

MAD RIVER VALLEY 2014 ANNUAL DATA REPORT



Acknowledgments

This report was authored by Joshua Schwartz, Executive Director of the Mad River Valley Planning District with assistance from MRVPD Planning Coordinator, Dara Torre.

The data used in this report originates from a variety of public sources, as well as contributions from the MRV Economic Study consultant team. In addition, Sugarbush Resort, Mad River Glen, local wedding venues, Friends of the Mad River, and the Mad River Watershed Conservation Partnership, supplied local data.

Cover Photography by Steve Butcher (Irasville looking south).

TABLE OF CONTENTS

INTRODUCTION	4
HISTORY	4
SECTION I: ECONOMICS	5
TOURISM	5
SKIER VISITS	15
SECTION II: POPULATION & HOUSING	19
HOUSING	23
HOUSING AFFORDABILITY	32
SECTION III: EMPLOYMENT	34
MAD RIVER VALLEY LABOR MARKET AREA (MRV LMA)	34
WORKER FLOW	42
SECTION IV: TRAFFIC & TRANSIT	46
ANNUAL TRAFFIC SUMMARY	46
EFFICIENCY OF TRANSPORTATION INFRASTRUCTURE	48
TRANSIT	49
SECTION V: TOWN INFRASTRUCTURE	50
SECTION VI: ENVIRONMENT	55
ENERGY	55
WATER QUALITY	58
SUGARBUSH RESORT WASTEWATER FLOWS	59
LAND CONSERVATION	60

INTRODUCTION

This report was prepared by the Mad River Valley Planning District to address the requirements of the 1998 Memorandum of Understanding (MOU), and provide information for community planning purposes. Information used in this report was publicly available, except where noted. Sugarbush Resort provided data in conjunction with the MOU. This report utilizes the most recent data available as of November, 2014. As such, it focuses primarily on the 2013 calendar year, but includes economic and Sugarbush Resort data collected in the first quarter of 2014 in order to capture the 2013-2014 ski season. In 2013, the Mad River Valley economy was a major focus of community and municipal attention, as a comprehensive analysis of the local economy was undertaken through the Vermont Downtown Action Team (V-DAT) process and a Municipal Planning Grant-funded economic study. As a result, the 2014 Annual Report includes some additional data points and sources as presented in the Mad River Valley Economic Study.

HISTORY

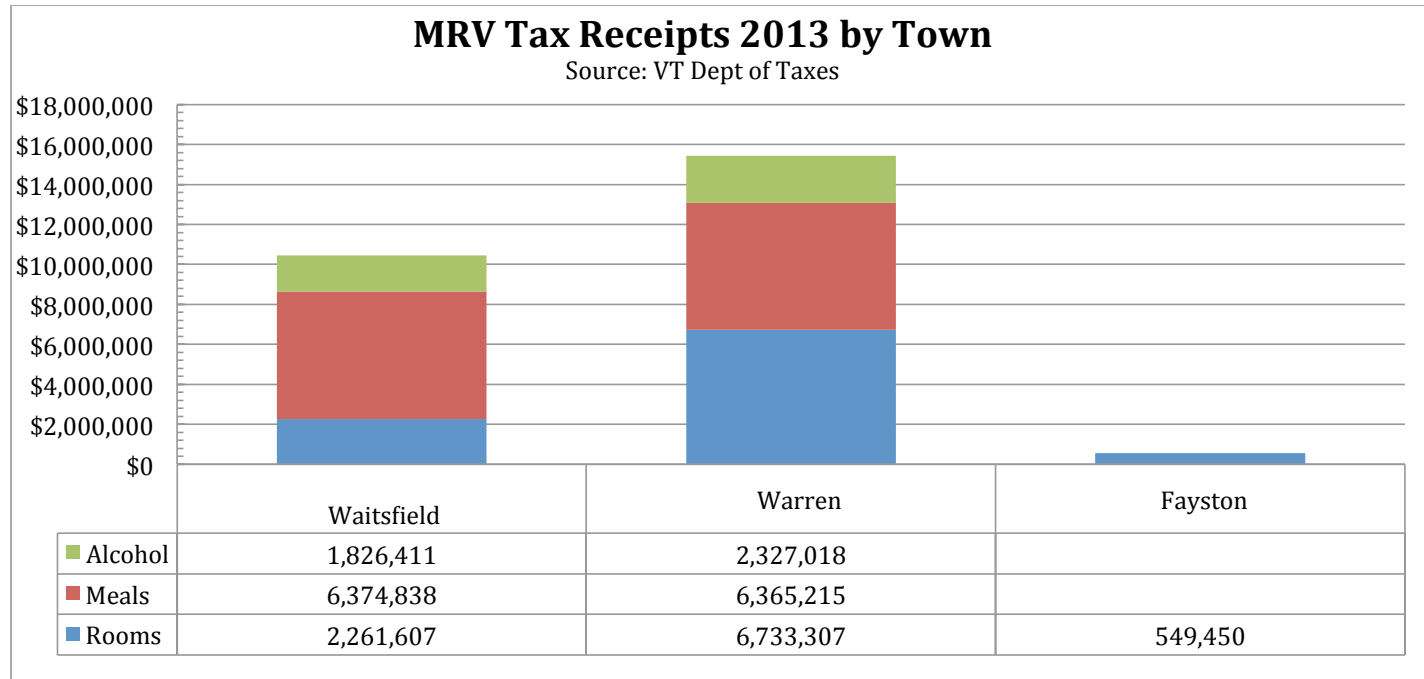
The Towns of Fayston, Waitsfield and Warren created the Mad River Valley Planning District in 1985. The Purpose of the Planning District is to *carry out a program of planning for the future of the Mad River Valley. The planning program shall be directed toward the physical, social, economic, fiscal, environmental, cultural and aesthetic well being of the member Towns and its inhabitants* (MRVPD Articles of Agreement, March 1985).

The Mad River Valley Planning District employs a full time Executive Director and a part time Planning Coordinator. The District is governed by a Steering Committee consisting of a Selectboard Member and a Planning Commission member from each of the three member Towns, a business representative from the Mad River Valley Chamber of Commerce, and a non-voting representative from Sugarbush Resort. The Central Vermont Regional Planning Commission (CVRPC) holds a non-voting ex-officio seat. The three towns and Sugarbush Resort fund the Mad River Valley Planning District equally.

SECTION I: ECONOMICS

The Economics section includes Items #35 & 36 from the Memorandum of Understanding.

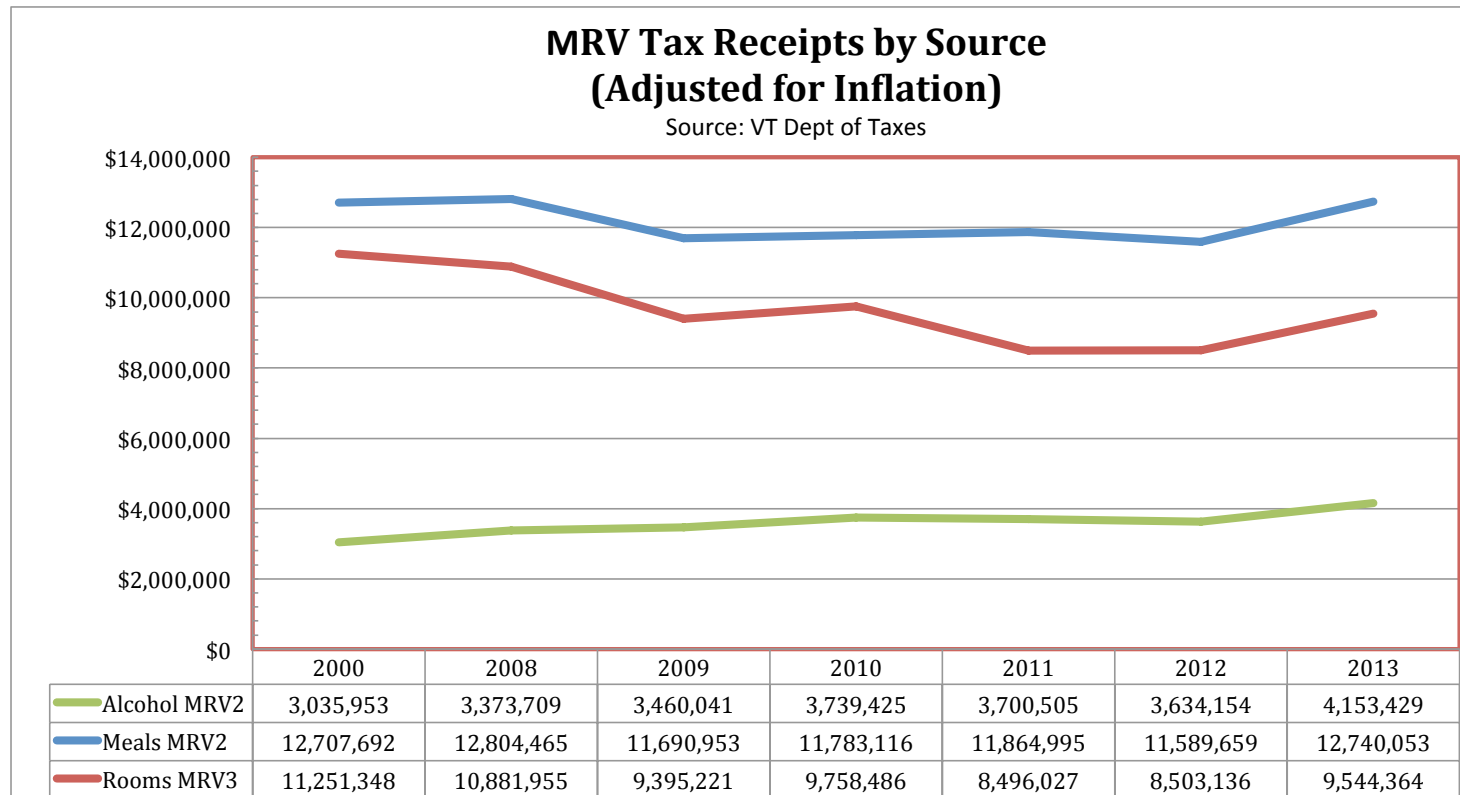
TOURISM



A comparison of 2013 tax receipts by town illustrates the predominance of lodging in Warren and the parity in meals revenue between Waitsfield and Warren. Compared to 2012 receipts, Alcohol receipts increased by 8.5% in Waitsfield and 19.6% in Warren.

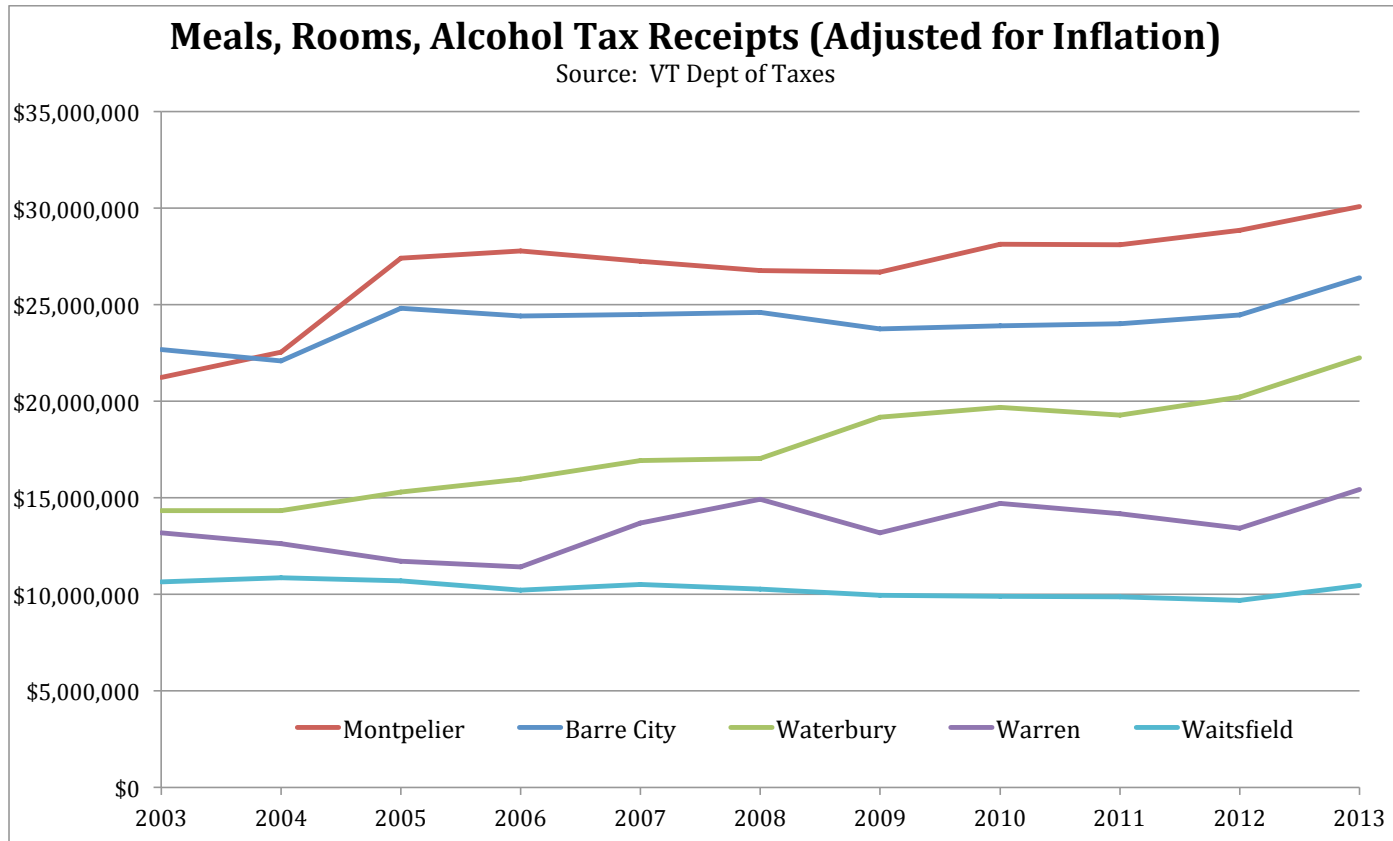
For Meals receipts, there was an increase by 8.9% in Waitsfield and 13.5% in Warren. Rooms receipts showed an 11.7% increase in Waitsfield, 16.9% increase for Warren, and a drop by 8.5% for Fayston.

Tax revenue trends illuminate the relative health of the MRV's primary tourist industries - skiing, foliage and weddings, which impact each of these sectors (alcohol, meals, and rooms). 2013 shows an upward trend in each of these revenue categories.



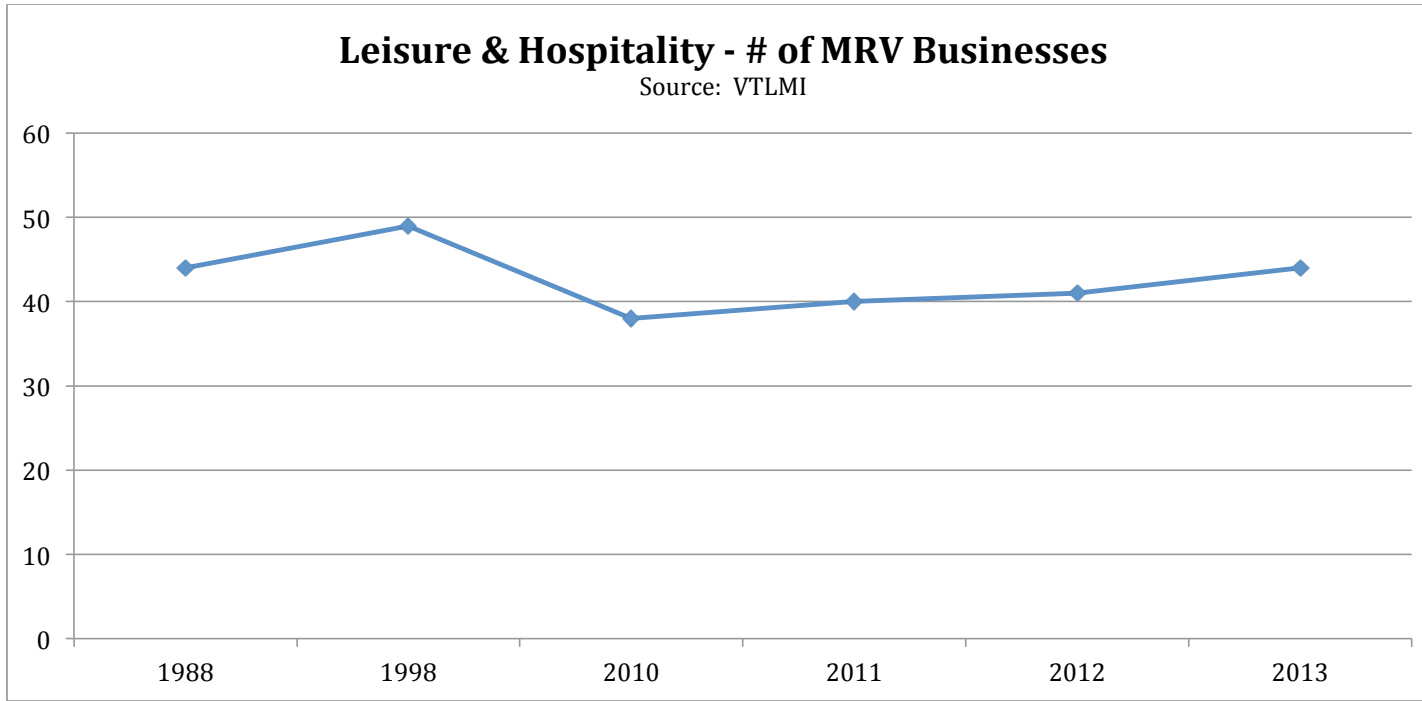
An analysis of the source of tax receipts shows steady gains in alcohol revenue with a post-recession drop and stagnation in meals and lodging revenue. Of note, 2000 and 2008 meals numbers include Fayston establishments (beginning in 2009, the number of establishments in Fayston fell below the threshold for public reporting by the Vermont Department of Taxes). MRV3 in the above graph therefore refers to the three towns (Waitsfield, Warren, and Fayston) for which lodging data is captured; MRV2 refers to Warren and Waitsfield only (Meals and Alcohol) after 2008.

The following graph provides a regional perspective on the health of the hospitality sector over time, showing an upward trend in 2013, with stronger growth overall in Warren. It is interesting to note that a relatively smaller (but growing) number of businesses as compared to 1998 are maintaining these consistent revenue totals.



