The capacity of existing or planned community facilities and services. The DRB shall consider the demand for community facilities and services that will result from the proposed development in relation to the existing and planned capacity of such facilities and services, and any adopted capital budget and program currently in effect. Where necessary due to the scale or scope of an application, the DRB may request information or testimony from other local officials to help evaluate potential impacts on community facilities and services. To minimize adverse impacts to community facilities and services, the DRB may impose conditions as necessary on the provision of facilities, services or related improvements needed to serve the development, and/or the timing and phasing of development in relation to planned municipal capital expenditures or improvements.
- . (2) Character of the area affected. The DRB shall consider the <u>planned</u> design, location, scale, and neighborhood or area affected by the proposed development, as determined from zoning district purpose statements, municipal plan policies and recommendations, and evidence submitted in hearing. As necessary, where significant changes of a nature not anticipated or typical for the affected area would result from the proposed use, the DRB may impose conditions as necessary to eliminate or mitigate adverse impacts to the area, neighboring properties and uses, including conditions on the design, scale, intensity, or operation of the proposed use. Such conditions shall be developed with due consideration for the operational needs of the proposed use.

- . (3) Traffic on roads and highways in the vicinity. Where a proposed use would increase the existing density or intensity of uses on the adjacent roadway network, the DRB shall consider the potential impact of traffic generated by the proposed development on the function, capacity, safety, efficiency, and maintenance of roads, highways, intersections, bridges, and other transportation infrastructure in the vicinity of the project. The DRB may request information or testimony from the Select Board, Road Commissioner or state officials to help evaluate potential impacts on town and state highways in the vicinity of the development. A traffic impact study, prepared in accordance with Section 6.4, also may be required for developments whose intensity or nature of use has the potential for substantial or unanticipated impacts, to determine potential adverse impacts and appropriate mitigation measures. The DRB may impose conditions as necessary to ensure that a proposed development will not result in unsafe conditions for pedestrians or motorists, including the installation of infrastructure improvements or accepted traffic management and control measures as required by the development.
- . (4) Bylaws in effect. The DRB shall determine whether the proposed development conforms to other applicable municipal bylaws and ordinances currently in effect. Where applicable, consideration shall be given to a proposed application's consistency with Town Plan provisions promoting economic resilience and vitality. The DRB shall not approve proposed development that does not meet the requirements of other municipal regulations in effect at the time of application. The DRB shall further find that the conditional use is consistent with the Fayston Town Plan, its goals and objectives.
- (B) Specific Review Standards.
- (2) Performance Standards. All conditional uses may be required to meet performance standards as measured from the property line at the time of application. No use, under normal conditions, may cause, create or result in:
- a) regularly occurring noise in excess of 70 decibels as measured at the property line, or which
 otherwise represents a significant increase in noise levels in the vicinity of the use so as to be
 incompatible with the surrounding area, unless specifically approved to enable operations and
 uses with a documented economic value to the Town and Valley, for which appropriate steps to
 minimize noise impacts have been incorporated into the application;
- (3) Access & Circulation Standards. All conditional uses shall meet applicable access management standards as specified in Section 3.1, Access, Driveway, and Frontage. For projects of a scope and scale that presents a need for changes to the adjacent roadway system the DRB, in consultation with the Select Board and state, may impose conditions as necessary to ensure the safety of vehicular and pedestrian traffic on and off-site, including but not limited to conditions on access and intersection locations, limits on the number of curb cuts, requirements for shared access and/or parking, and provisions for emergency access, parking, service and loading area, snow storage, pedestrian paths and transit facilities (e.g., sheltered bus stops) as appropriate.

(B) District Standards.

