Mad River Valley
2016 Annual Data Report

Acknowledgments

This report was authored by Kristine Keeney, Community Planner at the Mad River Valley Planning District with assistance from Executive Director Joshua Schwartz.

Our thanks to Sugarbush Resort, Mad River Glen, Friends of the Mad River, and the Mad River Watershed Conservation Partnership for supplying local data.

Cover Photograph: Springtime at Waitsfield's Great Eddy Covered Bridge, 5/16/15, by Joshua Schwartz.

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INTRODUCTION

This report was prepared by the Mad River Valley Planning District to address the requirements of its 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 February 2017, which includes both the 2015 and 2016 calendar years and Sugarbush Resort data collected from the 2015-2016 ski season. This report was finalized on February 28th, 2017.

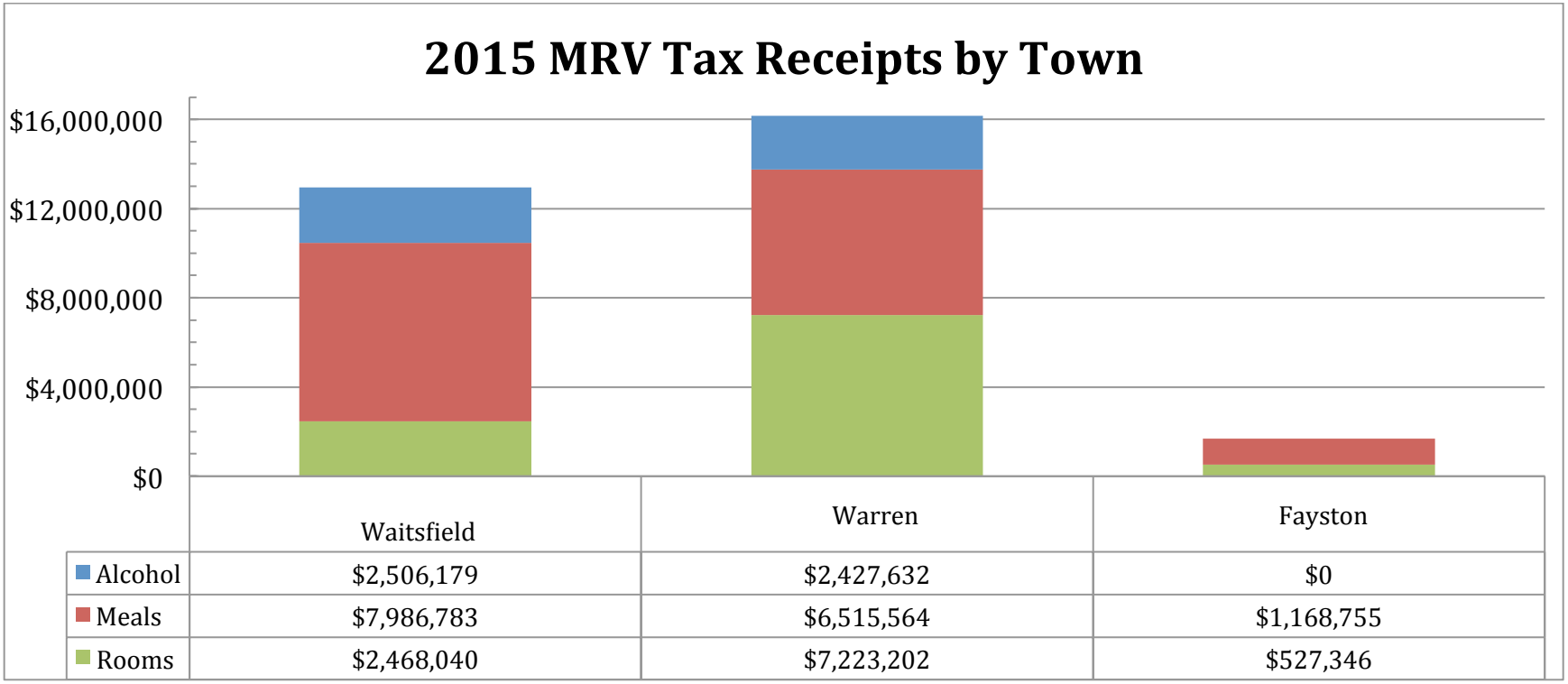
HISTORY

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 full-time Community Planner. The District is governed by a Steering Committee consisting of a Selectboard Member and a Planning Commission member from each of its 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 (INCLUDES ITEMS #35 & 36 FROM THE MEMORANDUM OF UNDERSTANDING)

TOURISM & HOSPITALITY



	Waitsfield	Warren	Fayston
Alcohol	$2,506,179	$2,427,632	$0
Meals	$7,986,783	$6,515,564	$1,168,755
Rooms	$2,468,040	$7,223,202	$527,346

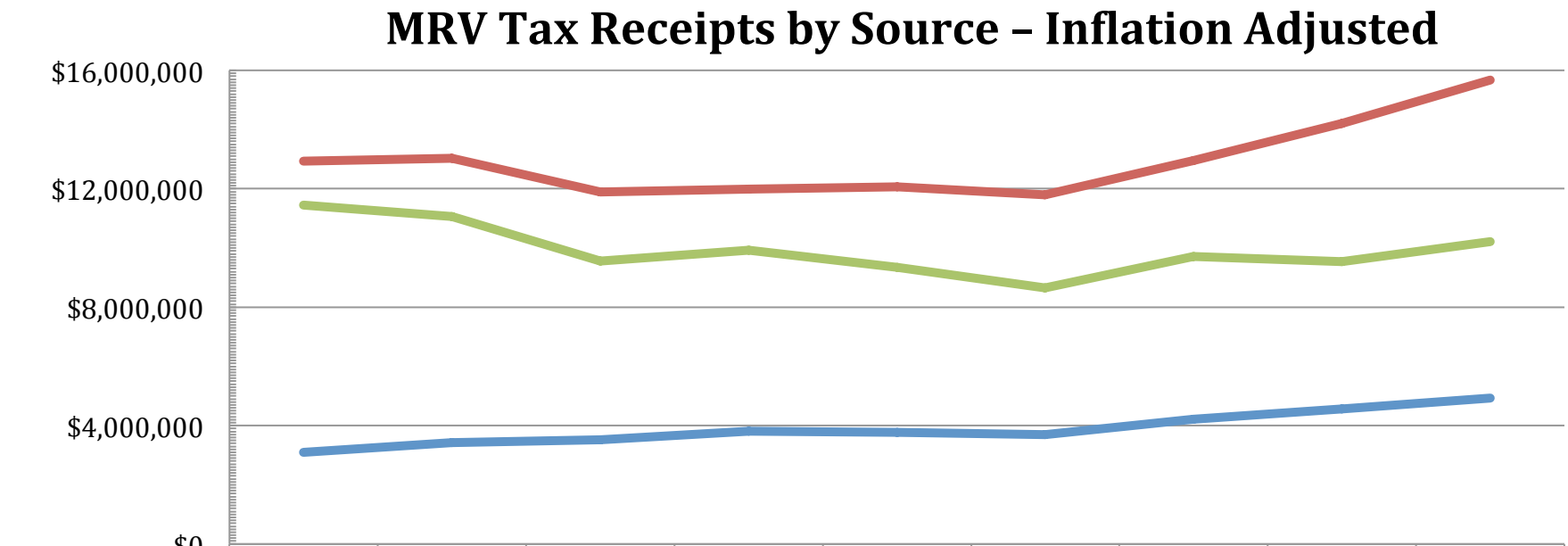
FIGURE 1- SOURCE: VT DEPT. OF TAXES

A comparison of 2015 tax receipts by town[1] in **Figure 1** illustrates a predominance of meals revenue in Waitsfield and lodging revenue in Warren. Compared to 2014, all three towns experienced increased tax receipts for all three categories (in which data was

[1] Fayston's Meals & Alcohol numbers are suppressed due to confidentiality thresholds for towns that have fewer than 10 businesses reporting. "Meals" includes prepared and restaurant meals. "Rooms" includes lodging and meeting rooms. "Alochol" includes beverages served in restuarants.

available). Alcohol receipts increased by 11% in Waitsfield and increased by 6% in Warren. Meals receipts reflected a similar trend, seeing an increase of 5% in Waitsfield and a 3% increase in Warren. Rooms receipts showed a 6% increase in Warren, a 12% increase for Waitsfield, and a 7% increase as well for Fayston.

An inflation adjusted comparison of total tax receipts in **Figrue 2** underscores the MRV's gains in 2015, compared to the most recent low point in 2012. Since 2012, both Meals and Alcohol saw similar increases in tax receipts at 33%. Rooms experienced more moderate growth of 18%. 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).



	2000	2008	2009	2010	2011	2012	2013	2014	2015
Alcohol MRV2	$3,088,864	$3,432,507	$3,520,343	$3,804,596	$3,764,998	$3,697,491	$4,225,815	$4,562,194	$4,933,811
Meals MRV2	$12,929,163	$13,027,622	$11,894,704	$11,988,474	$12,071,779	$11,791,645	$12,962,088	$14,201,676	$15,671,102
Rooms MRV3	$11,447,438	$11,071,607	$9,558,962	$9,928,558	$9,355,363	$8,651,330	$9,710,704	$9,530,724	$10,218,588

FIGURE 2- SOURCE: VT DEPT. OF TAXES

A comparison of Waitfield and Warren's combined inflation adjusted tax receipts in **Figure 3** illustrates the continued gains in Waitsfield since 2012. Warren has experienced an upward trend since 2003, peaking in 2015. Year to year Waitsfield's change has been more consistent, while Warren has experienced dramatic swings – likely a reflection of corresponding ski seasons.

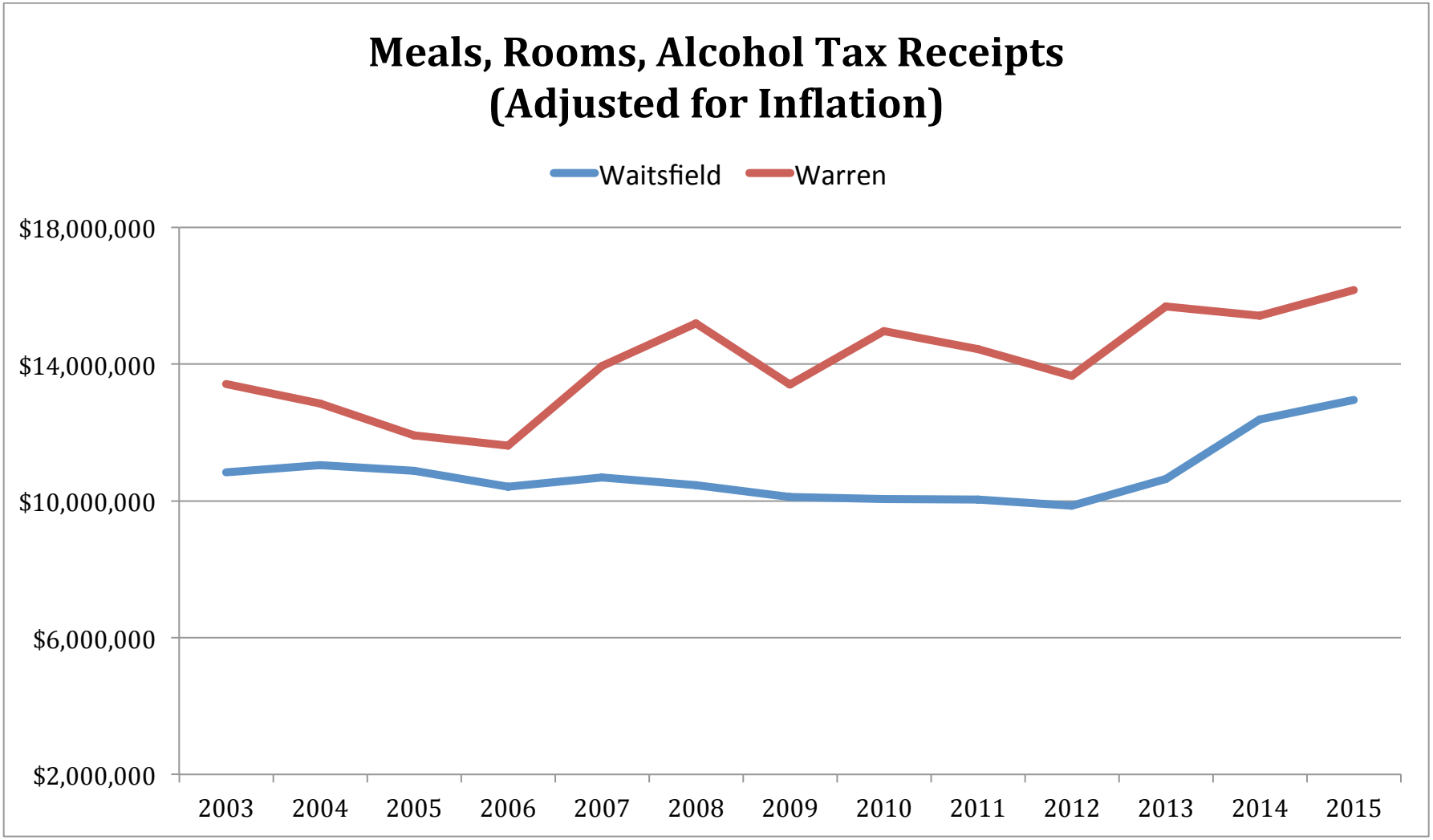


FIGURE 3- SOURCE: VT DEPT. OF TAXES

Figure 4 provides a regional perspective on the health of the hospitality sector over time, showing an upward trend in 2015 for Waitfield and Warren compared to the previous year.

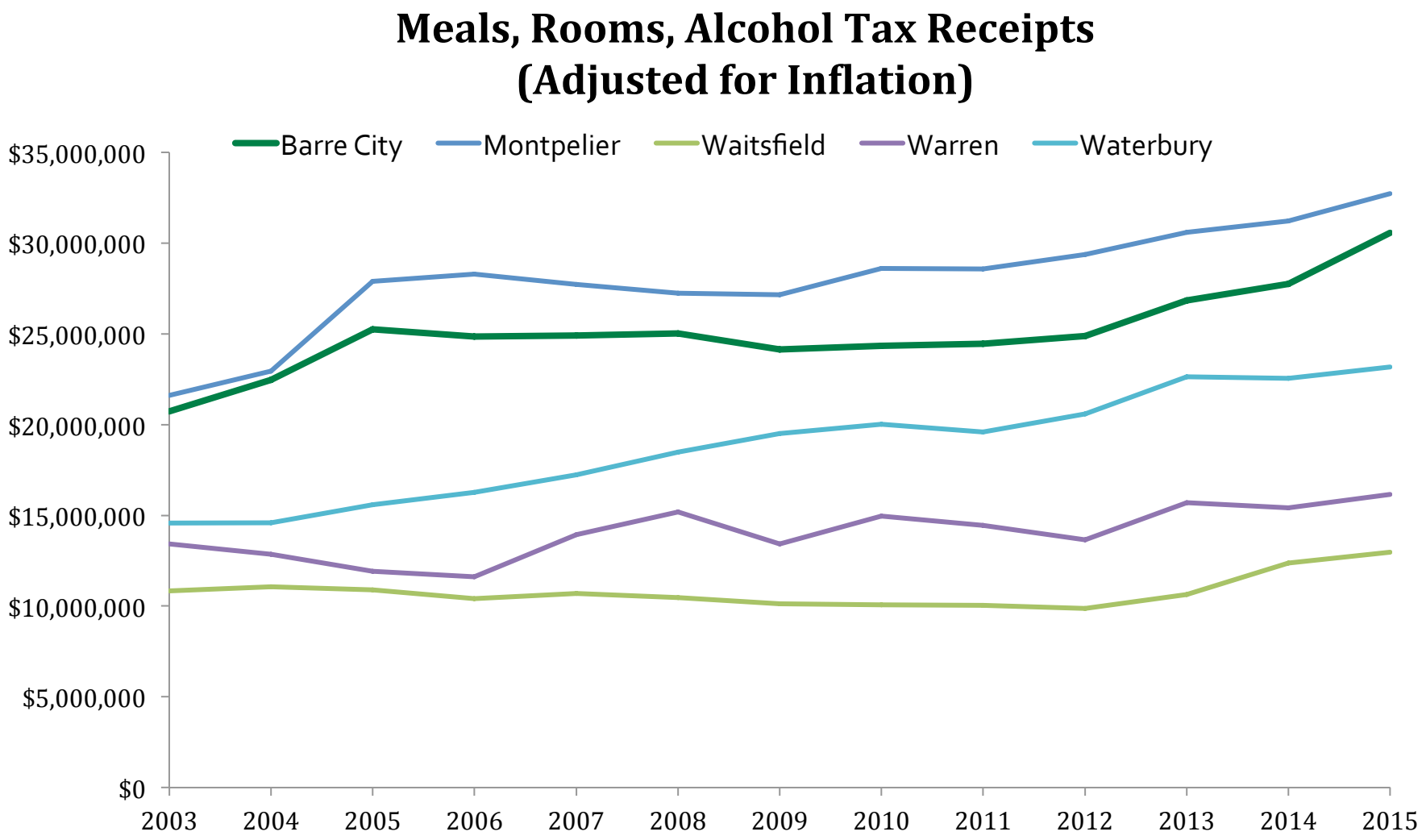


FIGURE 4- SOURCE: VT DEPT. OF TAXES

The robustness of the winter and summer tourist seasons can be approximated by using quarterly tax receipt data, though the quarters (First: January–March, Third: July–September) omit a percentage of the actual seasons. **Figure 5** below shows increased volatility in winter revenue versus the summer months.

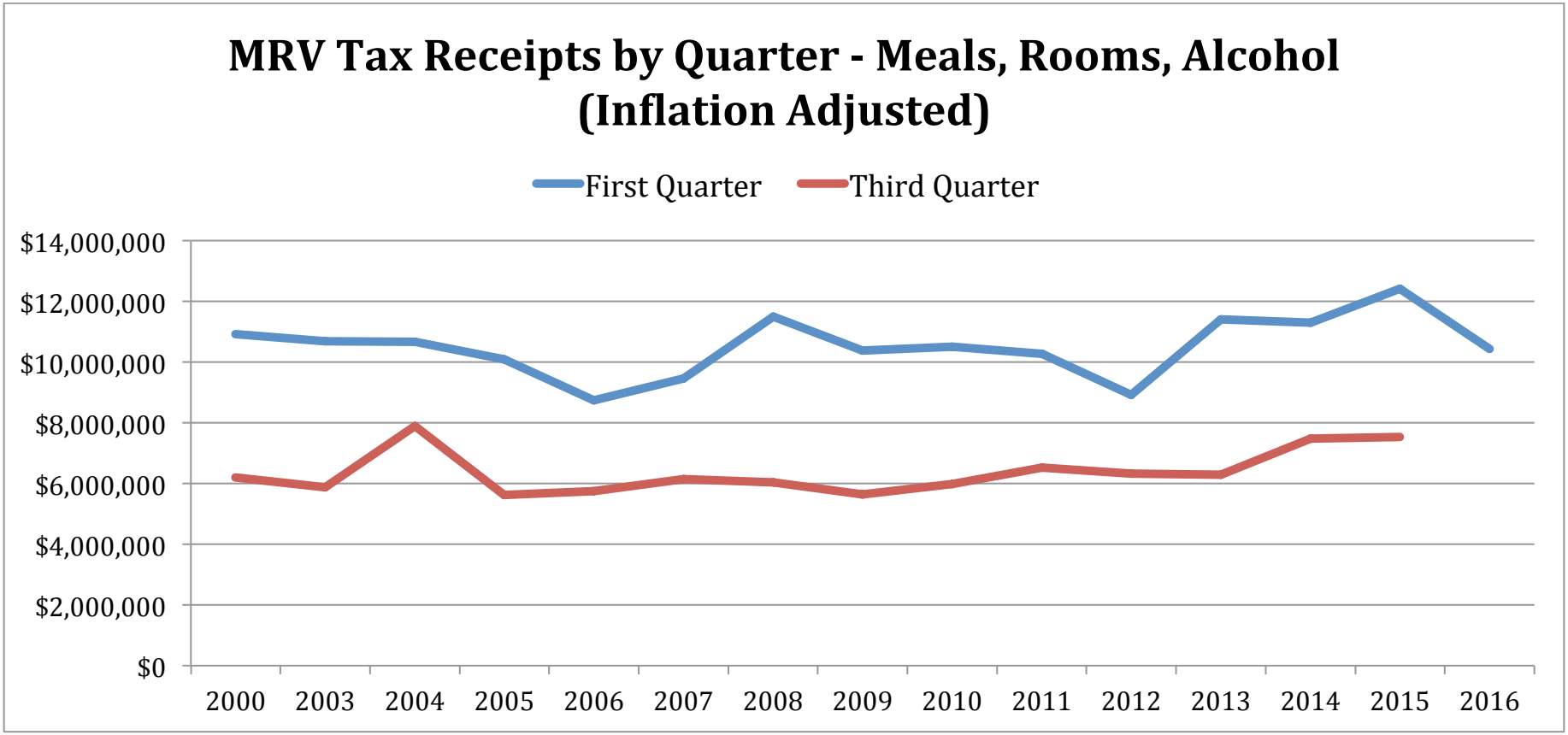


FIGURE 5- VT DEPT. OF TAXES

Overall, the first quarter has show more volatility than the third quarter, likely the correlation between snowfall and first quarter receipts. The MRV experienced a poor snow season during the first quarter of 2016. The third quarter of 2015 saw a 20% increase in summer activity compared to the same period in 2013.

A comparison of monthly tax revenue during the month of October in **Figure 6** provides further insight into the fall tourist and wedding season. 2015 saw a significant increase in October tax revenue in Waitsfield over previous years, with very strong, meals, alcohol, and rooms revenues (up 20%, 21%, 36% over 2014, respectively). Tax receipts for both meals and alcohol have increased dramatically between 2013 to 2015 in Waitsfield, by 59% and 69%, respectively.

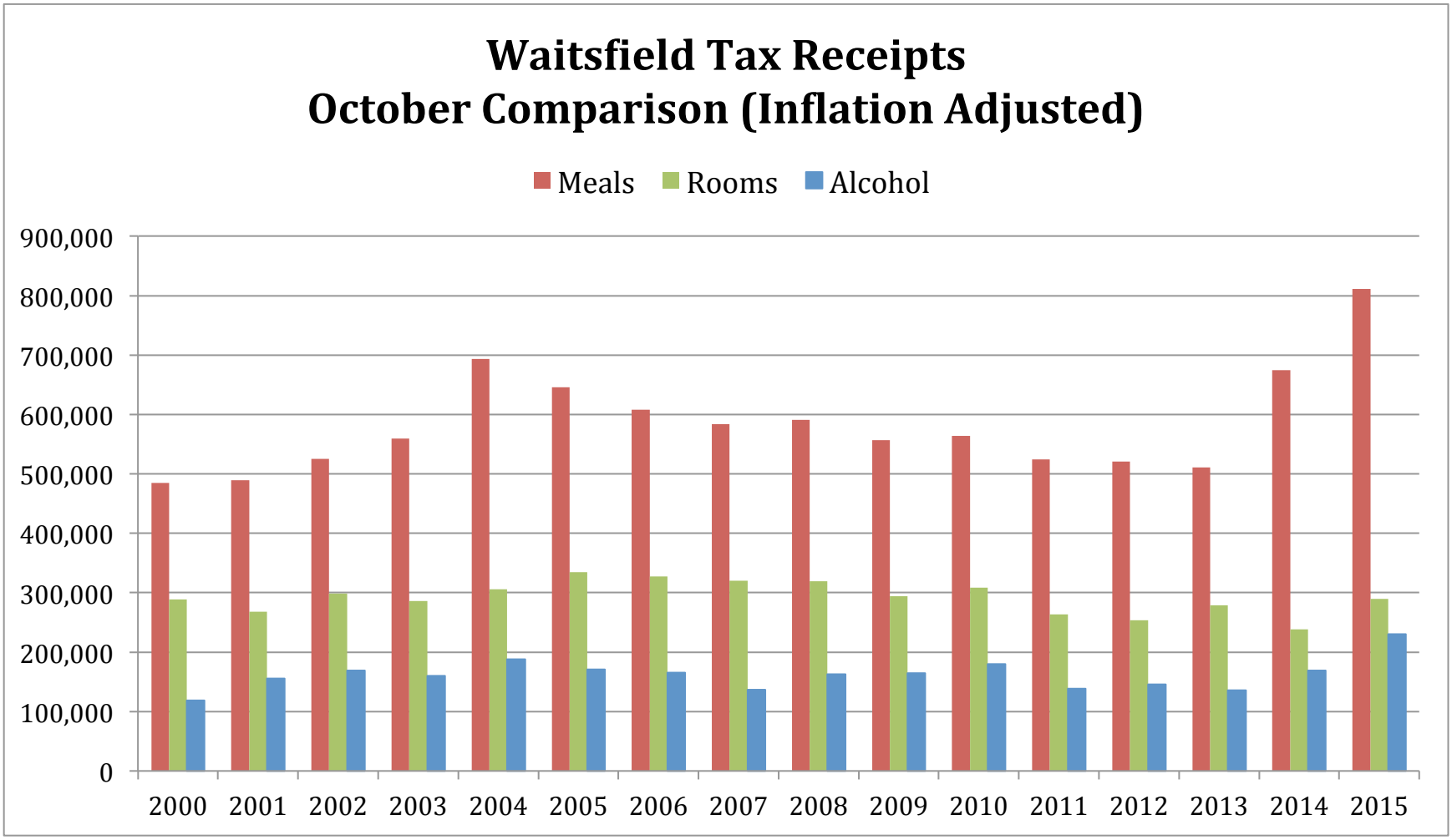


FIGURE 6- SOURCE: VT DEPT OF TAXES

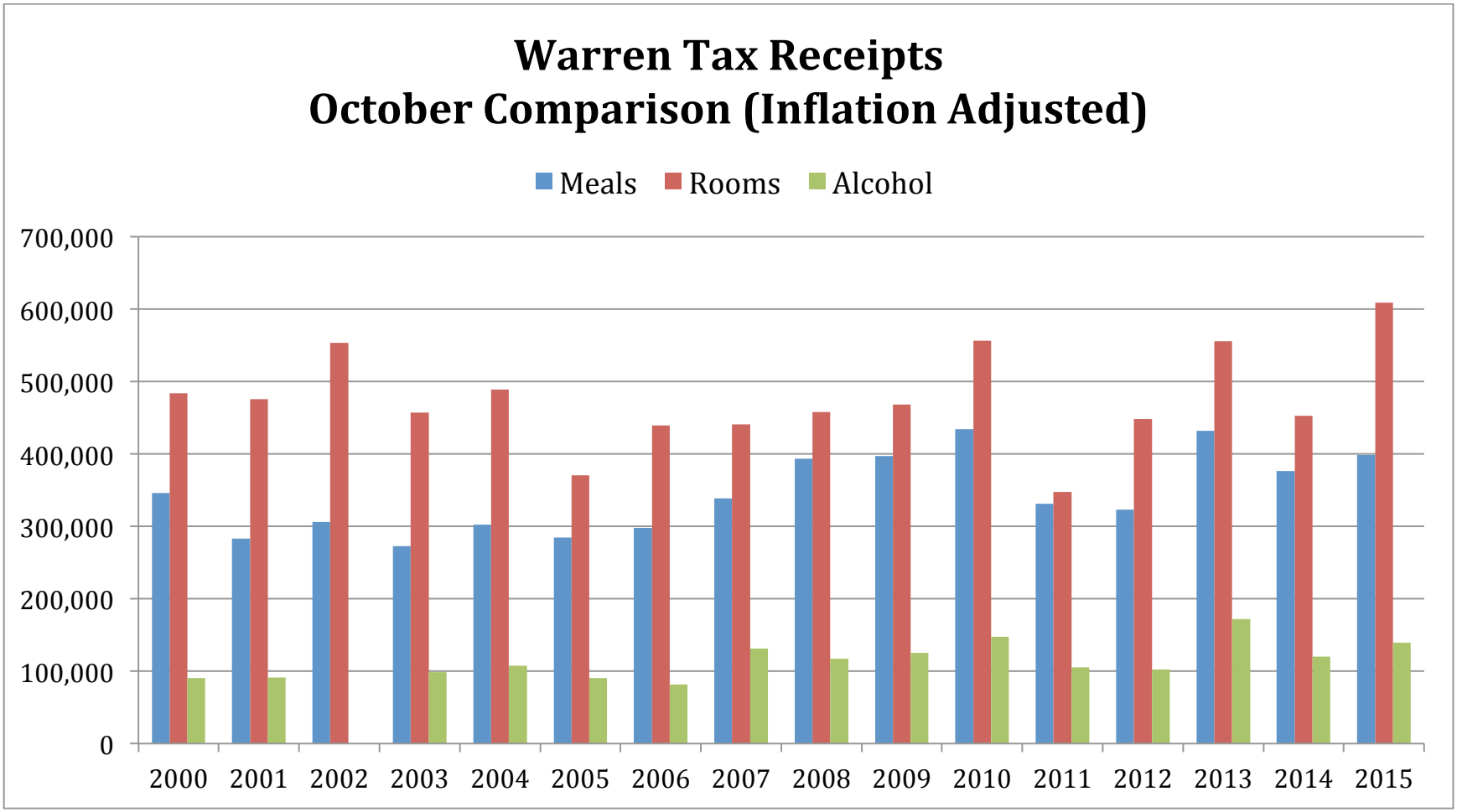


FIGURE 7- VT DEPT. OF TAXES

2015 saw increases in all categories in Warren compared to the previous year, with rooms revenue experiencing the highest increase at 35%. However, when comparing 2013 to 2015, both meals and alcohol receipts saw declines of 8% and 19% respectively.