Leisure & Hospitality - # of MRV Businesses

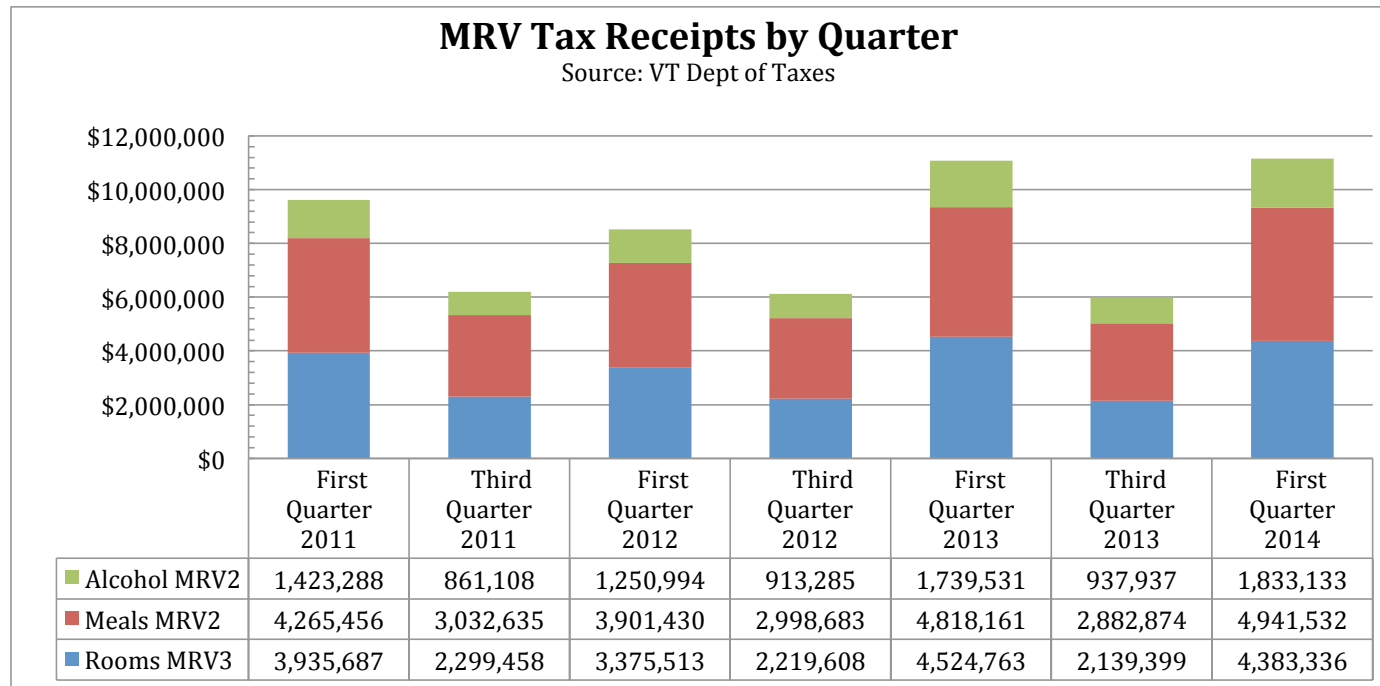
Source: VTLMi



Joshua Schwartz 2/2/2016 1:42 PM

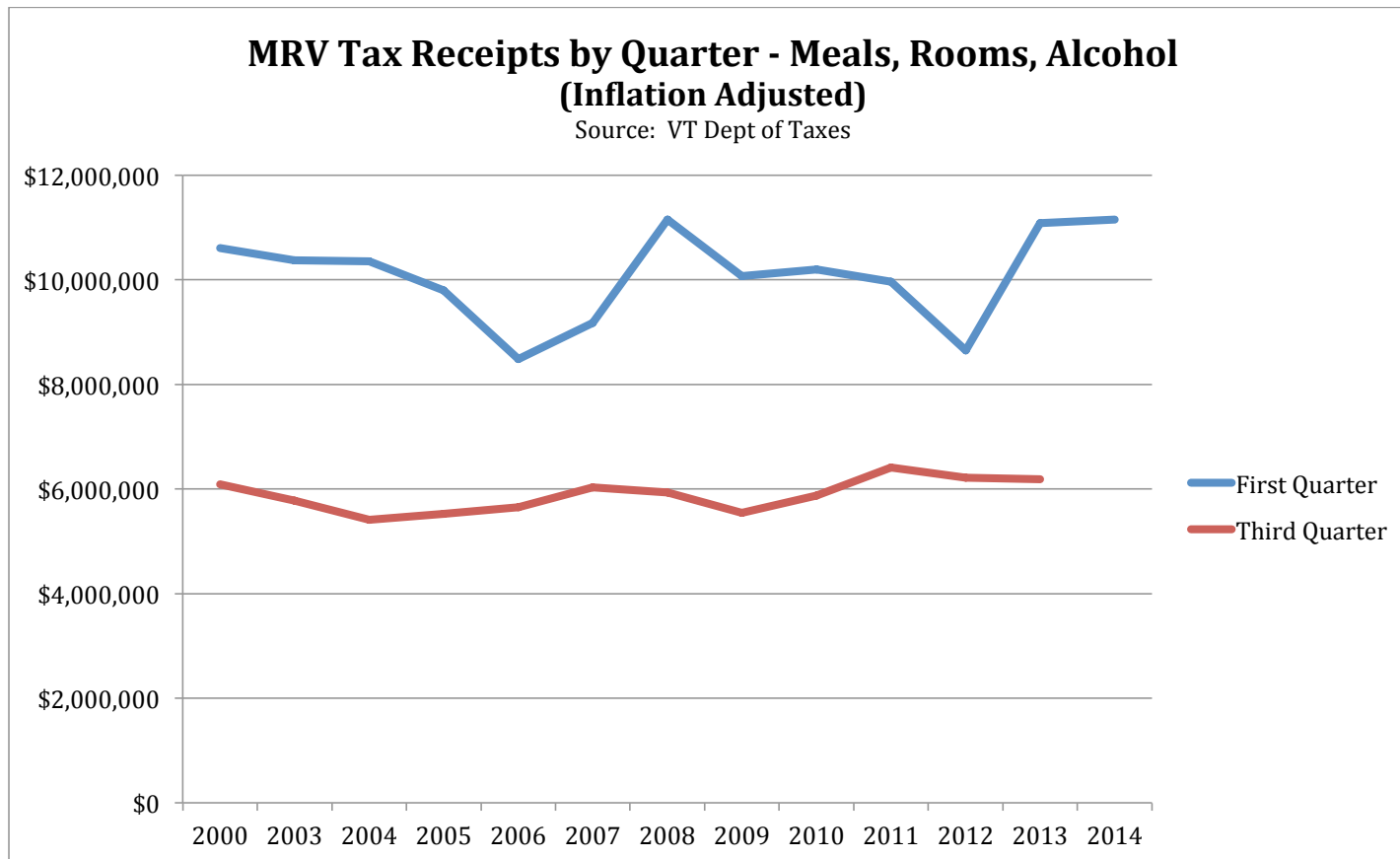
Comment [1]: What type of businesses? All businesses? Just those associated with the receipts in the previous graph? I recommend identifying such.

The robustness of the winter and summer tourist seasons can be approximated by using quarterly tax receipt data, though the quarters (January – March and July – September) omit a percentage of the actual seasons.

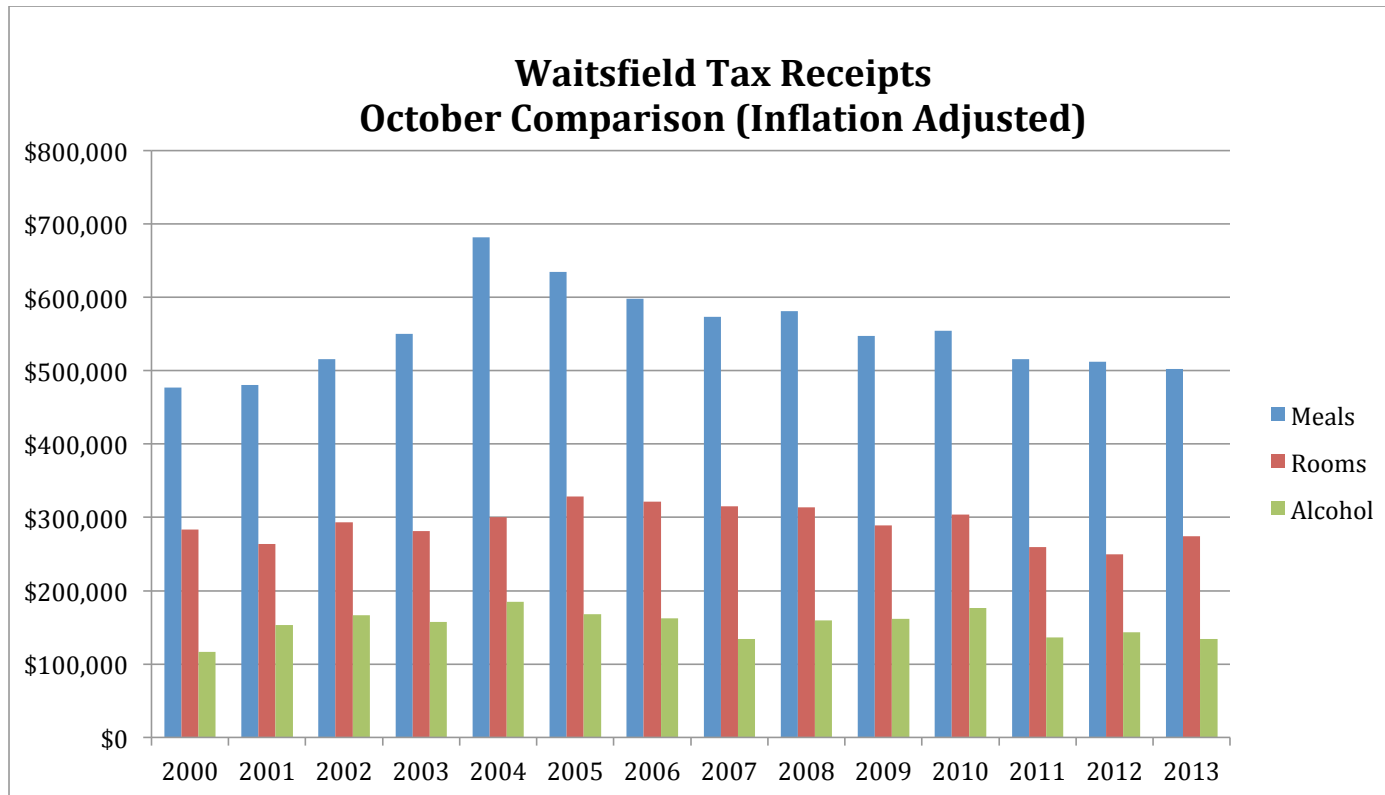


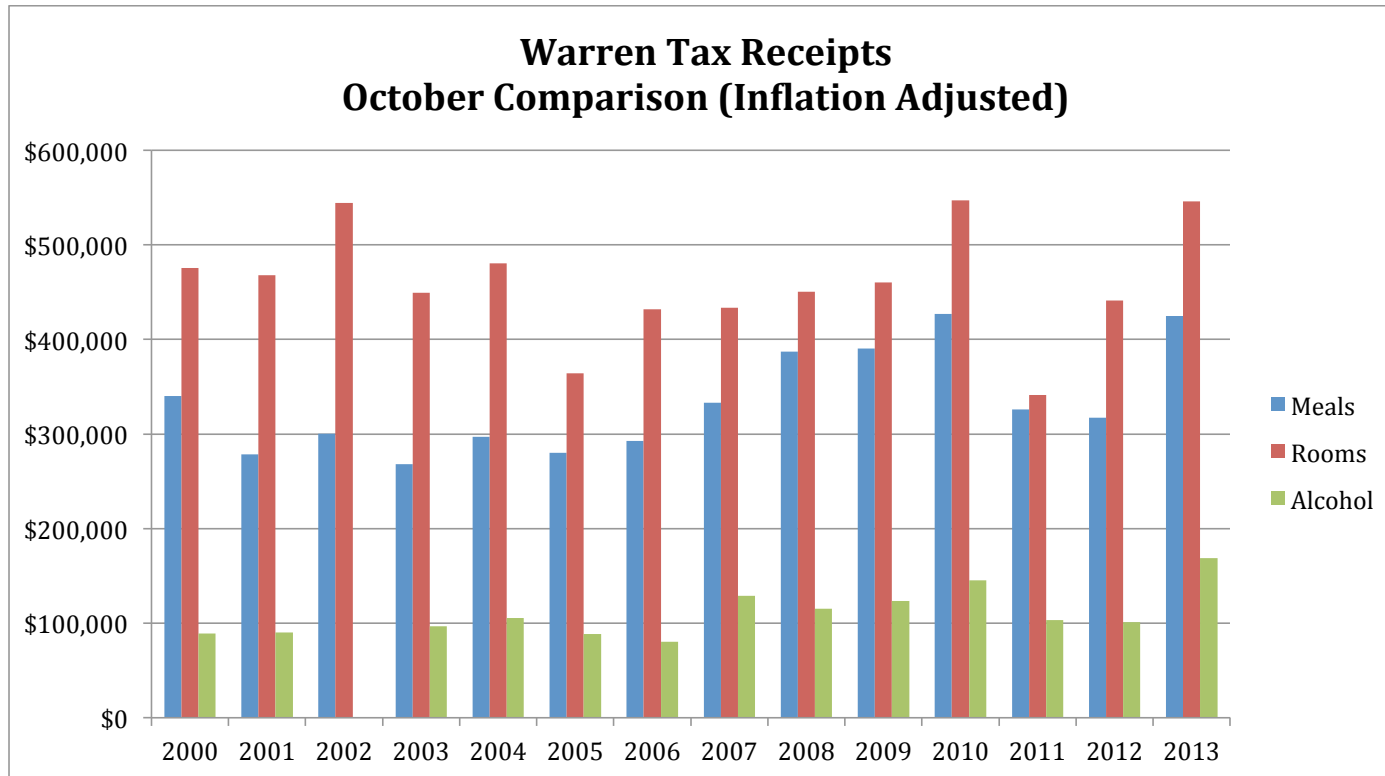
In Vermont overall, the 2013-14 winter season saw a 6% increase in rooms and meals tax revenue over the previous year. In the MRV, the first quarter of 2014 highlights another superior ski season. Waitsfield saw increases over the previous winter in all categories, particularly rooms (13.5%) and alcohol (16.2%). Warren showed small decreases in all areas, with a 5.8% decrease in rooms tax revenue in the first quarter of 2014 versus 2013. Fayston shows a 7.8% decrease for that period. The third quarter of 2013 (July, August and September) is consistent with the previous two years, providing significant revenue for the MRV.

The graph below shows increased volatility in winter revenue versus the summer months.



A comparison of monthly tax revenue during the month of October provides further insight into the fall tourist and wedding season.





Meals in Waitsfield have fallen steadily since a peak in 2004, but the last three Octobers show consistent revenue in each category. Warren shows a steady increase in lodging revenue in October over the last several years after a peak in 2010. 2013 saw strong sales in all categories in Warren.

Wedding Snapshot

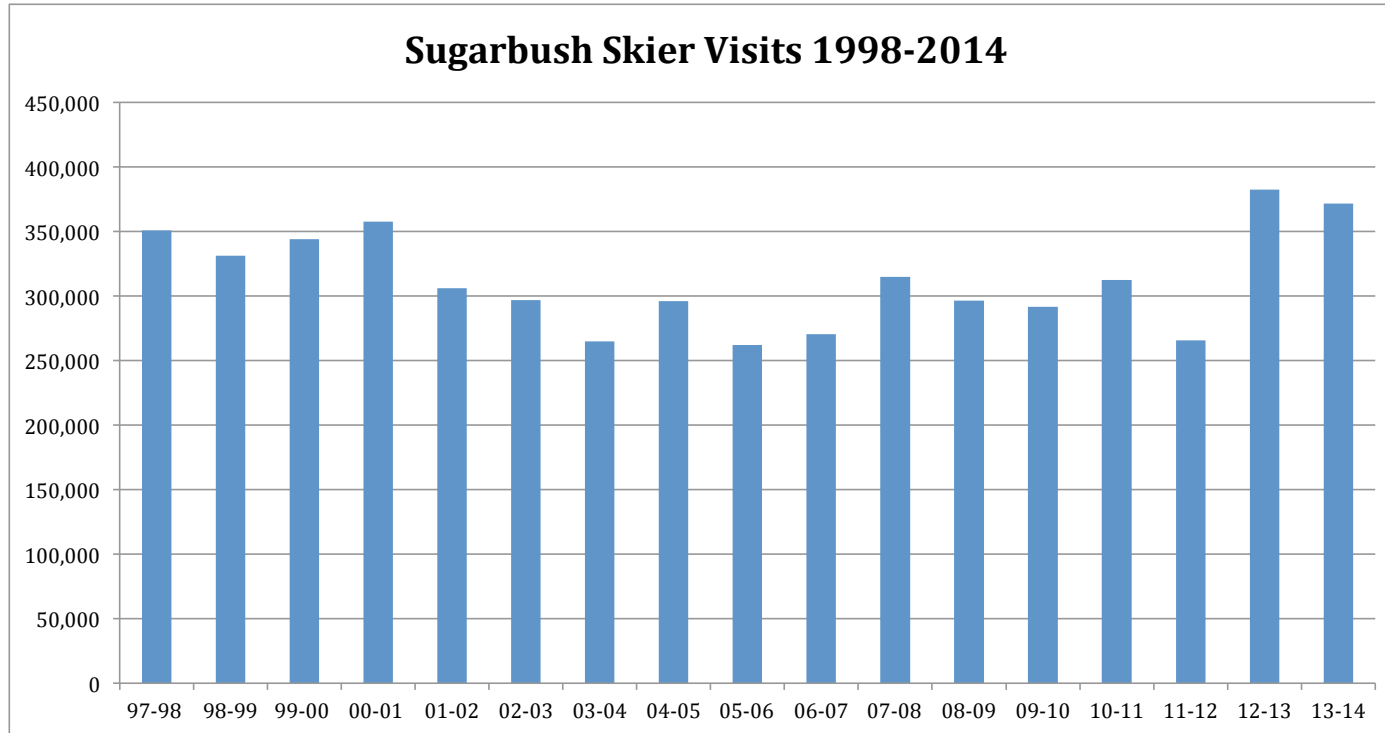
Weddings provide significant revenue in the state. In 2013, the Vermont Association of Wedding Professionals reported in its annual report that Vermont had 5,199 weddings, which raised an estimated \$263 million in the lodging, meals, and retail sectors for a multiplier of over \$50,000 per wedding. The VT Department of Tourism collected comprehensive data on the economic impact of weddings in Vermont in 2012. According to those figures, there were 5,207 weddings and estimated revenue of \$176 million.

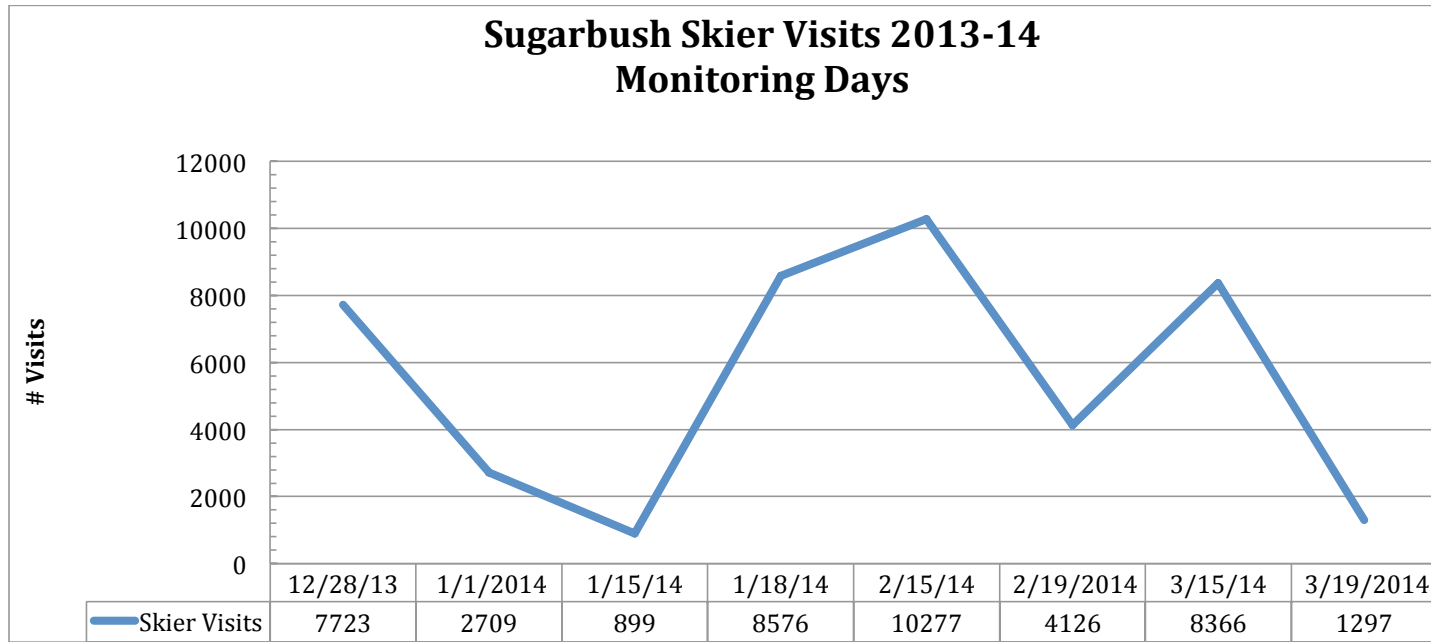
An informal survey of popular wedding locations in the MRV area counted over 115 weddings in 2013.

The Town Clerks in Waitsfield, Warren, and Fayston issued 71 marriage licenses in 2013 versus 98 the previous year. 5,776 marriage licenses were issued in the state in 2013.