- (1) Commercial District. Conditional uses within the Commercial District shall be sited and designed to minimize aesthetic or visual impacts to in a manner that is consistent with and complimentary to other properties in the area and as viewed from Route 100. Where a new or renovated building would represent a substantial change or variation in scale, height or massing, the DRB may impose conditions as needed on building materials, color, roof pitch, building height, and landscaping and screening to promote greater compatibility with the visual character of the district. , to minimize the visual impacts of a development.
- (4) Industrial District. Conditional Uses in the Industrial District shall be <u>landscaped</u>, <u>screened</u>, <u>managed and designed in a manner that promotes consistency with sited and designed to have a minimal negative impact on the visual quality of surrounding properties and the rural character of the community.</u>

Sign Regulations

Updating sign regulations, particularly for multi-tenant buildings, is a "business-friendly" step that municipal government can take. Organizing a task force or committee with sign designers and manufacturers, business owners or tenants, a Planning Commission member, and staff familiar with plan review and enforcement is an essential step to a "business-friendly" sign ordinance. The task force should review examples of effective ordinances from other Vermont resort communities, evaluate feedback from businesses on changes, and ground-truth or verify that input with review staff to identify what specific changes or additions might be made. With branding having been completed as part of the VDAT process, this is in all likelihood a good opportunity for the Valley towns to evaluate and update local sign regulations. Vermont Municipal Planning Grants are a realistic source of funds for sign ordinance updates, especially when supportive Town Plan policies are in place recommending proactive steps for economic vitality.

Local Option Tax

Communities with a significant share of economic activity or traffic from non-residents, such as resort and tourist areas, generally see a local option tax as a way to capture and retain some of that spending for re-investment in the local economy, particularly infrastructure.

The concern usually raised is that the additional 1% charge will lead to a decline in sales, rooms or meals activity at local businesses if customers choose to leave the community and go elsewhere where the tax is not in place; however this has not seemed to be the case in communities with a

significant "spending destination" for out-of-area residents, such as South Burlington (University Mall), Williston (Taft Corners), Killington, Stowe, and Dover (Mt Snow). Municipalities can choose to adopt any of a 1% local meals/alcoholic beverages tax, a 1% local rooms tax on lodging accommodations only, or 1% local sales tax. At a minimum, it would benefit the Valley's towns to explore how much revenue each option could generate, and what types of investments or infrastructure could be supported by that level of funding annually.

	Local Options Tax Towns	
1% Local Option Sales Tax	1% Local Option Meals and 1% Local Option Ro Alcohol Tax	
Burlington Dover Killington	Brattleboro Dover Killington	Manchester Brattleboro Dover
Manchester Middlebury Rutland Town South Burlington	Manchester Middlebury Rutland Town South Burlington	Killington Middlebury Rutland Town South Burlington
Stratton Williston Winhall	Stratton Stowe Williston	Stratton Stowe Williston
Wilmington	Winhall Wilmington	Winhall Wilmington
		Bold = VT Ski Town

Capital Projects

The investment of capital at the municipal level in support of economic development should fully consider the leveraging power of infrastructure improvements against all economic sectors. For example, in consideration of expansion of recreational systems, it is advisable to review how new trails or facilities might enhance tourism objectives (i.e. be aligned with tourism expectations and needs), how investments might address a changing seasonal orientation of need and how they might support connectivity to agricultural/retail operations. A Town could, for example, make a choice to invest conservation dollars (as well as staff time preparing grant applications or building partnership support) to secure publicly-available low- and mid-slope trails, which have been identified as a primary need for creating greater tourism opportunities around mountain biking.

Development of a set of criteria that helps evaluate/direct investment towards "integrated diversity" also would be a useful tool. The ongoing efforts in Waitsfield to make funding available for wastewater treatment capacity is an example of this type of integrated strategy that addresses multiple needs and uses of high economic importance (particularly restaurants and agricultural

processing) A decision process might look like this; any project that meets multiple standards would, of course, have higher priority than projects addressing only one.

- 1. Addressing identified economic need: Does the proposed project/investment/grant result meet an identified economic need, such as an agricultural support use, expanded event use, gathering space, or trail component?
- 2. Creating capacity: Does the proposed project/investment/grant expand infrastructure, building or housing capacity in support of identified areas of growth and opportunity for the Valley's economy?
- 3. Facilitating change: Would the proposed project/investment/grant allow for or accomplish a dynamic change that is consistent with emerging and growing economic sectors?

INTER-AGENCY AND PUBLIC/PRIVATE INITIATIVES

Since the 1980s the Valley has been unusually successful at partnering with State and Federal agencies and non-profit agencies such as the Vermont Land Trust to fund and carry out a wide array of projects that have physically and economically benefited the Mad River Valley. This is one of the most notable, unique and vital features of the Valley's economy and community, and is essential to continue.