Weddings provide significant revenue across the state and within the MRV. The Town Clerks in Waitsfield, Warren, and Fayston issued 79 marriage licenses in 2016 versus 73 in 2015 and 89 in 2014.

Skier Visits

In Vermont overall, the 2015-16 ski season saw a poor snow season resulting in 1.4 million less skier visits than the previously year's record high visits. Sugarbush Resort skier visits echoed this trend with a similar 30% drop in visits as shown in **Figure 8** below. Sugarbush received only 156 inches of natural snowfall during the 2015-2016 season (annual average is 269); the good news is the 2016-2017 season snowfall total surpassed the previous season by the end of January 2017.

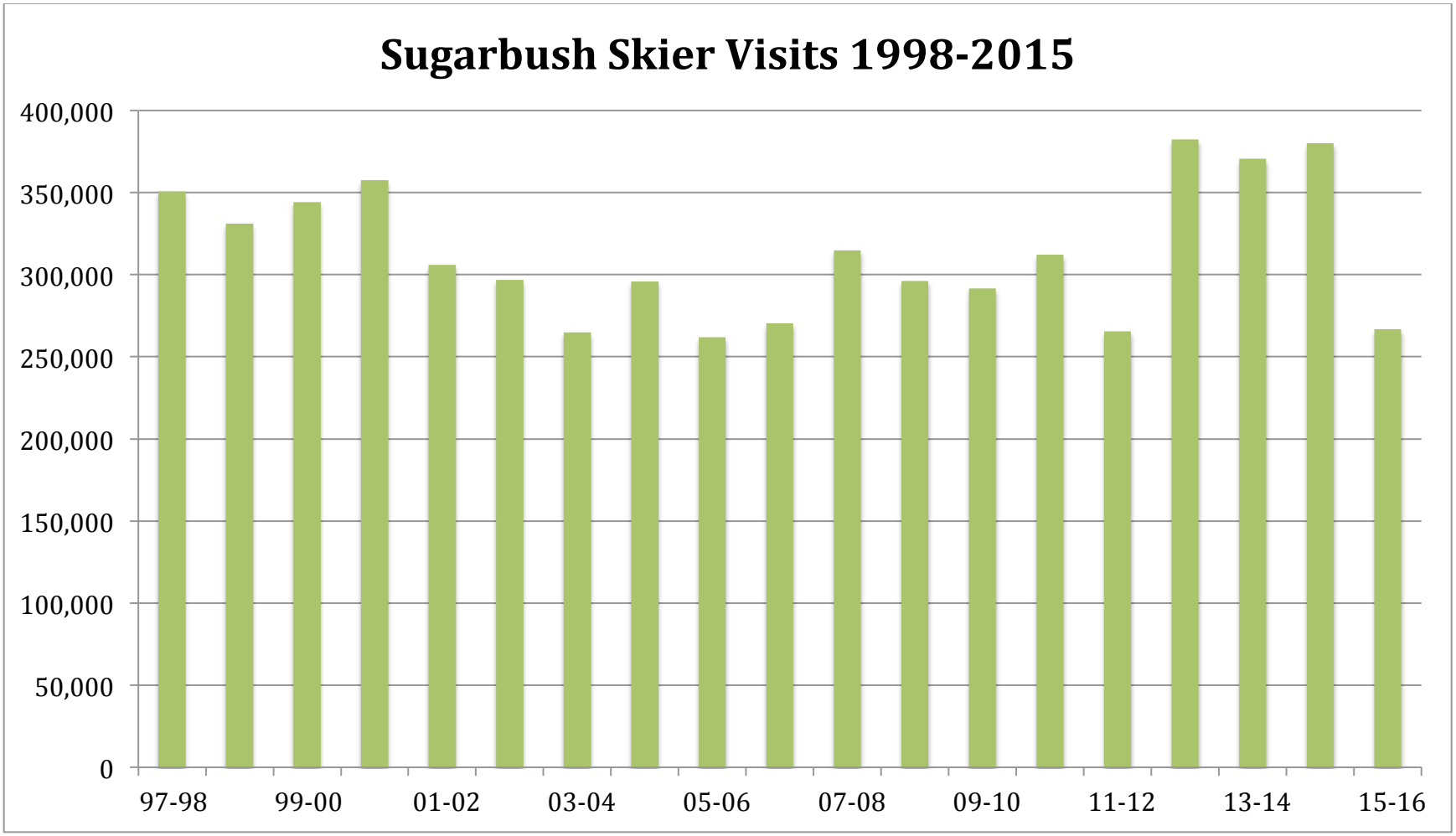


FIGURE 8- SOURCE: SUGARBUSH RESORT

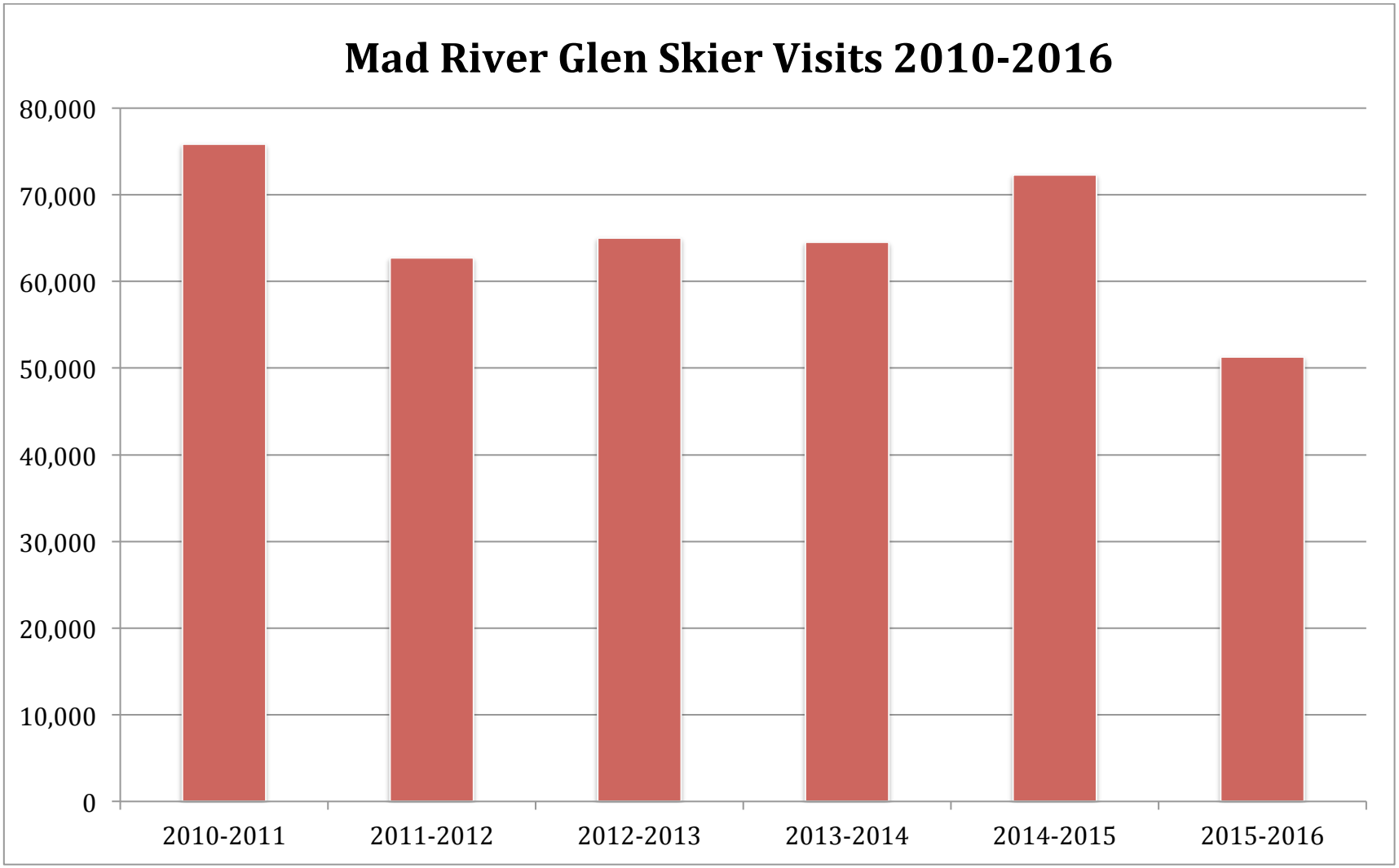


FIGURE 9- SOURCE: MAD RIVER GLEN

Mad River Glen is not part of the MOU, but its skier visit data is included in **Figure 9** to provide a snapshot of its annual activity. The 2015-2016 season saw 51,285 skier visits, an almost 30% drop in total visits from the previous time period. This reflects the percentage decrease in experienced by Sugarbush and the industry as a whole in Vermont over the 2014-2015 season.

Snowfall depth data collected at Mount Mansfield provides a visual comparison of the 2014-15 ski season (light brown line) compared to the 2015-2016 ski season (black line) and average snowfall depth (green) in **Figure 10** below. Snowfall was consistently below normal in 2015-2016, which negatively affected skier visits.

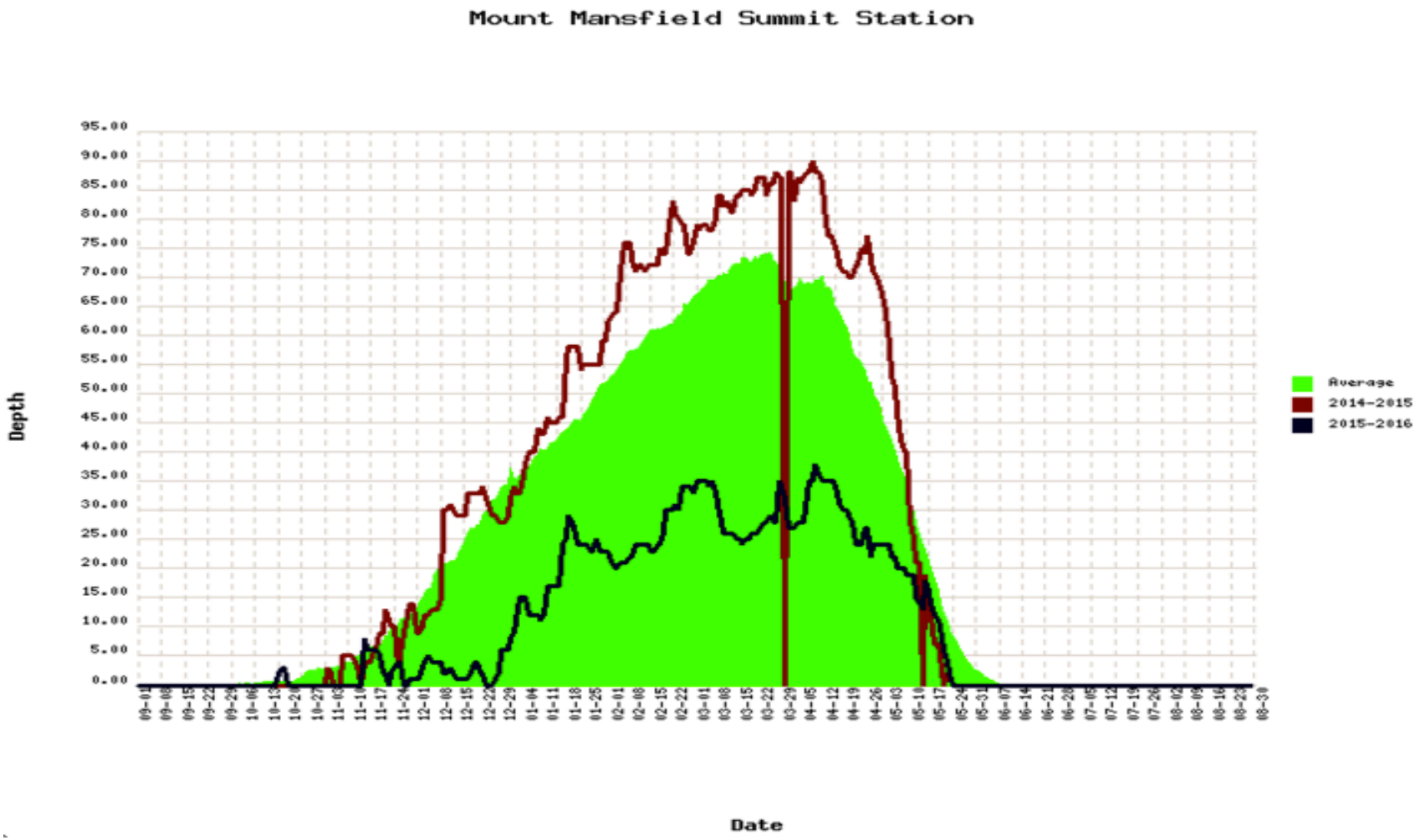
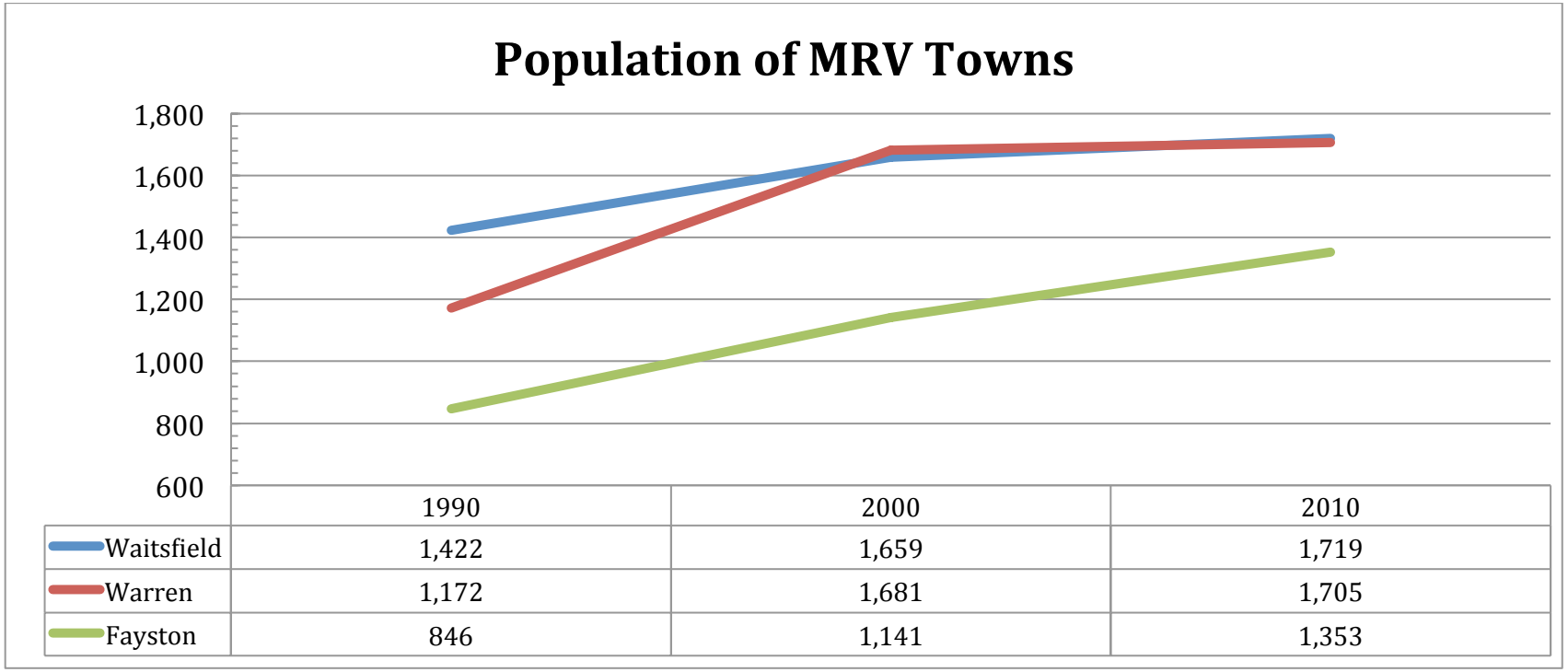


FIGURE 10- SOURCE: UVM ECOINFO PROJECT

SECTION II: POPULATION & HOUSING

POPULATION (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 population growth estimates, school enrollment, number of homes sold, age of residents, births and deaths, and in-migration patterns in the MRV.



	1990	2000	2010
Waitsfield	1,422	1,659	1,719
Warren	1,172	1,681	1,705
Fayston	846	1,141	1,353

FIGURE 11- SOURCE: U.S. CENSUS BUREAU

Figure 11 shows the 7% increase in the combined population of the three MRV towns between 2000 and 2010. This is more then twice the growth rate experienced at the state level in the same time period (3%). The majority of population growth in the Mad River Valley has taken place in Fayston, at a rate of 19% between 2000 and 2010 and 35% between 1990 and 2000. These percentage increases are higher than previous estimates [the MRV was expected to see its population increase by 4% and Vermont by 2%]. Population data has not been updated due to the change at the federal level away from census surveys to estimates since 2010.

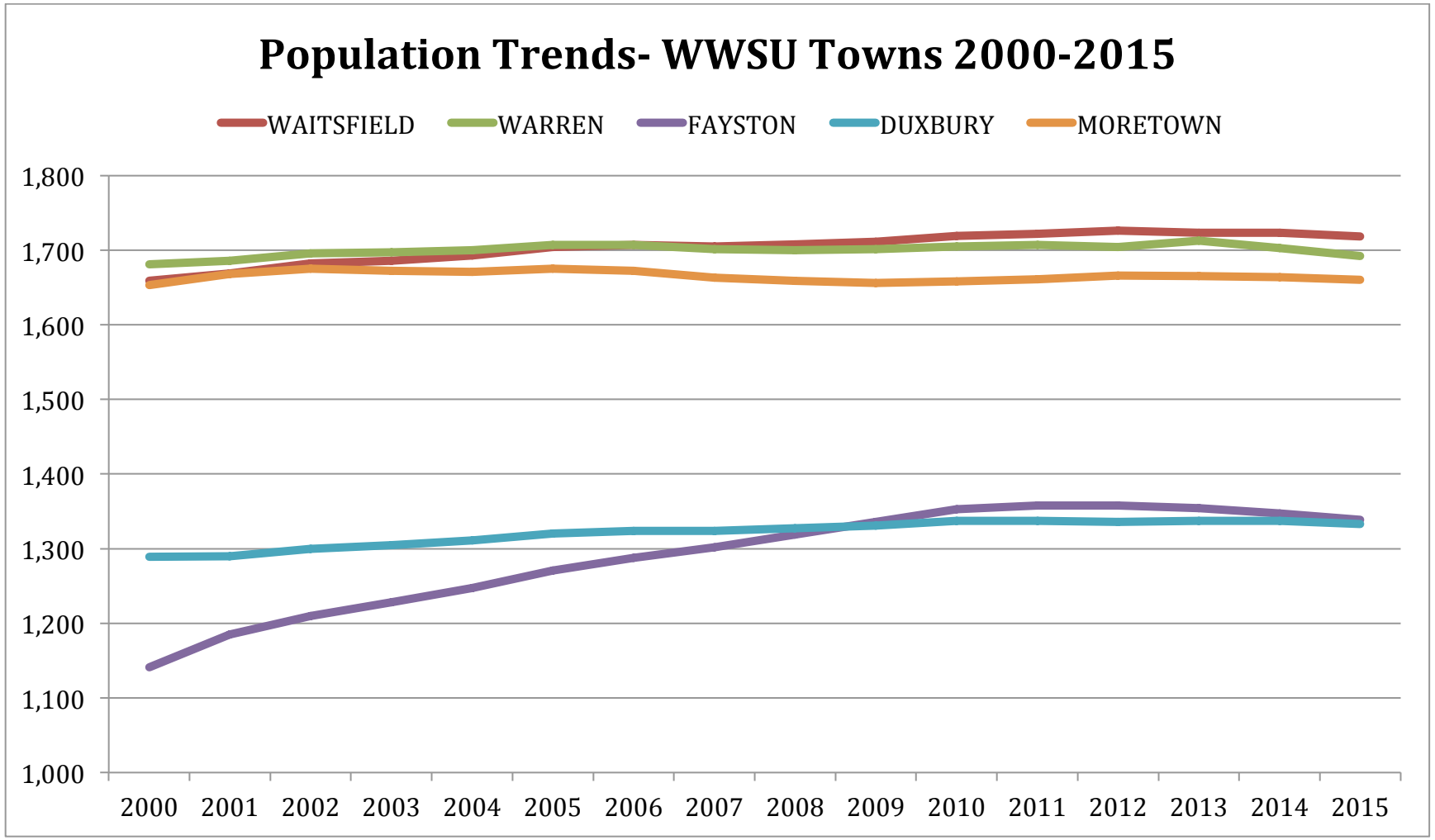


FIGURE 12- SOURCE: VT DEPT. OF HEALTH

Figure 12 provides a broader perspective on the population of towns that make up our school district, Washington West Supervisory Union. A leveling off of population has been estimated for each town in the years since the last census (2010), with slight decreases in all five towns from 2014 to 2015.

Figures 13 & 14 provide a perspective on population estimates for Washington County as a whole, and its workforce population, based on high (Scenario A) and low (Scenario B) estimates that include birth rate and migration variables[2].