SKIER VISITS

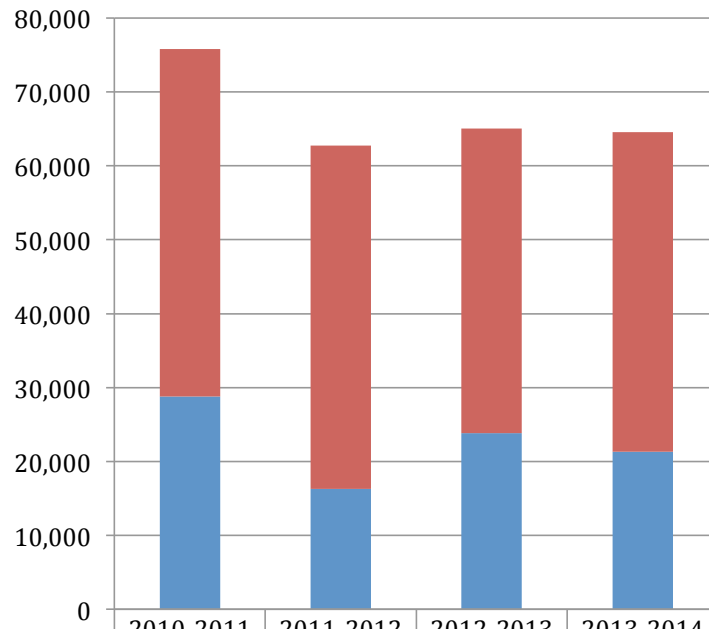
In Vermont overall, the 2013-14 ski season was the third best season on record (4,503,269 skier & rider visits), according to the Vermont Ski Areas Association. Sugarbush Resort skier visits were slightly down in the most recent season versus 2012-2013. Sugarbush received 237 inches of natural snowfall during the 2013-2014 season (average is 269) compared to 279 inches during 2012-2013. Sugarbush's highest visit counts over the past 17 years have taken place during the past two seasons.





Sugarbush reported several “super peak” days (over 8,000 skier visits) during the 2013-2014 season.

Mad River Glen Total Annual Visits

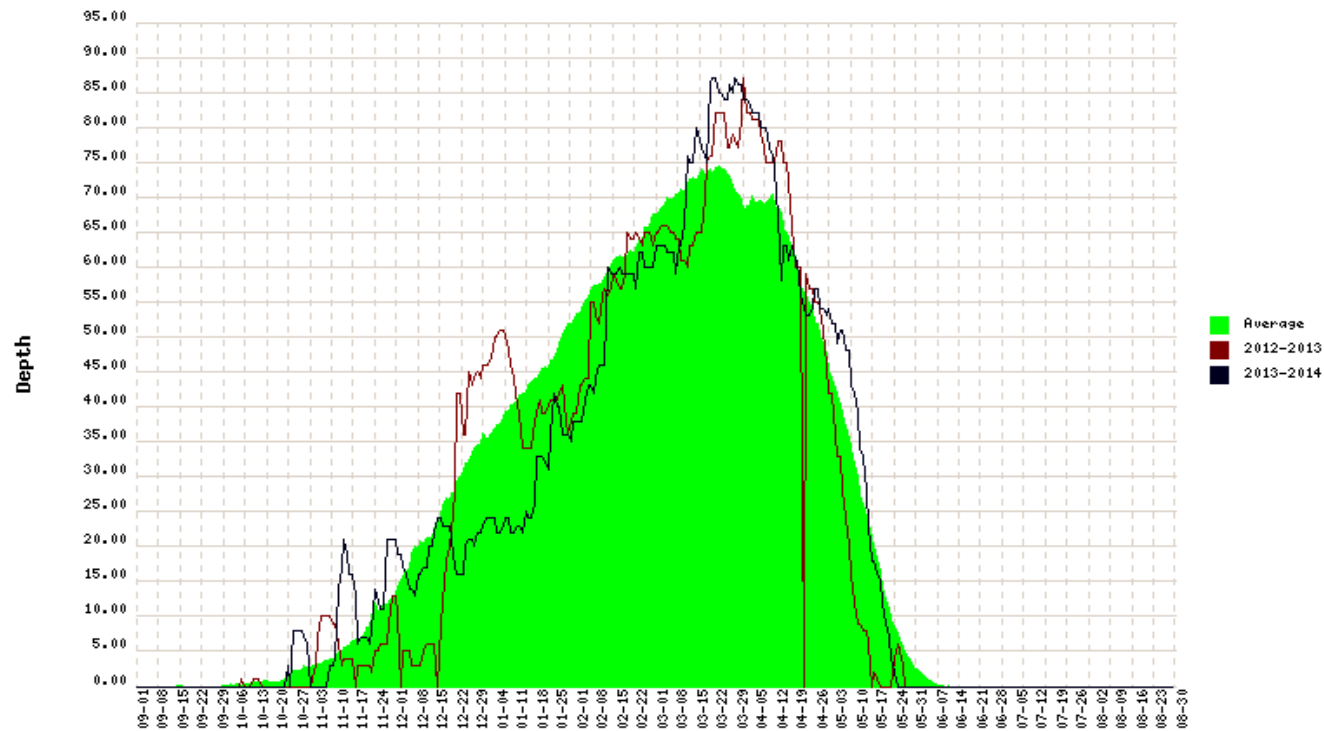


■ Season Pass Visits	2010-2011	2011-2012	2012-2013	2013-2014
	47,031	46,414	41,198	43,229
■ Lift Tickets	28,798	16,311	23,840	21,298

Mad River Glen is not part of the MOU, but contributes skier visit data to provide a snapshot of Mad River Glen. The 2013-2014 season closely mirrored that of the previous one, with some changes in the relative percentages of lift tickets versus season pass visits. Overall, season passes comprised approximately 67% of Mad River Glen's total visits, up from 63% the previous season.

Snowfall depth data collected at Mount Mansfield provides a visual comparison of the last two ski seasons and average snowfall amounts. Of note, for the last two winters peak snowfall has shifted to later in the season, with above normal amounts occurring in mid-March through mid-April.

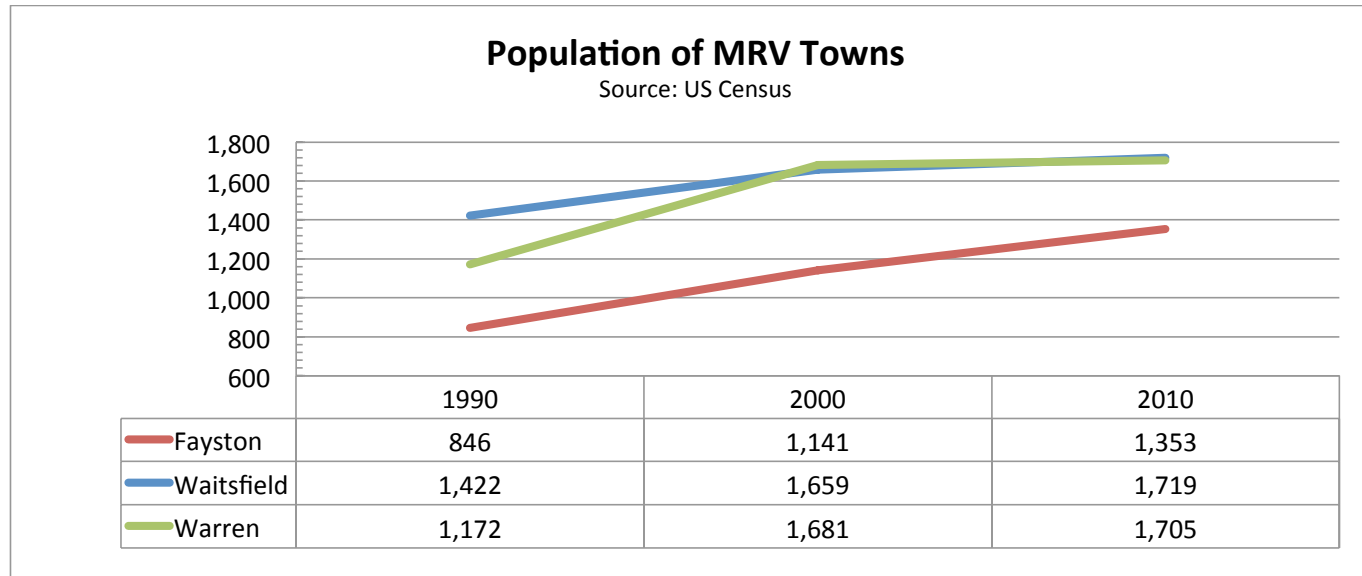
Mount Mansfield Summit Station



Section II: Population & Housing

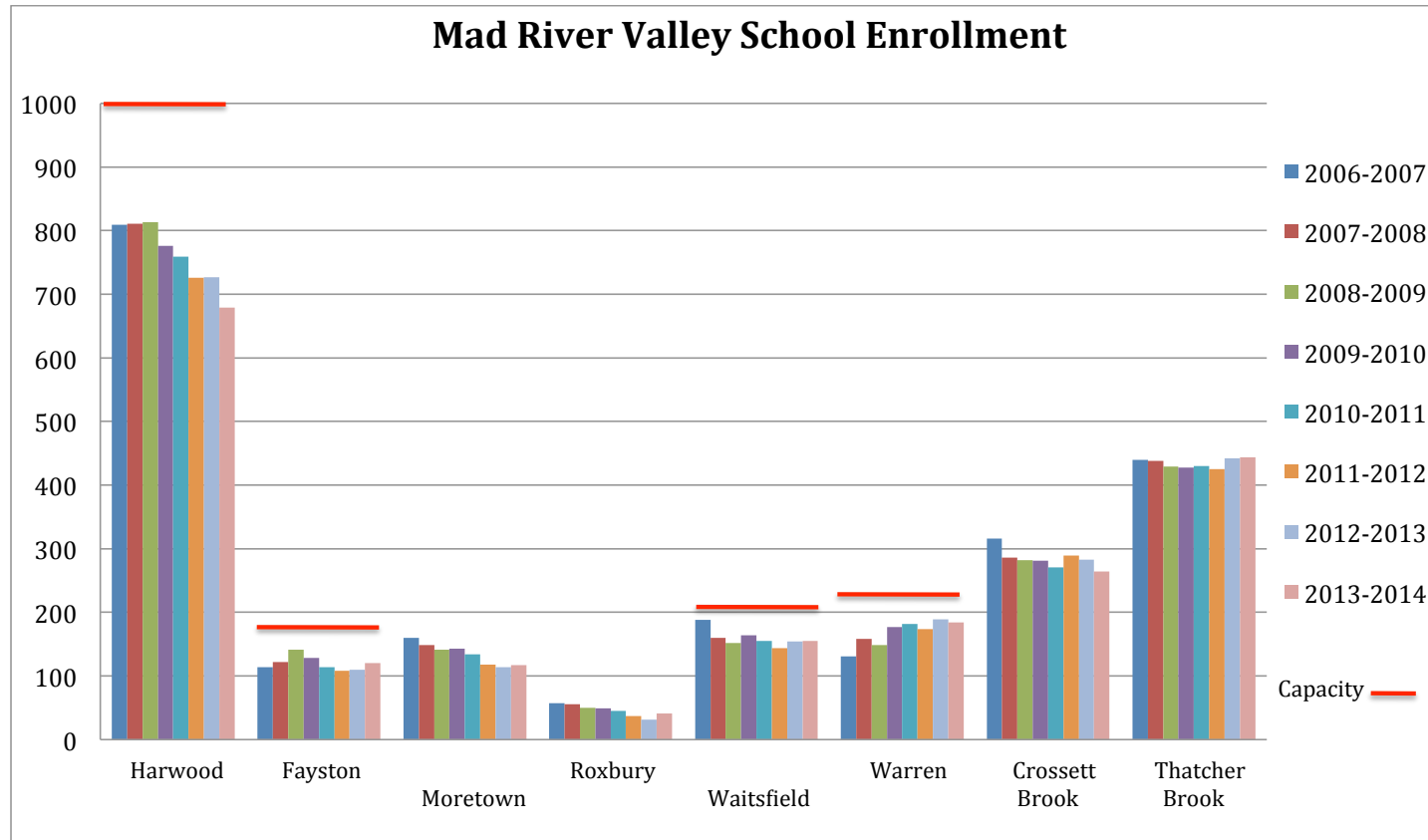
The Population and Housing section includes Items #29, 30, 35 from the Memorandum of Understanding.

To analyze trends in housing and population, this report reviews several different indicators, including growth estimates, school enrollments, number of homes sold, age of residents, births and deaths, and in-migration patterns in the MRV.

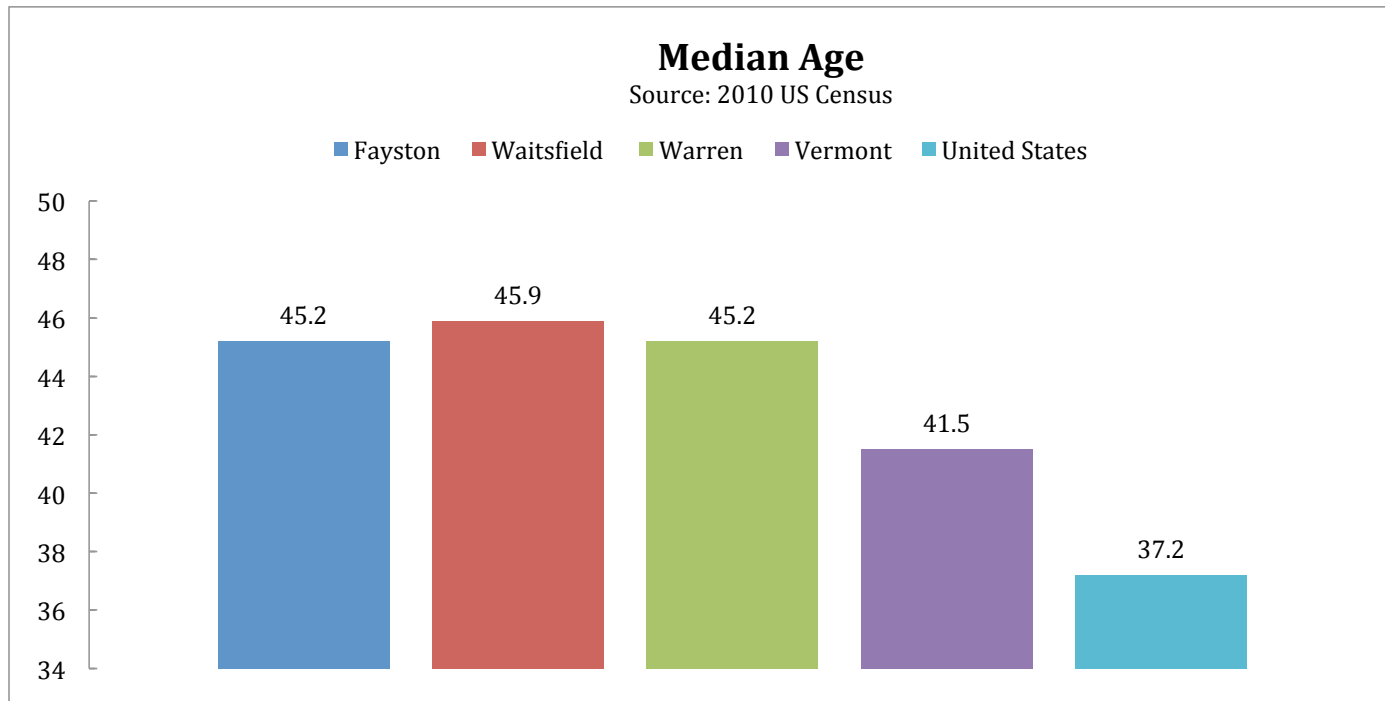


The majority of population growth in the Mad River Valley has taken place in Fayston, at a rate of 18.6% between 2000 and 2010 (34.9% over the previous period). The combined population of the three MRV towns has increased by 6.6% between the last two most recent US Census counts. This is more than twice the growth rate that has been experienced for Vermont overall in the same time period (2.8%). These percentage increases are higher than previous estimates [the MRV was expected to see its population increase by 4% and Vermont by 2%].

School enrollment figures show a stabilization of elementary school enrollments, but a continued decline at middle and high schools. Nevertheless, a comparison of MRV school enrollment to Washington County and the state of Vermont shows a slower decline than in the county and state as a whole.

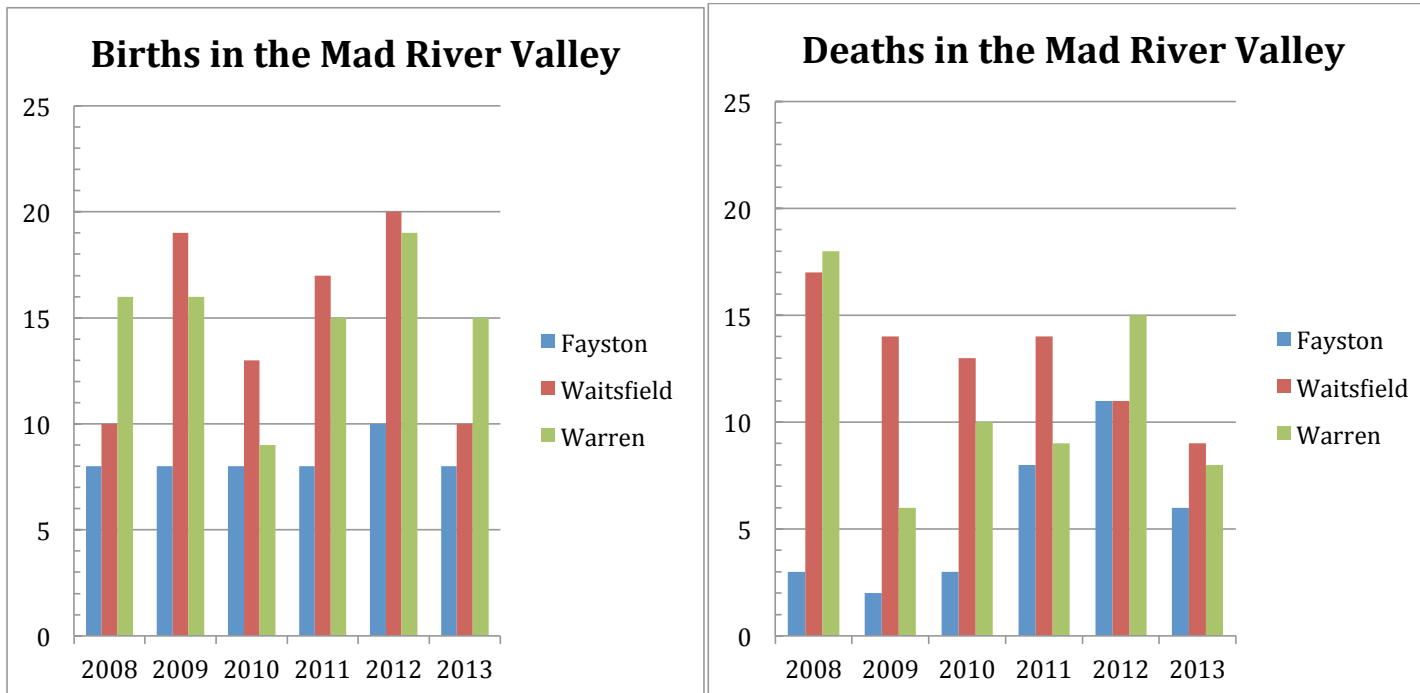


Another useful piece of information is the median age of the population of MRV towns, which shows at least in 2010 (the most recent year available), MRV towns continue to be older than Vermont overall.