Two agencies or partners of particular importance for the Valley's economic resilience moving forward are the Vermont Department of Agriculture, and Vermont Department of Community Development. Working with the Vermont Department of Agriculture, Food and Markets Working Lands program on a continual basis – standing quarterly updates and meetings are strongly recommended – will ensure that Valley conditions are reflected in policies and grants. A standing meeting would keep the Valley not merely on the radar screen but as a "Squeaky Wheel" in policy and funding discussions. Second, work should continue with the Department of Community Development and staff of Vermont's Congressional delegation on best approaches for USDA and CDBG grants to support MRV "building block" initiatives. Again, making sure the Valley continues to be "front and center" has paid great dividends in the past, and will in the future.

While working within governmental and institutional structures to develop and promote economic policy is essential, the fact is that most economic activity is undertaken by the private sector. Building social and economic ties that transcend public-private sector efforts is vital. The 2014 Economic Summit is indicative of this need. Going forward it will be vital that all participants are at the table and can find meaningful ways to contribute towards defined objectives.



APPENDIX 1: SUMMARY OF INTERVIEWS

Appendix 1: Summary of Interviews

As noted throughout this Study, understanding economic conditions in small communities requires a combination of empirical analysis, and placing data in the context of the community, its networks, and the individual decisions and relationships that underpin many important aspects of the Valley's economy. To provide context for the study's empirical analysis, interviews were conducted with a range of residents, business owners or managers, and staff at local businesses, organizations and programs serving the Valley.

Two very important 'ground rules' applied to these interviews, and the information received:

- 1. Individuals' input and answers were not taken to represent the views of organizations, businesses or agencies, unless explicitly stated as such by the person being interviewed (i.e. "I'm able to say that the organization's position on this is the following").
- 2. Everyone participating in an interview was assured of anonymity and, as requested, the confidentiality of the information and perspectives provided. The consultant team was charged with taking this information, placing it in context, and using best professional judgment to present the information in summary form.

Individuals who graciously offered their time and expertise by participating in a formal stakeholder interview are listed below:

Organization	Individual	Date
Mad River Valley Chamber of Commerce	Susan Klein	Dec. 10, 2013
Vermont Land Trust/ Mad River Watershed Conservation Partnership	Liza Walker	Multiple dates (November 2013 to January 2014)
Sugarbush Resort	Margo Wade, John	December 19, 2013
David M. Dion Real Estate	David M. Dion	February 12, 2014
Bridge Street Association	Shari DeFlavio	March 6, 2014
Northland Construction	Russ Bennett	February 24, 2014
Mad River Food Hub	Robin Morris	October, 2013
MRVPD	Steering Committee	March 2013

Appendix 2: Detailed Timeline and Business Listing

The business listing and timeline below is, like the table that follows, a partial and incomplete listing of business and community milestones in the Mad River Valley. It is strongly encouraged that the MRVPD and Chamber further fill out and expand this timeline as a new data point for economic and community analysis. The MRVPD and Chamber can use this format in particular for "mythbusting" on issues such as when projects were completed, how long permitting took, the duration and longevity of different businesses and organizations, and the relative "density" of different types of actions in time. For example, this table shows the tremendous amount of land conservation activity that took place in the 1990s; it illustrates the timing of turnovers and investments at both ski areas; and it provides milestones for key infrastructure projects such as Waitsfield's water system. Taken together, these provide excellent future reference points for understanding and tracking shifts in the Valley's economy.

	Business & Community	Food & Restaurant	Ski Areas	Environment	Town & Infrastructure
1904	Waitsfield and Champlain Valley Telecom incorporated				
1948			Mad River Glen opens		
1956	Verilux founded				
1958			Sugarbush Resort opens, by Damon & Sara Gadd and Jack Murphy		
1959	Eastern Systems Group founded				
1963			Glen Ellen Ski Area opens		
1964		Chez Henri opens, The Common Man opens			
1971	Mad River Canoe founded				
1972			Truxton Pratt purchases Mad River Glen		
1974	Northern Power founded, Hall & Holden Accountants founded				
1976	Mad River Canoe begins exporting				