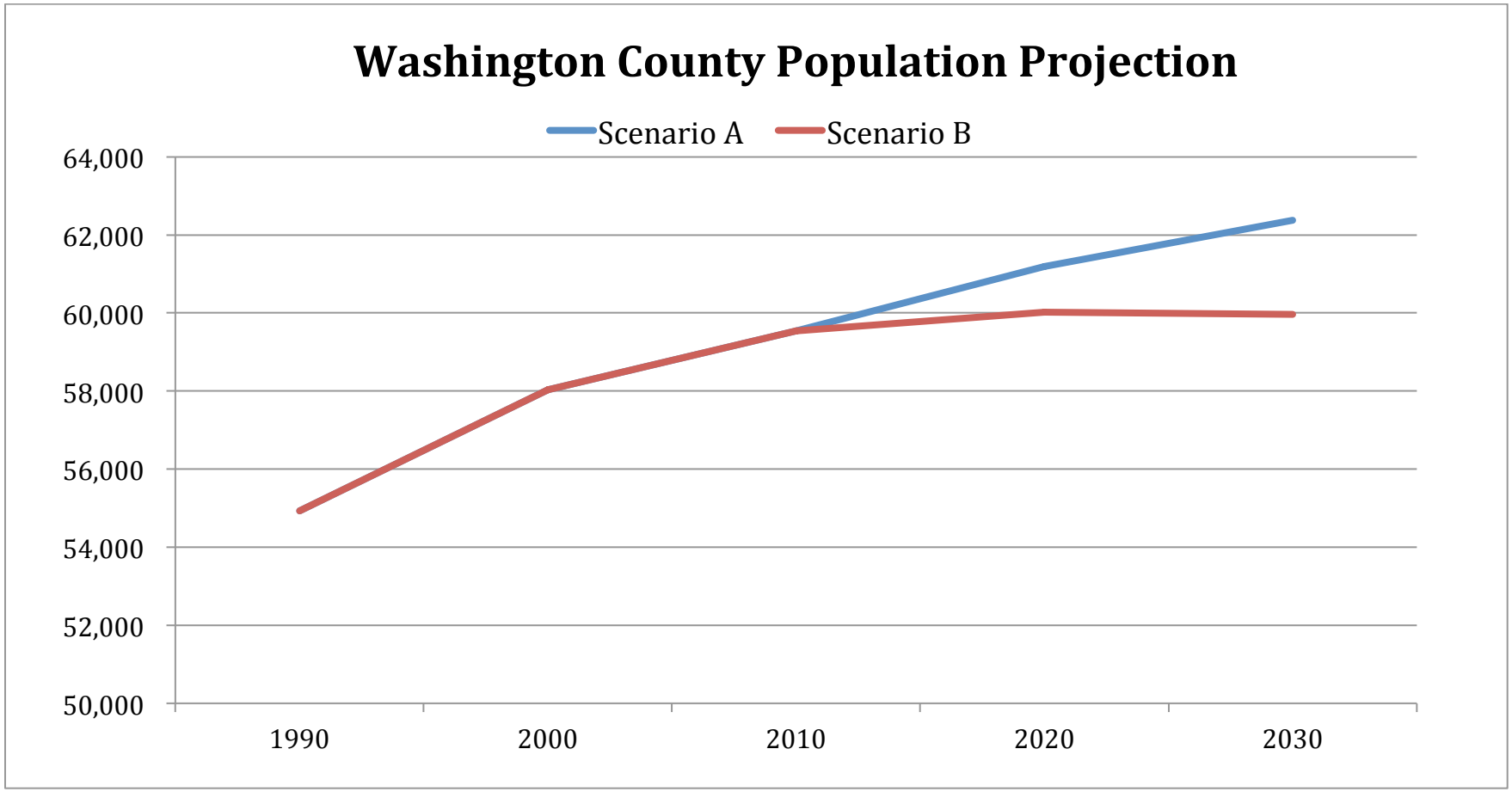


FIGURE 13- SOURCE: VT AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT

[2] "Vermont Population Projections, 2010 – 2030, Vermont Agency of Commerce and Community Development, August 2013", http://dail.vermont.gov/dail-publications/publications-generalreports/vt-population-projections-2010-2030

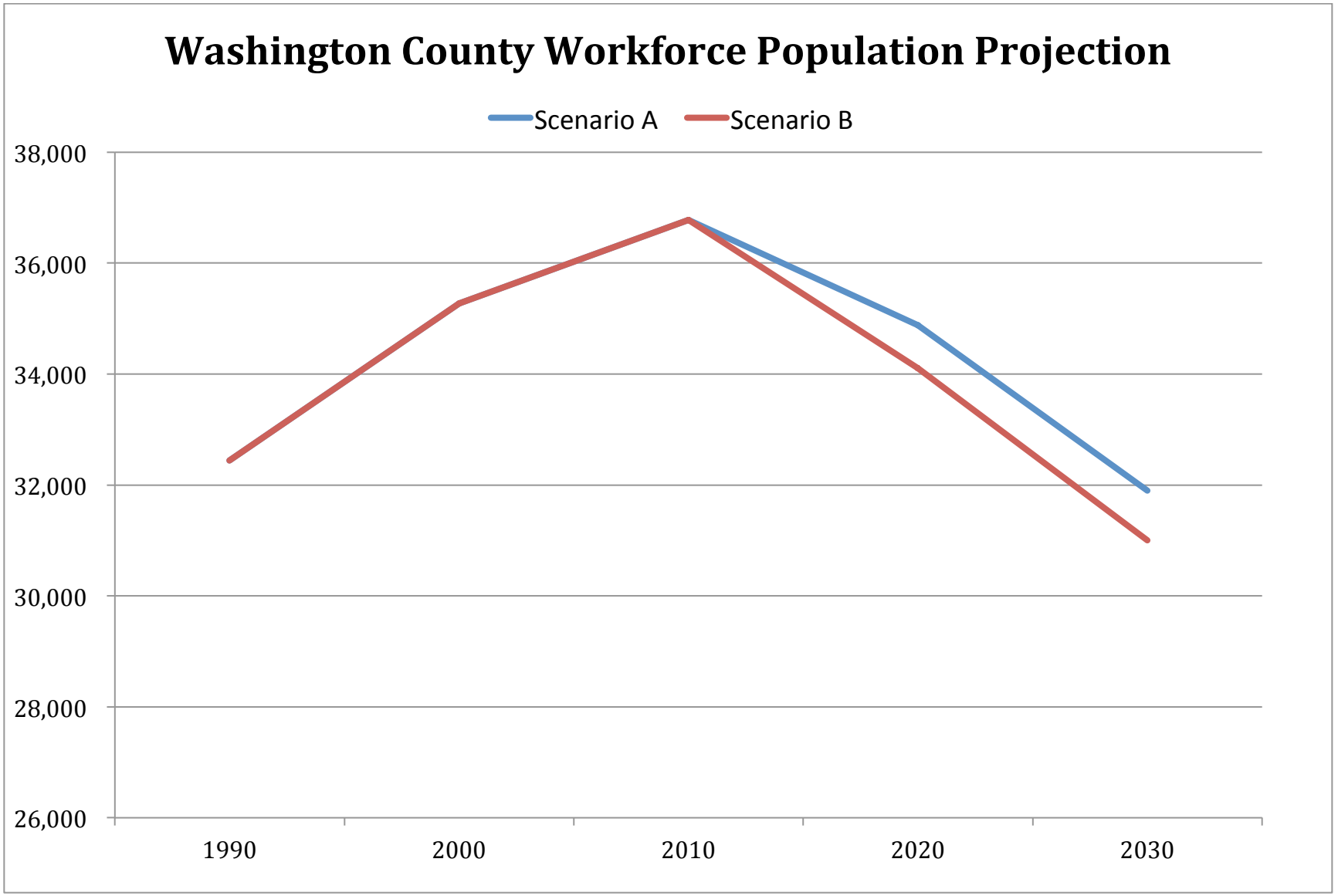


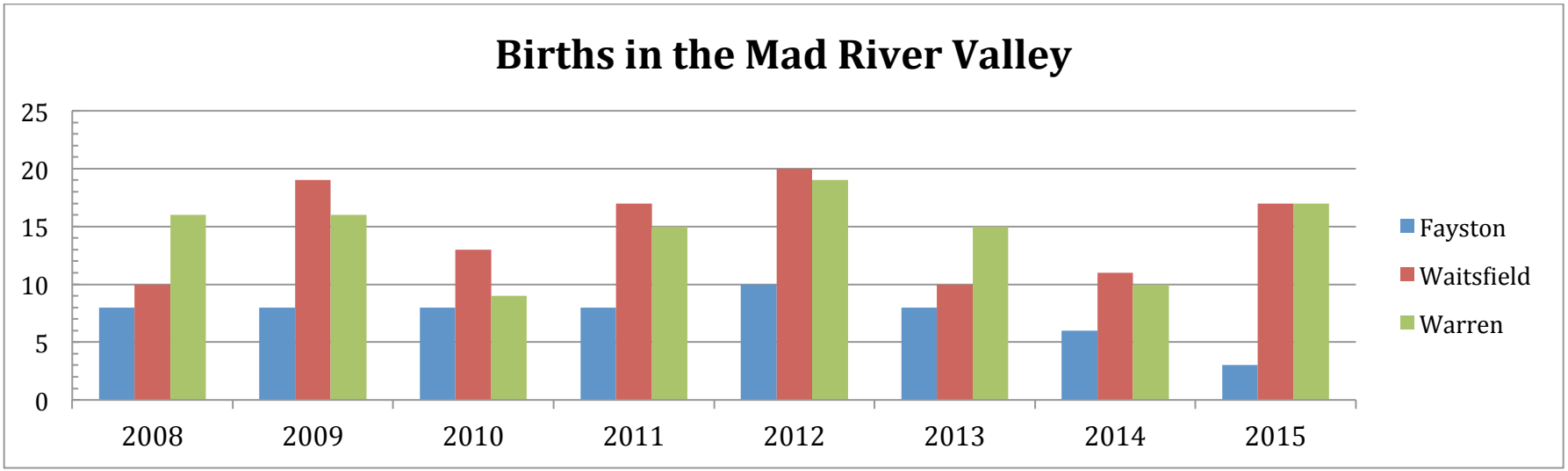
FIGURE 14- VT AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT

The table below provides two-scenario population estimates for MRV towns, compared to neighboring towns and the county as a whole. With stable birth rates, we can assume that expected in-migration to the MRV drives the higher projections presented below.

	Population										
Town	2010 Census	2020 Low	2030 Low	'10-20 growth	'10-'30 growth	Town	2010 Census	2020 High	2030 High	'10-20 growth	'10-'30 growth
Washington County						**Washington County**					
DUXBURY	1,337	1,436	1,491	7.40%	11.52%	DUXBURY	1,337	1,464	1,550	9.50%	15.93%
FAYSTON	1,353	1,561	1,706	15.37%	26.09%	FAYSTON	1,353	1,590	1,772	17.52%	30.97%
MIDDLESEX	1,731	1,754	1,752	1.33%	1.21%	MIDDLESEX	1,731	1,787	1,823	3.24%	5.31%
MONTPELIER	7,855	7,546	7,294	-3.93%	-7.14%	MONTPELIER	7,855	7,694	7,591	-2.05%	-3.36%
MORETOWN	1,658	1,692	1,698	2.05%	2.41%	MORETOWN	1,658	1,724	1,766	3.98%	6.51%
NORTHFIELD	6,207	6,336	6,382	2.08%	2.82%	NORTHFIELD	6,207	6,458	6,638	4.04%	6.94%
WAITSFIELD	1,719	1,781	1,808	3.61%	5.18%	WAITSFIELD	1,719	1,815	1,880	5.58%	9.37%
WARREN	1,705	1,860	1,947	9.09%	14.19%	WARREN	1,705	1,895	2,023	11.14%	18.65%
WATERBURY	5,064	5,115	5,108	1.01%	0.87%	WATERBURY	5,064	5,213	5,314	2.94%	4.94%
County total	59,534	60,027	59,960	0.83%	0.72%	County total	59,534	61,186	62,372	2.77%	4.77% [3]

[3] "Vermont Population Projections, 2010 – 2030, Vermont Agency of Commerce and Community Development, August 2013", http://dail.vermont.gov/dail-publications/publications-generalreports/vt-population-projections-2010-2030

Figure 15 shows birth and death numbers as recorded by municipal town clerks.



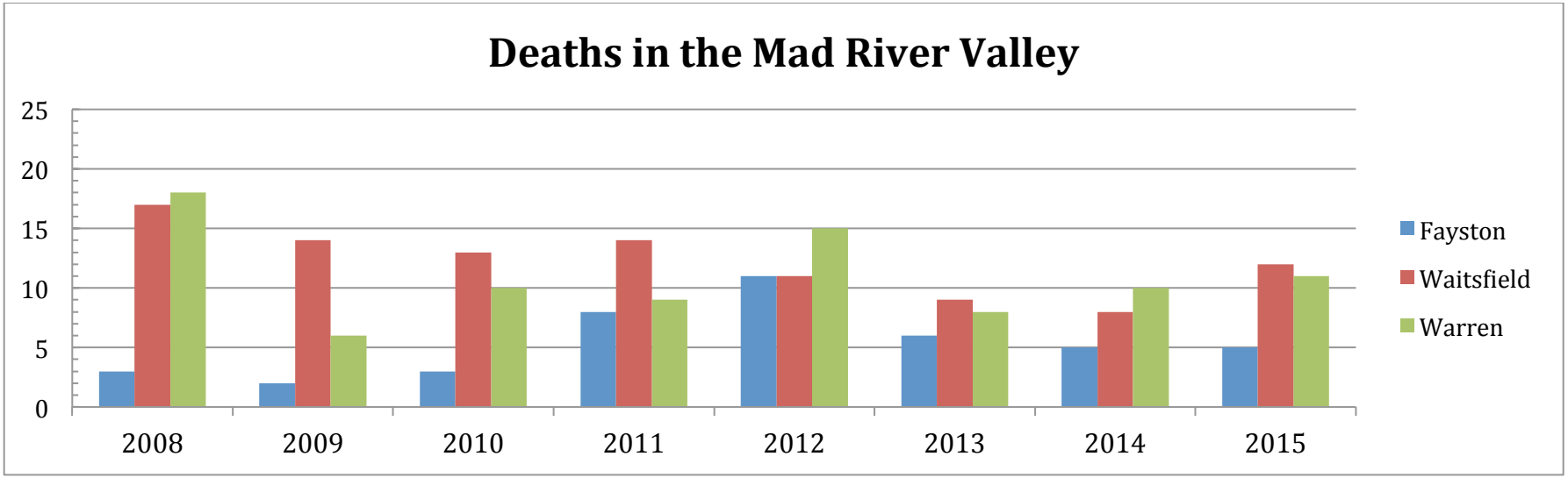


FIGURE 15- SOURCE: FAYSTON, WAITSFIELD, WARREN TOWN CLERKS

Figure 16 shows school enrollment figures experienced an overall downward trend across the board, with Harwood Middle and Crossett Brook being the only schools in the area that saw increased enrollment from the 2015/2016 to 2016/2017 school years. From the 2014/2015 to the 2015/2016 school years, Moretown Elementary and Warren Elementary experienced small increases in enrollment. Over the past eleven school years, enrollment in elementary and middle schools has remained fairly stable, while enrollment at Hardwood High School level has been trending in a downward direction.

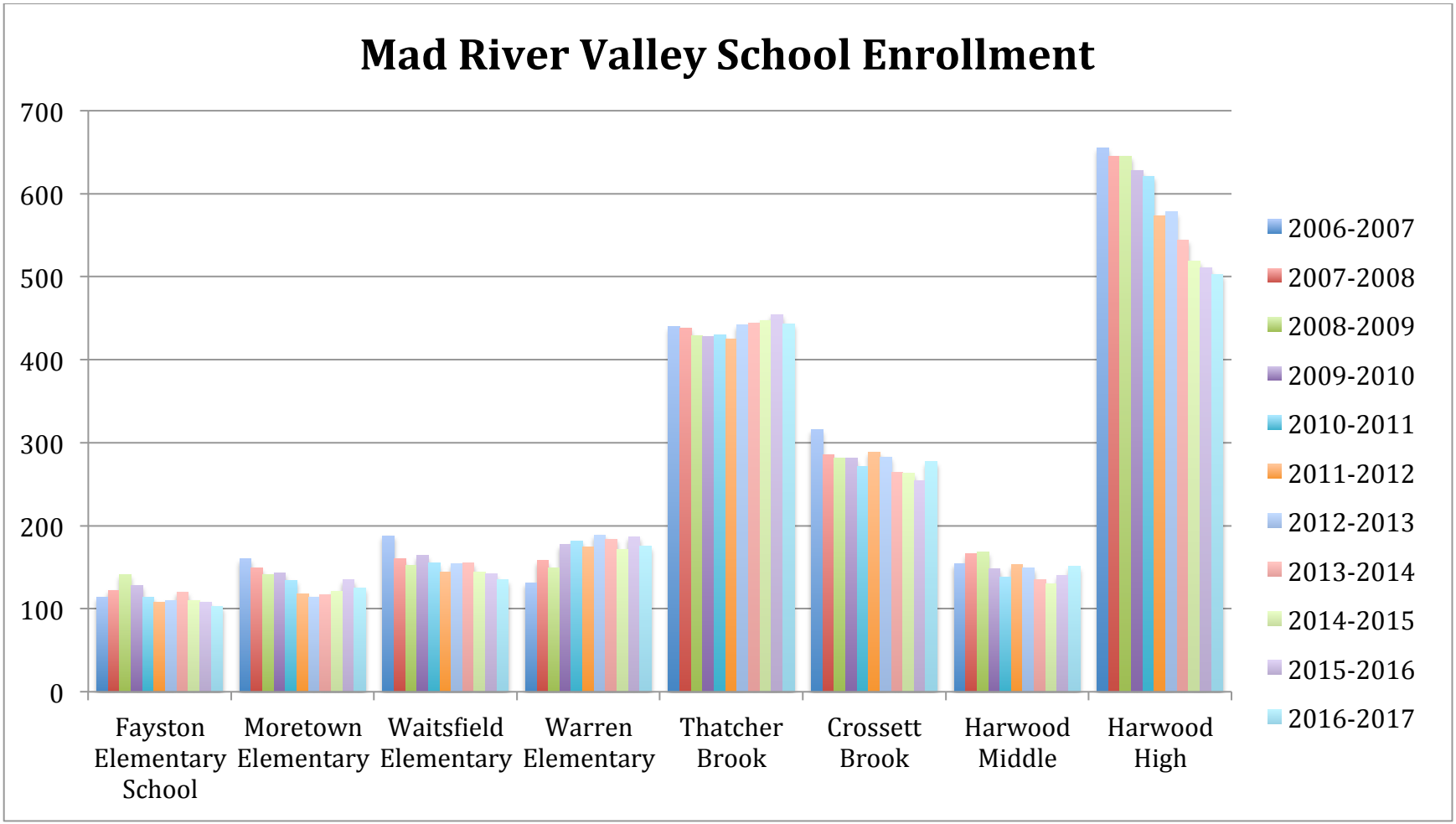


FIGURE 16- SOURCE: VT AGENCY OF EDUCATION

Figure 17 provides a comparison of enrollment declines in the state and county below, showing a similar trend in the local school district in comparison to the county and state.

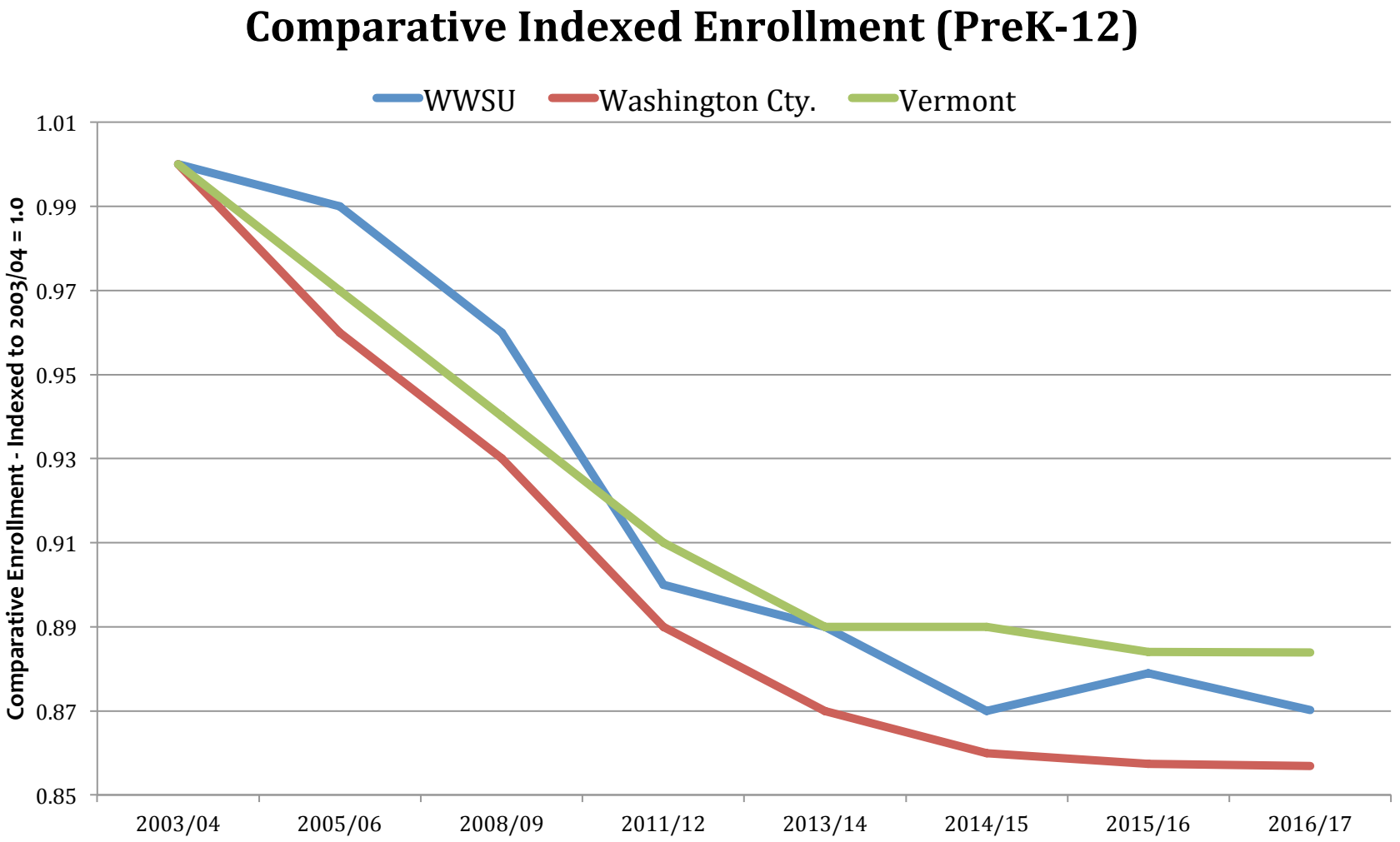


FIGURE 17- SOURCE: VT AGENCY OF EDUCATION

Another useful piece of information is the median age of the population within MRV towns in **Figure 18**. MRV towns continue to be older than Vermont overall, and much older than the nation. Waitsfield has an older population than the other two MRV towns. The median age in the Valley was 46 years old as of 2014, versus 40 years in 2000 (an increase of 15%).

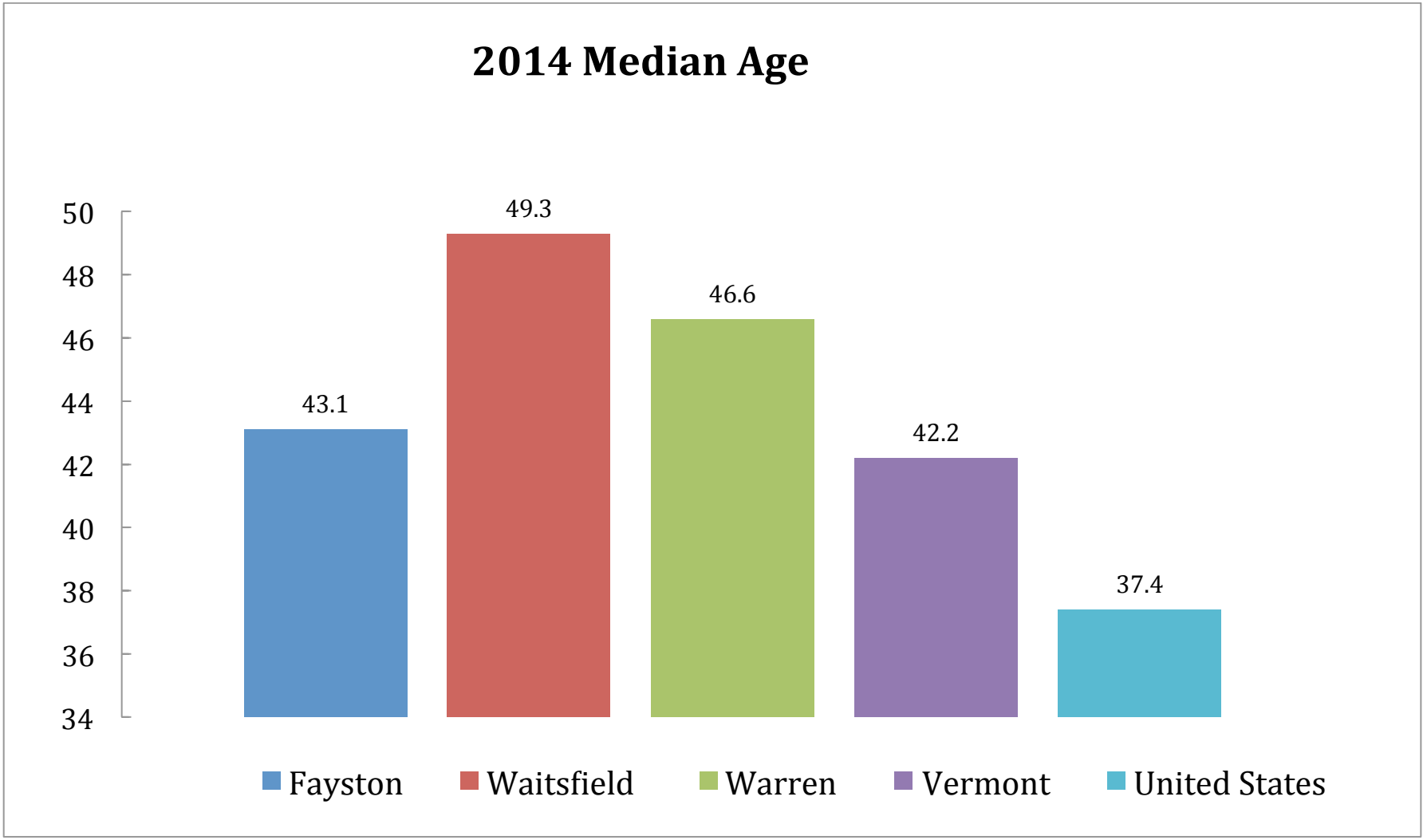


FIGURE 18- SOURCE: 2014 AMERICAN COMMUNITY SURVEY

HOUSING

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

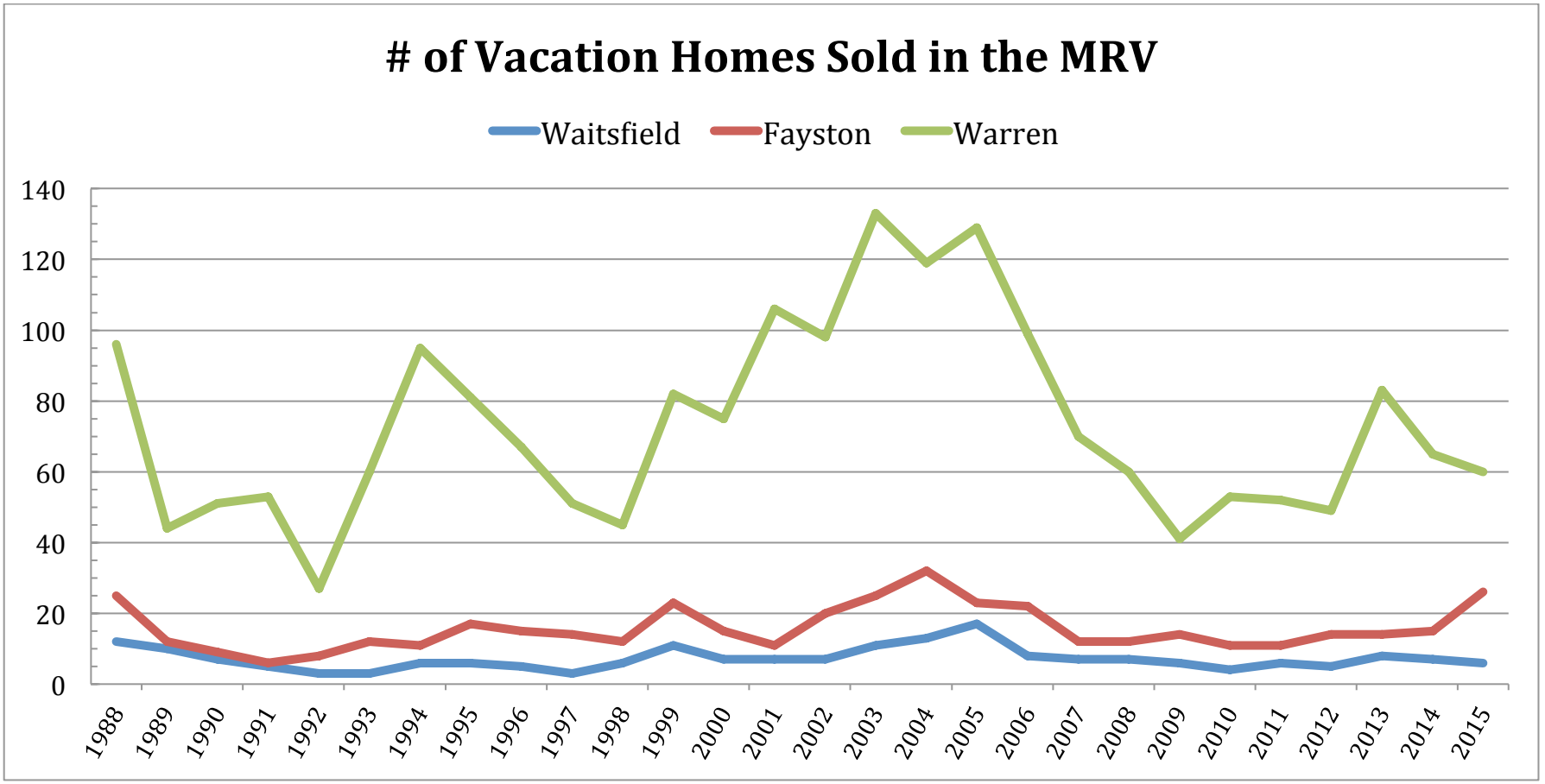


FIGURE 19- SOURCE: VT HOUSING DATA

Figure 19 shows Warren with the greatest overall volume in the number of vacation homes sold across the MRV, while sales remain relatively flat in Waitsfield and Fayston. However, 2015 saw an uptick in Fayston and a slight decline in Waitsfield. Warren experienced the steepest post-recession declines, which recovered in 2013 (although not to pre-recession levels) and has since experienced small declines in the two most recent years. Vacation homes include condominiums that are not primary residences, as

well as other non-primary residences. Most of these vacation homes are found closer to Sugarbush Resort. In Warren, 60 vacation homes were sold in 2015 (versus 65 the previous year); Fayston and Waitsfield had 26 and 6 sales, respectively, compared to 15 and 7 in 2014. 1,877 vacation homes were sold statewide in 2015, down from 2,026 the previous year.