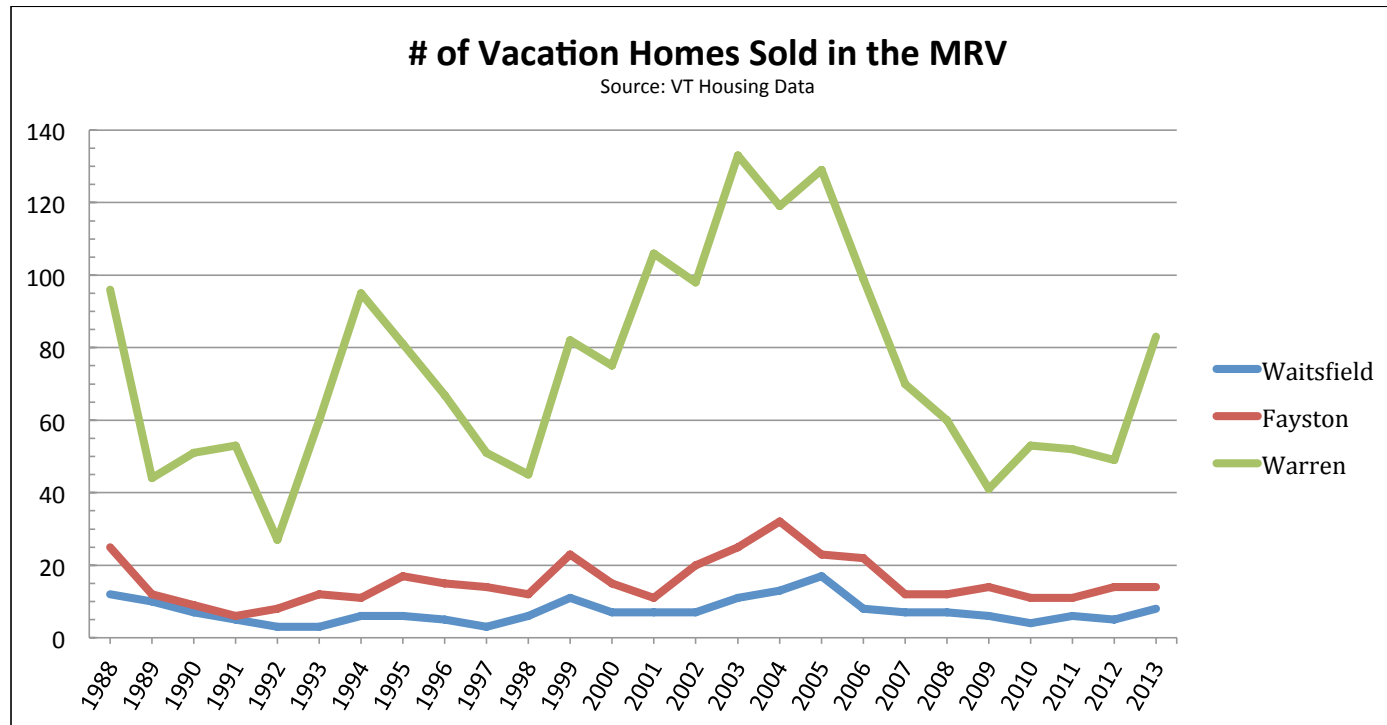
In total, the MRV population has grown by about six and a half percent, the median age in the Valley is about 45 years (versus 40 years in 2000) and elementary school enrollments are experiencing a slight increase. The MRV Economic Study included data showing the rate of in-migration to the MRV of people aged 35 to 45 has exceeded that of the county and state, and that that in-migration is from households with school-aged children.

Dara Torre 12/17/2014 9:16 PM
Comment [2]: Add graph of this?
 Joshua Schwartz 2/2/2016 2:14 PM
Comment [3]: Yes



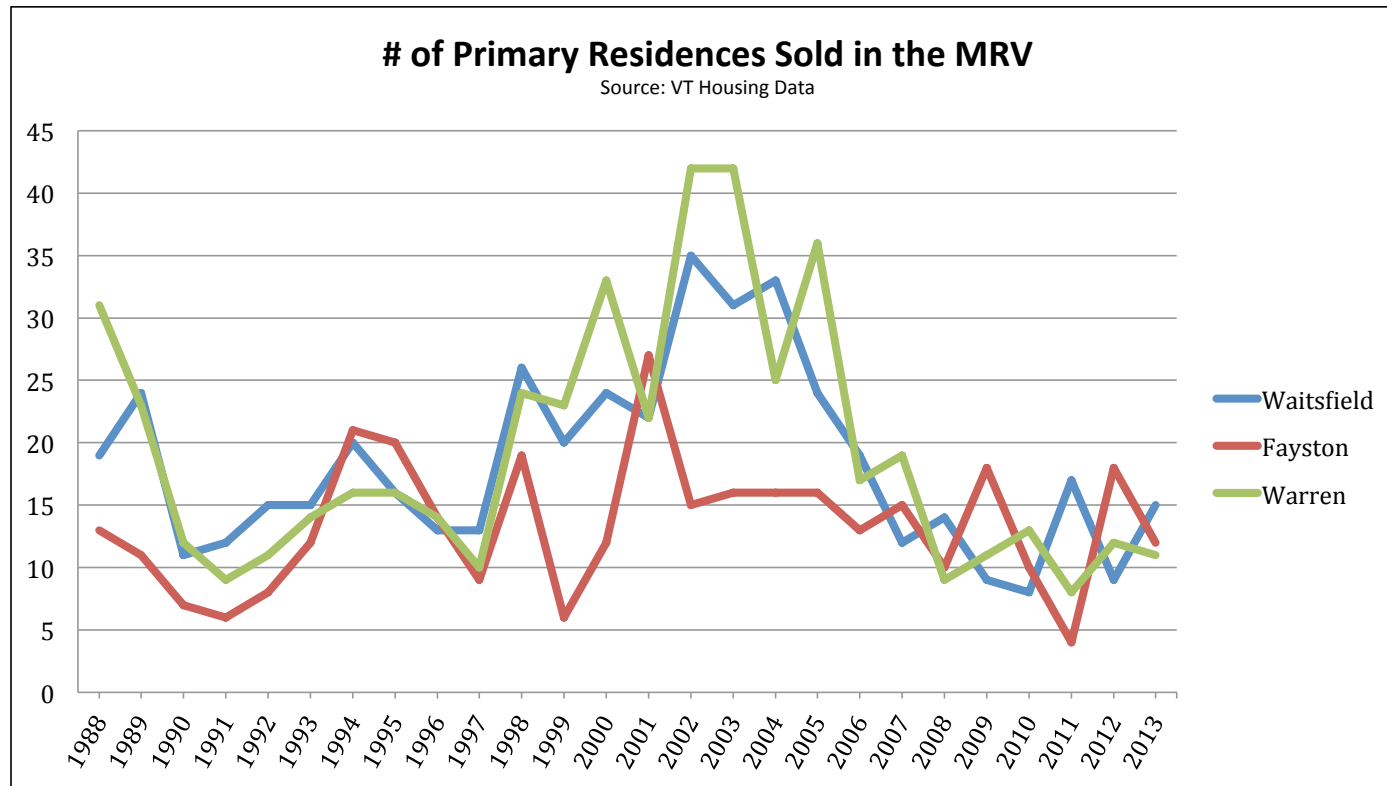
HOUSING

The number and type of homes sold in the MRV provides another view of growth patterns and trends.



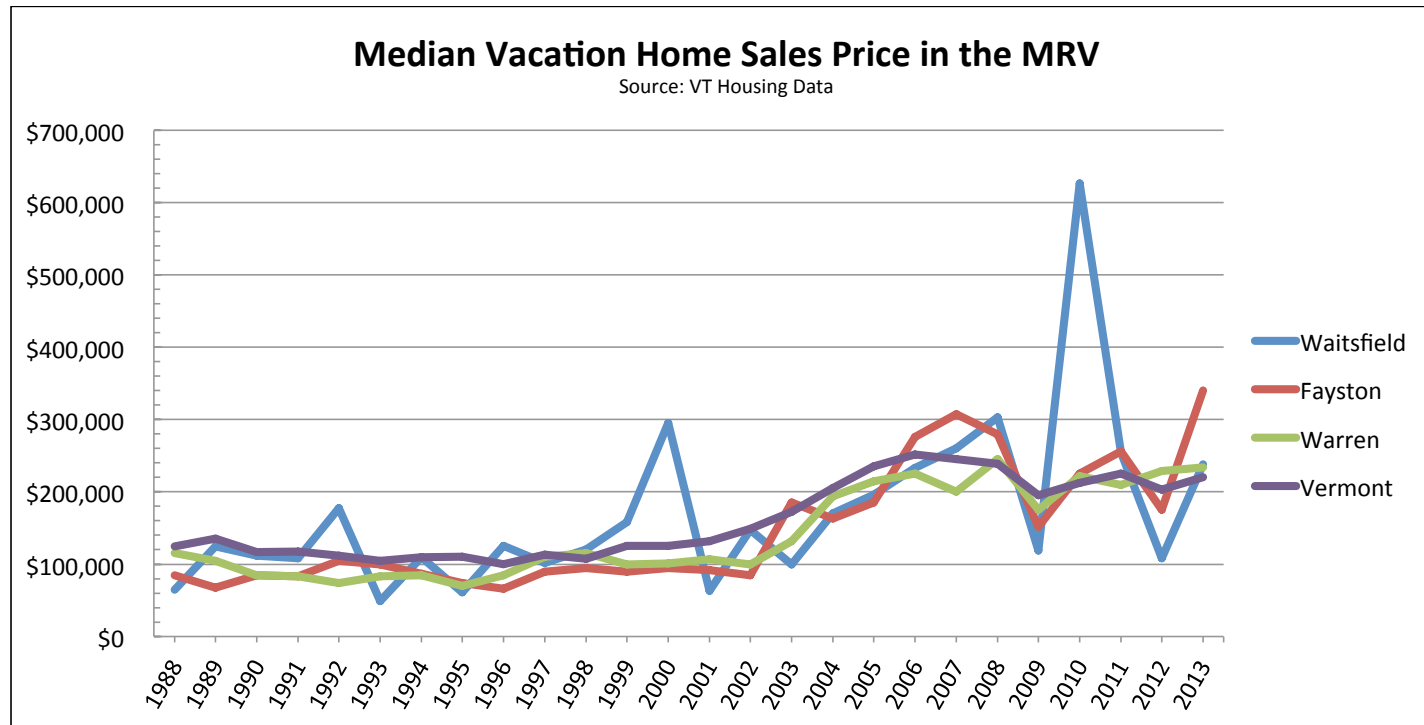
As the above chart shows, the number of vacation homes sold is slowly recovering after a 2009-10 drop, with Warren experiencing the steepest post-recession declines and the greatest increase in 2013. Vacation homes include condominiums that are not primary residences, as well as other non-primary residence homes. Most of these vacation homes are found closer to Sugarbush Resort.

Statewide, the number of annual vacation home sales increased 22% between 2010 and 2013, with the median sale price increasing by 3.3%.



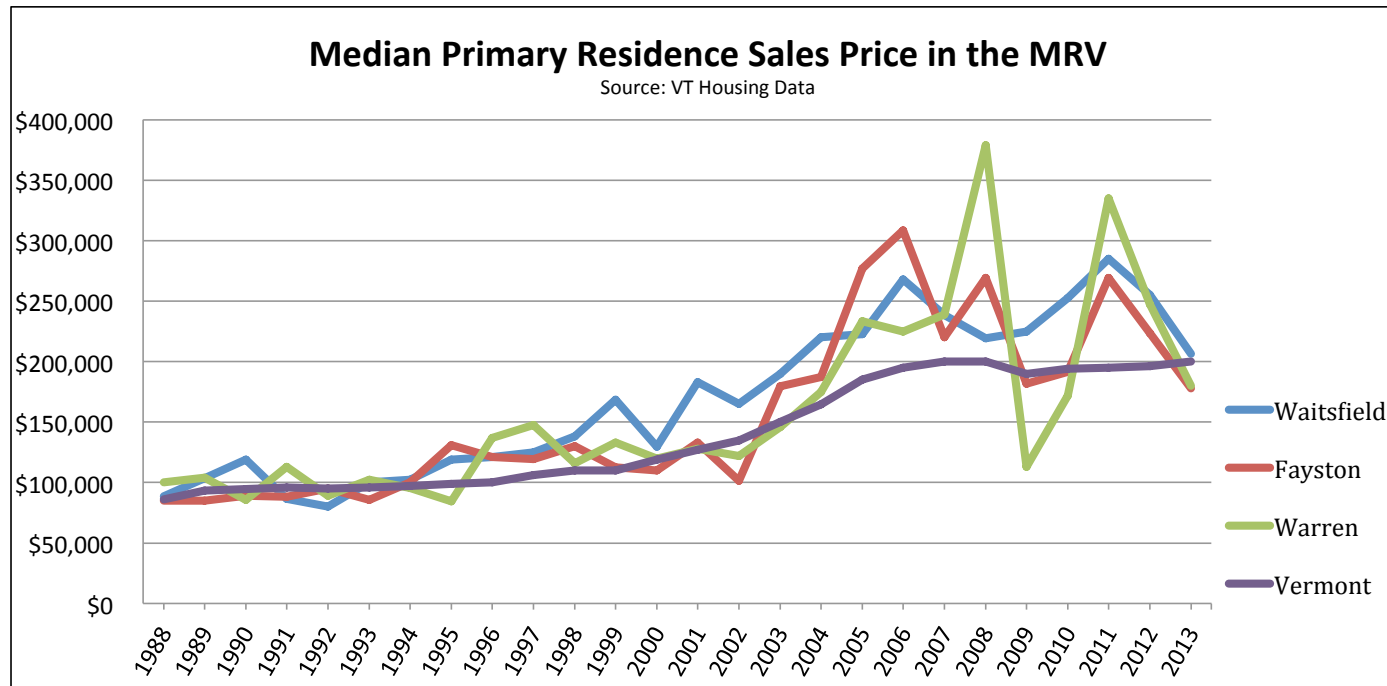
The number of primary homes sold has declined somewhat in recent years, especially in Warren and Waitsfield, back to 1990s levels. In 2013, there were 15 primary residences sold in Waitsfield, 12 in Fayston and 11 in Warren. For reference, in 2013 there were 8 vacation homes sold in Waitsfield, 14 in Fayston and 83 in Warren.

In the state as a whole, the number of year-round homes sold in 2013 was 6,430, much below 2005's peak (9,312) but still an increase compared to recent years (4,452 in 2009 and 5,559 in 2012).



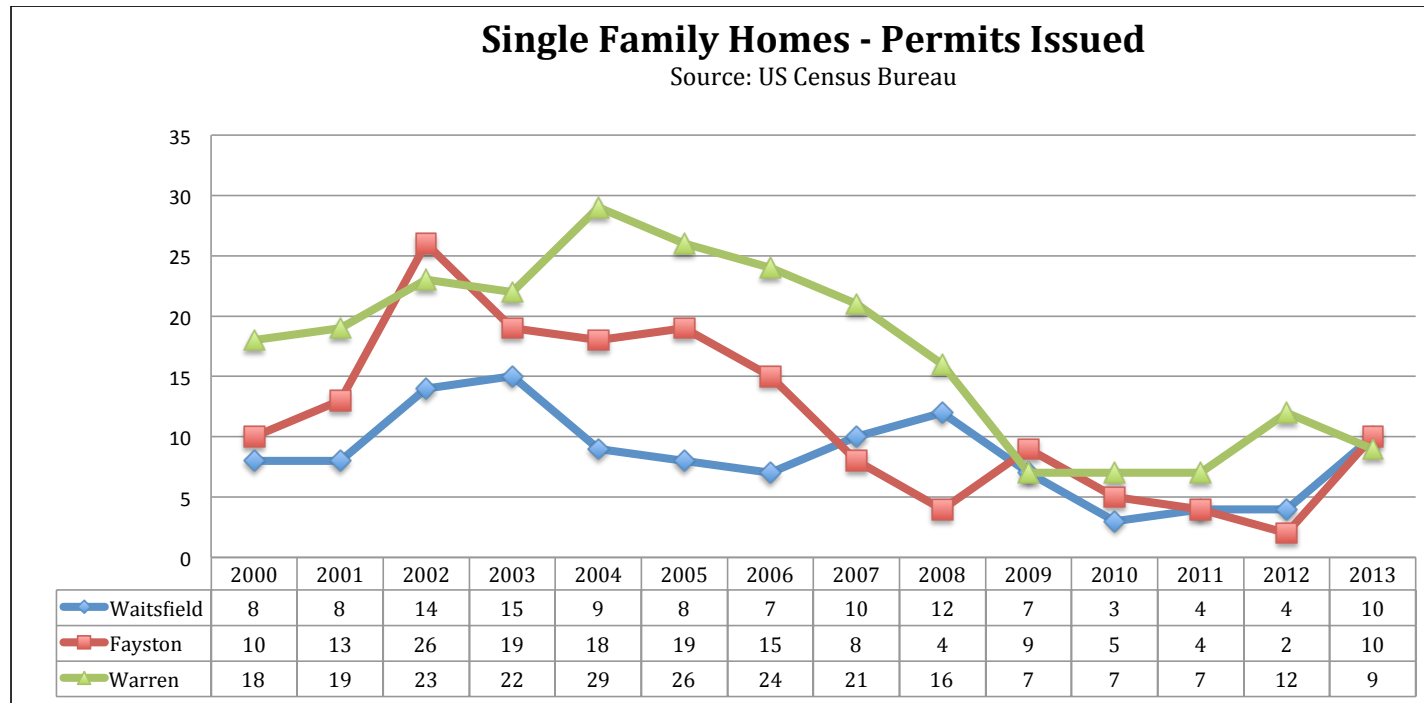
The MRV towns are largely following the state median for vacation home sales prices (\$220,000 in 2013), with the exception of Waitsfield, which has varied considerably over the last few years. The median vacation home sales price has rebounded somewhat since the 2009 nadir, with 2013 showing an uptick for all three towns, especially Fayston. For reference, in 2008, the median vacation home price in Waitsfield was \$303,000, versus the state average of \$239,000, falling to \$238,000 in 2013. In Fayston, the median

vacation home cost \$280,000 and in Warren it cost \$245,000 in 2008, vs. \$340,000 and \$234,000, respectively in 2013. The median vacation home price for Vermont increased from \$203,000 in 2012 to \$220,000 in 2013.



Primary residence sales prices have overall had a much stronger recovery since 2009 in the MRV, particularly in 2011, but in 2013 prices returned to at or below the state median. For reference, the median home in Waitsfield cost \$206,500 in 2013 and \$178,000 in Fayston, while Warren's median home price was \$180,000. The overall average for Vermont was \$200,000.

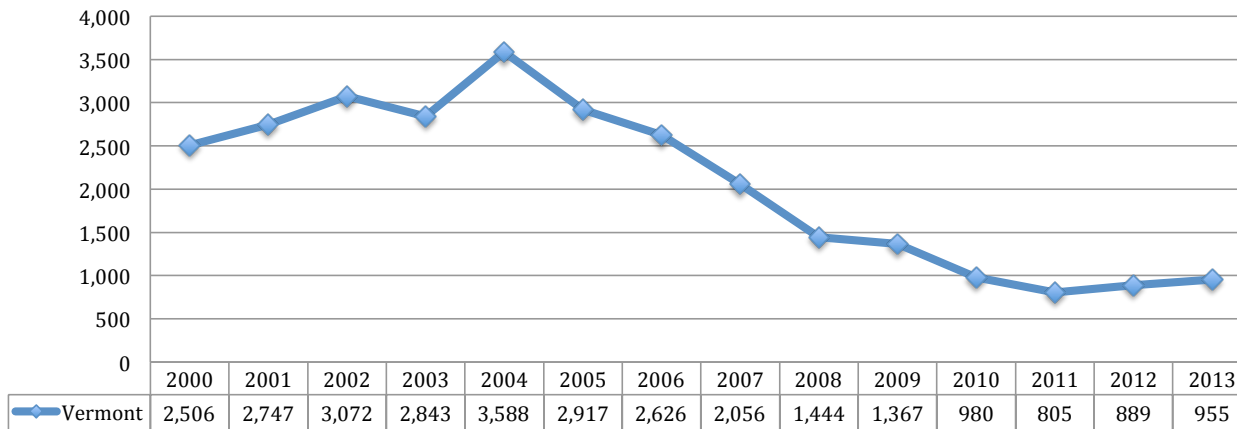
A leading indicator of new home construction is zoning permits. This chart shows an increase in Waitsfield and Fayston in 2013¹.



¹ Permit numbers for this graph originate from the [US Census Building Permits Survey](#). Some small discrepancies exist when compared to individual Town Reports. The only instance when a Town Report number was used was for Fayston's 2012 permit number – the Census number for this year was zero.