	canoes from				
	Waitsfield; Valley				
	Rotary Club chartered				
1977			Damon Gadd sells		
			Sugarbush to Roy		
			Cohen		
1979	Controlled Energy		Glen Ellen sold to		
	Corporation founded		Roy Cohen, becomes		
			Sugarbush North		
1980	Universal Micro				
	Systems founded;				
	Vacutherm founded;				
	Yestermorrow				
	Design/Build School founded				
1981	Tourided	Green Mountain			
		Coffee roasters			
		founded as café in			
		Waitsfield			
1982		Green Mountain Coffee Roasters			
		moves to space in			
		Waterbury			
1983			ARA Services buys	Ann Day	
			Sugarbush Resort	donates	
				easement on	
				Knoll Farm in Fayston; first	
				land	
				conservation	
				easement in	
100				MRV	
1984				Friends of the Mad River	
				begins	
				sampling &	
				reporting	
				results	
1985	Project Harmony			Mad River	
	founded; MicroC			Valley Planning	
	im founded			District	
				formed	

1986			Claniel Enterprises buys Sugarbush	Town of Warren, DeFreest family	
				conserve Elliott Farm in Warren	
1987			Snowboards allowed at Mad River Glen		
1988				Mad River Rural Resource Protection Plan published	
1989	Diffraction Ltd. founded				
1990	Adworks offers 36" wide printing	American Flatbread at Tucker Hill Inn	Green Mountain Express Quad Installed	Friends of the Mad River formally incorporated	Fayston school expansion discussions
		Flatbreads sold at Mehuron's & the Warren Store	Snowmaking hearings		
		Mehuron's receives liquor license, expands	Sugarbush Inn sold to Sugarbush Resort		
1991			Snowboard ban begins at Mad River Glen		
1992	Recession affects MRV business, housing				
1993			Snowmaking hearings begin		
1994		Original Pitcher Inn renovation proposal			Skatium paved
1995	Small Dog Electronics founded	Pitcher Inn appeals go to Vermont Environmental Court	Mad River Glen Co- Op shares offered; Sugarbush Resort sold to American Skiing Corporation	Kisiel subdivisions proposed in Waitsfield; Phenn Basin conserved in Fayston; The Best River Ever watershed	Fundraising for the General Wait House Water system planning starts in Waitsfield Sewage problems reported in Warren Village

				plan published by FOMR	
1996	Baked Beads opens on lower Bridge Street	American Flatbread Restaurant at Lareau Farm	Slide Brook Express open linking Sugarbush South & North; Kingsbury snowmaking pond constructed	Maynard and Turner Farms conserved	
1997	Pitcher Inn, Grand Summit hotel Act 250 hearings				General Wait House opens as visitor center, with Chamber, FOMR, Path Association, MRVPD
1998	Mad River Canoe merges with Confluence (North Carolina)		Revised MRVPD MOU signed by Sugarbush, CVRPC, Valley towns; Mad River Glen sells 1,667 th and final share, retires mortgage	June: Flooding hits Warren Village, Waitsfield; Mad River Path damaged	Brooks Field wastewater system constructed in Warren Village
1999	Baked Beads closes retail, expands wholesale operations	Pitcher Inn construction		VTrans salt shed at Lareau Swimhole abandoned, park planning begins; Warren Falls conserved	Capital campaign for senior housing Blueberry Lake land sale to US Forest Service initiated
2000	Mad River Canoe moves to North Carolina; Treehouse Guys formed	Kingsbury Market Garden opens on conserved land		Mad River Watershed Conservation Partnership (VLT, FOMR, MRVPD) established; Lareau Swimhole Park opens	
2001	Fit Werx founded		ASC sells Sugarbush to Summit Ventures NE		Warren Village wastewater systems substantially complete