Figure 20 shows the number of primary homes sold has declined since its peak in the early 2000s. In 2015, however, Waitsfield and Warren both saw decreased sales, while Fayston had the same number of sales compared to the previous year. There were 16 primary residences sold in Waitsfield (vs. 17 in 2014), 14 in Fayston (vs. 14) and 14 in Warren (vs. 25). Statewide, primary home sales decreased to 6,473 from 7,008 in 2014.

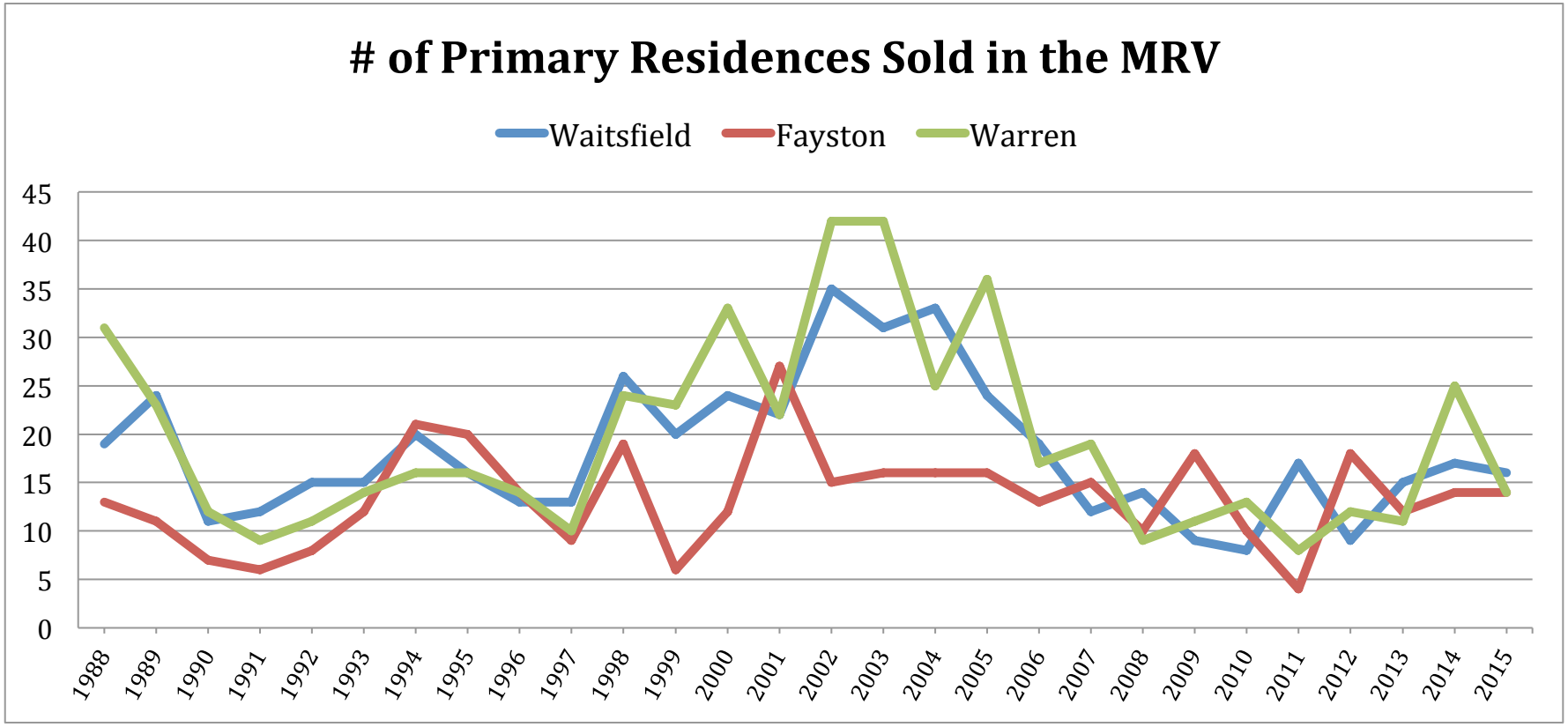


FIGURE 20- SOURCE: VT HOUSING DATA

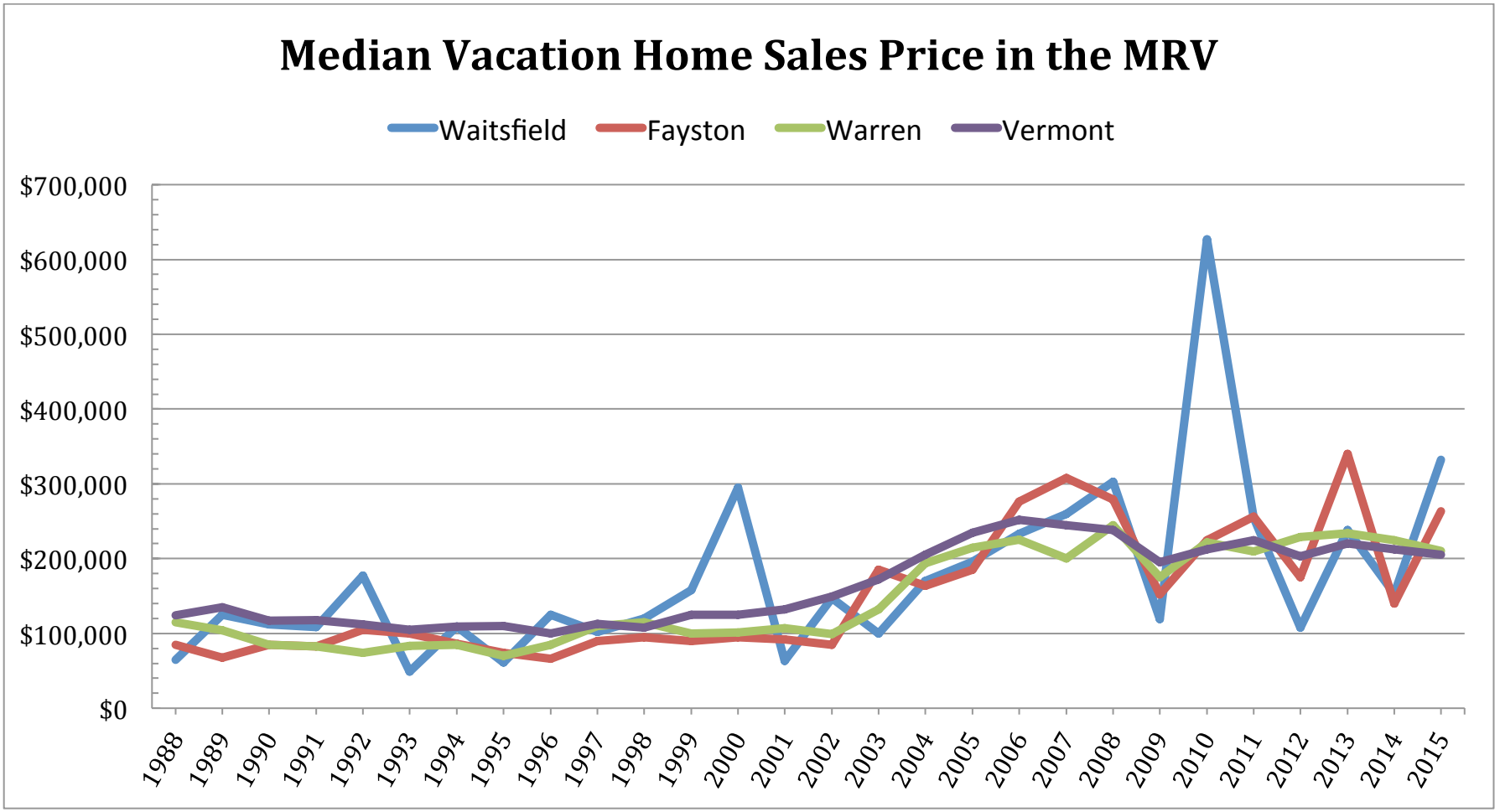


FIGURE 21- SOURCE: VT HOUSING DATA

Figure 21 shows Warren's median vacation sales price at $210,000 in 2015 largely follows the state, with Waitsfield and Fayston seeing higher sales prices (at $332,500 and $263,500, respectively). Because of the relatively low number of vacation homes sold in Waitsfield and Fayston, outliers more easily influence the median sales prices. Vermont's median vacation home sales price decreased from $212,500 to $205,000 between 2014 and 2015..

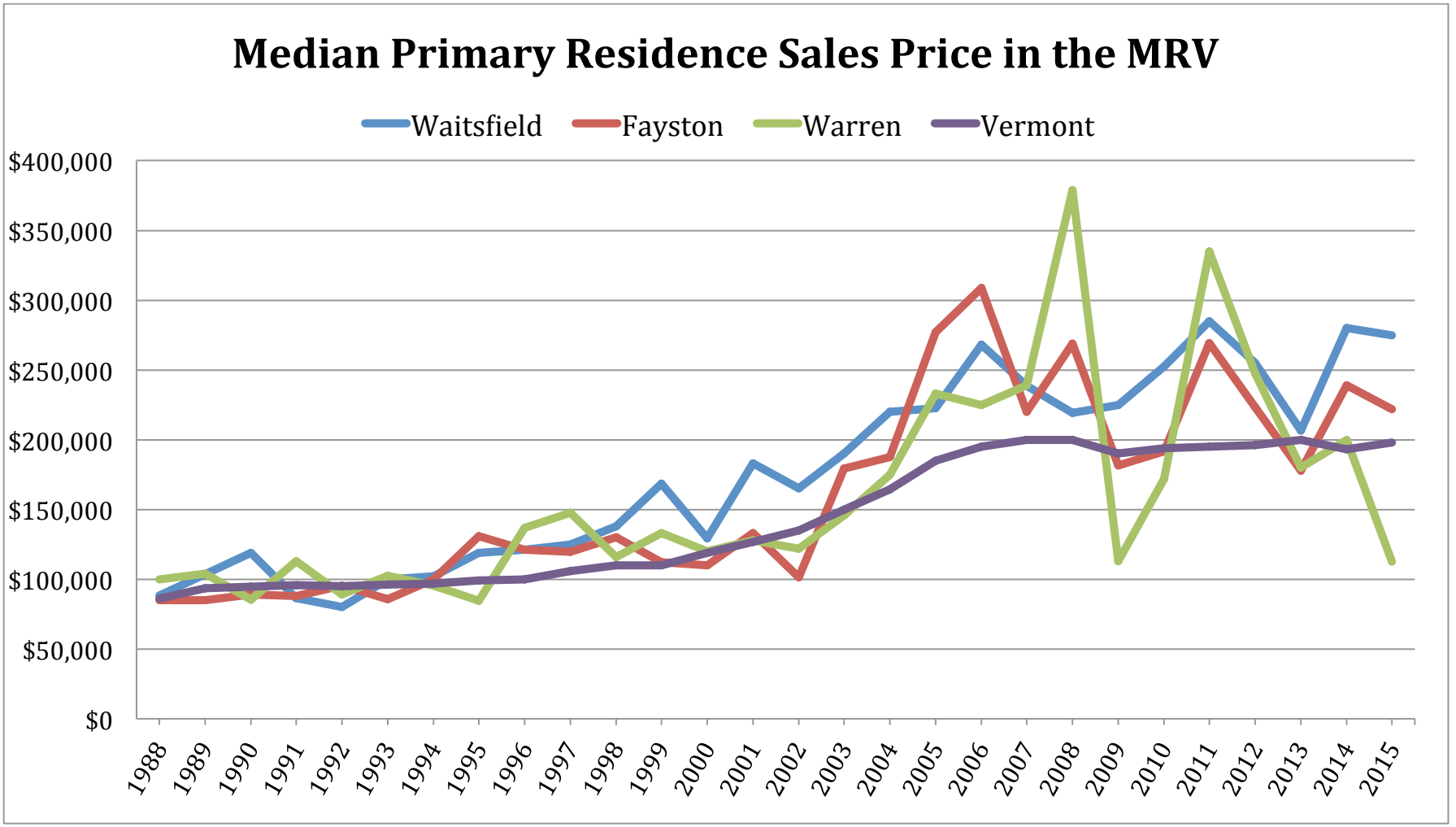


FIGURE 22- SOURCE: VT HOUSING DATA

Figure 22 indicates that overall, primary residence sales prices in the MRV have experienced a strong recovery since 2009, but all three towns experienced decreased sales prices from 2014 to 2015. The median home in Waitsfield cost $275,000 in 2015 (vs. $280,000 in 2014) and $221,750 in Fayston (vs. $239,000), while Warren's median home price was $112,500 (vs. $200,000). The

low sales price in Warren can likely be attributed to the number of condominiums purchased as primary residences compared to the other two towns.

A leading indicator of new home construction is zoning permits. **Figure 23** shows an increase for zoning permits issued for single-family homes in 2015 in Waitsfield and Fayston, and the same number of permits for Warren compared to 2014.[4]

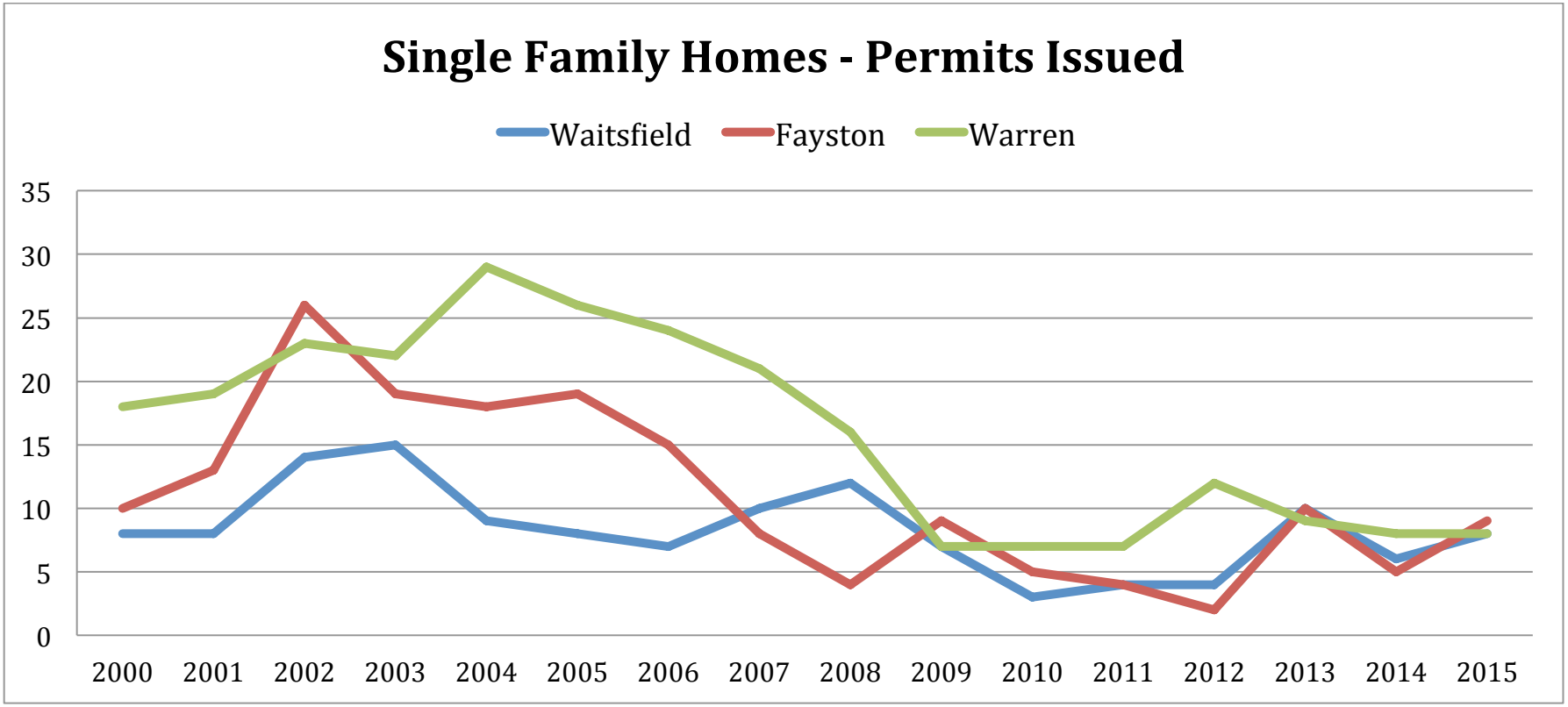


FIGURE 23- SOURCE: U.S. CENSUS BUREAU

[4] 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.

The issuance of permits for single-family homes in the MRV has charted a similar course to the statewide trend in **Figure 24** below.

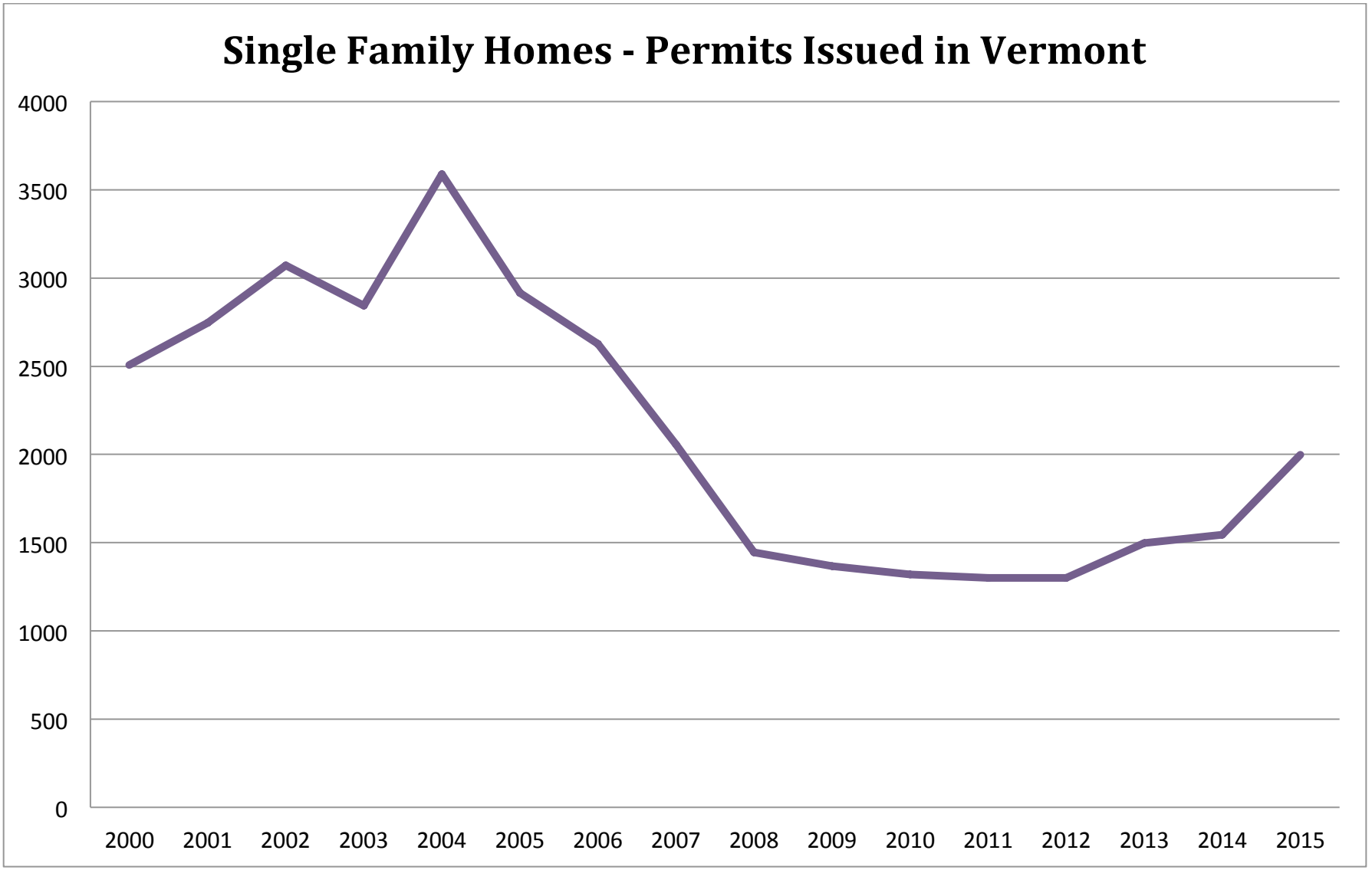


FIGURE 24- SOURCE: U.S. CENSUS BUREAU

When the permit data is indexed to 2003 levels in **Figure 25,** the local decrease in construction activity since 2004 is also consistent with state trends. Both the state and MRV single family home permits show a positive trend since 2012.

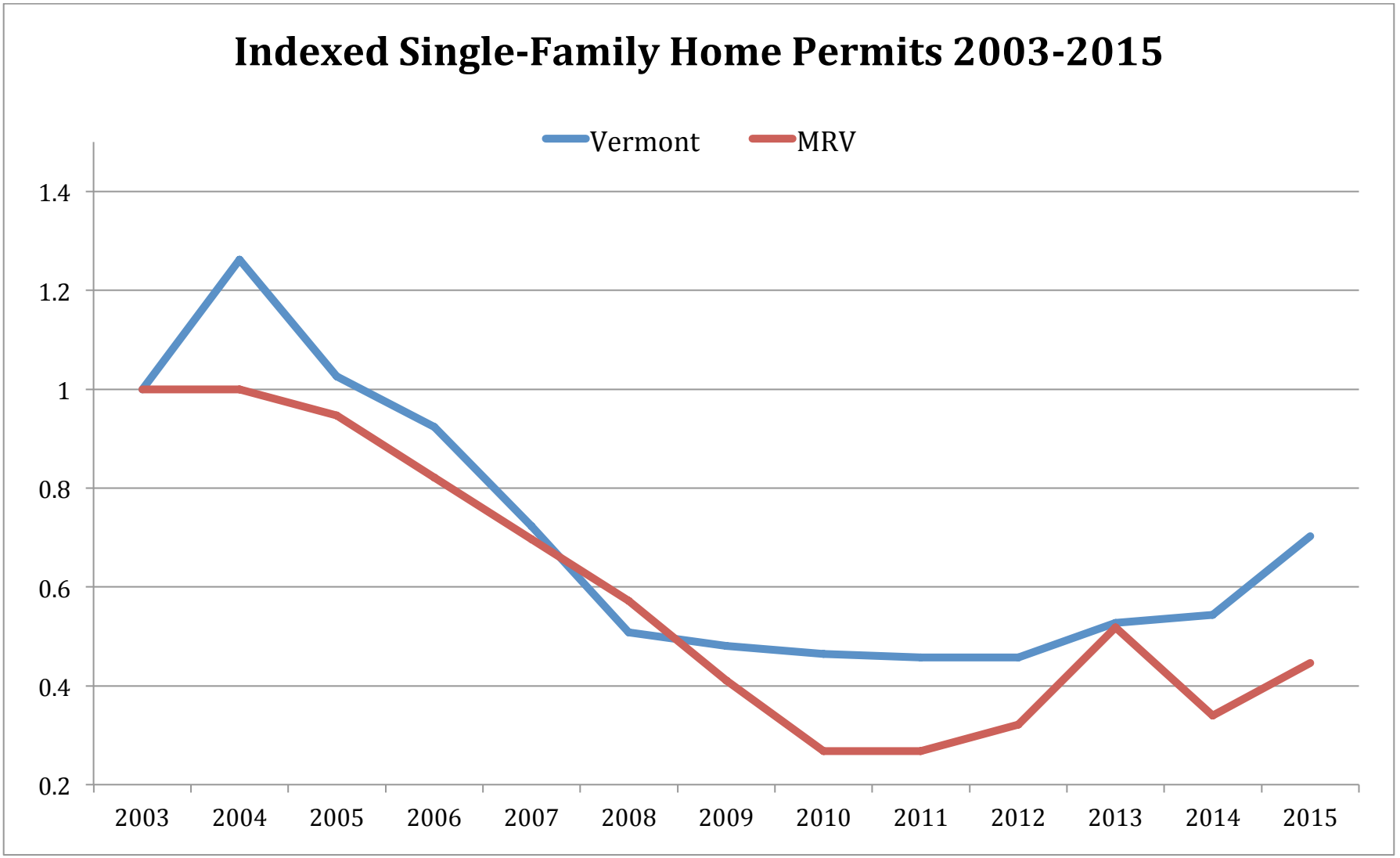


FIGURE 25- SOURCE: VT HOUSING DATA

While the raw number of single-family homes permitted is important, the total dollars attributed to those permits is also an important figure.[5] **Figure 26** shows the cost of construction in all three towns in 2015 increased in both Fayston and Warren, while decreasing slightly in Waitsfield compared to the previous year. Overall, there has been a high degree of variability overall since 2000.