Single Family Homes - Permits Issued in Vermont

Source: US Census Bureau

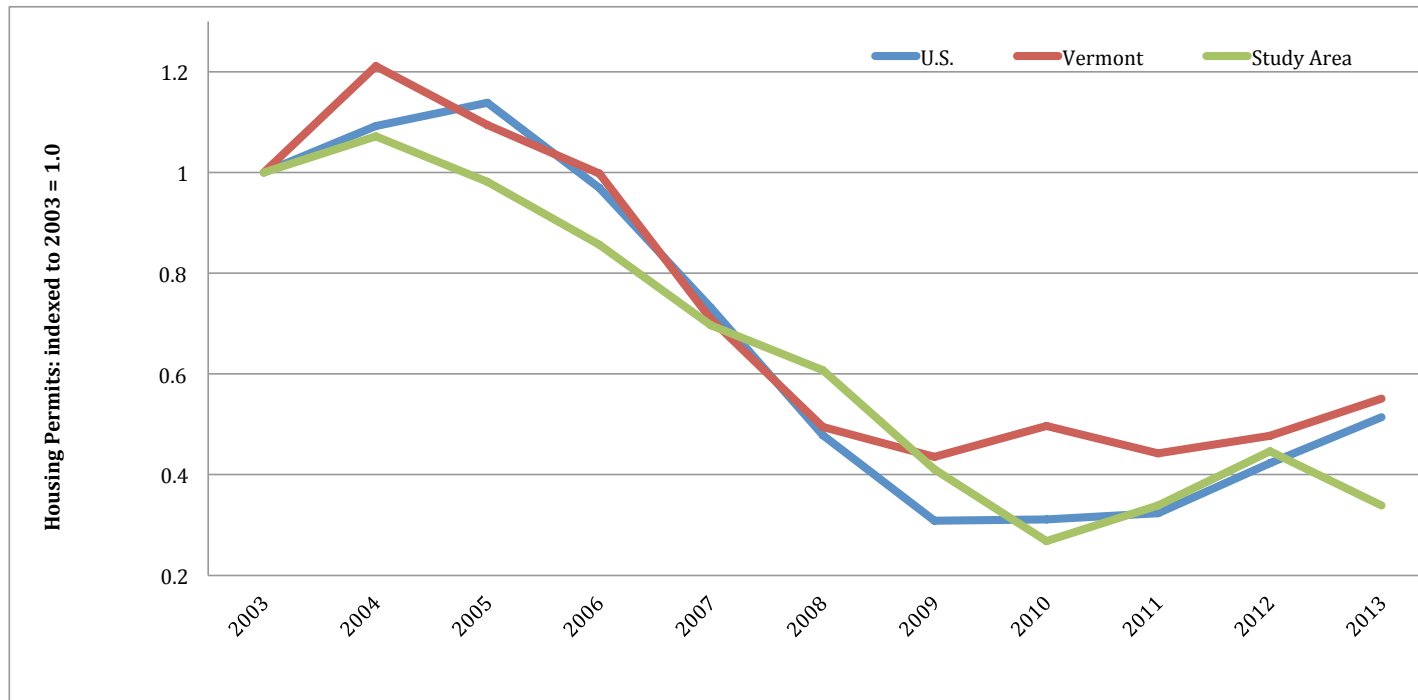


The issuance of permits for single-family homes in the MRV has charted a similar course to those issued statewide.

However, when the data is indexed to 2003 levels, a chart from the MRV Economic Study (below) shows declines in the MRV in 2013 relative to the state and the US.

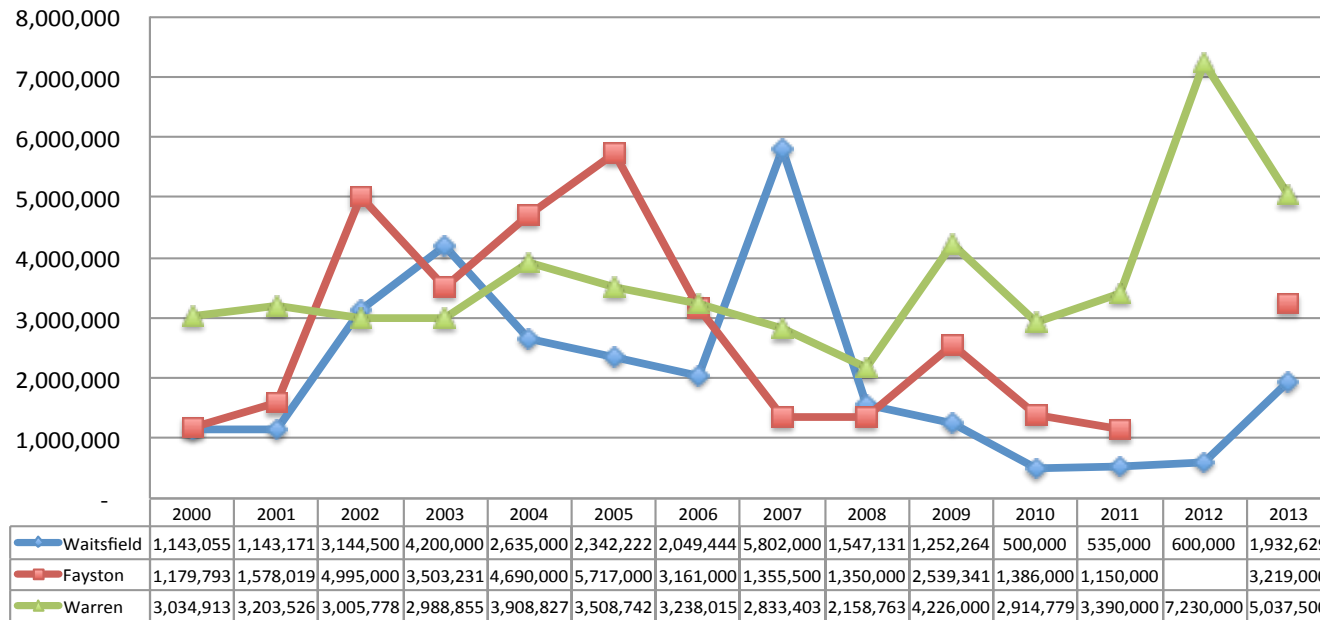
Indexed Housing Permits: MRV/Study Area, U.S., Vermont (2003 – 2013)

Sources: HUD – State of the Cities Database, Federal Reserve Bank – Boston



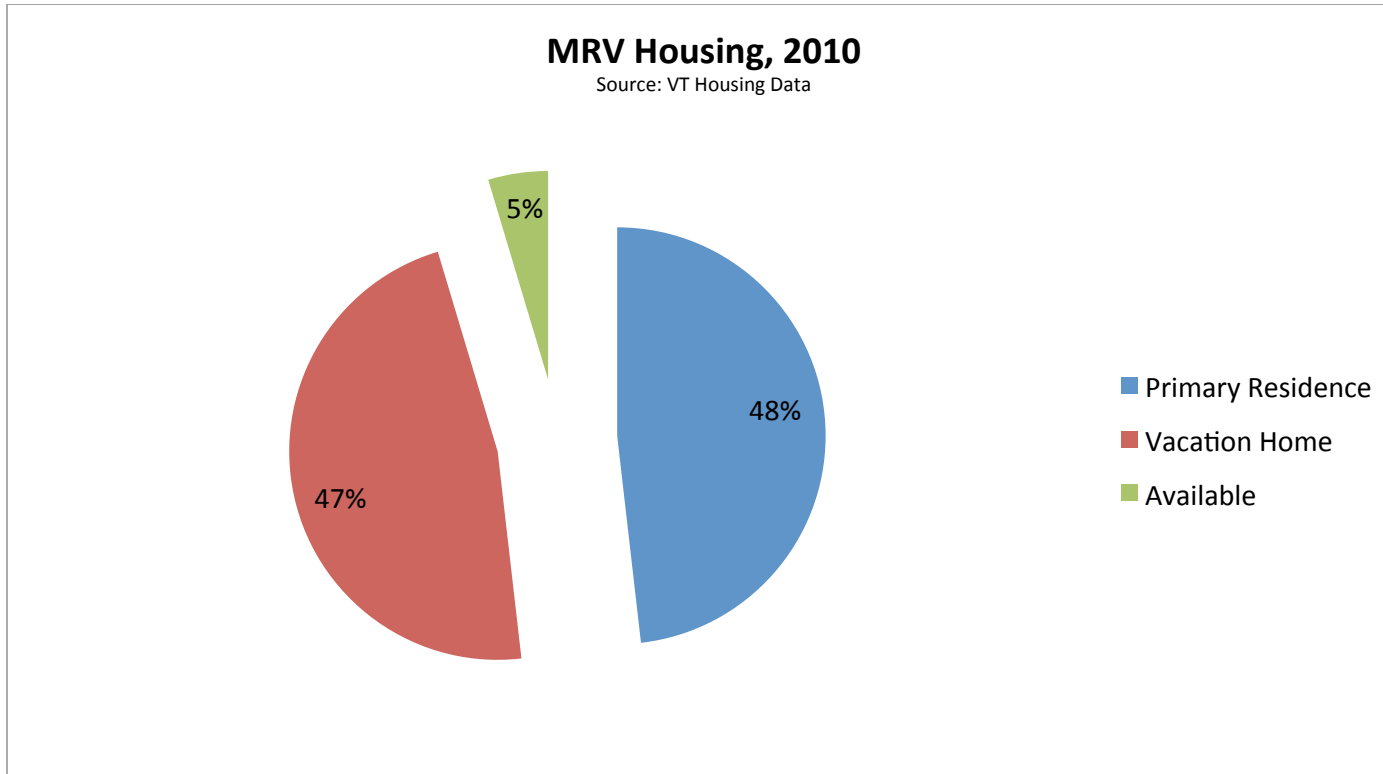
Single Family Homes - New Construction Costs in \$

Source: US Census Bureau



While the raw number of single-family homes permitted is important, the total dollars attributed to those permits is also an important figure.² The cost of construction in all three towns has risen dramatically since 2010, particularly in Warren.

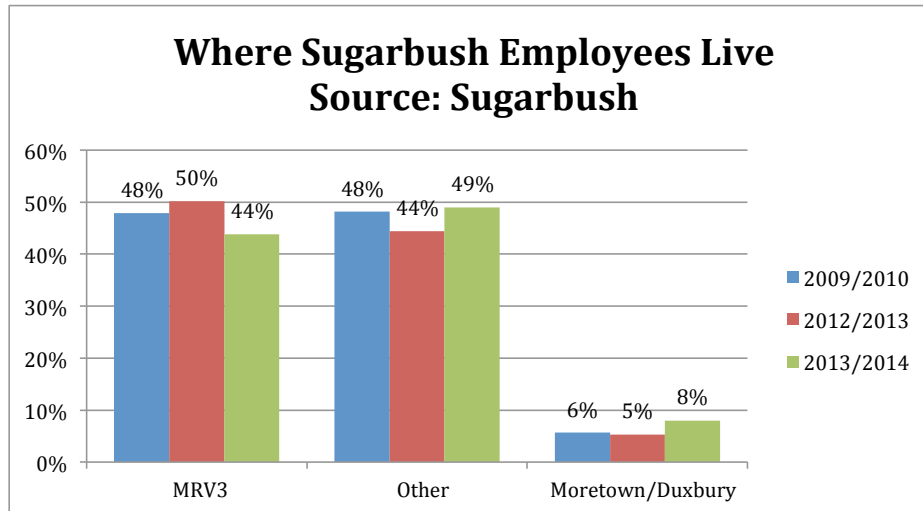
² Fayston lacks a number for 2012. This is due to the discrepancy between the [US Census Building Permits Survey](#) and the Town Report for that year.



A snapshot of available housing shows that in 2010, housing has continued to be split fairly evenly between full-time and seasonal occupancy, with just a small percentage of housing available at the time of the Census.

HOUSING AFFORDABILITY

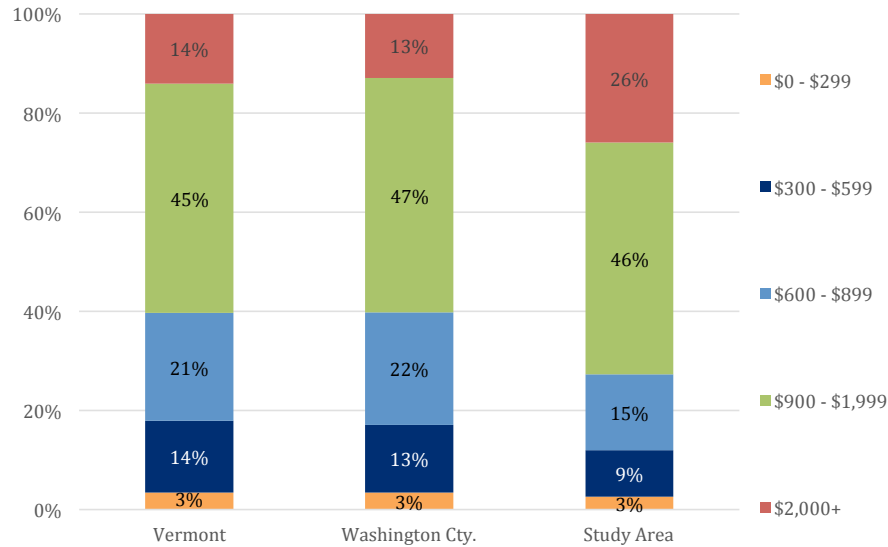
Data from Sugarbush Resort suggest a drop in the number of employees (year-round and seasonal) who live in one of the three MRV towns (44% in 2013-2014 season versus 50% in 2012-2013 season). However, the percentage of year-round employees who live in one of the three MRV towns climbed to 68.8% from 67%. Also of note, the percentages of ownership dropped among survey respondents to 44.2% owning, 55.8% renting (versus 49% and 51% respectively in 2012-13).



An analysis of housing costs shows a greater percentage of income is required of those who live in the MRV as compared to county and state levels, with almost twice the proportion of people spending \$2000 or more on housing a month.

Households Distributed by Monthly Cost of Housing (2012)

Source: U.S. Bureau of the Census – American Community Survey



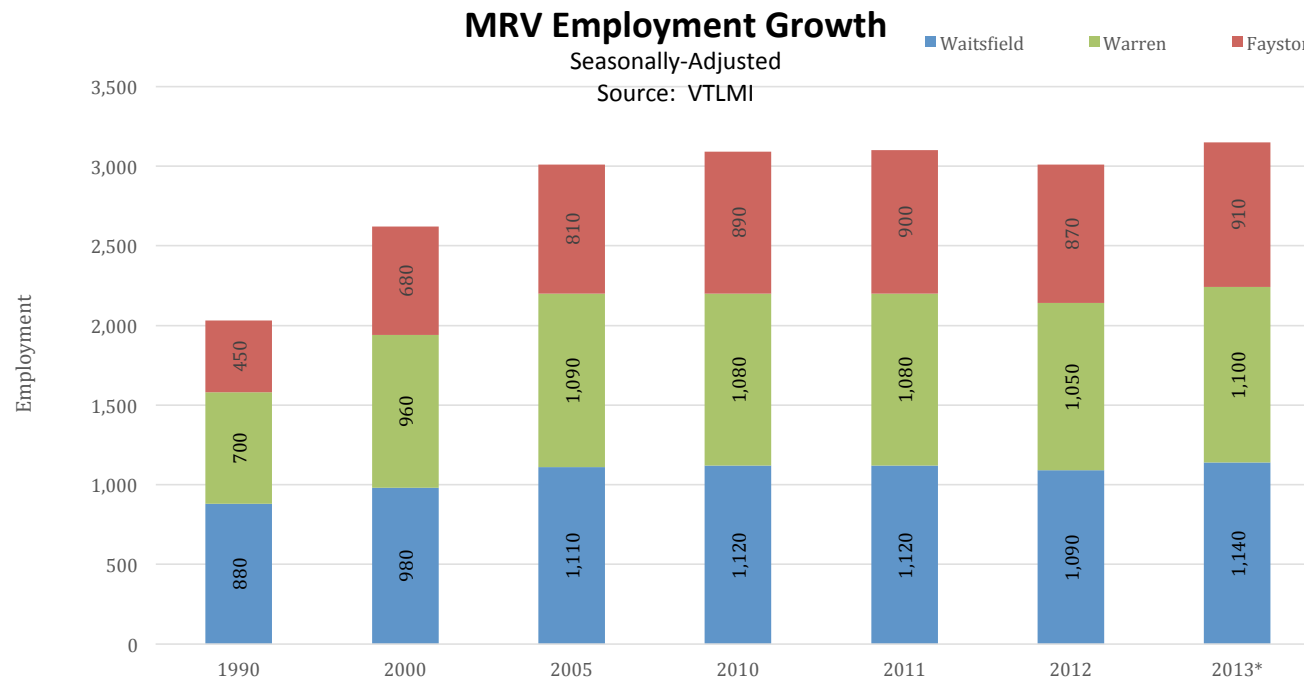
SECTION III: EMPLOYMENT

The Employment section includes Items #35 & 36 from the Memorandum of Understanding.

MAD RIVER VALLEY LABOR MARKET AREA (MRV LMA)

The employment and wage data below is based on the Mad River Valley Labor Market Area (MRVLMA). The MRVLMA includes Moretown and not just the three towns used for the rest of this report. Only industries that are well-represented in the MRV are included in the charts below. Descriptions of each industry is as follows:

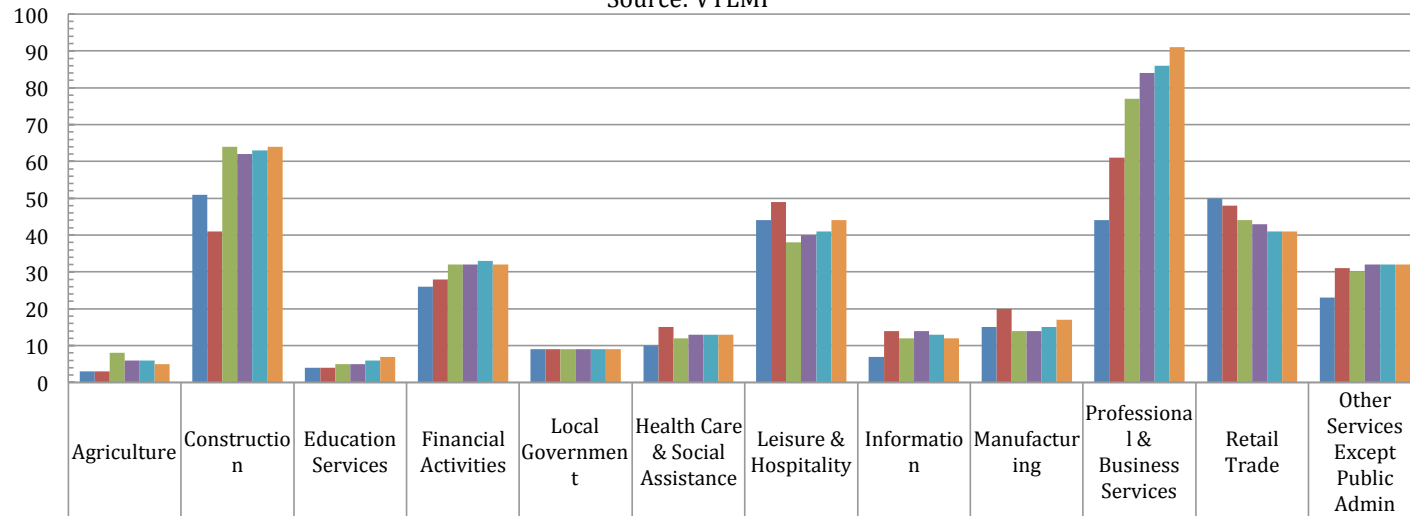
- Agriculture includes forestry, fishing, and hunting
- Construction industry includes building construction, engineering and contractors
- Manufacturing includes manufacturers of durable (wood products, mineral products, transportation equipment, furniture, etc.) and non-durable goods (food, beverage, tobacco, and printing)
- Retail trade includes sellers of motor vehicles and parts, furniture, home furnishings, electronics, appliances, building materials, garden supplies, food and beverages, personal care, gasoline, clothing, sporting goods, books, music and general merchandise
- Information industry includes publishing, motion picture, sound recording, broadcasting and some telecommunications
- Financial activities include financial services, insurance, credit services, securities and other investments, real estate services
- Professional and business services includes professional services, technical services, administrative services, and other support services
- Educational services includes non-government schools, technical or trade schools
- Health care includes outpatient, ambulatory care, nursing services and facilities, social assistance
- Leisure and hospitality includes art, entertainment, recreation, performing arts, spectator sports, gambling, accommodation, food services, drinking places
- Other services include repair and maintenance, personal services, laundry services, membership associations
- Local government includes government elementary and secondary schools and public administration