2002	1% for the Planet				
2002	founded				
2003	Distributed Energy Corp (CT) buys Northern Power	Liz Lovely cookies started in Philadelphia, PA			
2004	Northern Power expands by leasing space in Barre; Canus building (7000 SF) approved at Mad River Park; WCVT celebrates 100 th anniversary	1824 House dinners are grandfathered by Waitsfield DRB Liquor license for Mad Mountain Tavern	Lodge at Lincoln Peak "postponed indefinitely;" new Master Plan including Clay Brook submitted Blueberry Lake dam reconstruction; new recreation maps of Valle published		WMRW starts broadcasting; Skinner Barn hosting events
2005	Controlled Energy Corporation sold to Bosch; Brothers Building constructs new building at Mad River Green; Waitsfield DRB denies conditional use amendment for Small Dog, parking on Bridge Street; Village Grocery parking removed	Liz Lovely opens operations in Waitsfield	Decision to replace Single Chair with new single at Mad River Glen		Capital campaign for MRV Health Center continues; Parking studies in Waitsfield Village, Irasville
2006			Gate House Lodge, Clay Brook at Sugarbush completed		
2007	Northern Power operations in Waitsfield closed		Old Single Chair retired at Mad River Glen		
2008					
2009	WCVT expands fiber optic network	Von Trapp Farmstead begins making artisan cheese			
2010			Mad River Glen applies for inclusion on National Register of Historic Places	Rice Brook de- listed by EPA; found to be restored and meeting water quality standards	
2011		Trop	ical Storm Irene		

	State offices moved into Mad River Park space	Mad River Food Hub opens		
2012	Stark Mountain Bike Works	Mad River Distillers		Kingsbury Iron Bridge replacement substantially complete
2013	State of Vermont offices moved out of Mad River Park; Small Dog opens third location in Rutland			Waitsfield water system begins operation; Warren timber crib dam to be abandoned
2014	Mad River Green sold; Aegis Renewable Energy at Mad River Park	Vermont Business Magazine begins food producer listing, Valley has 8 of 467 listings statewide; Lawson's Finest, Mad Taco part of nationally-featured beer event	Mad River Glen considering expanded snowmaking	

The table below is a partial inventory of businesses who listed an operation in the town of Fayston, Warren or Waitsfield, gathered either through company websites listing dates of operation, advertisements in The Valley Reporter, or current (2014) listing on www.vermontbiz.com. Business histories on company websites also were used to establish dates of operation. Where readily available, restaurant days and hours of operation were noted; this can indicate the degree of vitality and "excitement" of Valley food and drink establishments over time, and by season.

The information below is by no means complete; its extent reflects the limitations of the project scope. However, it is strongly encouraged that efforts be made through the Chamber, MRVPD, Valley Reporter and other sources to further fill in this table, since it provides a way to assess trends in industry and business growth or decline, and relative shifts in the composition of the Valley's business community over time.

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
RETAIL						
The Store	Х	Х	Х	Х	Х	Х
The Warren Store	Х					
Waitsfield True Value Hardware		Х	Х			
Bisbee's						
The Drug Store		Х	Х			Х
The Collection	Х	Х	Х			Х
Valley Paper Supply	Х	Х	Х			
Tulip Tree-Tulip Tots	Х	Х	Х			
Village House		Х	Х			
Warren Village Pottery		Х	Х			
Country Folk			Х			
The Blue Toad	Х					
Bread Basket	Х					
Cabin Fever Quilts	Х		Х			
Hide 'n Sheep	Х					
Sportive	Х		Х			
Inverness Ski Shops	Х					
Sigi Sports	Х					
Three Bags Full	Х					
Tempest Book Shop	Х		Х			
Suzanne's Shoppe	Х					
Temptations	Х					
Mad Mountain Snowboards		Х				
Clearwater Sports	Х	Х				Х
Waitsfield Pottery		Х				
The Troll	Х					
Cyclespeed	Х					
Labyrinth				Х		
Vermont Pack 'n Paddle				Х		
GALLERIES						
Artisans' Gallery			Х			Х