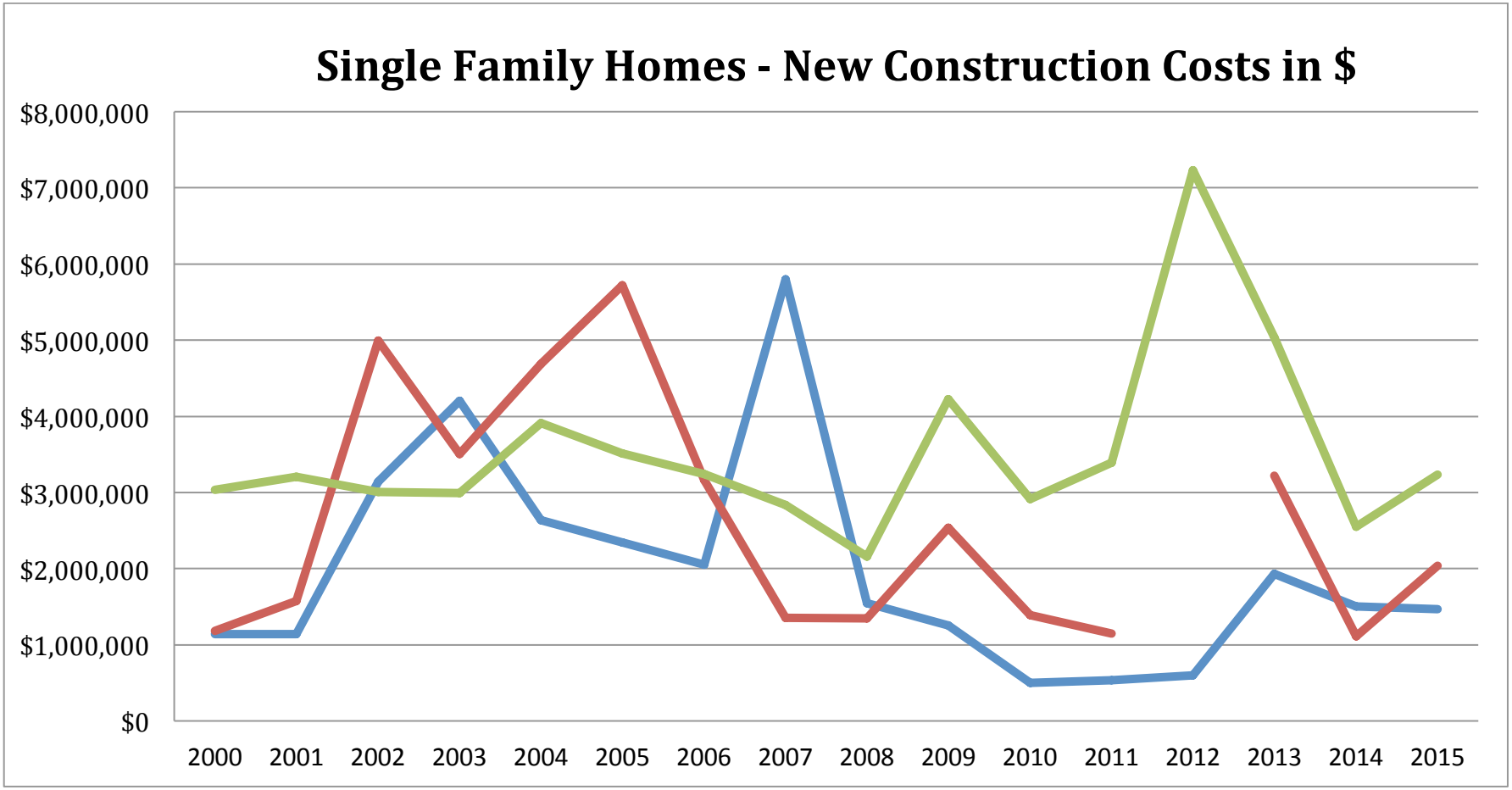


FIGURE 26- SOURCE: U.S. CENSUS BUREAU

[5] 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 in **Figure 27** shows a fairly even split between primary residences and vacation homes, with just a small percentage of vacant units. The number of vacation homes has increased as a percentage of the total MRV housing units between 2010 and 2014, from 48% to 51%.

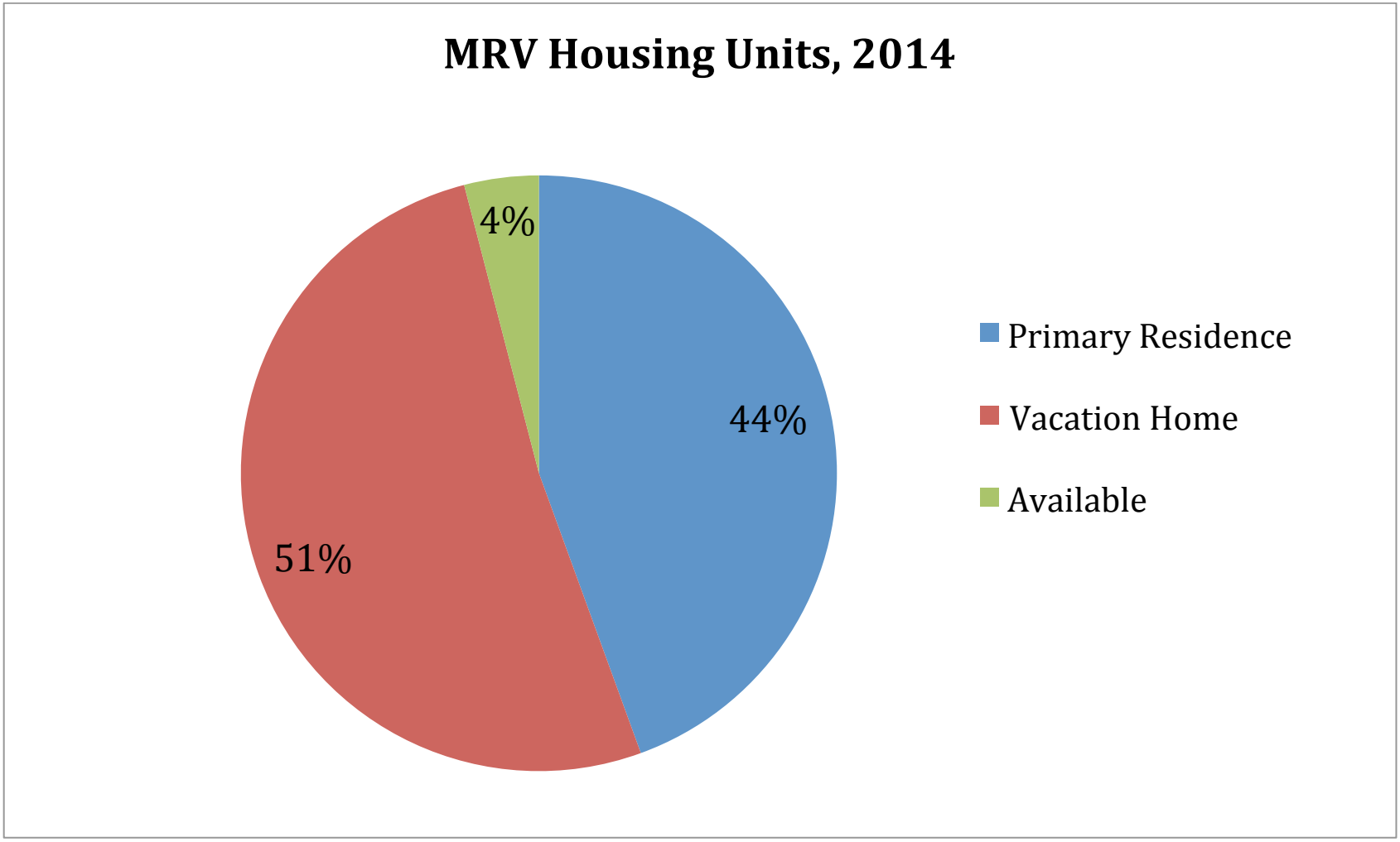


FIGURE 27- SOURCE: VT HOUSING DATA

Housing Affordability

Data from Sugarbush Resort is collected each year from surveys given to seasonal and year-round employees. The data in **Figure 28** indicates a decrease in the number of employees (year-round and seasonal) who live in one of the three MRV towns (46% in 2015-2016 season versus 49% in 2014-2015 season). 42% of seasonal staff reported residing in Fayston, Waitsfield or Warren, while 68% of the year round staff call one of these three towns home.

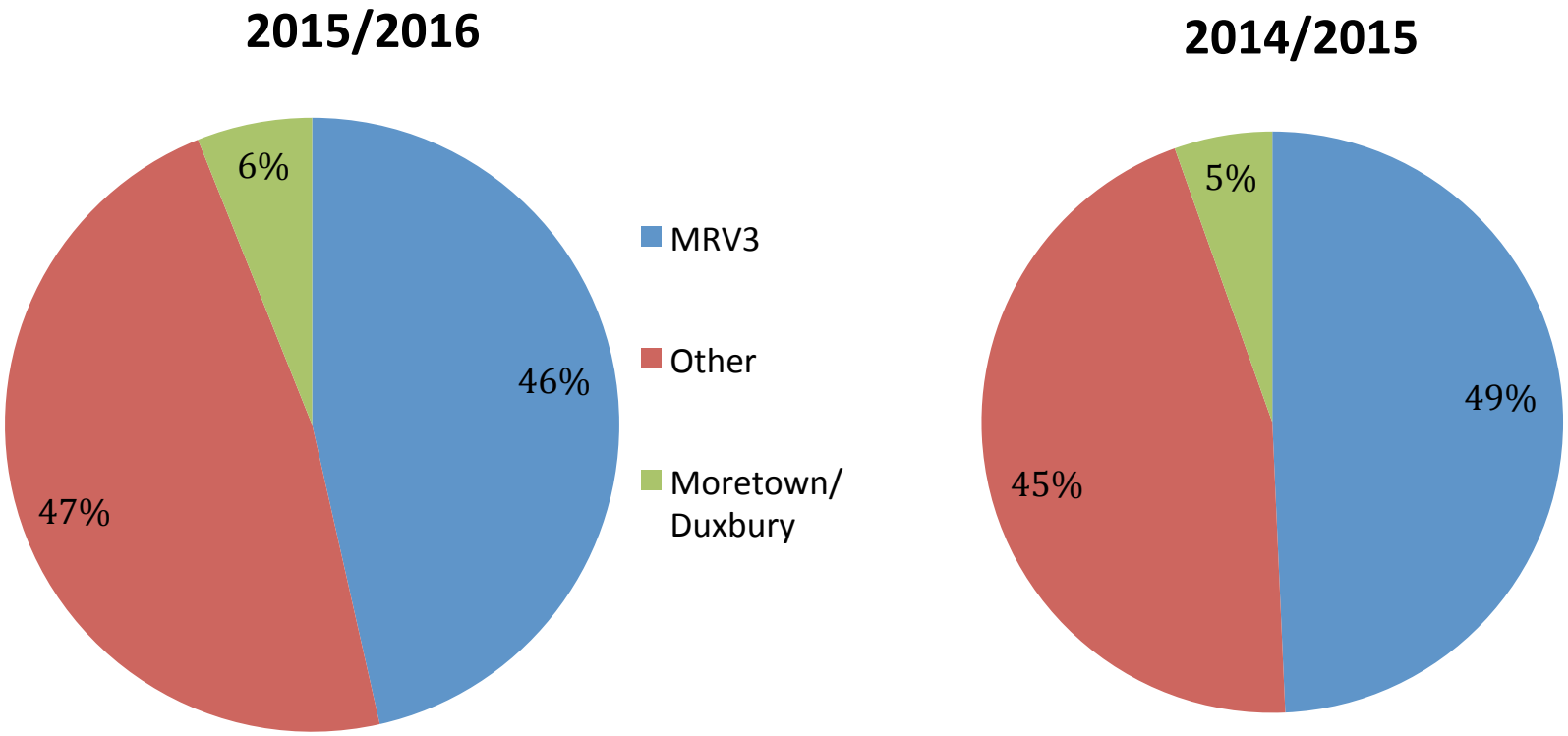


FIGURE 28- SOURCE: SUGARBUSH RESORT

Of the 689 seasonal employees who responded to the survey, 86 reported moving to Warren, Fayston or Waitsfield to work at Sugarbush. Of the 124 year- round staff members who completed this section of the survey, 16 reported moving to Warren, Fayston or Waitsfield to work at Sugarbush.

An analysis of housing costs show that there are less housing options available with $0-299 and $600-899/month housing costs in the MRV in 2015 compared to the county and state as seen in **Figure 29** below. A greater percentage of households in the MRV are also spending upwards of $2,000/month on housing costs compared to the county and state.

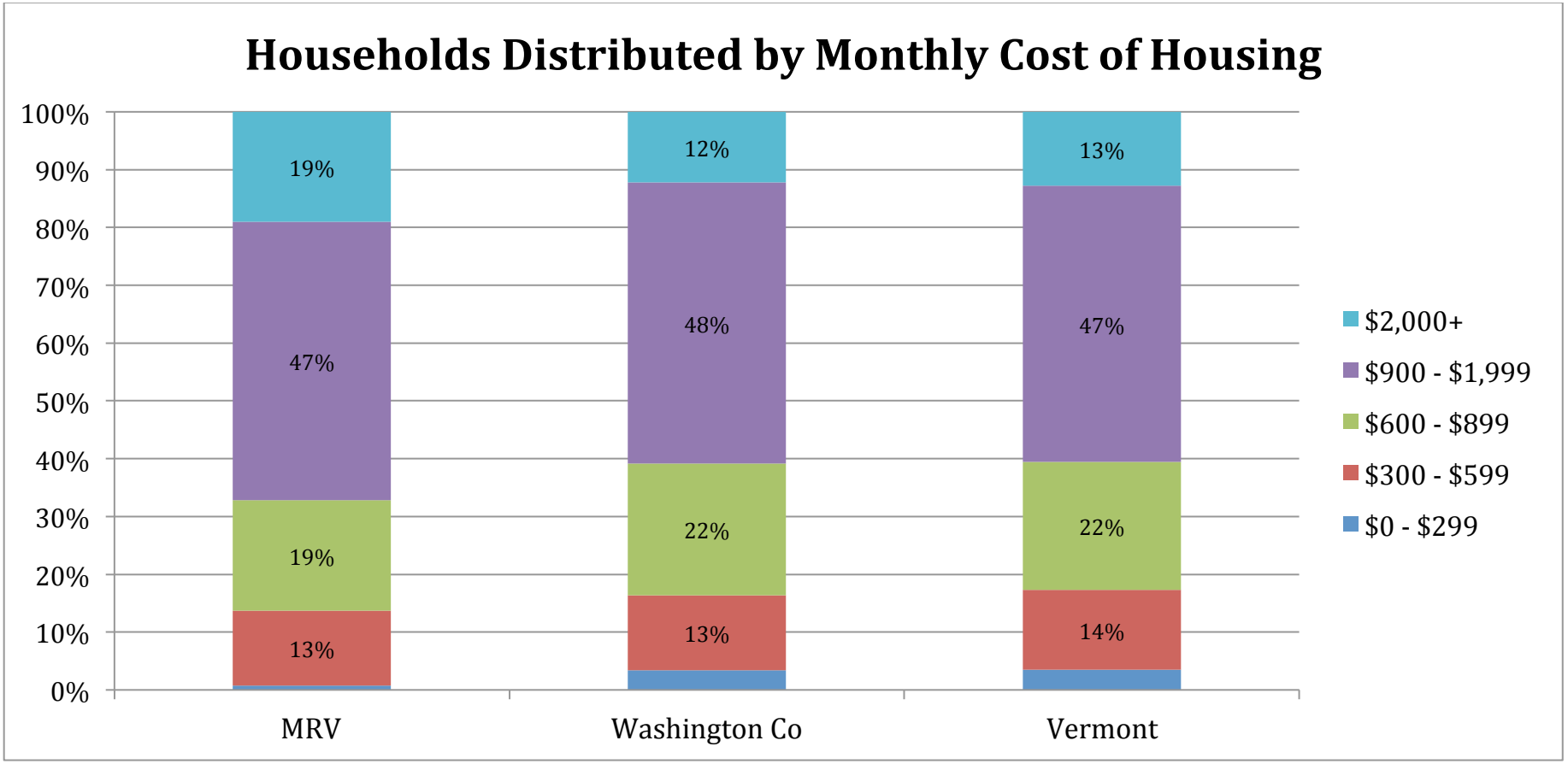


FIGURE 29- SOURCE: 2015 AMERICAN COMMUNITY SURVEY

Figure 30 compares median gross rent (include utilities) in the three MRV towns ($994) in 2014 to surrounding communities shows that average gross rent is more expensive than surrounding communities (excluding Moretown). Comparing median gross rent over time in the MRV towns also shows a substantial increase in rents in Waitsfield between 2010 and 2014, and in Fayston between 2000 and 2010. Warren has the most affordable rent of the three MRV towns in 2014.

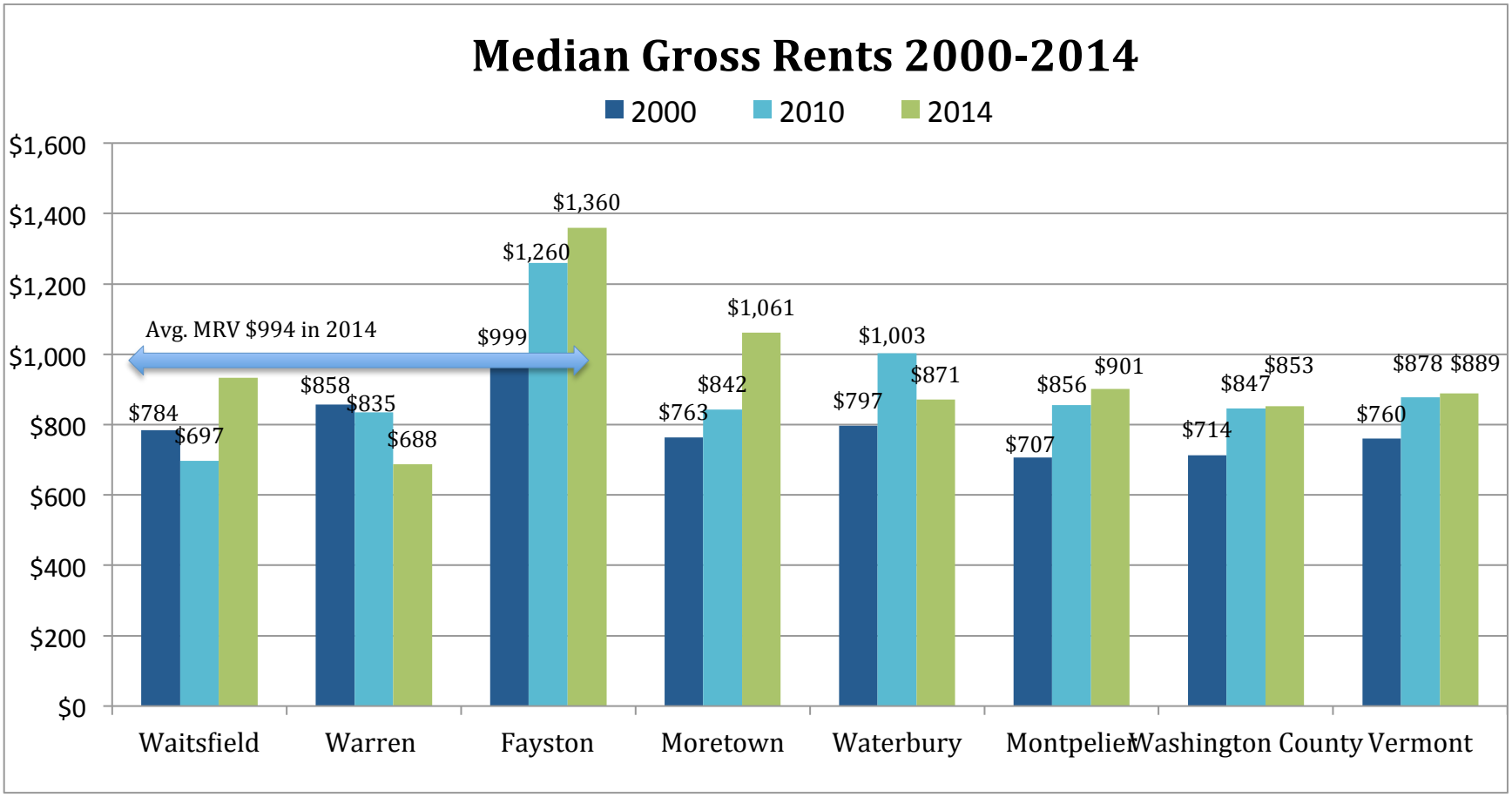


FIGURE 30- SOURCE: VT HOUSING DATA

It's also interesting to note that the towns with the highest median gross rent are the only in the study area that don't include any subsidized rental housing (Fayston & Moretown).

Section III: Employment

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

Industry categories are described below, as reflected in the Quarterly Census of Employment and Wages (QCEW), which provides for all firms covered by unemployment insurance in the state of Vermont. Data includes monthly employment level and wages at each worksite.

Descriptions of each industry is as follows[6]:

- 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 include non-government schools, technical or trade schools. Since this data is suppressed for our LMA towns, the info depicted in the subsequent graphs is for government (public) elementary and secondary 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 as represented in the subsequent graphs includes public administration.

[6] A full list of industries by North American Industry Classification System (NAICS) code are available at https://www.bls.gov/iag/tgs/iag_index_naics.htm.

Total annual average employment data[7] from the Vermont Department of Labor's Economic & Labor Market Information (VTLMI) shows an employment peak in 2005 with stable numbers since 2010 in **Figure 31** below.

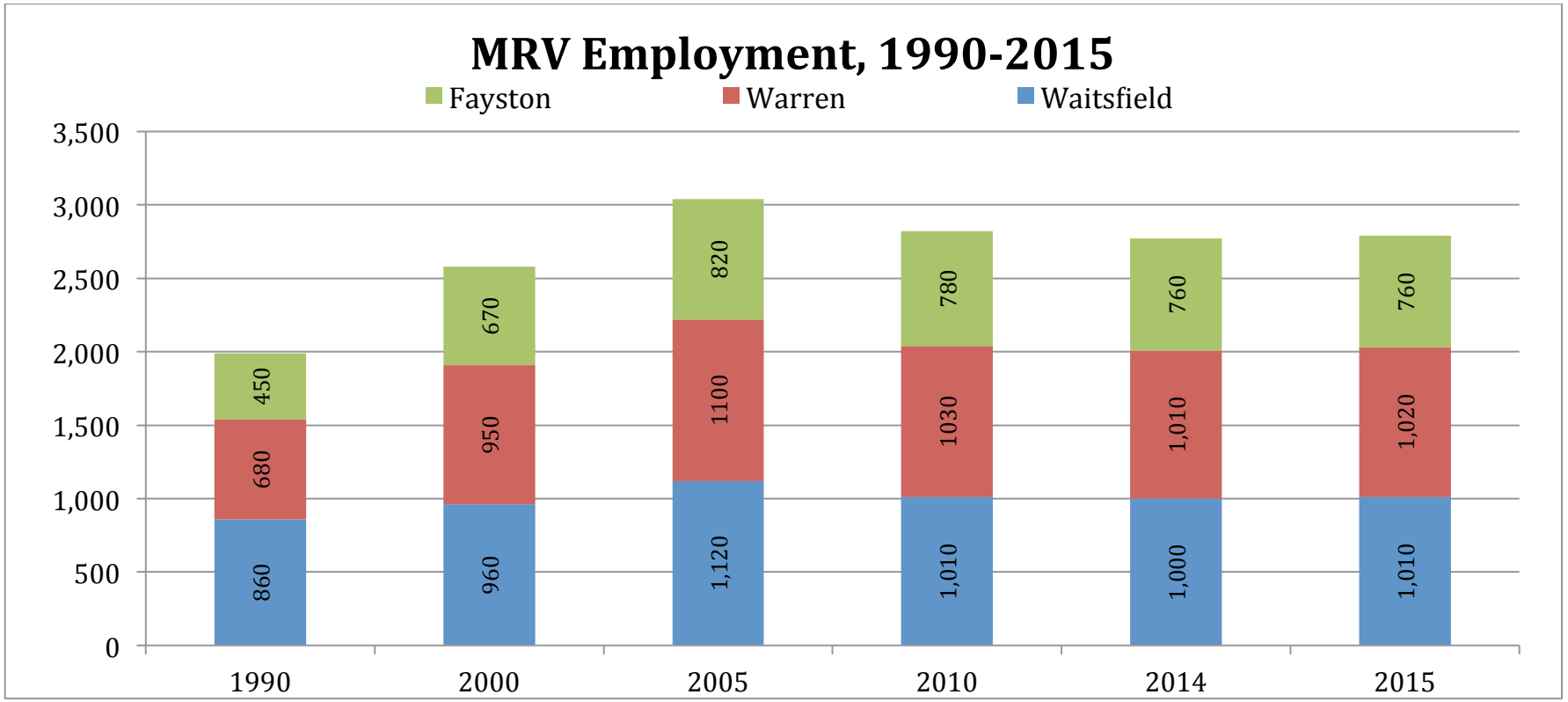


FIGURE 31- SOURCE: VT DEPT. OF LABOR, EOCNOMIC & LABOR MARKET INFORMATION (VTLMI)

[7] **Employment (total)** - A count of all civilians 16 years of age or older who worked for compensation in a business or on a farm during the week which included the 12th day of the month; or worked at least 15 hours (during the week which includes the 12th day of the month) as unpaid workers in a family business; or had jobs from which they were temporarily absent due to illness, bad weather, vacation, or labor-management dispute. This count is based on the residence of the workers, and each worker is counted only once, even if they hold more than one job. Therefore, this is sometimes referred to as employment "by place of residence." The Vermont Department of Labor's Local Area Unemployment Statistics (LAUS) staff compiles total employment data.

Compared to state and county employment trends, the MRV experienced higher pre-recession employment and has remained stable since 2010 as shown in **Figure 32** below.

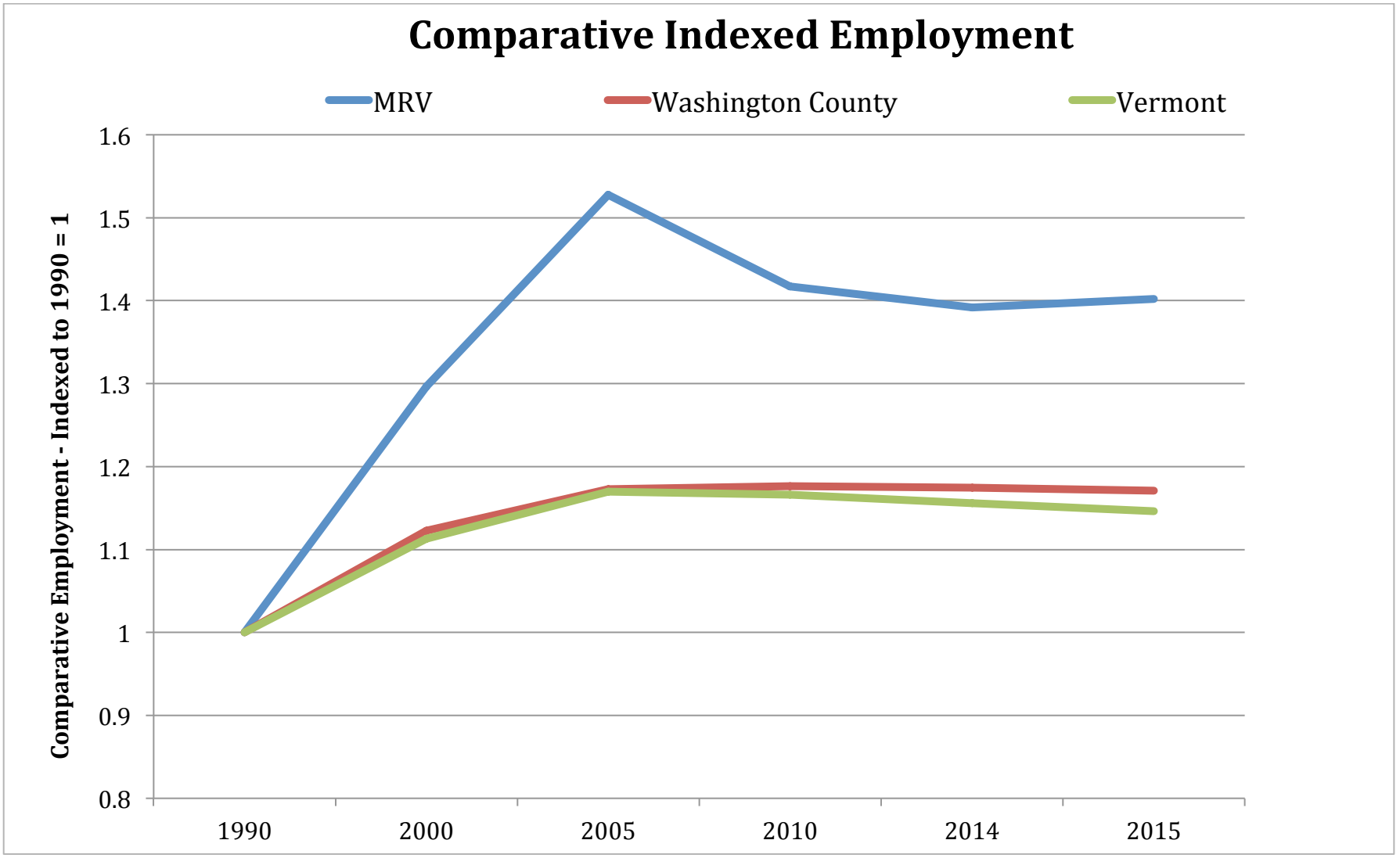


FIGURE 32- SOURCE: VTLMI

Figure 33 shows that there were small losses in most industries in terms of the number of businesses between 2014 and 2015. Retail businesses have continued to trend lower since 1988.