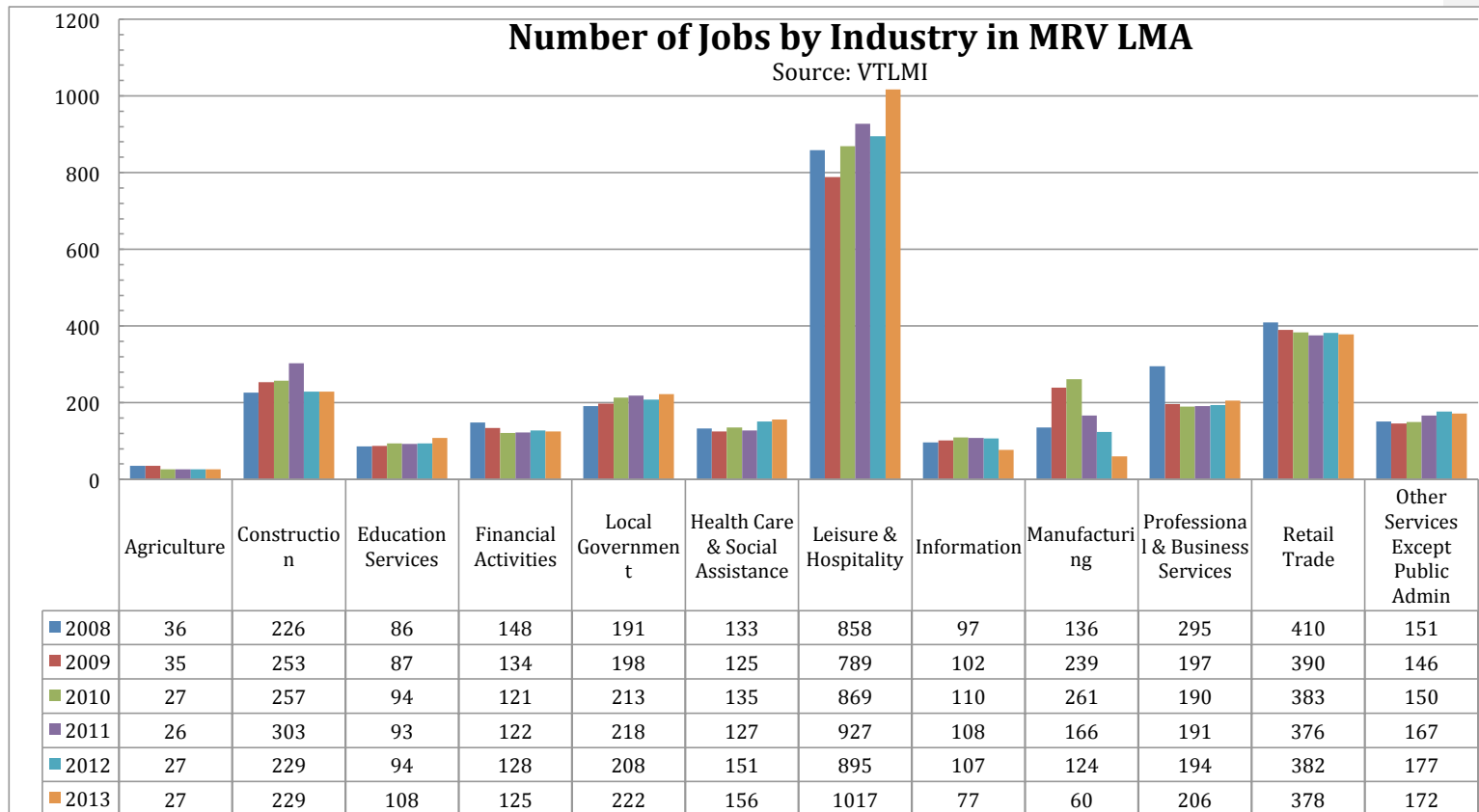
Over the last 20 years, significant employment growth is evident in the MRV, with over 1,000 jobs gained between 1990 and November of 2013. The MRV's labor force grew by 21% between 2000 and 2013, compared to 7% in Washington County and 5% for Vermont. This corresponded to an increase of 38.9% in population in the MRV over the same period. (MRV Economic Study, p. 32)

Number of Businesses by Industry in MRV LMA

Source: VTLM

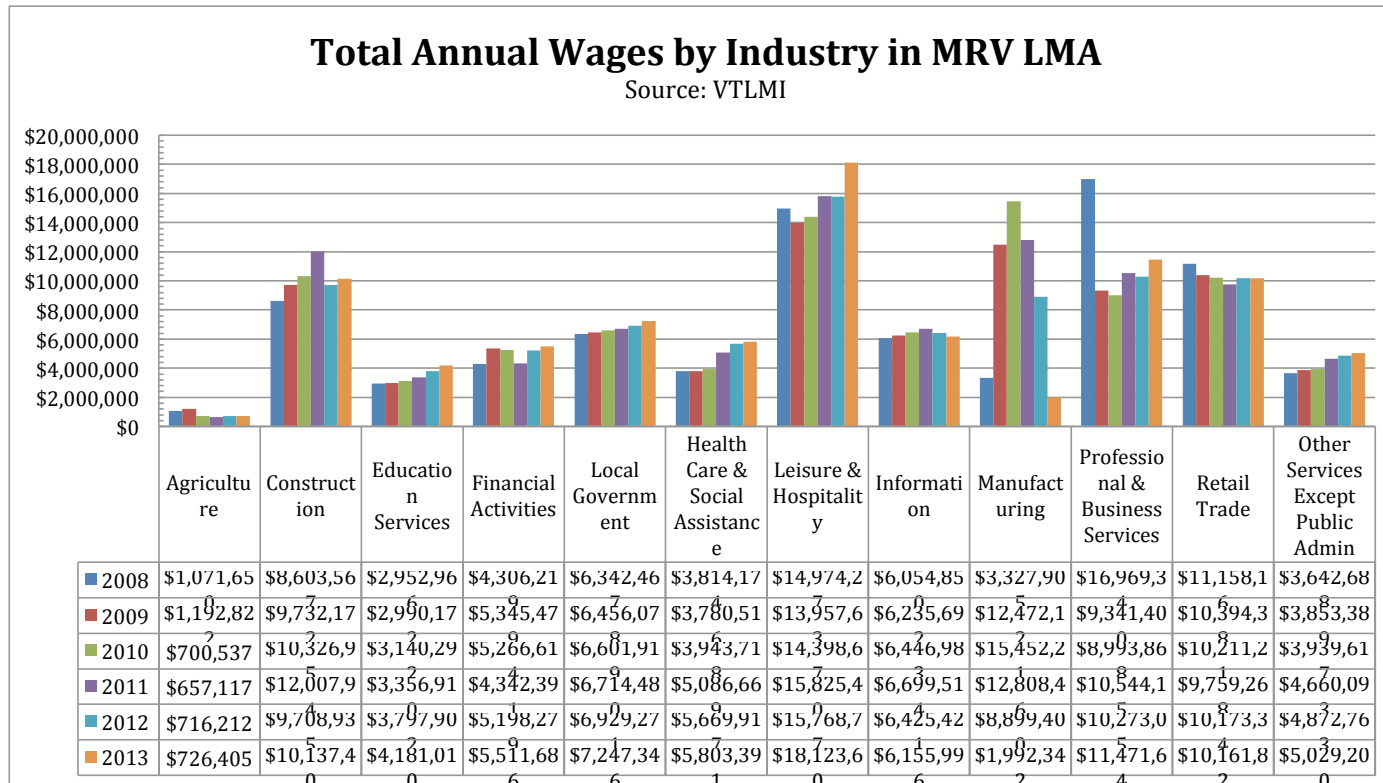


The sector with the largest and continued increase in the number of businesses between 1988 and 2013 is the Professional & Business category. Construction and Financial Activities firms have also grown, along with Information.



While the MRV has attracted businesses from most major sectors, figures from the Vermont Department of Labor depict the dominant role of the Leisure & Hospitality sector. Of note, these job numbers are an aggregate that includes part-time and seasonal jobs, which contribute significantly to this sector. Other than a spike in 2011 (Tropical Storm Irene recovery), Construction job numbers have remained steady, along with Retail. After a big decline in 2009, jobs in the Professional & Business Services sector appear to be

steadily climbing, which is echoed to a lesser extent in the Financial Activities sector. Manufacturing jobs declined by almost 50% in 2013, accelerating a trend that started in 2010.



The continued strength in Information and Financial Activities sector wages suggest the retention or creation of higher paying jobs in the MRV, even though there was a decline in the numbers of those jobs in 2009. Manufacturing wages in 2013 reflect the loss in job

numbers in that sector, with total wages dropping 77.6% over the previous year. There appears to be an inverse relationship between Manufacturing and Professional & Businesses Services – this relationship is worthy of additional exploration.

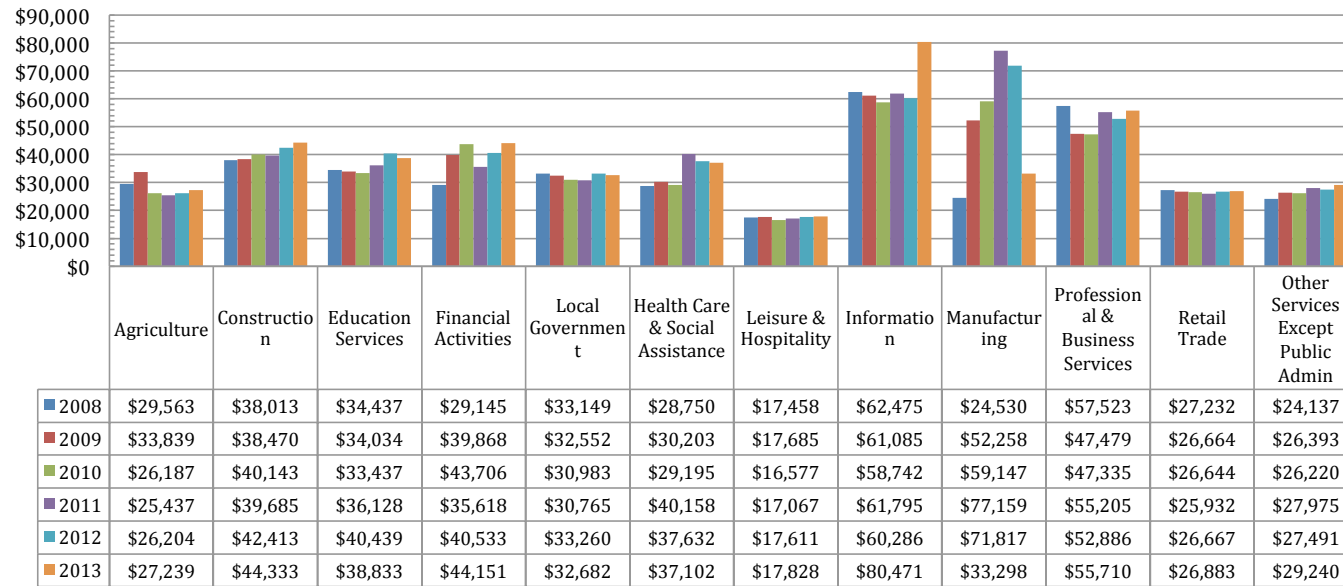
Of note, 2013 saw a continued increase in the total wages for Food Manufacturing jobs in the MRV (91%), a 50% increase in the number of establishments (6), and an 84% increase in the number of jobs (24). Food Manufacturing is a subset of Manufacturing.

Dara Torre 12/17/2014 7:55 PM

Comment [4]: This is as written last year

Annual Average Wage by Industry in MRV LMA

Source: VTLM

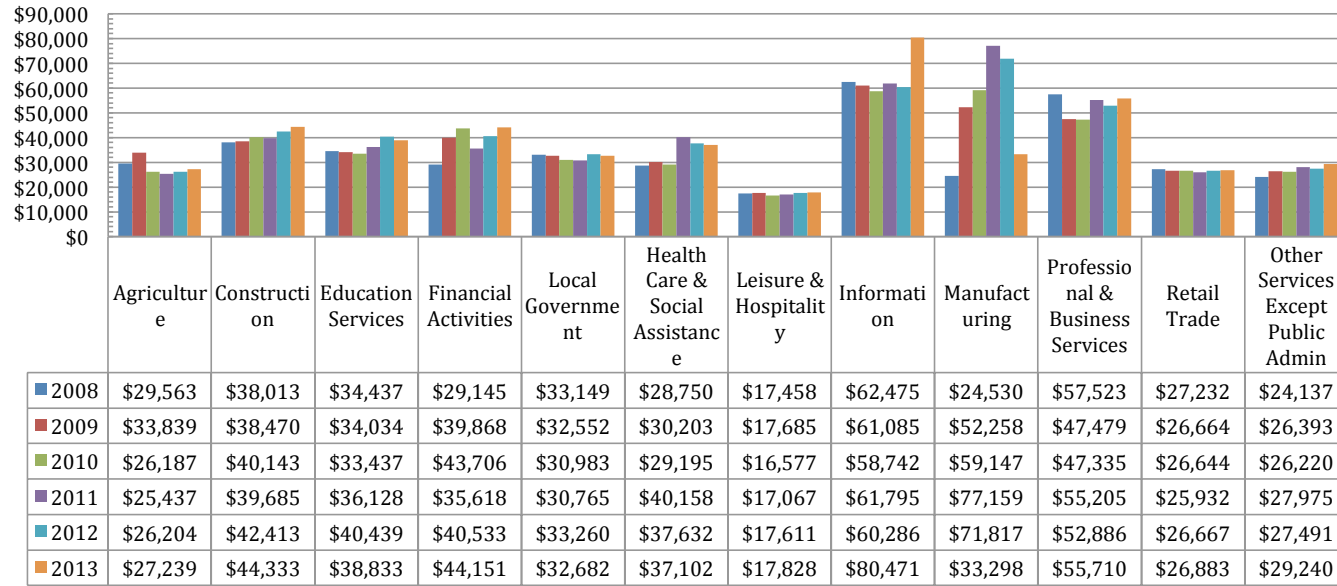


Joshua Schwartz 4/8/2015 3:09 PM

Comment [5]: Is this a duplicate?

Annual Average Wage by Industry in MRV LMA

Source: VTLMi



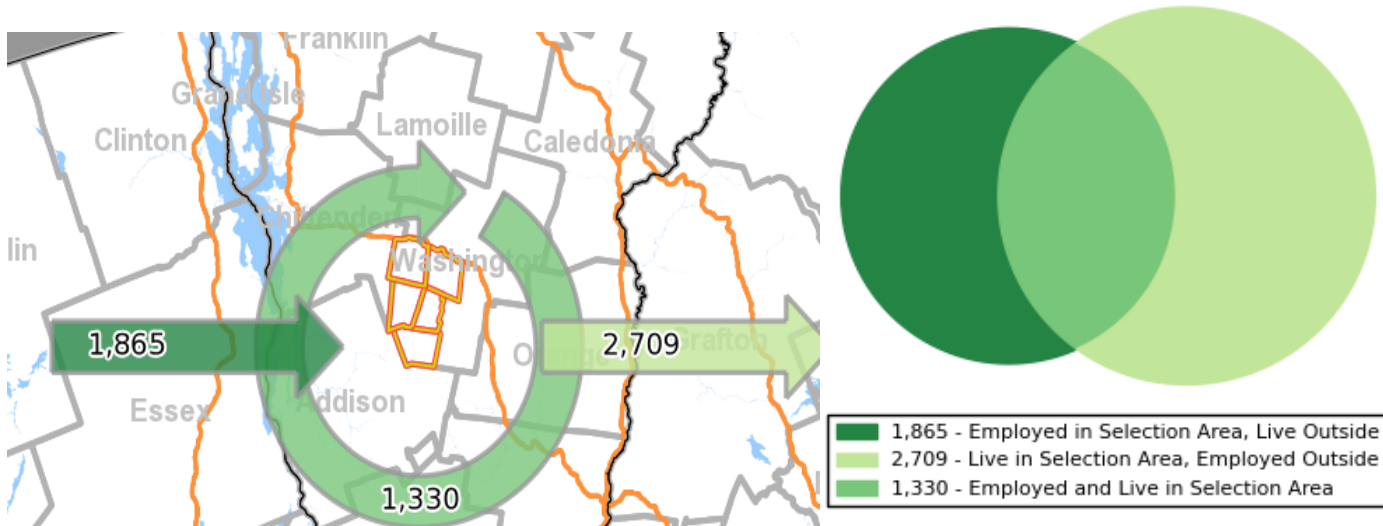
The average wage in the Mad River Valley ranges from under \$18,000 in the Leisure & Hospitality industry to over \$80,000 in the Information industry. Average wages are affected by the proportion of part-time and seasonal jobs, which lower the annual average compared to full-time jobs.

The Information sector shows the greatest percentage increase in 2013 of all sectors. The annual wage in Manufacturing dropped by over 50% to \$33,298 in 2013, suggesting job losses in that sector included higher paying ones. The Leisure & Hospitality industry employs the most people, and along with Retail and Local Government, continues to show the most wage stagnation.

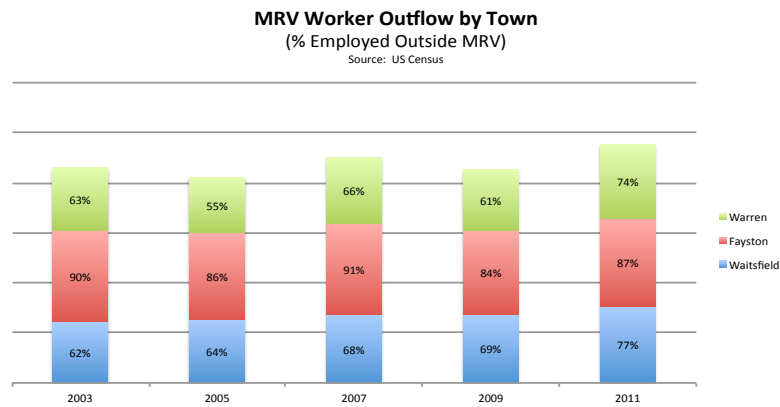
WORKER FLOW

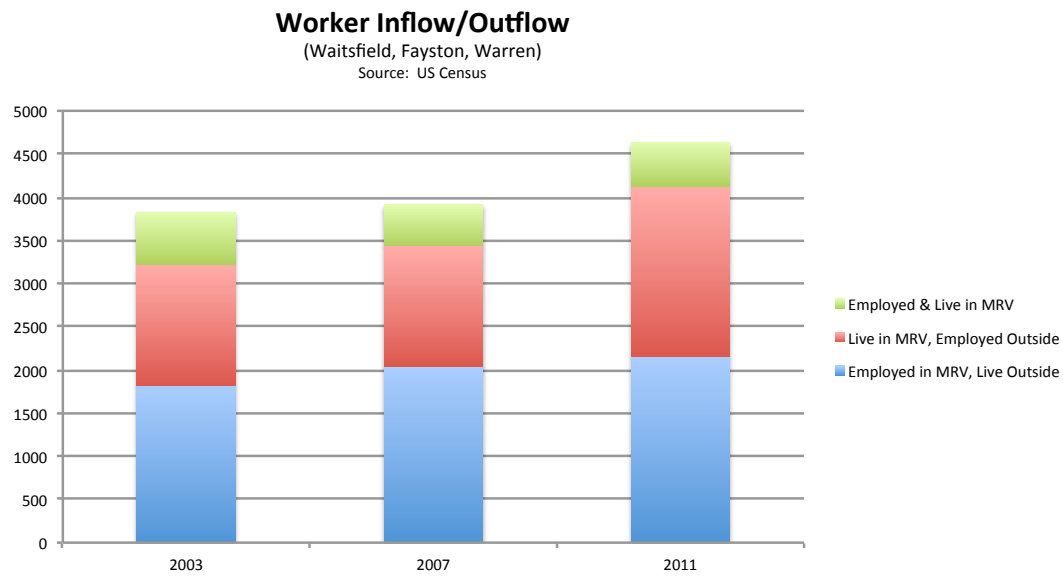
2011 worker flow data shows a greater percentage of workers commuting outside the MRV. The data, however, does not capture self-employment figures. The MRV Economic Study estimated self-employment income in the MRV at 13% in 2012, almost twice the figure for Vermont.

Inflow/Outflow Job Counts in 2011

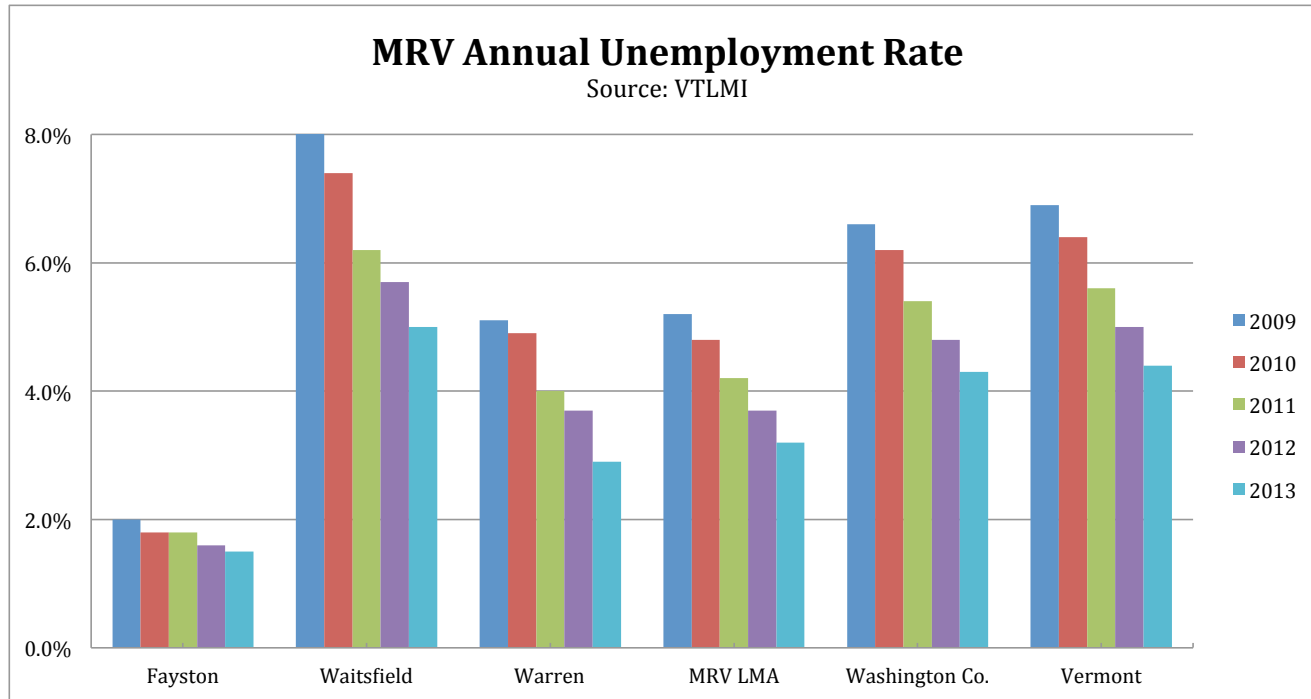


Worker flow data for the MRV shows a growing percentage of workers employed outside the MRV since 2003. Again, self-employment is not reflected.