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Green Mountain Glassworks						Х
Lee-Parrish Gallery	Х		Х			
Mad River Glass Gallery						Х
Moosewalk Studios & Gallery						Х
Parade Gallery	Х	Х	Х			Х
Old Church Art Studio	Х					
Edison's Studio	Х					
FOOD						
Bridge Street Bakery		Х				
Green Mountain Chocolates	Х					
Green Mountain Coffee Roasters	Х					
Bridge Street Specialty Deli						Х
Lawson's Finest						Х
Mad River Distillers						Х
Mad Cupcakerie & Kitchen						Х
Green Mountain Harvest Hydroponics						Х
Very Small Donut Company				Х		
Gaylord Farm						Х
Liz Lovely Cookies				х	х	Х
Tonewood Maple						Х
Vermont Country Tea						Х
Von Trapp Farmstead						Х
Neill Farm						Х
RESTAURANT						
Three Mountain Cafe			Х	Х	Х	Х
Ake's Den						MUD: Tues- Thurs
American Flatbread			Summer Fri & Sat 5:30 – 9:30			MUD 5:00- 9:30
Big Picture						MUD 7 days; 8-

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
						2:30 and 5-9
Castlerock Pub						MUD Tues. 5-8
Hyde Away Inn/Zach's Tavern	Х	Х				MUD nightly until 10
Mutha Stuffers						MUD Fri- Sat until 12AM
Timbers						MUD Daily dinner, brunch weeken d & holiday
The Den	Х	Х				
Jay's Restaurant & Pizzeria		Х	Х	Х	Х	
Miguel's at Sugarbush	Х	Х				
Olde Thymes	Х					
The Phoenix Restaurant	Х					
The Bass Tavern	Х					
Sam Rupert's	Х					
The Waitsfield Inn	Dinner Thurs- Sun, Sun. Brunch					
The Odyssey	Х					
Beggar's Banquet	XMon- Sat 6-10					
Burger Barn	XSun-Th. 11-9:30, Fri-Sat 11-10					
Chez Henri	Х	Х	Х			
The Common Man	7 days	Х	Х			Х
Dennis' Pub & Restaurant	Х					
Pearl's Family Dining	Mon-Sat 6-10, Sun 7-9					

The Blue Tooth							
John Egan's Big World		1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Mad Mexican Image: Company of the properties	The Blue Tooth	Х					
Easy Street Cafe Rosita's The Pitcher Inn Warren House Pepper's X Tucker Hill Inn X Mooselips X Mad Taco Café Electra The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	John Egan's Big World						
Rosita's	Mad Mexican						
The Pitcher Inn	Easy Street Cafe						
Warren House Pepper's X X X X X X X Mooselips X Mad Taco Café Electra The Spotted Cow Mint X X X X X X X X X X X X X X X X X X X	Rosita's						
Pepper's	The Pitcher Inn			Х	Х	Х	Х
Tucker Hill Inn X X X Mad Taco Café Electra The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X	Warren House						
Mooselips Mad Taco Café Electra The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	Pepper's	Х					
Mad Taco Café Electra The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	Tucker Hill Inn	Х		Х			
Café Electra The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	Mooselips	Х					
The Spotted Cow Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X Paige & Campbell Inc. X X X X X X X X X X X X X	Mad Taco						Х
Mint Mint FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	Café Electra				Х		
FINANCE, REAL ESTATE & INSURANCE Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	The Spotted Cow			Х			
Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X	Mint					х	
Eilers Financial Services Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X							
Dennis Ricker & Brown Insurance Jamieson Insurance Agency, Inc. X X X X X X X X X X X X X X X X X X X	FINANCE, REAL ESTATE & INSURANCE						
Jamieson Insurance Agency, Inc. Paige & Campbell Inc. X X X X X X X X X X X X X X X X X X X	Eilers Financial Services						Х
Paige & Campbell Inc. X X X X X X X X X X X X X X X X X X X	Dennis Ricker & Brown Insurance						Х
MSA Mortgage MS	Jamieson Insurance Agency, Inc.	X	X	X			Х
MSA Mortgage Hall & Holden X X X X X X X X X X X X X X X X X X	Paige & Campbell Inc.	Х	Х	Х			Х
Hall & Holden X X X X X X X X X X X X X X X X X X X	GE Financial Assurance			X			
REAL ESTATE Trudy Wolf X X X X Sugarbush Investment Properties X X X X AUTO PARTS/REPAIR Fisher Auto Parts Ted's Kar Kare Vince's Custom Car Care X X X X X X X X X X X X X X X X X X X	MSA Mortgage				Х	Χ	Х
Trudy Wolf X X X X X Sugarbush Investment Properties X X X X X X X X X X X X X X X X X X X	Hall & Holden	X	X	X	X	Χ	X
Trudy Wolf X X X X X Sugarbush Investment Properties X X X X X X X X X X X X X X X X X X X							
Sugarbush Investment Properties X X X X X A A A A A A A A A A A A A A	REAL ESTATE						
AUTO PARTS/REPAIR Fisher Auto Parts Ted's Kar Kare Vince's Custom Car Care X X X X	Trudy Wolf	X	Х	Х			
Fisher Auto Parts X Ted's Kar Kare X Vince's Custom Car Care X X	Sugarbush Investment Properties	X	Х	Х			
Fisher Auto Parts X Ted's Kar Kare X Vince's Custom Car Care X X							
Ted's Kar Kare X X X X X X X X X X X X X X X X X X X	AUTO PARTS/REPAIR						
Vince's Custom Car Care X X	Fisher Auto Parts						Х
	Ted's Kar Kare						Х
Jake's World Auto	Vince's Custom Car Care	X	Х				
	Jake's World Auto			Х			