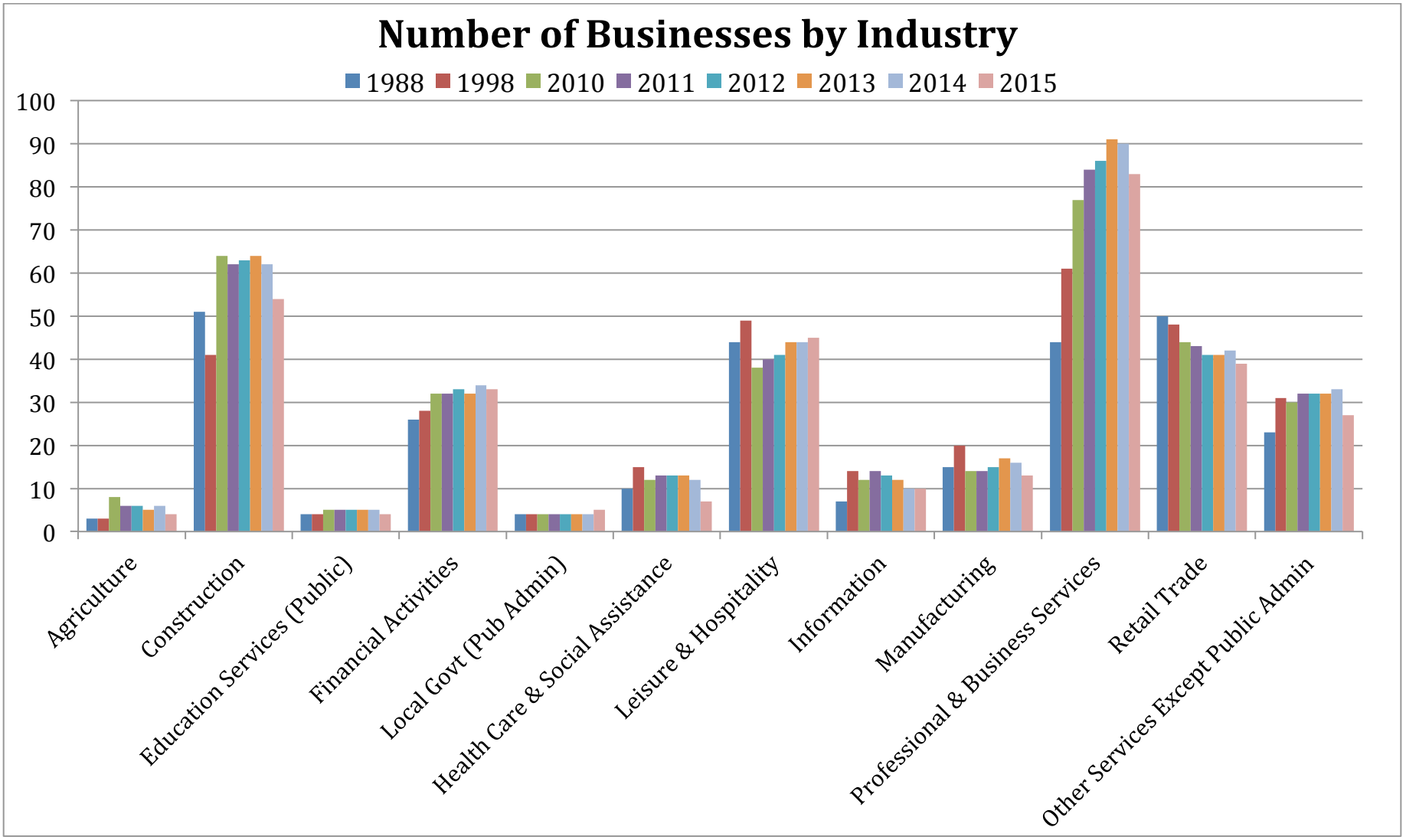


FIGURE 33- SOURCE: VTLMI

While the MRV has attracted businesses from most major sectors, the **Figure 34** below depicts the dominant role of the Leisure & Hospitality sector in terms of number of employees in the MRV. The employment numbers are an aggregate that includes part-time and seasonal jobs, which contribute significantly to this sector. Professional & Business Services, Manufacturing, and Health Care & Social Asst. job numbers rose in 2015.

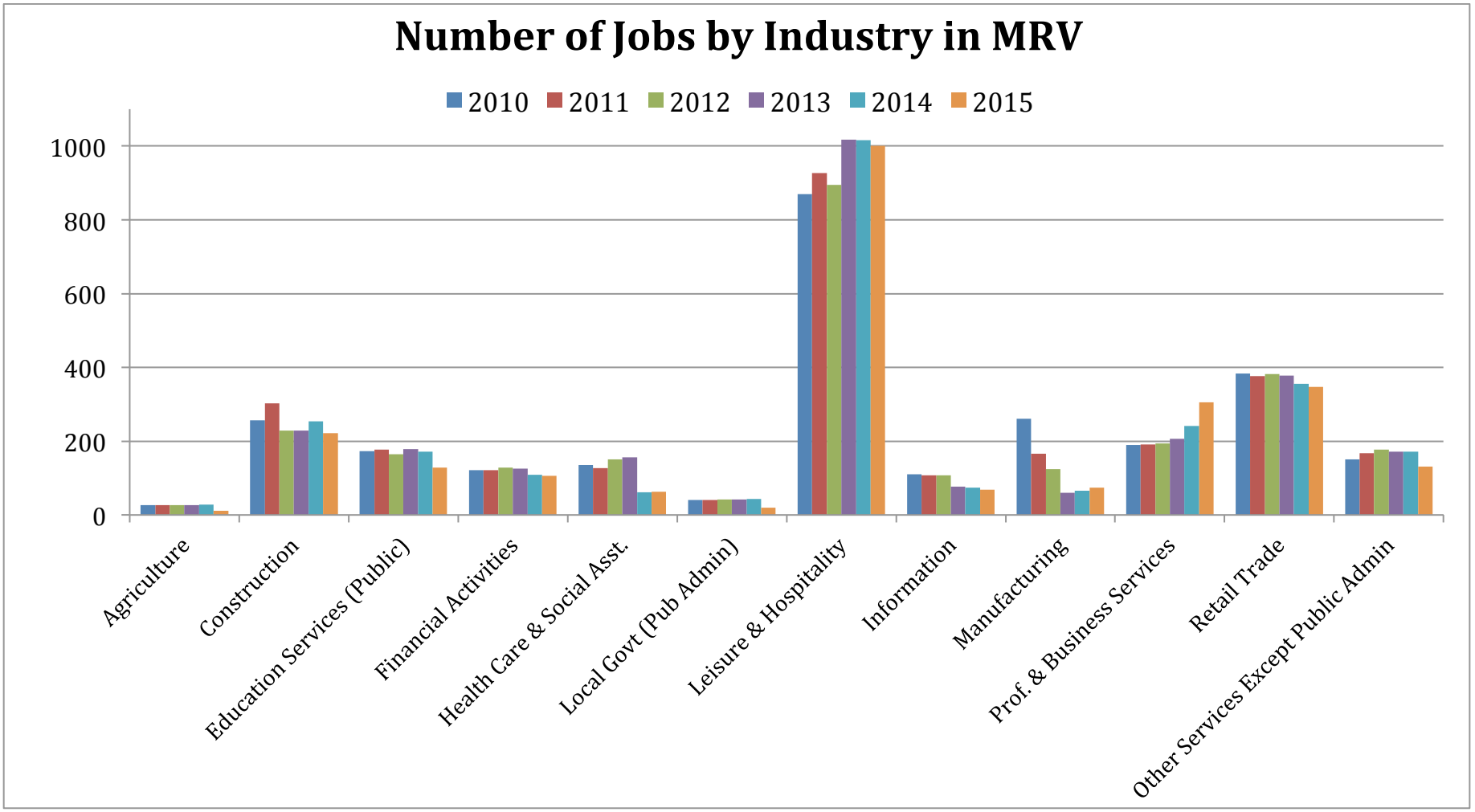


FIGURE 34- SOURCE: VTLMI

The continued strength in the Professional & Business sector total wages in **Figure 35** suggests the retention or creation of higher paying jobs in the MRV. There were losses in total annual wages in the Agriculture, Construction, Local Government, and Leisure & Hospital industries in 2015 over the previous year.

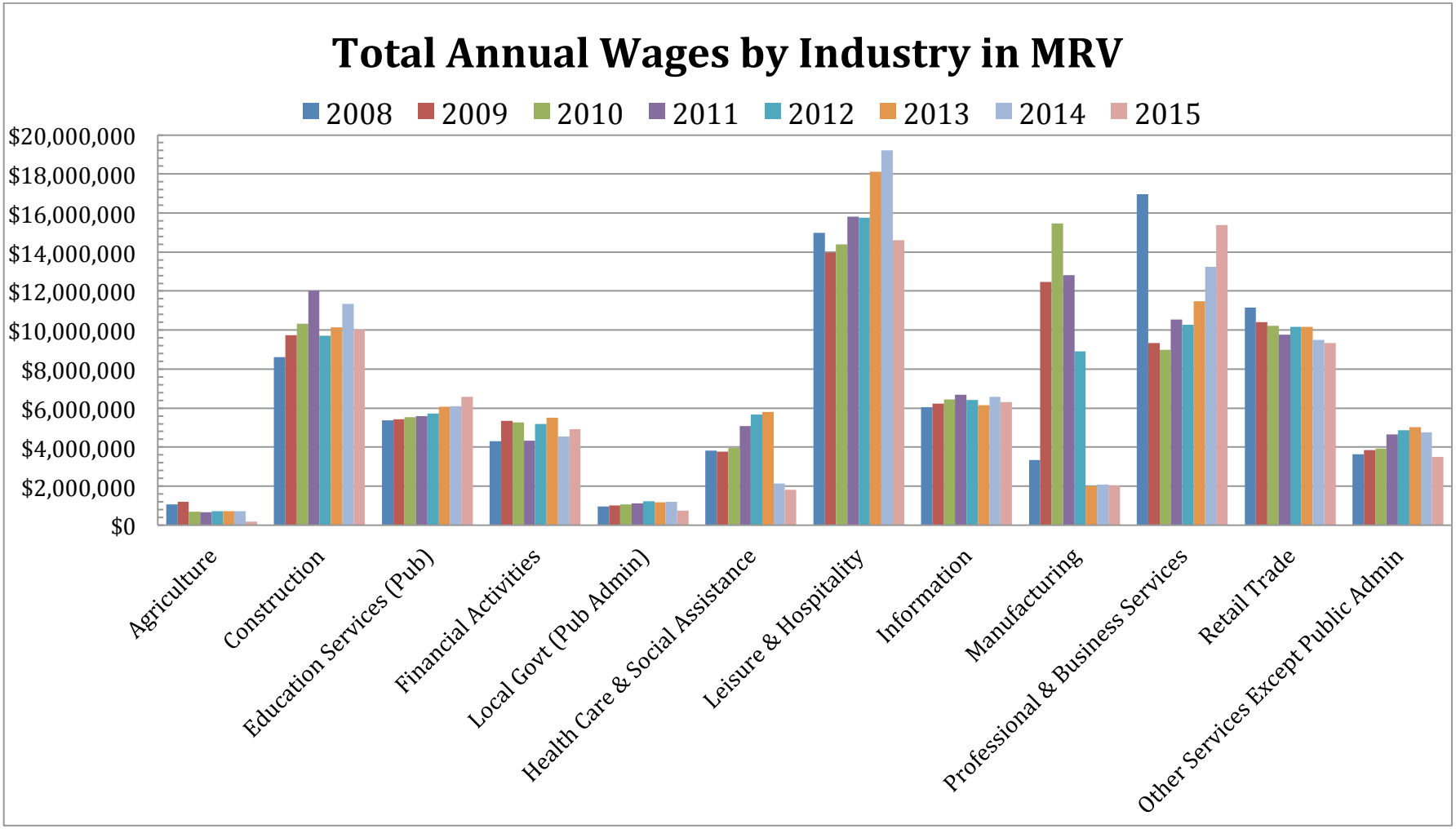


FIGURE 35- SOURCE: VTLMI

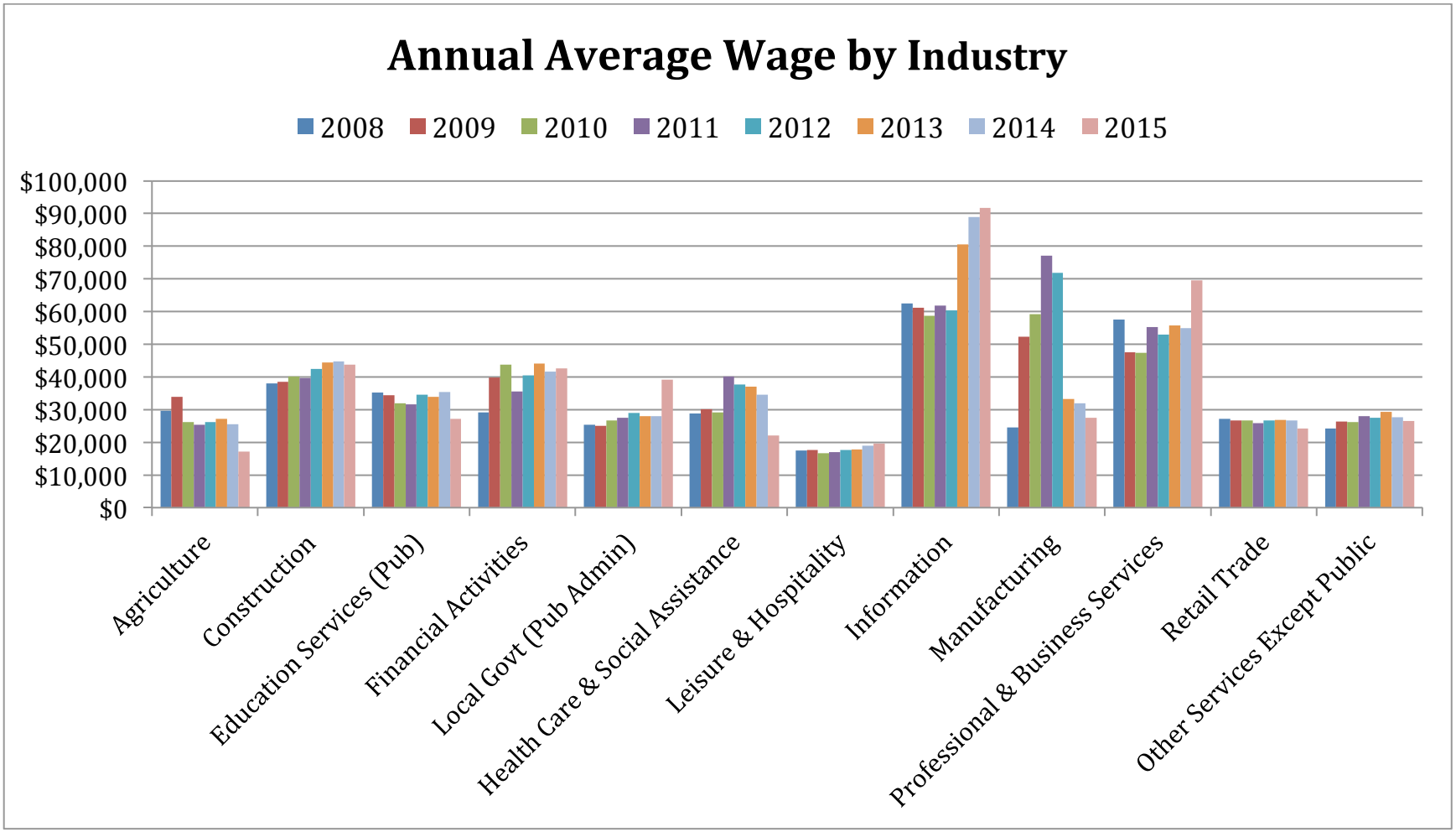


FIGURE 36- SOURCE: VTLMI

Figure 36 shows the average annual wage in the MRV ranges from just under $19,000 in the Leisure & Hospitality sector to over $90,000 in Information. Professional & Business Services saw a 27% increase in average annual wage from 2014 to 2015. The Leisure & Hospitality industry employs the most people and Retail Trade continues to show the most wage stagnation. Average wages are affected by the proportion of part-time and seasonal jobs, which lowers the annual average compared to full-time jobs.

Figure 37 reveals the unemployment rate has continued to drop since 2009, the only exception being Fayston. Of the three MRV towns, Waitsfield has the highest rate. The overall MRV average is lower than that of the county and state.

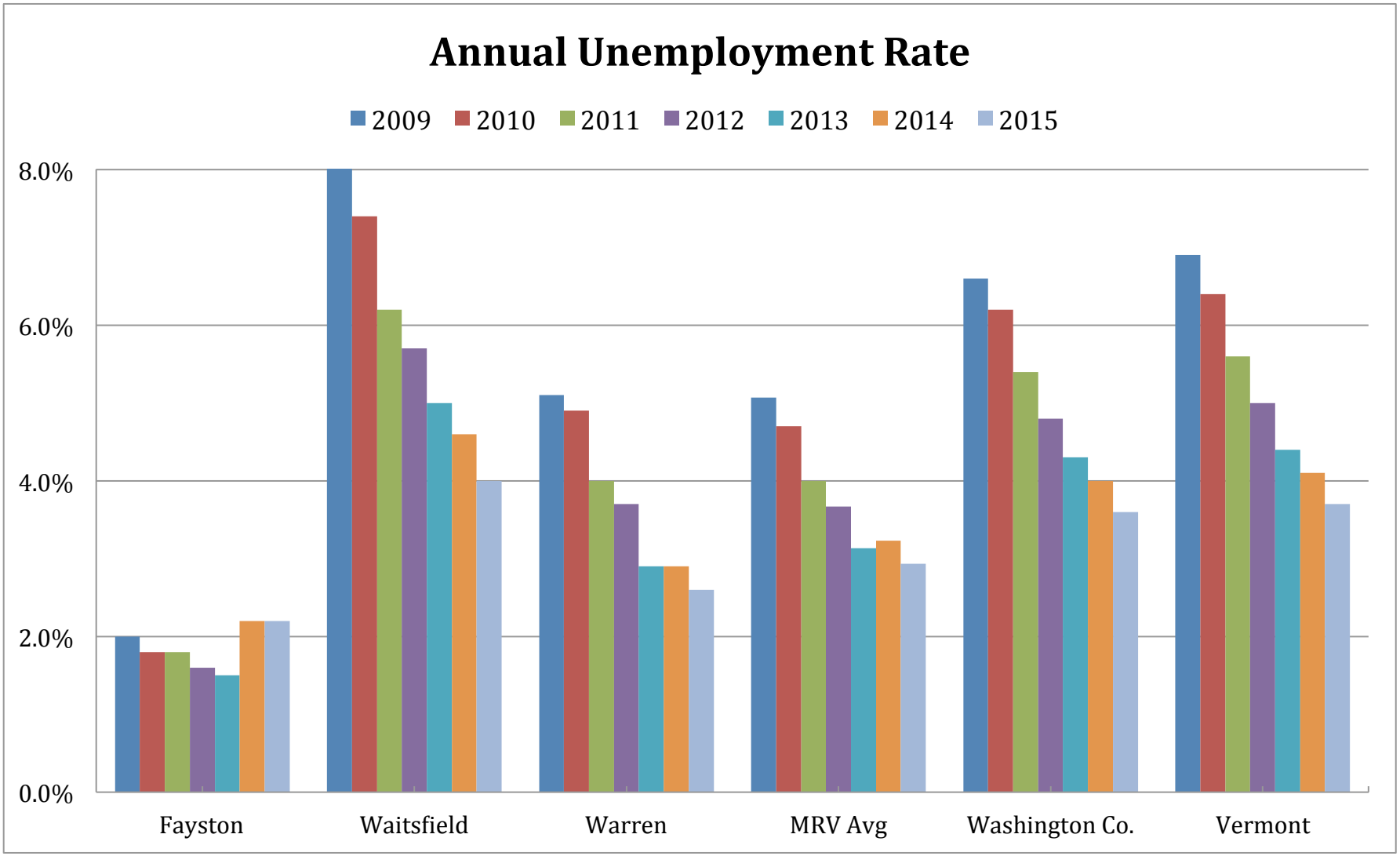


FIGURE 37- SOURCE: VTLMI

Worker Flow

2014 worker flow data in **Figure 38** shows more people commuting into the MRV than those commuting out. When compared to 2004, the percentage of those commuting in has increased by 27%, commuting out increased 41%, and a slight decrease by 3% of those who both live and work in the MRV. This data does not capture self-employment.[8]

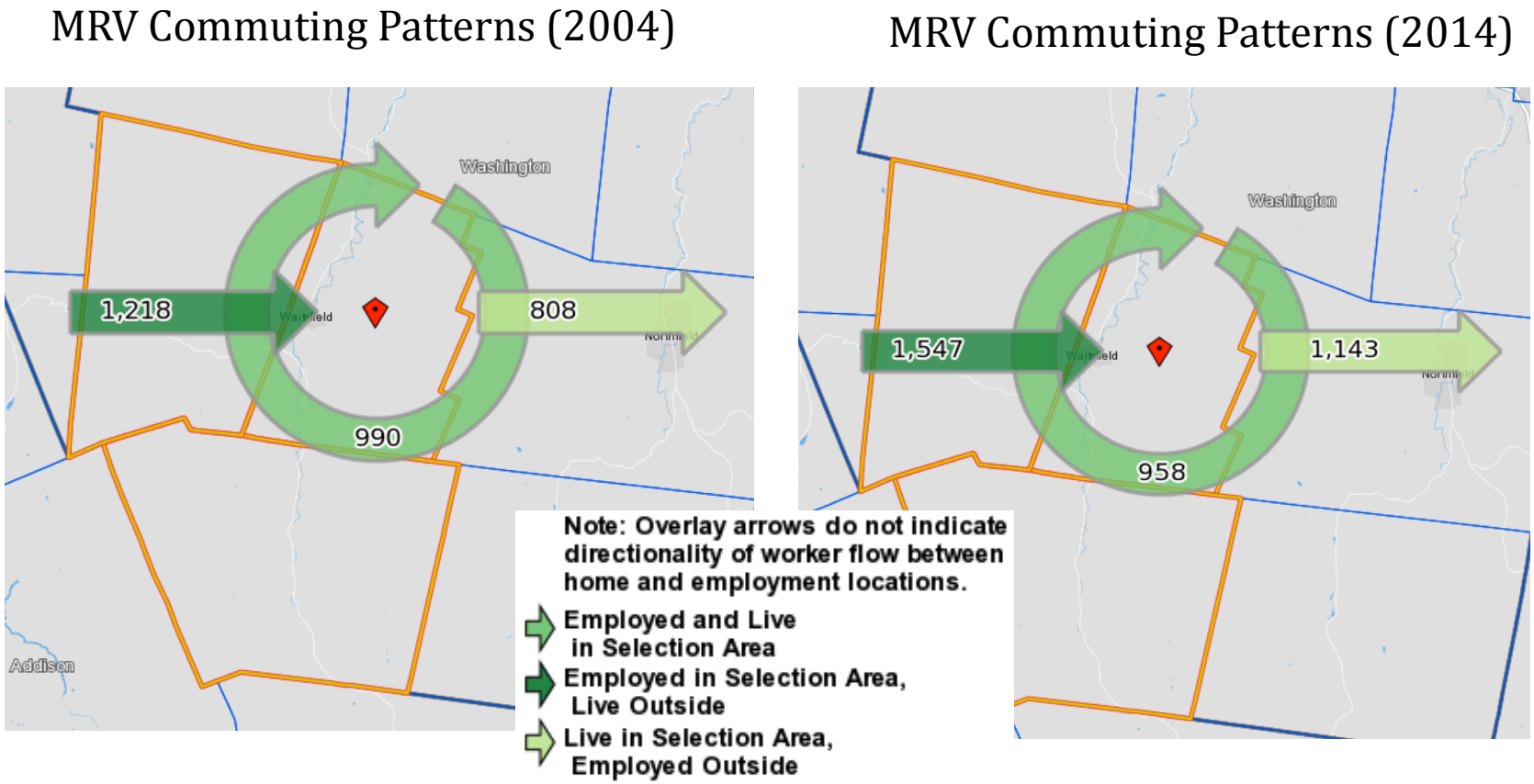


FIGURE 38- SOURCE: U.S. CENSUS BUREAU, ON THE MAP

[8] 2014's MRV Economic Study estimated self-employment income in the MRV at 13% in 2012, nearly twice that of the state.

Worker flow data for the MRV over time in **Figure 39** shows a growing percentage of workers employed and living in the MRV over the few years, with a 21% increase in 2015 compared to the previous year. Table X also shows the number of workers commuting into the MRV is on the rise, while the number of workers commuting out has decreased by 15% since 2014.