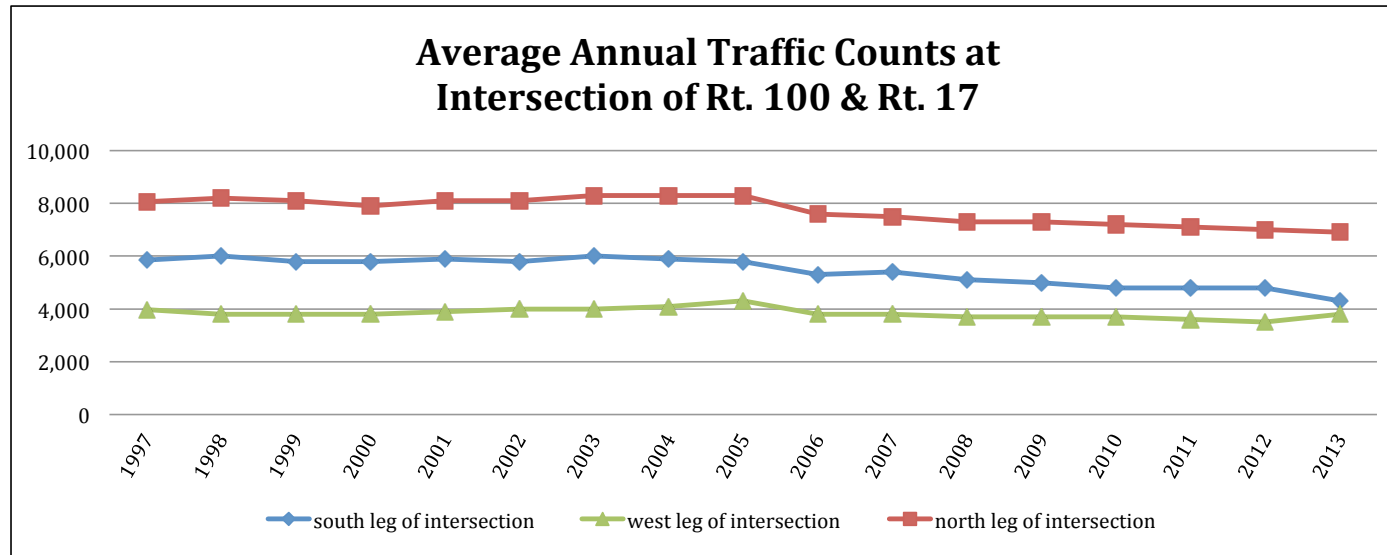
The number of workers commuting into the MRV appears to be increasing since 2003.



The unemployment rate has continued to drop since 2009. Of the 17 LMA's in the state, unemployment in the MRVLMA in 2013 was the lowest.

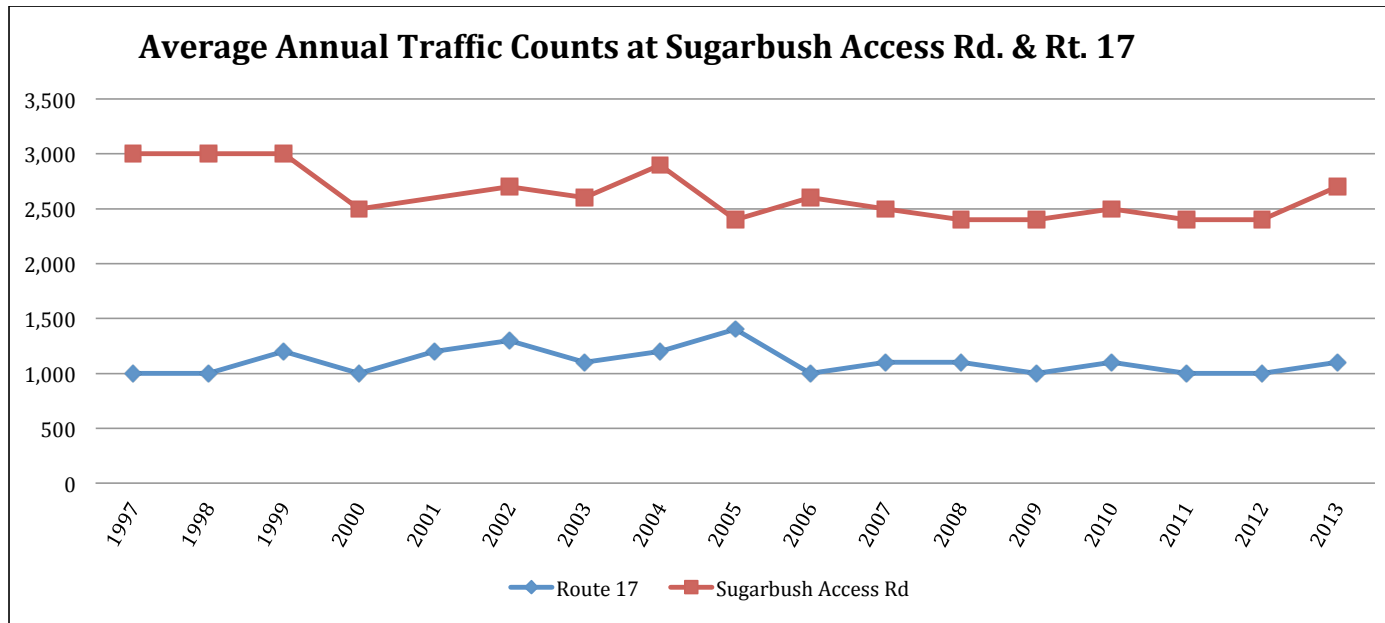
SECTION IV: TRAFFIC & TRANSIT

The Traffic and Transit section includes Items #24, 25 & 32 from the Memorandum of Understanding.



ANNUAL TRAFFIC SUMMARY

As specified in the 1998 MOU, this report contains data from traffic counters in the following key locations: the intersection of Route 100 and Route 17, the Sugarbush Access Road above the Sugarbush Inn, and Route 17 west of German Flats Road. The counter located on the Sugarbush Access Road west of Route 100 has been deactivated and is not included in this analysis. The charts above and below describe the Average Annual Daily Traffic (AADT) from 1997 to 2013. AADT is the total volume of traffic on a highway segment for one year divided by the number of days in the year. The Route 100 and Route 17 intersection has experienced relatively steady use since 1997, with an increase in 2013.



During the 1990s Sugarbush Access Road experienced higher traffic counts, whereas more recent annual vehicle trips have settled lower. Average annual daily traffic measured on Route 17 west of German Flats Road increased by more than 100% over 30 years, from 680 in 1976 to a high of 1,400 in 2005. Traffic on the Sugarbush Access Road shows a spike in 2013.

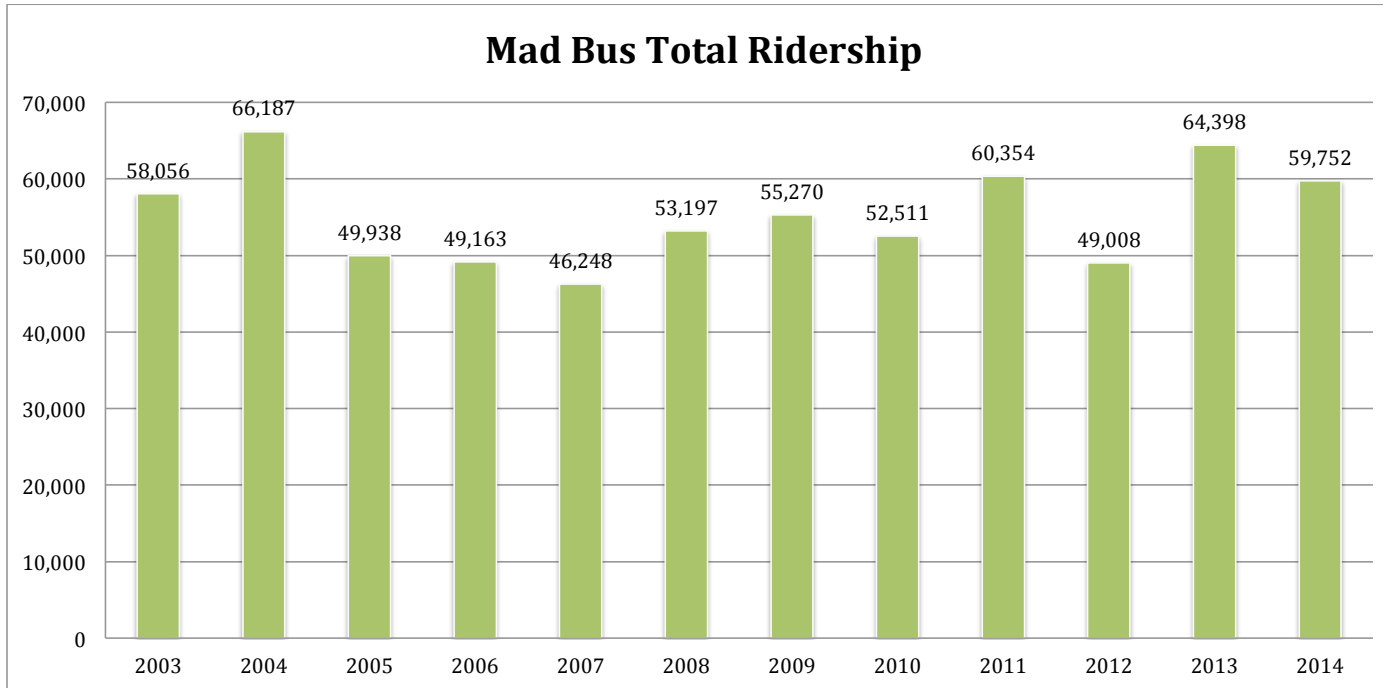
EFFICIENCY OF TRANSPORTATION INFRASTRUCTURE

One common indicator that is used to measure the efficiency and convenience of transportation infrastructure is level of service (LOS). LOS utilizes a grading system to categorize the flow of traffic. The Highway Capacity Manual and AASHTO Geometric Design of Highways and Streets ("Green Book") list the following levels of service for roadways: A= Free flow; B=Reasonably free flow; C=Stable flow; D=Approaching unstable flow; E=Unstable flow; F=Forced or breakdown flow. LOS measured at signalized and unsignalized intersections is graded based on estimated wait times; at an unsignalized intersection, a wait time of ≤ 10 seconds is grade A, whereas a wait time of > 50 seconds is grade F

The Central Vermont Regional Planning Commission performs evaluation of changes in LOS at MRV intersections on an as-needed basis. Since traffic generally flows unobstructed except at the busiest times of year, the LOS for all transportation infrastructure throughout the area are considered to be at grade A.

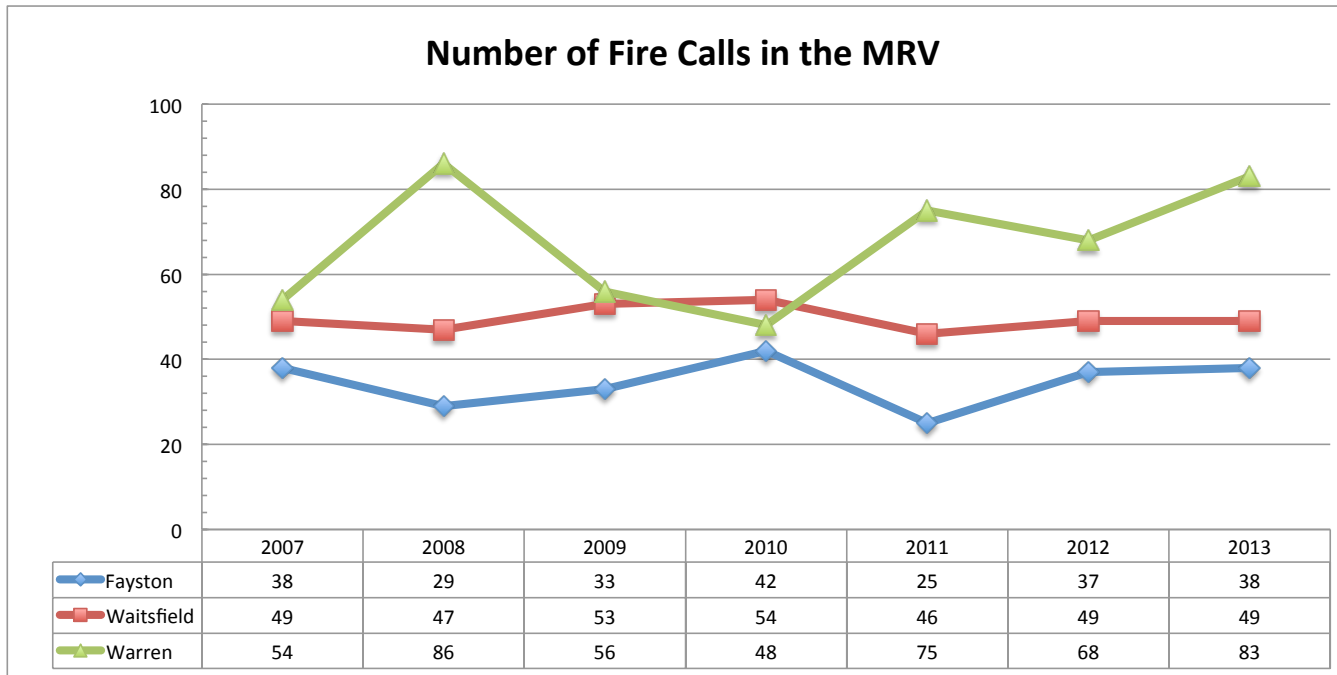
TRANSIT

The Green Mountain Transit Authority (GMTA) began operating service in the Mad River Valley in late 2003 under the name Mad Bus. Year-round service on the Valley Floor route (connecting Warren, Waitsfield and Lincoln Peak) was offered from October 2003 until April 2005, after which it was scaled back to seasonal service due to low ridership. The chart below shows ridership from FY2003 through FY2014. GMTA operated 8 Mad Bus routes during the 2013-14 season, all free-of-charge except the SnowCap Commuter. In 2012, the Mad Bus added service to Mad River Glen. The 2013-2014 season shows a dip in ridership, despite strong skier visits that almost rival the previous season.

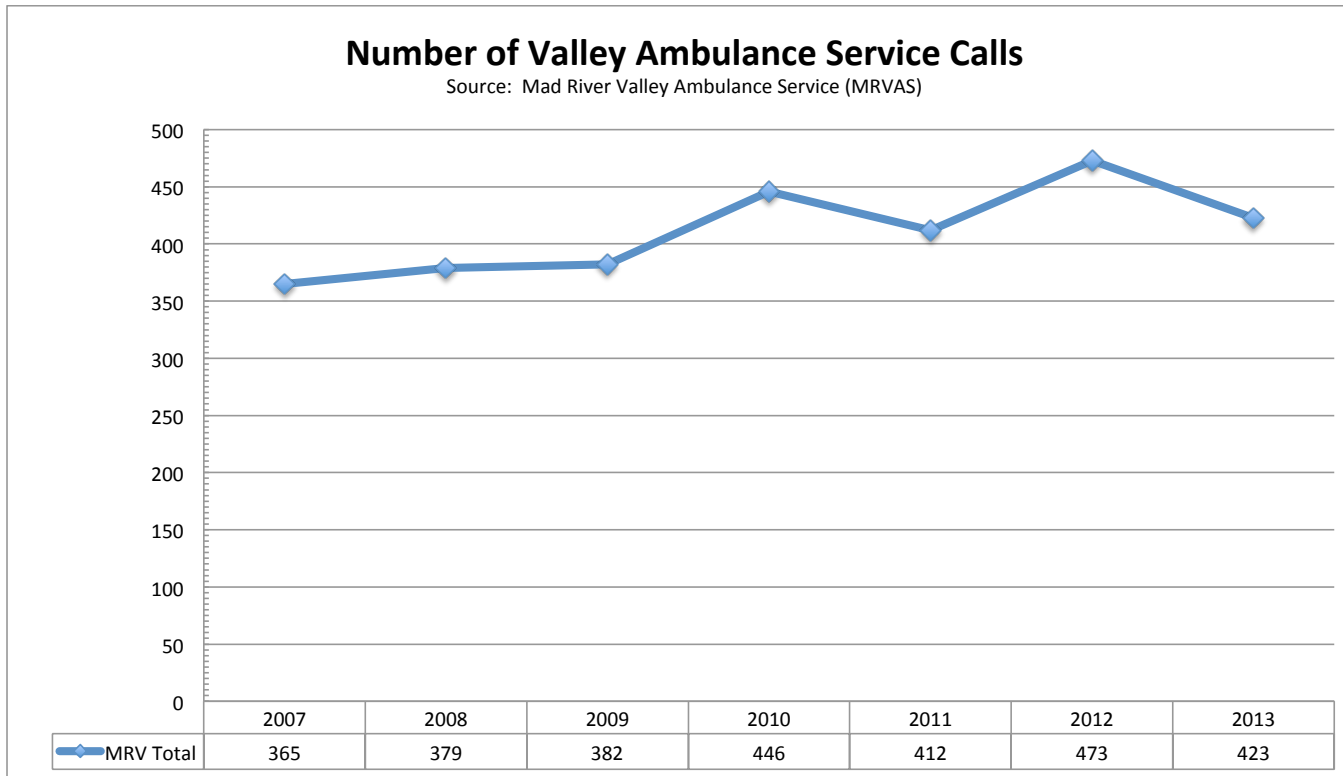


SECTION V: TOWN INFRASTRUCTURE

The Town Infrastructure section includes Items #27 & 35 from the Memorandum of Understanding.



The total number of fire calls for 2013 is 170, an increase from the previous year (154), due to a spike in calls in Warren.



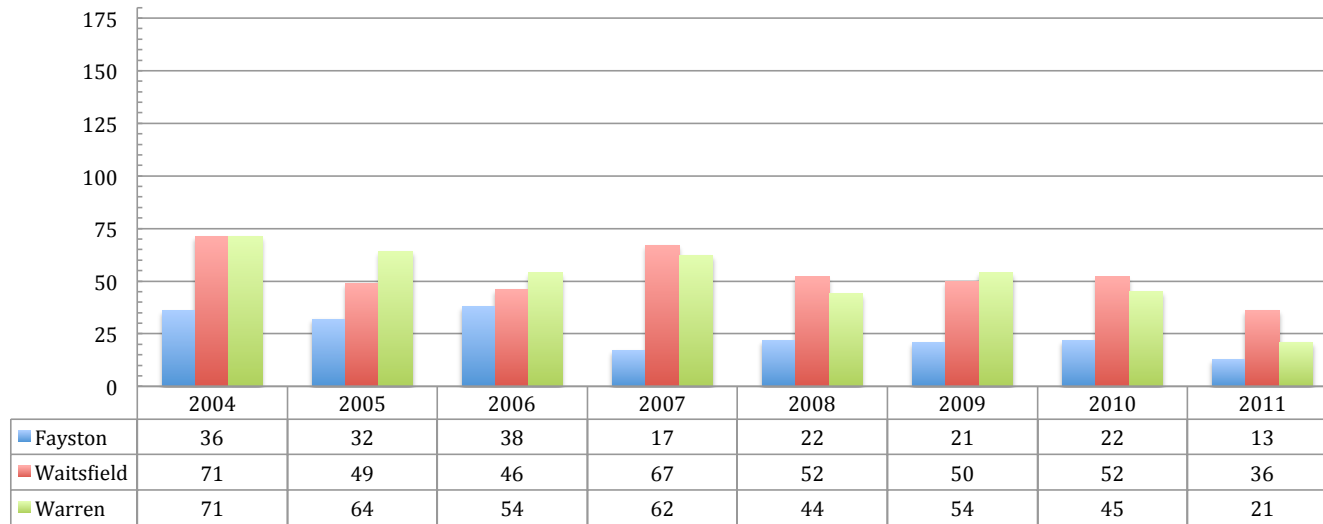
In 2013, Mad River Valley Ambulance Service (MRVAS) provided data on the total of MRV calls, 423, showing a decline compared to 2012's record high number.