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Corey's auto Repair	Х					
Partstown	Х	Х				
Sugarbush Service Station Inc.	Х					
Mad River Car Wash		х				
GARDEN/LANDSCAPE						
The Von Trapp Greenhouse						Х
Tucker's Florist & Greenhouses			Х			
Hothouse Productions			Х			
Rowanberry Gardens	Х					
GROCERY						
East Warren Community Market						Χ
Mehuron's Supermarket	Х		Χ			Х
Paradise Deli & Market			Χ			Х
Sweet Pea Natural Food Market		Χ	Χ			
Fayston General Store	Х					
Ron's Deli	Х					
TECHNOLOGY						
Universal Micro Systems	X					Χ
Small Dog Electronics			Х	Х	Х	Х
Vivid Technologies						Х
Butternut Systems						Х
Darrad Services Inc.		Х	Х			Х
The Mac Slapper						Х
MadRiverconsulting.com			Х			
Benson Associates (video conferencing)			Х			
Waitsfield Cable	Х	Χ	Χ			
MAYA Computer Company	Х					
VETERINARY						

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Paws Pet Spa						Х
Mad River Veterinary Service	Х	Х	Х			Х
Valley Animal Hospital	Х	Х	Х			Х
Dog Gone Style			Х			
Creature Comforts			Х			
Reininger Dog Training	Х					
CUSTOM WOODWORK						
Pomerantz Woodworking						Х
Traditional Design						Х
McLaughlin Hardwood Floording						Х
Butler Painting						Х
Gallagher Lumber Co.		Х	Х			
Allen Lumber Company	Х					Х
Pomerantz Woodworking						Х
Treehouse Guys				Х	Х	Х
JS Barkhausen (Warren)						Х
Dirt Road Company			Х	Х	Х	Х
SERVICE						
Alta Day Spa		Х	Х			
Valley Telephone Answering Service		Х				
Route 100 Appliance Repair						Х
Lisa Loomis, Personal Training Services						Х
Rivers Bend Design LLC (Landscape)						Х
Bookkeeping Etc.						Х
LaRock Property Maintenance						Х
Mad River Property Management						Х
Property Management Inc.	Х	Х	Х			Х
Whitney Tree Service LLC						Х
Waitsfield Laundromat						Х
Village Hair Company		Х	Х			
Homescape	Х					
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	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Indoor/Outdoor Landscape Service	Х					
Village Seamstress	Χ					
Adworks			Χ			
Sugarbush Property Group			Х			
Better Travel	Х		Х			Х
Franz Kluckner Plumbing	Χ					
BF Goldsborough Refrigeration	Х	Х				
Clearwater Filtration Systems	Х	Χ	Χ			
Enertek Controls	Х					
Valley Rent-All	Χ	Χ				Χ
Druhen Electric		Х				
Pring Plumbing & Heating		Χ				
Valley Appliance Repair		Χ				
Ricmor, Inc. (property mgmt.)		Χ				
Mountain Pools & Spas		Х				
Eastern Systems Group	х	х	х	х	х	х
CONSTRUCTION						
Austin construction		Χ	Χ			
Bisbee Construction	Χ	Х	Х			
Gary Bombard, Builder			Χ			
Goodman Construction Inc.						Χ
Mad River building & Design		Х	Х			Χ
Mad River Post & Beam						Χ
Northland Construction	X	Х	Х	Х	Х	X
PepperTree Homes						X
RayLaR Builders						Х
The McKernon Group						X
Rivers Building & consulting Inc.		Х				Х
Alocada Contracting						Х
AW Clark Jr & Sons	X	Х	Х			Х
Brothers Building Co, Inc.	X	Х	Х			X
Castlerneck Construction						Х