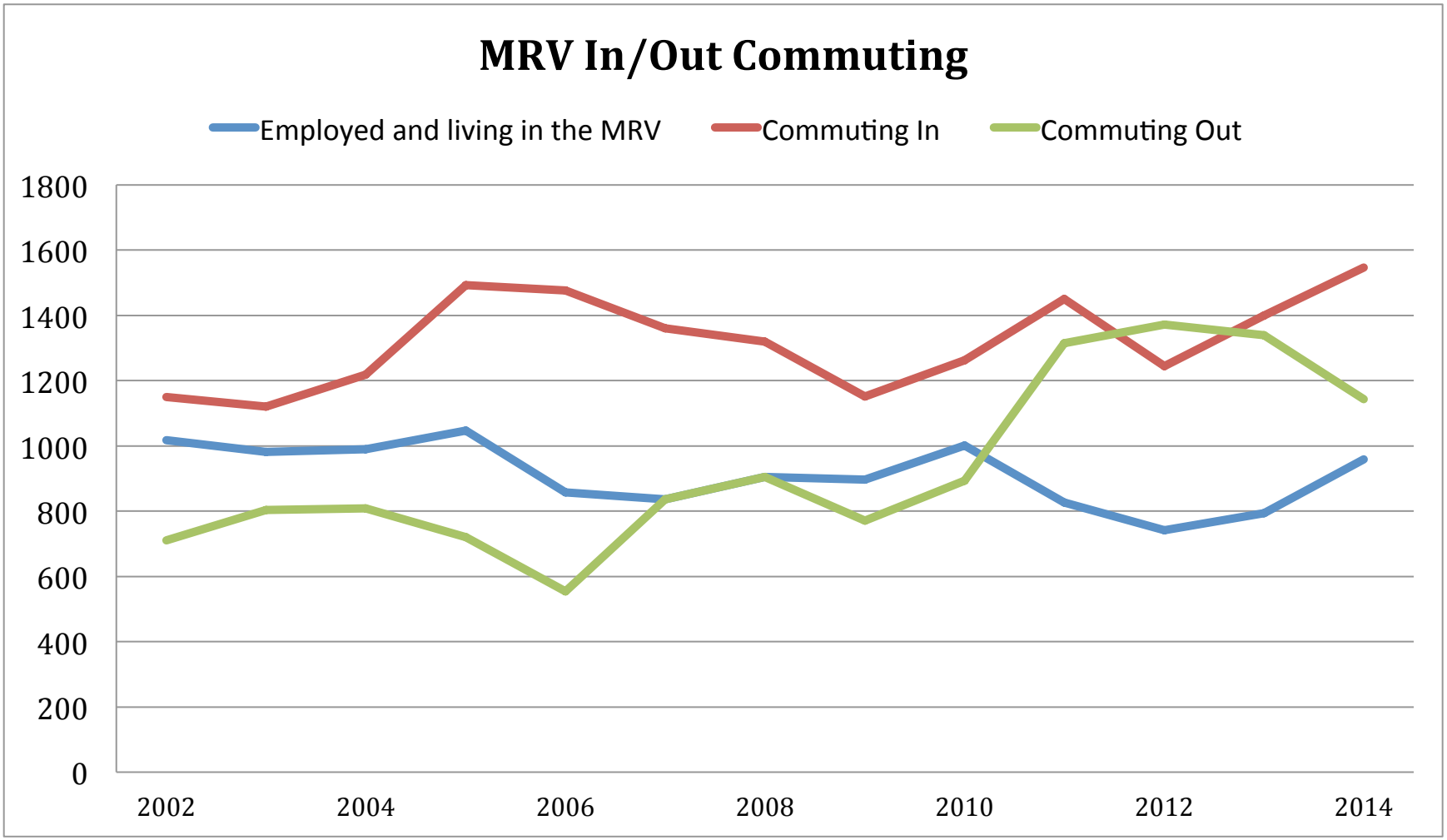


FIGURE 39- SOURCE: U.S. CENSUS, ON THE MAP

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 north of 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. **Figure 40 & 41** describe the Average Annual Daily Traffic (AADT) from 1997 to 2015. AADT is the total volume of traffic on a highway segment for one year divided by the number of days in the year.

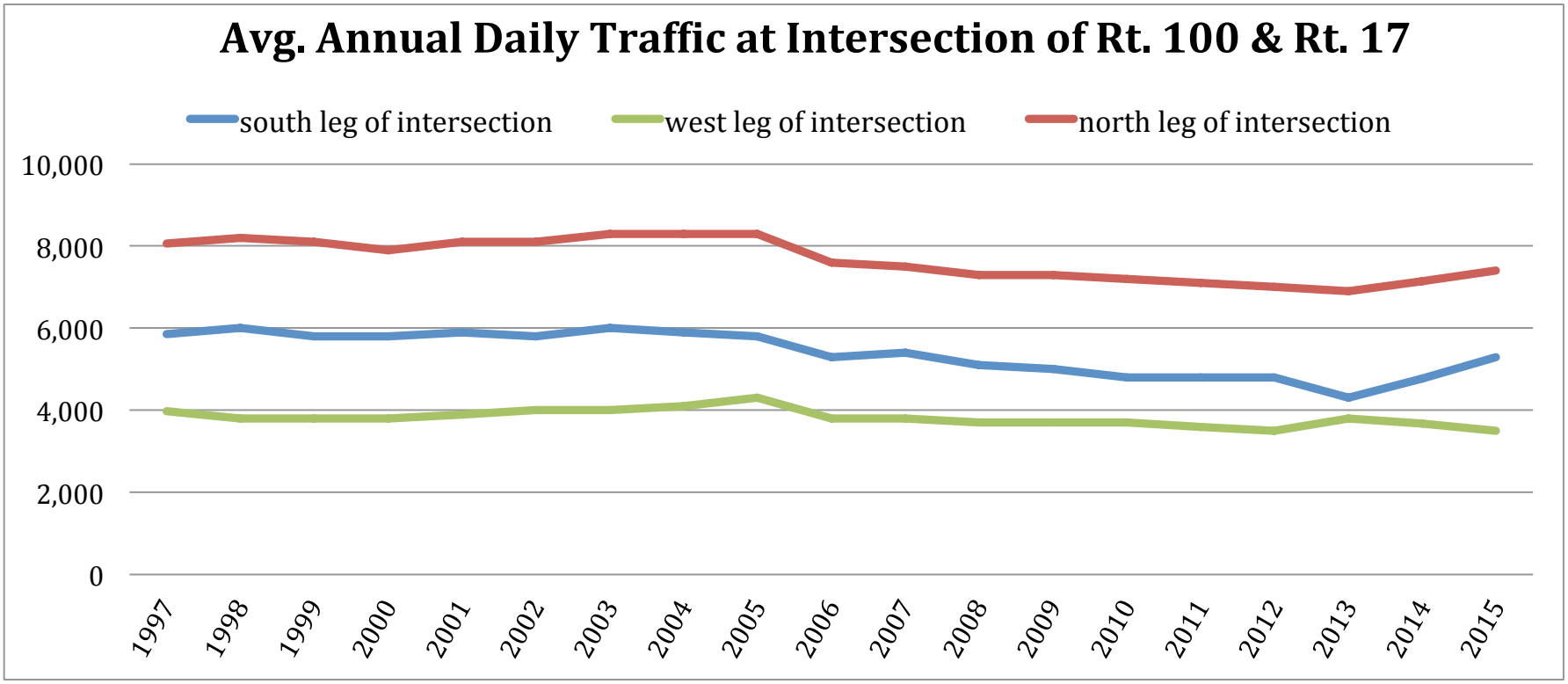


FIGURE 40- SOURCE: VTRANS

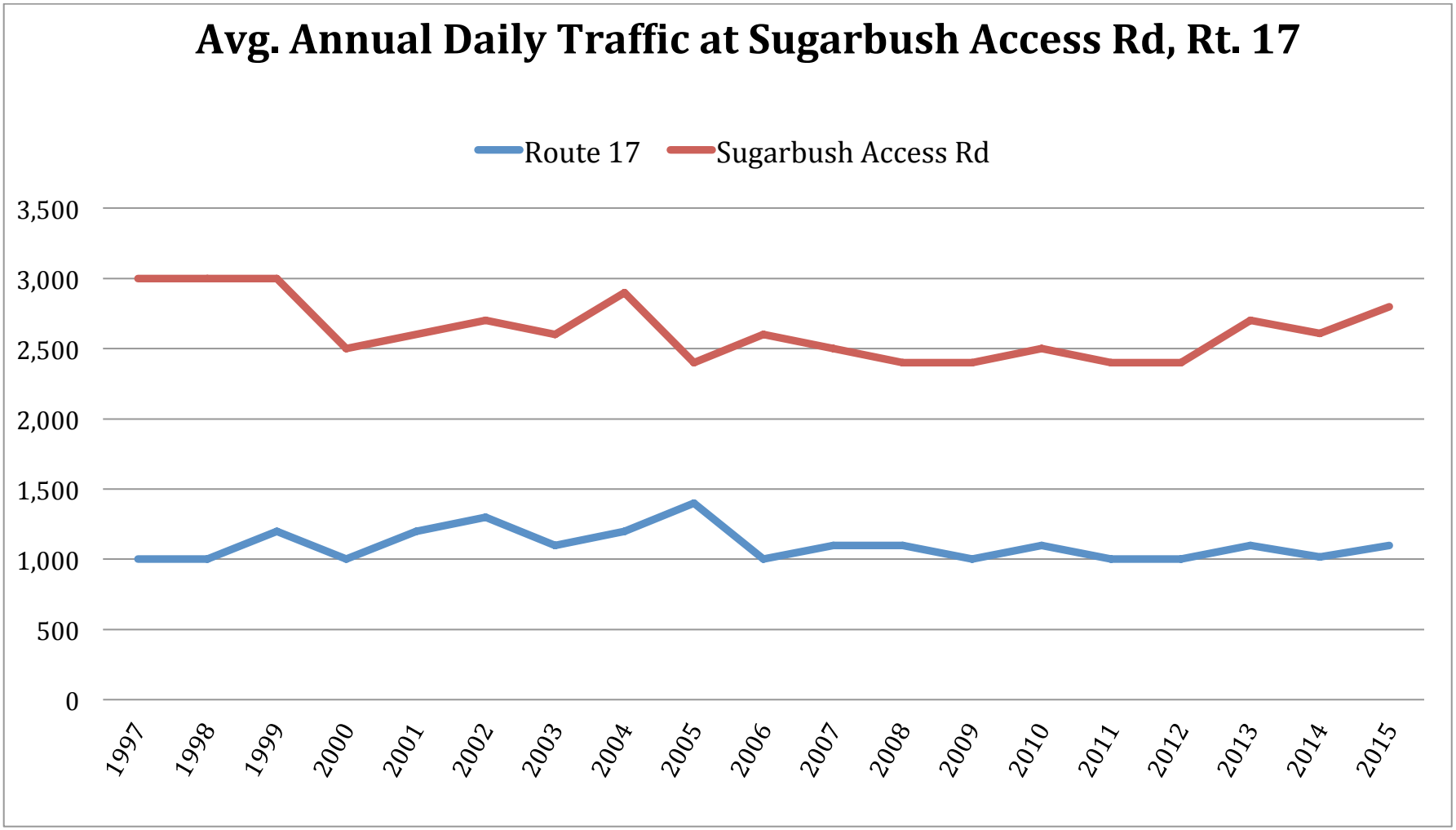


FIGURE 41- SOURCE: VTRANS

During the 1990s, Sugarbush Access Road experienced higher traffic counts, whereas more recent annual vehicle trips have settled lower. However, 2015 traffic volumes on the Access Road are closer to 2004 volumes than they have been in 10 years. 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; since that time traffic volumes have been relatively stable.

TRANSIT

Green Mountain Transit (GMT) began operating service in the Mad River Valley in late 2003 under the name Mad Bus. Year-round service of 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 winter season service (Nov-March) due to low ridership. The **Figure 42** below shows ridership between FY2003 - FY2016. GMT operated 6 Mad Bus routes during the 2015-16 season, all free-of-charge except the SnowCap Commuter. The 2015-2016 season shows a 30% drop in ridership compared to the previous season, reflecting similar decreases in skier visits.

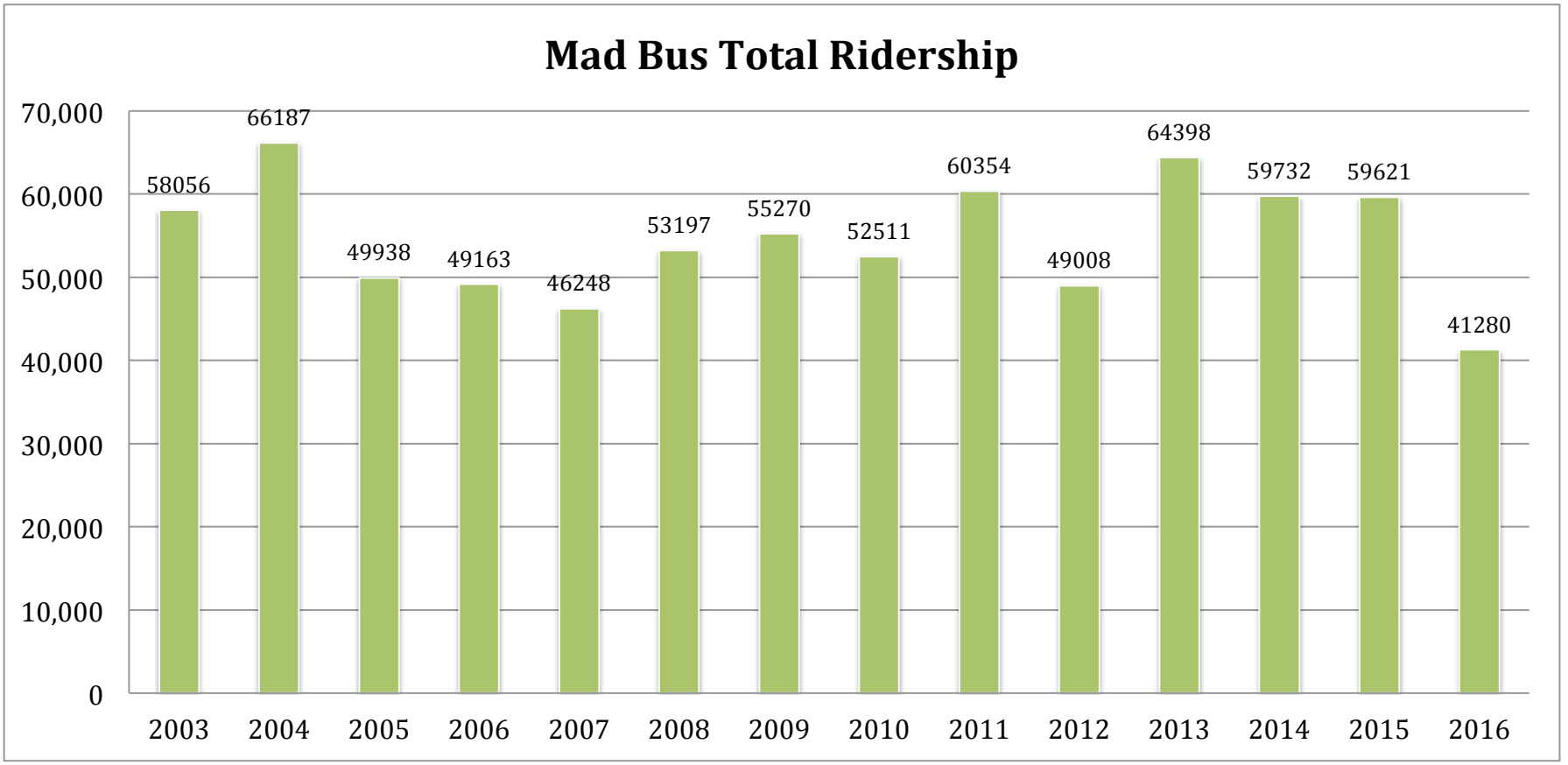
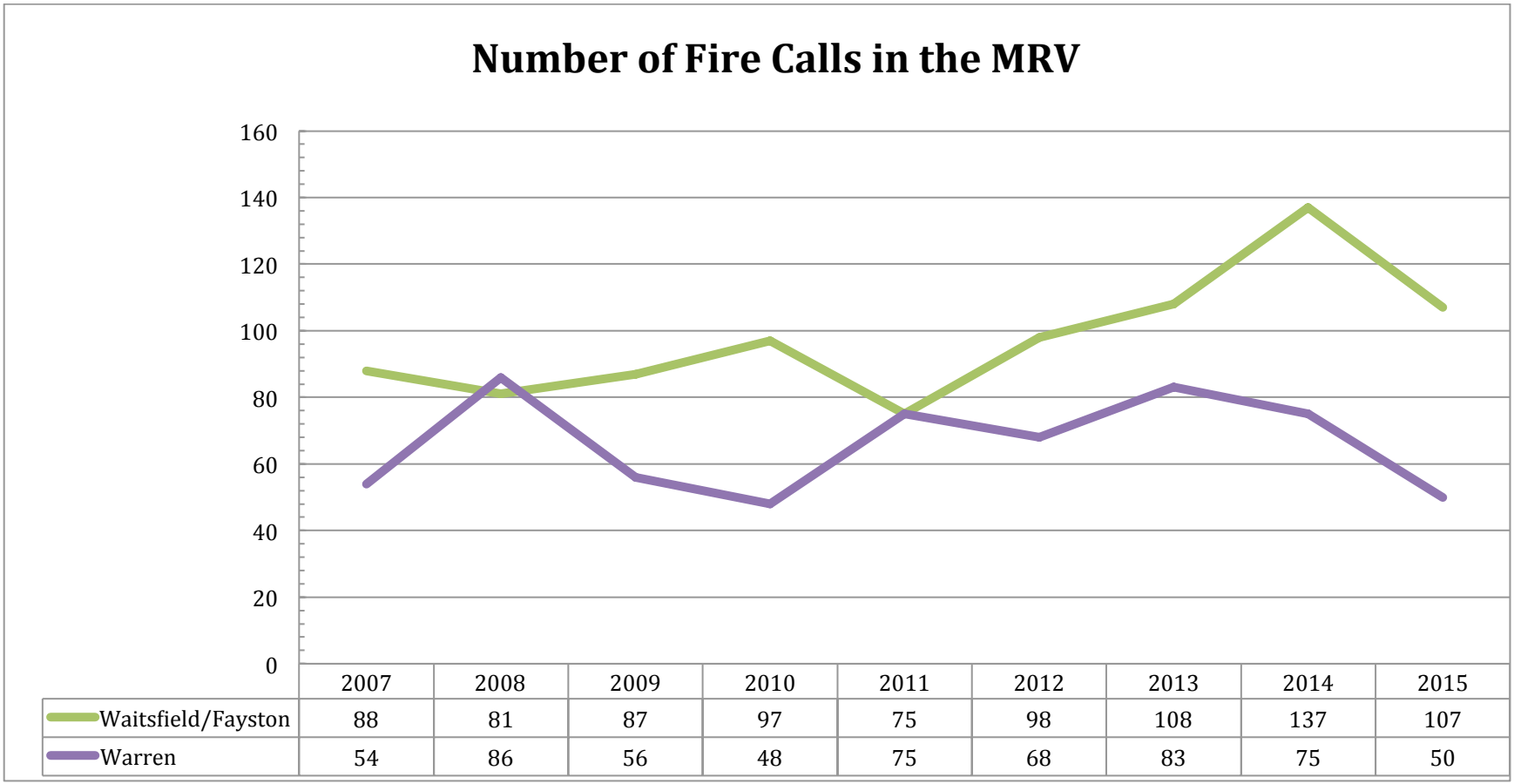


FIGURE 42- SOURCE: GREEN MOUNTAIN TRANSIT (GMT)

SECTION V: TOWN INFRASTRUCTURE

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

EMERGENCY SERVICE



	2007	2008	2009	2010	2011	2012	2013	2014	2015
Waitsfield/Fayston	88	81	87	97	75	98	108	137	107
Warren	54	86	56	48	75	68	83	75	50

FIGURE 43- SOURCE: WAITSFIELD-FAYSTON & WARREN FIRE DEPARTMENTS

Emergency call activity shows a reduction in the number of calls in Waitsfield/Fayston for 2015 and a decrease in Warren over the previous two years in **Figure 43.**

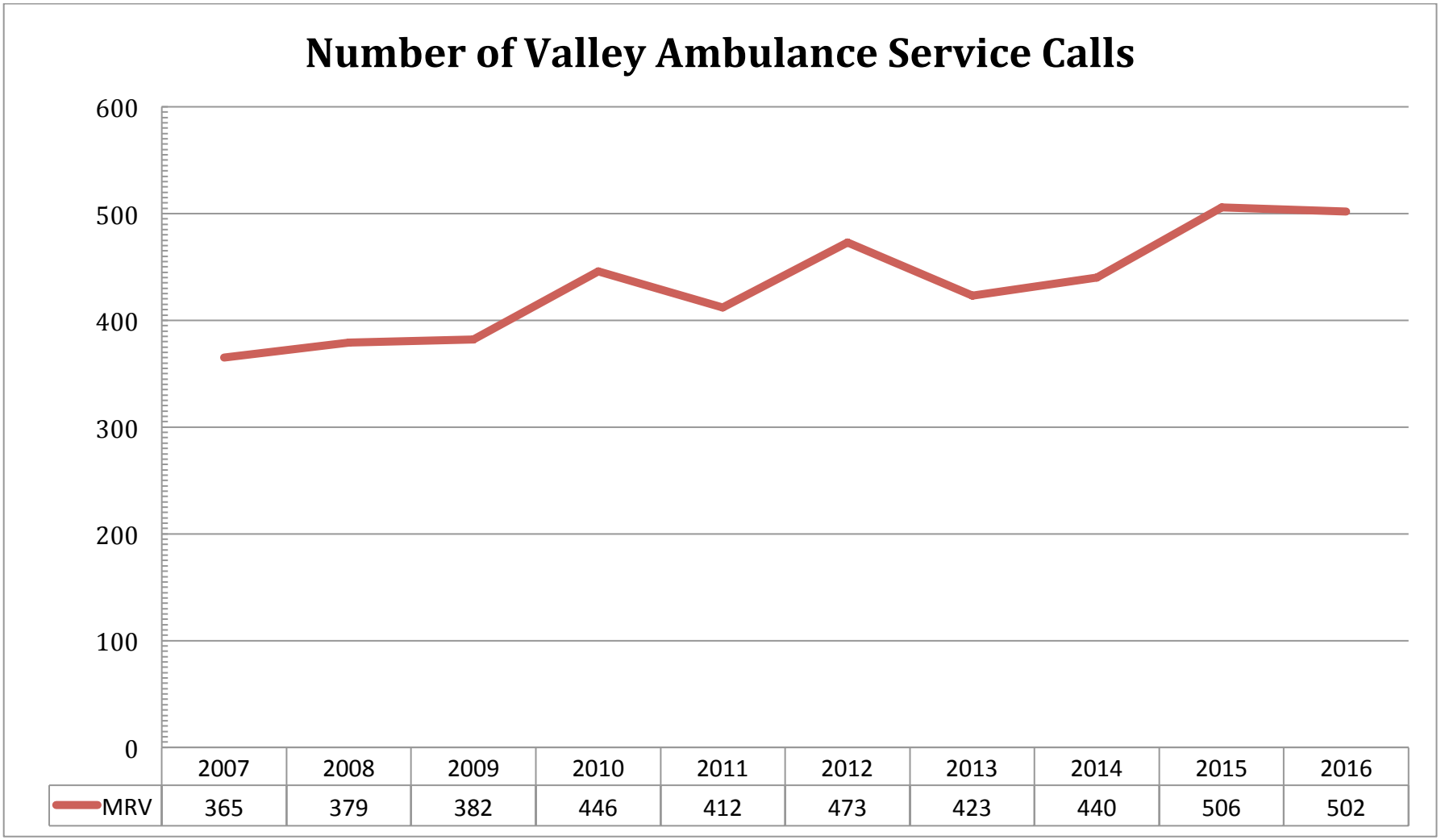
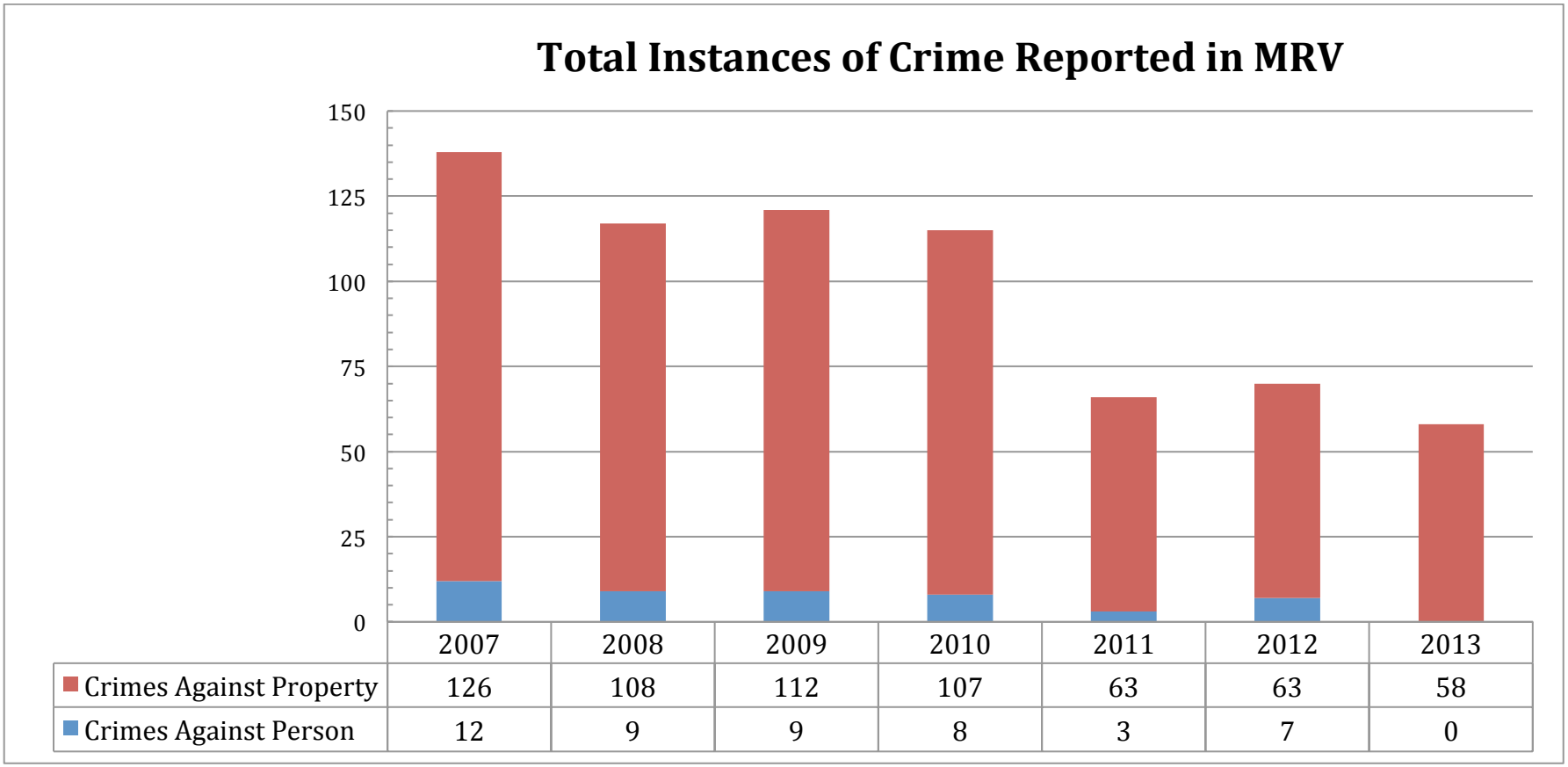


FIGURE 44- SOURCE: MAD RIVER VALLEY AMBULANCE SERVICE (MRVAS)

In 2016, Mad River Valley Ambulance Service (MRVAS) provided data on the total of MRV calls, 502, showing a small decrease over the previous year as shown in **Figure 44**. Overall, ambulance calls have trended up since 2007.