On the other hand, the number of crimes has steadily fallen over the last decade in all three towns, as reported by the Vermont Criminal Information Center. 2011 (the latest year for which data is available) confirms this trend, with Fayston falling to 13, Warren to 21, and Waitsfield to 36 total instances of reported crime. Clarify types of crime included.

Dara Torre 12/17/2014 7:59 PM
Comment [6]: If VCIC data missing, will need to summarize Sheriff and State Police data

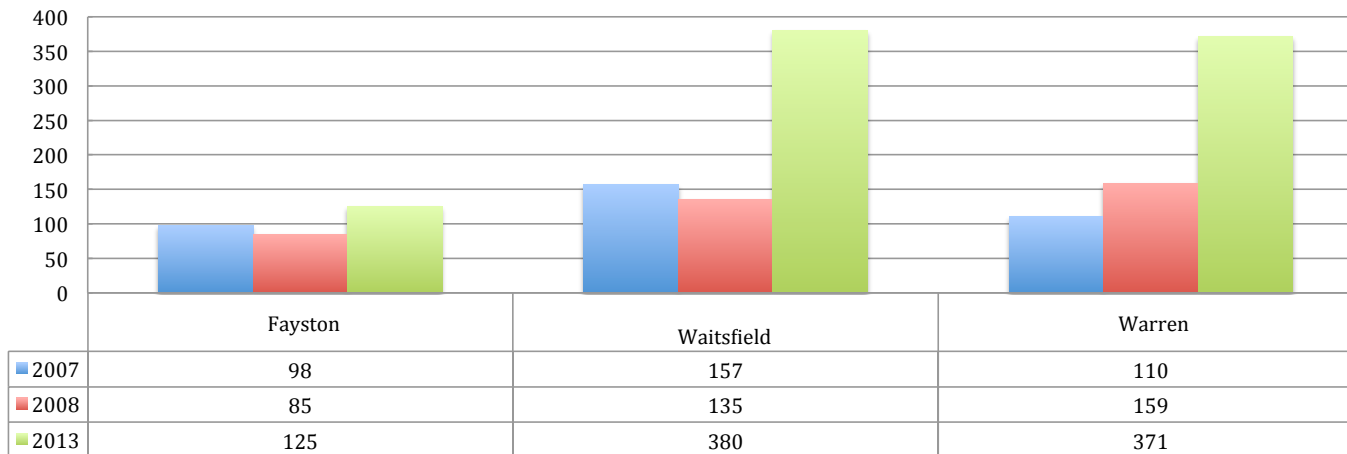
Total Instances of Crime Reported

Source: VT Dept of Public Safety, Vermont Criminal Information Center



Police Calls (State)

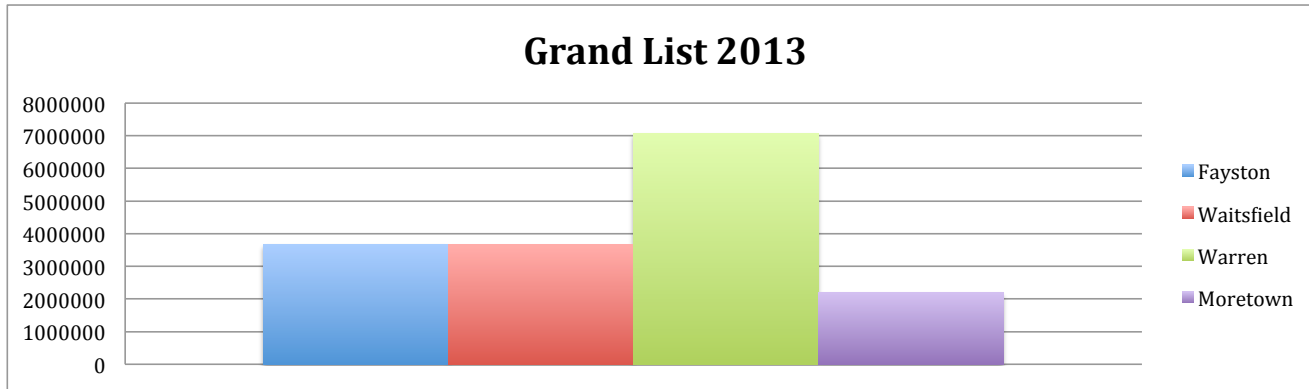
Source: VT State Police



Washington County sheriff data for 2013: __ for Waitsfield, __ for Warren.

Dara Torre 12/17/2014 8:00 PM

Comment [7]: Clarify what is included in these numbers



2013 Tax Rates				
	Homestead Tax Rate	Municipal Tax Rate	Non-Residential Tax Rate	Common Level of Appraisal
Fayston	1.4879	0.1950	1.4177	101.57%
Waitsfield	1.3848	0.3337	1.3618	105.74%
Warren	1.3469	0.4436	1.4344	100.39%
Moretown	1.5047	0.2699	1.4194	101.45%

SECTION VI: ENVIRONMENT

The Environment section includes Items #26, 31, 33 & 34 from the Memorandum of Understanding.

ENERGY

The table below identifies MRV energy consumption in 2012 in terms of electricity and transportation. Electrical consumption data came from the Renewable Energy Atlas of Vermont and Vermont Energy Investment Corporation (VEIC), while transportation data was based on calculating population and vehicle miles traveled (VMT) figures from US Department of Transportation. Transportation contributes a larger portion of the MRV energy consumption, constituting nearly 4 times the electrical consumption of Fayston. Of note, electrical energy consumption is down 1,520 MW between 2012 (56,391) and 2008 (57,911).

[The Vermont Transportation Energy Profile \(July 2013\)](#) relies on Total Annual Vehicle Miles of Travel as a measure of the total miles traveled in an area's transportation system. This statistic includes all modes of transportation including rail, air, transit, bus, and personal occupancy vehicles. It provides a common measure of roadway use but can also be extrapolated to reveal mobile source emissions, potential gas tax revenues, and regional economic trends. The 2010 estimate of VMT for Vermont passenger vehicle drivers is 10,275.

Vermont ranks 10th in miles traveled per capita compared to all states. The total vehicle miles traveled by vehicles registered in Vermont peaked at 7.9 billion miles (14,600 miles per driver) in 2003 and has declined to 7.2 billion miles (13,500 miles per driver) in 2012. Vermont passenger vehicle drivers are incurring an average of 10,275 vehicle-miles per year

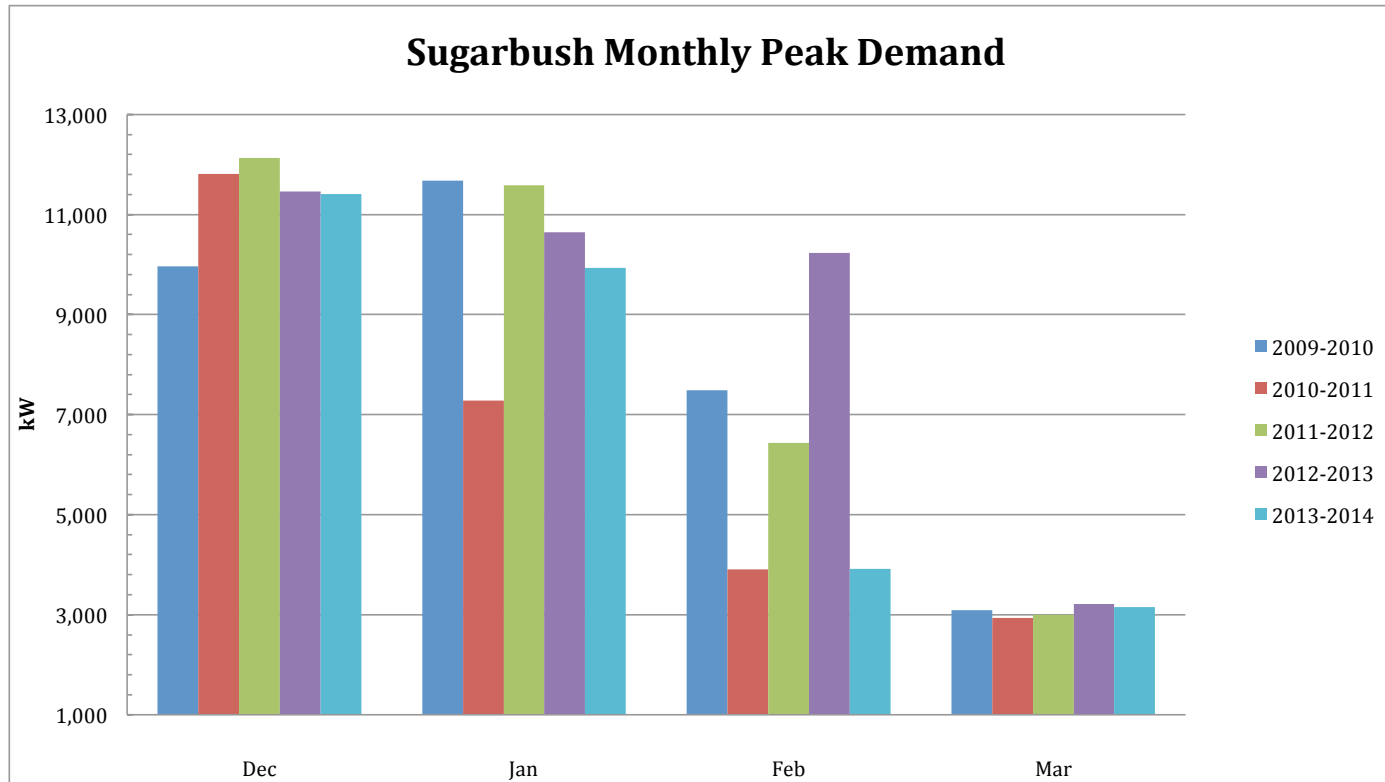
The average fuel efficiency of vehicles in Vermont is approximately 23 miles per gallon. Assuming driving patterns in the MRV are similar to state averages, town residents would have traveled approximately __ million miles and consumed nearly 740,000 gallons of gasoline in 2012. The average household would have spent nearly \$4,000 on gasoline and generated more than 7,000 tons of carbon dioxide (a climate-changing greenhouse gas) from vehicle emissions in 2012.

MRV Energy Consumption Comparison (2012)		
	Electrical (MWh)	Transportation (MWh)
Fayston	5,732	19,730
Waitsfield	15,238	25,067
Warren	35,376	24,863
Total	56,391	69,660

The MRV info below details the breakdown between residential electrical consumption versus commercial & industrial consumption by town. In sum, Warren consumed 63% of the MRV's total energy utilized in 2012. As shown below, the MRV's total annual consumption by commercial/industrial (52%) and residential (48%) customers is nearly equal, though there is increased commercial demand in winter attributed to ski resort activity.

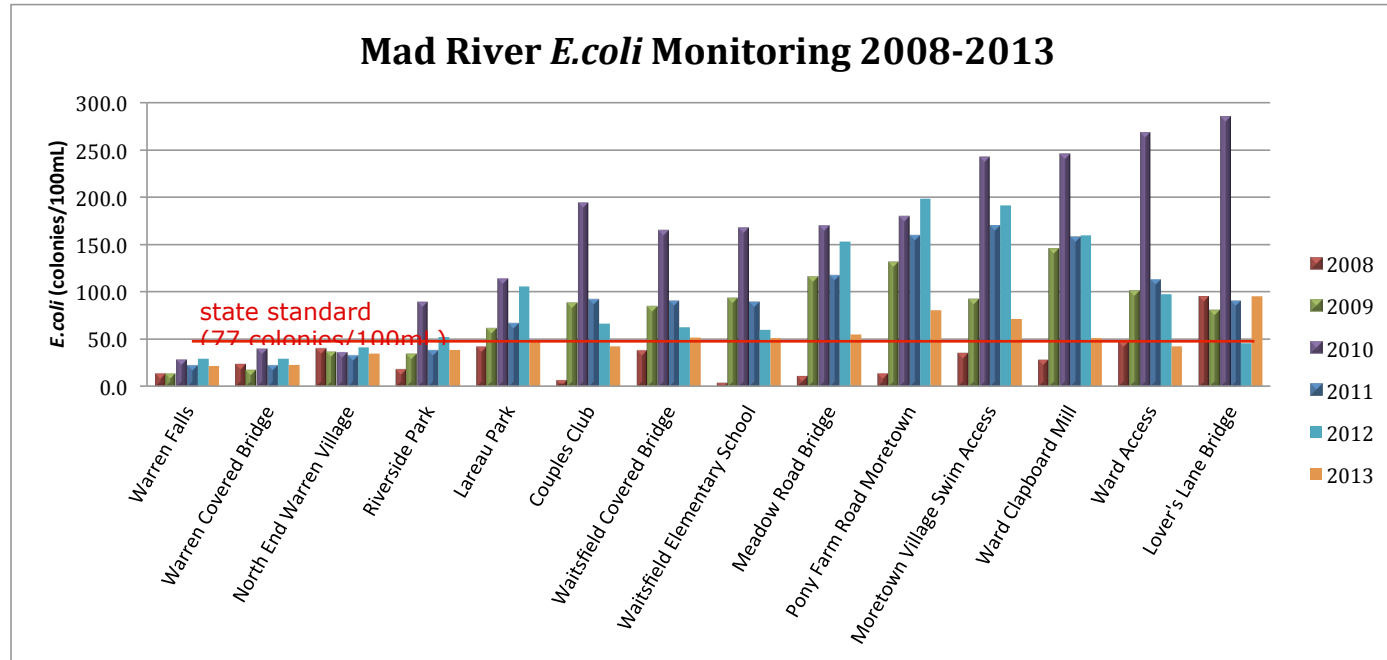
MRV Electrical Consumption (2012)						
	Residential (MWh)		Commercial & Industrial (MWh)		Total (MWh)	% of Total
FAYSTON	4,239	15%	1,493	5%	5,732	10%
WAITSFIELD	7,800	29%	7,483	25%	15,283	27%
WARREN	14,901	55%	20,475	69%	35,376	63%
Total MRV	26,940	100%	29,451	100%	56,391	100%

Sugarbush Resort's monthly peak energy demand for the 2013-2014 season decreased from the previous year, significantly so in February.



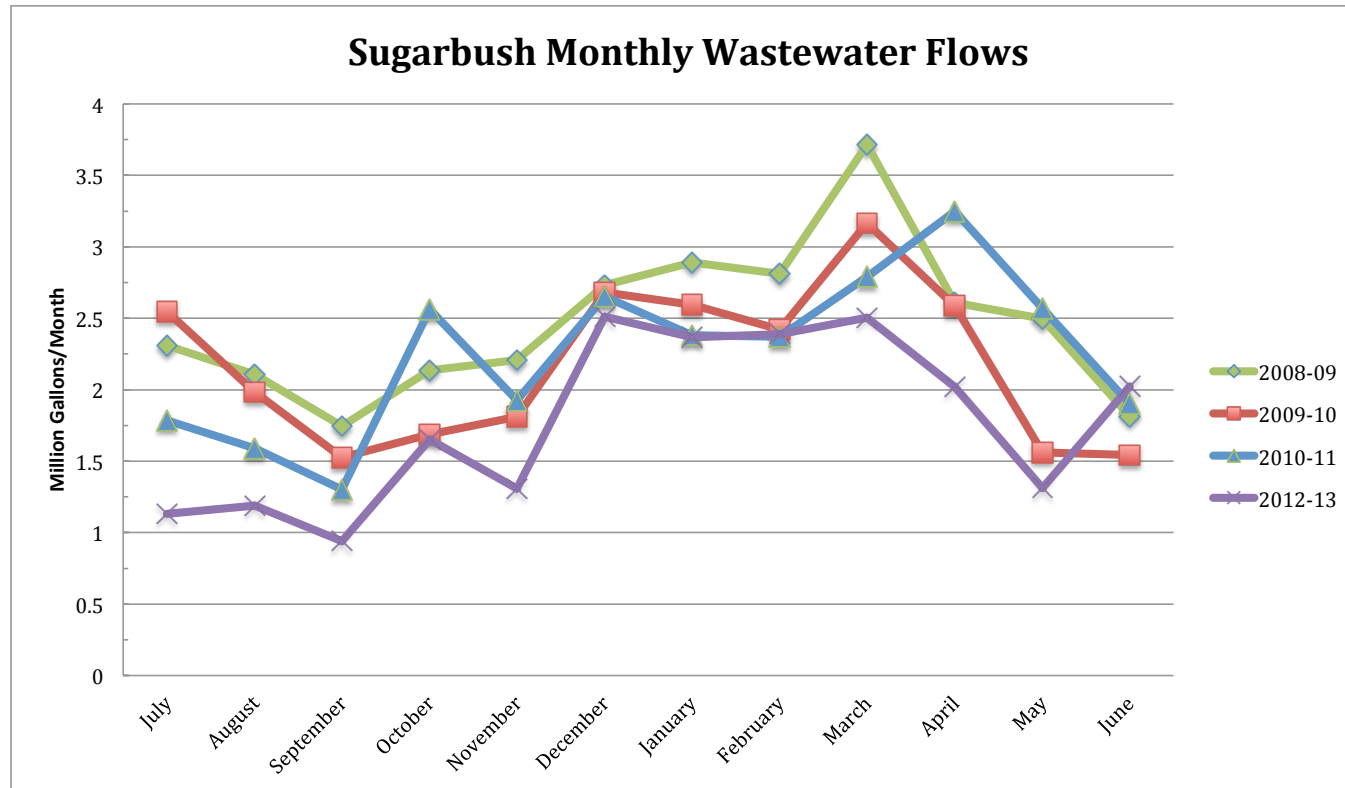
WATER QUALITY

Since 1985, the local watershed group Friends of the Mad River has been monitoring *E.coli* bacteria levels at 37 sites along the main stem and major tributaries throughout the watershed. *E.coli* is an indicator of pollution from fecal matter (livestock, wildlife, human); a high level of *E.coli* indicates the likelihood of a high level of disease-causing pathogens that can sicken swimmers. The standard for *E.coli* in recreational waters according to the Vermont Water Quality Standards is no more than 77 colonies of *E.coli* per 100 mL water. Across the state, swim beaches are temporarily closed when a single sample is found to be above this level, and sites that show a seasonal geometric mean above this standard may be formally recognized as “impaired.” At the Mad River, most sites saw a seasonal geometric mean above 77 colonies/100mL in 2010 due to significant rainstorms.



SUGARBUSH RESORT WASTEWATER FLOWS

The chart below identifies monthly influent flows for Sugarbush Resort treatment facilities, 2008-2013, from July to June to afford a seasonal perspective. Sugarbush Resort's wastewater flows have been relatively consistent over the past four years, with 2013 tracking lower most months than in previous years.



LAND CONSERVATION

The Mad River watershed encompasses 92,000 acres. The three towns of Fayston, Waitsfield and Warren comprise 65,948 acres, or 71% of land within this watershed. (The Mad River watershed includes Waitsfield, Warren, Fayston, Moretown and a portion of Duxbury.) As of 2013, approximately 7,287 acres (11% of the total land area in the 3 towns) of municipal, state and private land in the three towns of Waitsfield, Warren and Fayston are protected by conservation easements. An additional 10,543 acres of public land in the MRVPD towns are not subject to a conservation easement, but are a part of State and National Forest systems.

Conservation easements in the entire Mad River Watershed are held by the Vermont Land Trust (9,636 acres), the Town of Warren (253 acres), and the Green Mountain Club (531 acres).

	Total Acres	State/Federal Land	Municipally-owned Conserved	Privately-owned Conserved	Total State/Federal & Conserved	% State/Federal Land & Conserved	Total Acres in "Current Use"
Fayston	23,360	2,998	73	1,707	4,778	20%	10,208
Waitsfield	17,220	550	696	1,212	2,458	14%	6,667
Warren	25,368	6,995	0	1,253	8,248	33%	5,797
Three Town Total	65,948	10,543	769	4,172	15,484	23%	22,672
Five Towns*	121,756	19,651	892	6,395	26,938	22%	47,143

*Fayston, Waitsfield, Warren, Moretown and Duxbury