	1989-1990	1994-1995	1999-2000	2004-2005	2010-2011	2013-2014
Charles R Snow						Х
Dave Tomczyk Carpentry						Х
The Weather Hill Company						X
Turtle Creek Builders						X
Mark S. Flinn			Х			
Kara Elizabeth Homes			Х			
Stark Mountain Construction & Heating			X			
Rudi Mair, Builder			Х			
Desmarais Building Co. Inc	Χ					
Greenmoss Builders	Х					
Sonis Design	Х					
Rivers Building & Consulting Inc.		Х				
Moore Design/Builders						X
CONSULTING – listed as Waitsfield, Warren or Fayston zip code on www.vermontbiz.com as of 2014						
Pale Morning Media						
Aegis Renewable Energy						
Harvest Limited						
Fieldstone Capital Partners						
Mad River Research						
CRM Vermont						

REFERENCES

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- ² Sources: U.S. Bureau of the Census, Vermont Department of Health.
- ³ Source: Applied Population Laboratory; University of Wisconsin-Madison.
- ⁴ Source: Applied Population Laboratory; University of Wisconsin-Madison.
- ⁵ Source: U.S. Bureau of the Census American Community Survey.
- ⁶ Source: U.S. Bureau of the Census American Community Survey.
- ⁷ Source: U.S. Bureau of the Census Longitudinal Employment Households Dynamics.
- $^{\rm 8}$ Source: U.S. Bureau of the Census Longitudinal Employment Households Dynamics.
- ⁹ Source: U.S. Bureau of the Census Longitudinal Employment Households Dynamics.
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- ¹¹ Source: Vermont Department of Education.
- ¹² Source: Vermont Department of Education.
- ¹³ Source: U.S. Bureau of the Census American Community Survey.
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- ¹⁵ Source: U.S. Bureau of the Census American Community Survey.
- ¹⁶ Source: Vermont Department of Labor Economic & Labor Market Information.
- ¹⁷ Source: Vermont Department of Labor Economic & Labor Market Information.
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- ²³ Sources: HUD State of the Cities Database, Federal Reserve Bank Boston.
- ²⁴ Source: Vermont Department of Labor Economic & Labor Market Information.
- ²⁵ Source: Vermont Department of Labor Economic & Labor Market Information.
- ²⁶ Skier-visit values from MRVPD MOU data. Day/Overnight skier breakdown estimate based on license plate counts and MRVPD MOU data. Per diem expenditures based on values draws from two reports: *Benchmarket Study of the Economic Impact of Visitor Spending on the Vermont Economy 2011,* Vermont Department of Travel and Tourism; *The Economic Impact of Tourism in Vermont: Winter 2001,* University of Vermont Department of Community Development and Applied Economics. All figures converted to current dollars using CPI Federal Reserve Bank Boston.
- ²⁷ Source: Environmental Systems Research Institute (ESRI).
- ²⁸ Source: ESRI.
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- ³¹ Source: U.S. Bureau of the Census Longitudinal Employment Households Dynamics.
- ³² Source: Sugarbush Resort.

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- ³³ Source: Mad River Valley Overnight Visitors Survey MRVPD MOU data.
- ³⁴ Source: Vermont Department of Taxes.
- ³⁵ Source: Vermont Department of Taxes.
- ³⁶ Source: Vermont Department of Taxes.
- ³⁷ Data collected for three years (2010, 2011, 2012). Source: Vermont Department of Taxes. Note that *total* receipts varied for the three areas: MRV annual average approximately \$328 million; Dover/Wilmington annual average approximately \$212 million; Ludlow annual average approximately \$423 million.