CRIME

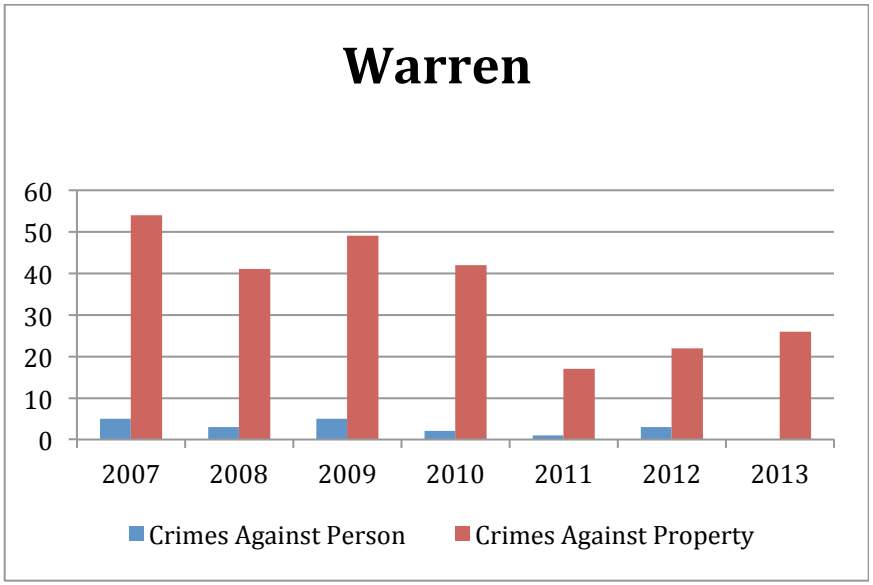
Figure 45 shows that the number of crimes has steadily fallen over the last decade across all three towns, as reported by the Vermont Criminal Information Center. In 2013, the most recent year for which data is available, confirms this trend. See next page for info by town. [9]



	2007	2008	2009	2010	2011	2012	2013
Crimes Against Property	126	108	112	107	63	63	58
Crimes Against Person	12	9	9	8	3	7	0

FIGURE 45- SOURCE: VT DEPT. OF PUBLIC SAFETY, VT CRIMINAL INFO CENTER

[9] Crimes against property include arson, bribery, burglary, embezzlement, vandalism, theft, and drug violations. Crimes against person include murder, kidnapping, robbery, rape, and assault.


Warren
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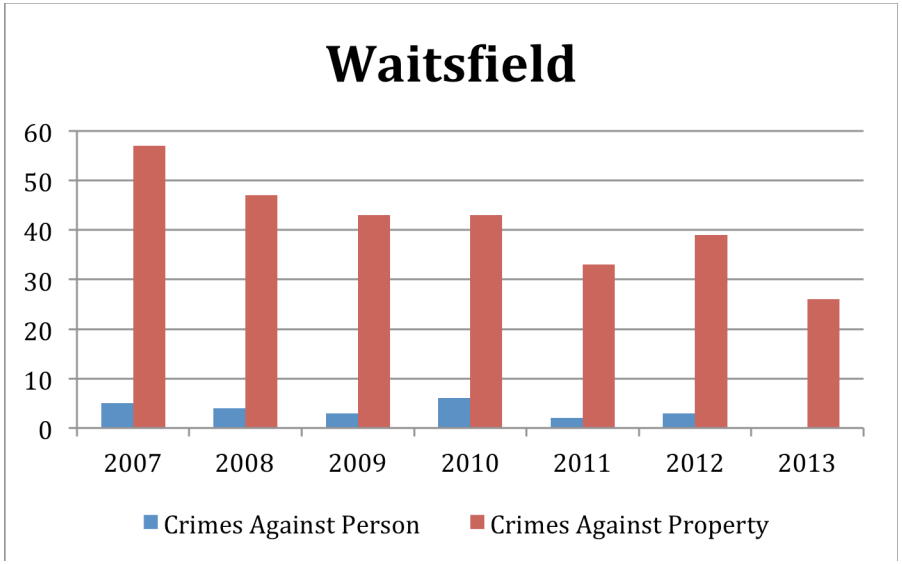
Crimes Against Person
Crimes Against Property


Waitsfield
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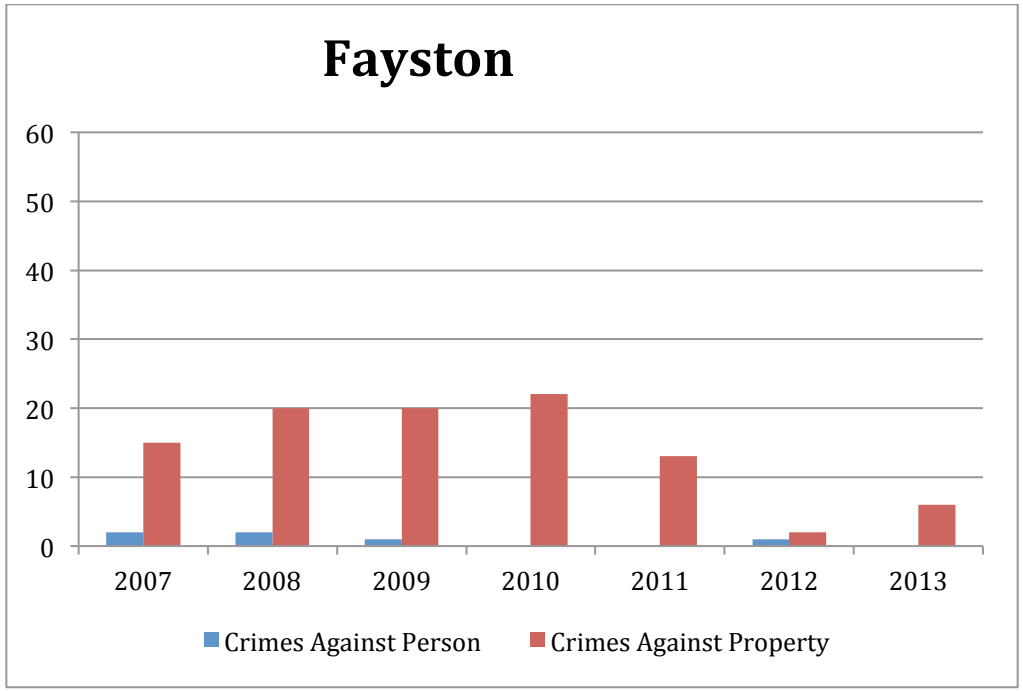
Crimes Against Person
Crimes Against Property


Fayston
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Crimes Against Person
Crimes Against Property

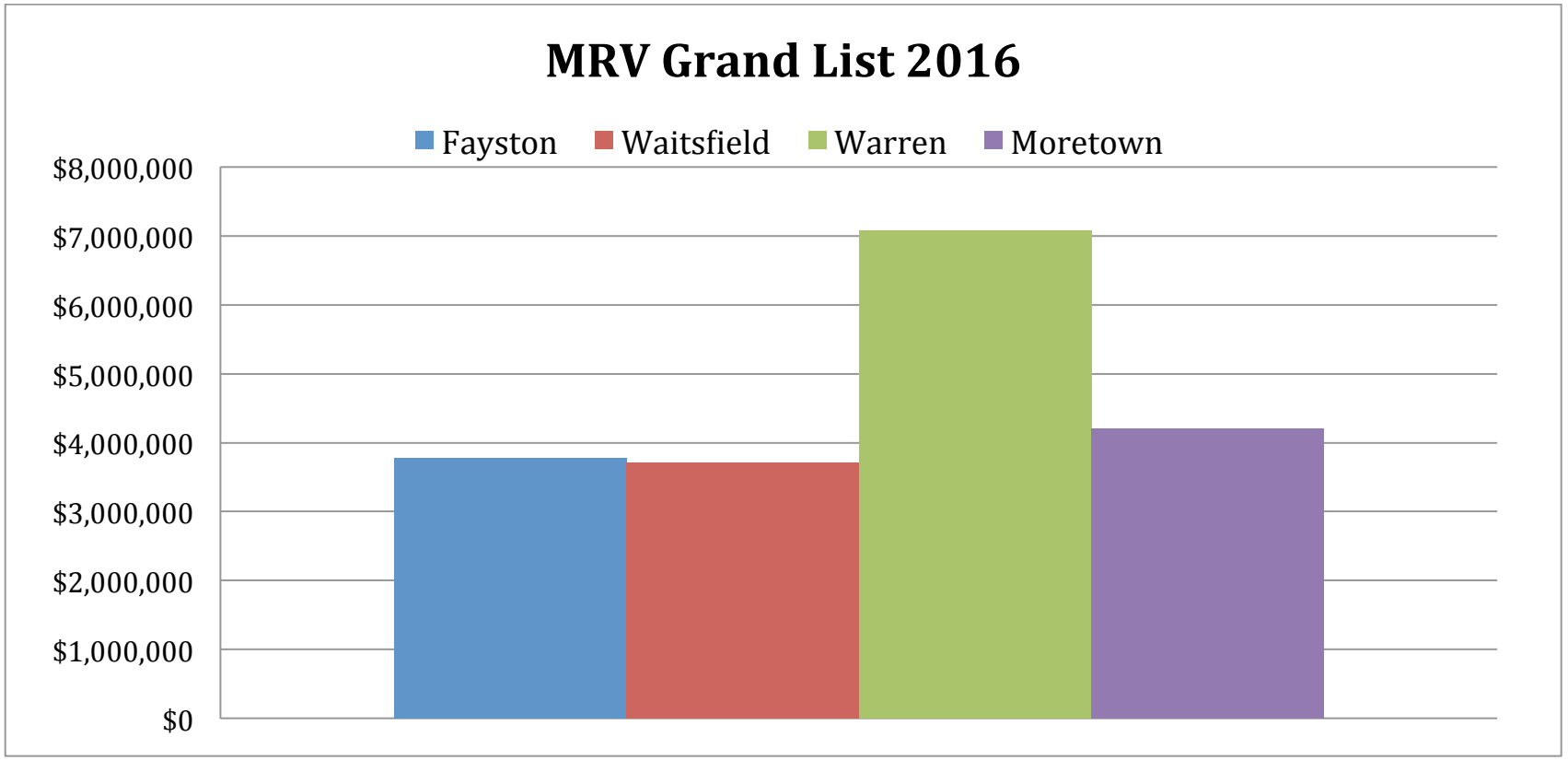


FIGURE 46- SOURCE: TOWNS OF FAYSTON, WAITSFIELD, WARREN, & FAYSTON

2016 Tax Rates				
	Homestead Tax Rate	Municipal Tax Rate	Non-Residential Tax Rate	Common Level of Appraisal
Fayston	1.5710	0.2203	1.4610	104.65%
Waitsfield	1.5419	0.3596	1.4292	100.44%
Warren	1.5400	0.4922	1.5000	100.33%
Moretown	1.7180	0.2629	1.4880	103.33%

SECTION VI: ENVIRONMENT

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

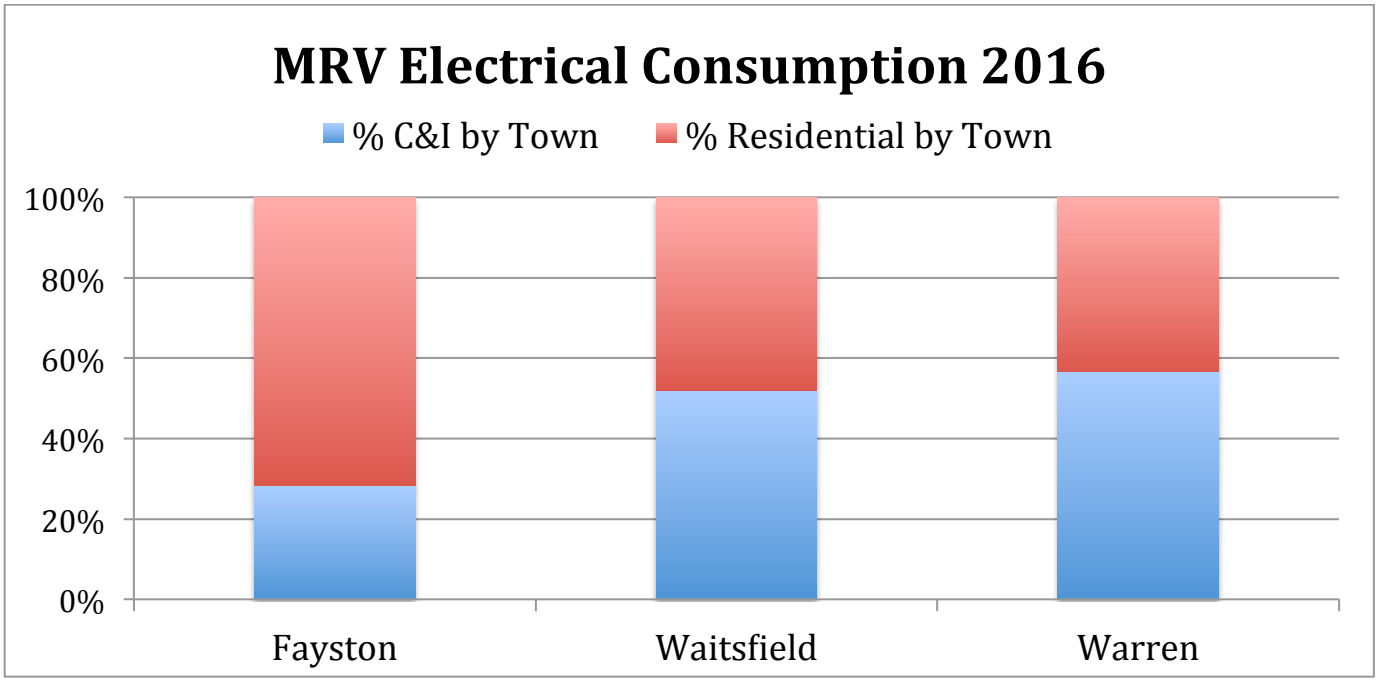
ENERGY

The table below identifies MRV energy consumption in 2016 in terms of electricity use. Electrical consumption data was provided directly by Green Mountain Power (GMP), but it does not include a small portion of Fayston that is serviced by Washington Electric Cooperative (WEC).

The chart below details the breakdown between residential electrical versus commercial & industrial consumption by town. The MRV's total annual consumption by commercial/industrial (52%) and residential (48%) customers is nearly equal. Of the three towns, Warren usage is the highest, at almost twice that of Waitsfield in both categories.

MRV Electrical Consumption (2016)						
	Residential (MWh)		Commercial & Industrial (MWh)		Total (MWh)	% of Total
FAYSTON	3,924	16%	1,551	6%	5,475	10%
WAITSFIELD	7,146	29%	7,734	28%	14,880	28%
WARREN	13,820	56%	18,128	66%	31,949	61%
Total MRV	**24,891**	**100%**	**27,413**	**100%**	**52,304**	**100%**

Waitsfield and Warren have similar splits between residential and commercial customers; Fayston is primarily residential. Overall electrical energy consumption is depicted in **Figures 47 & 48** on the following page, showing a downward trend since 2008.



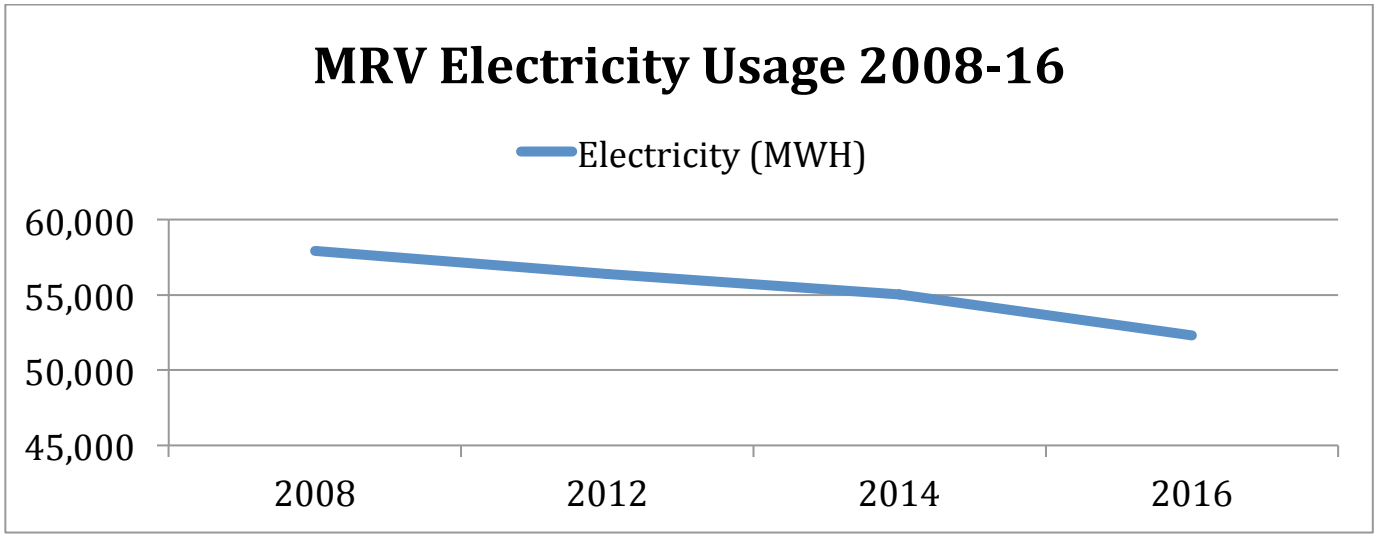


FIGURE 47 & 48- SOURCE: GMP

Sugarbush Resort's monthly peak energy demand for the 2015-2016 season indicates the startup of snowmaking in November as it did during the previous season, but with decreased energy use in **Figure 49** below. Peak demand decreased from the previous year in both December and January with an increase in February. There was no snowmaking in March. The peak use figures indicate that, despite the increased snowmaking that occurred during the 2015/2016 season, energy use is down over the last two years. This is likely due to the improved energy efficiency of upgraded snowmaking infrastructure recently installed at Sugarbush Resort, as well as updated building and site lighting and motor/pump upgrades.

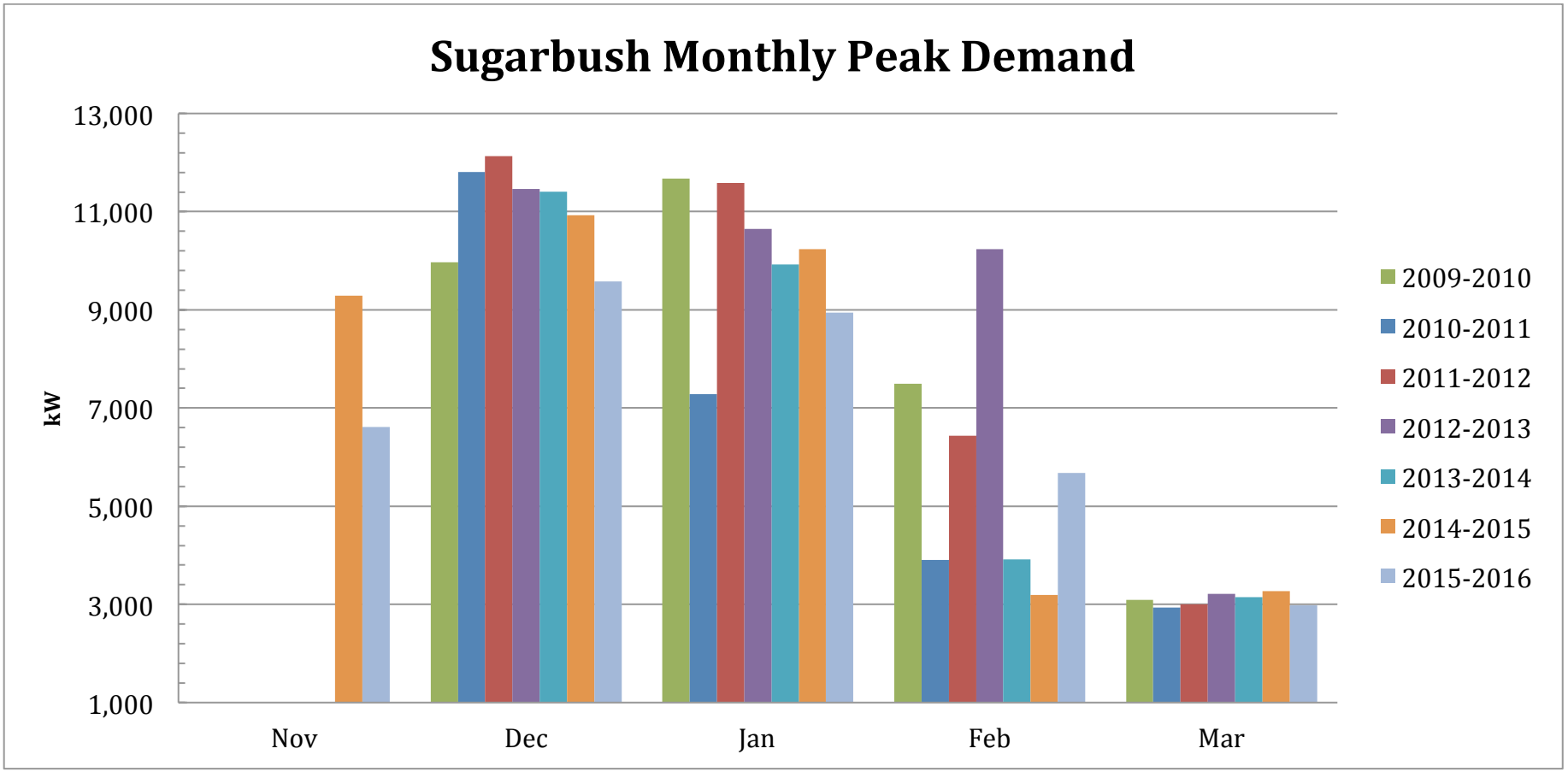


FIGURE 49- SOURCE: SUGARBUSH RESORT

WATER QUALITY

Since 1985, 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 per Vermont Water Quality Standards is no more than 77 colonies of *E.coli* per 100 mL water. Statewide, 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." The impact of severe rainfall events is evident in 2010 can be seen in **Figure 50** below. 2015 saw increases at more than half of the testing sites compared to the previous year.

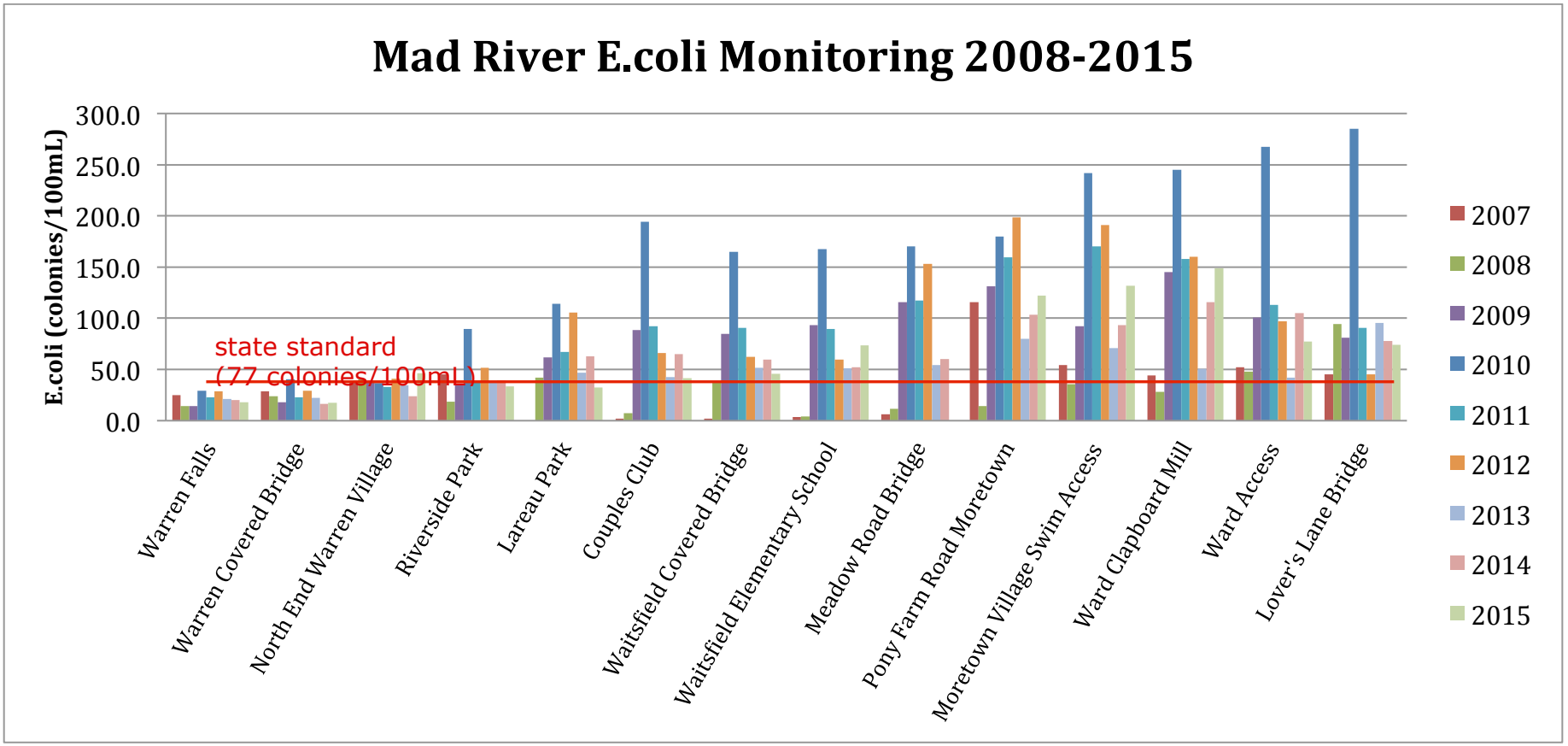


FIGURE 50- SOURCE: FRIENDS OF THE MAD RIVER

LAND CONSERVATION

The Mad River Valley was one of the first communities in Vermont that considered its conservation goals in concert with its objectives for development and economic growth. Beginning in the late 1980s, the MRVPD joined together with the Vermont Land Trust to advance and support the conservation of working farms, riparian lands, swimming holes and recreational trails, and forests for public enjoyment and ecological health. The Mad River Valley towns represented by the Mad River Valley Planning District encompass 68,544 acres. Approximately 8,416 acres (12% of the total land area in the 3 towns) of municipal, state and private land are protected by conservation easements. The State of Vermont or the U.S. Forest Service owns an additional 7,193 acres of public land in the MRVPD towns. The Town of Warren also owns several additional parcels used for public recreation/open space purposes, including the 78-acre Eaton Parcel and the 5-acre Riverside Park.

2016	Total Acres	State/Federal Land	Municipal Conserved	Privately-owned Conserved	Total Conserved or State/Federal Ownership	% of Town Conserved or State/Federal Ownership
Fayston	24,192	2,998	73	1,914	4,985	20%
Waitsfield	16,960	550	696	1,212	2,458	14%
Warren	27,392	6,995	0	1,253	8,248	30%
Three Town Total	68,544	10,543	769	4,379	15,691	23%