

MAD RIVER VALLEY

2023 ANNUAL DATA REPORT










Acknowledgments

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

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Cover Photograph: Kasara Gage.

TABLE OF CONTENTS

	INTRODUCTION	4
	MAD RIVER VALLEY PLANNING DISTRICT BACKGROUND	5
	SECTION I: COMMUNITY	6
	POPULATION	6
	COMMUNITY & SOCIAL SERVICES	17
	HOUSING	20
	SECTION II: ECONOMICS	41
	TOURISM & HOSPITALITY	41
	RETAIL SECTOR	47
	SKIER VISITS	50
	SECTION III: EMPLOYMENT	54
	INDUSTRIES	56
	WORKER FLOW	64
	SECTION IV: TRAFFIC & TRANSIT	66
	ANNUAL TRAFFIC SUMMARY	66
	TRANSIT	68
	SECTION V: TOWN INFRASTRUCTURE	70
	EMERGENCY SERVICES	70
	CRIME	71
	SECTION VI: ENVIRONMENT	73
	ENERGY	73
	WATER QUALITY	77
	LAND CONSERVATION	78



INTRODUCTION

This report was prepared by the Mad River Valley Planning District to provide information for community use and planning purposes, as well as address requirements of its [1998 Memorandum of Understanding](#) (MOU). Information used in this report was publicly available, except where noted. Sugarbush Resort provided data in compliance with the MOU. This report utilizes the most recent data available as of July 2023, which includes both the 2021 calendar year and 2022 data where available. For much of the U.S. Census Bureau data, we prioritized Decennial Census years in order to minimize the margin of error. American Community Survey data can have high variances for small communities such as our own and was avoided when possible. Depending on the category of our report, the most recent and complete data available may be from 2020, 2021 or 2022, based on source availability. This report was finalized in September 2023.

In 2015, the Mad River Valley Vision Statement was developed by the community through a participatory process, drawing from each of the Town Plans, historic visioning processes, in-depth research and data, and direct input from residents to genuinely reflect the values and priorities of the MRV. The 2023 Data Report aims to build off of the MRV Vision Statement to improve the connection between historical community trends and where the community wants to go. *The Mad River Valley is an innovative, vibrant, connected and caring community honoring its past, celebrating its landscape and actively pursuing its potential. Our vision is to...*

- Be a welcoming community that builds a healthy and sustainable environment.
- Support the historic settlement pattern of vibrant villages surrounded by rural countryside.
- Identify and promote the Valley's historic and cultural heritage.
- Promote and maintain a diverse economy that supports existing businesses and attracts new ones.
- Enhance the Valley's year-round recreational opportunities.
- Invest in a safe, environmentally friendly, efficient, and integrated transportation network.
- Provide access to safe, affordable and energy efficient housing for current and prospective residents.
- Steward and sustainably use the Valley's natural resources & environmental quality for the benefit of future generations.

Mad River Valley Planning District Background

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 is staffed by an Executive Director and a 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.



Agreement to Create the Mad River Valley Planning District

An Agreement by and between: Town of Fayston, Town of Waitsfield, and Town of Warren, Vermont.

WHEREAS, the Towns of Fayston, Waitsfield and Warren, Vermont share a common interest in planning for the future of the Mad River Valley; and

WHEREAS, the Mad River Valley is served by an areawide watershed, roadway network, commercial center and recreation industry; and

WHEREAS, the Towns have allotted funds to participate in an areawide planning program since 1979; and

WHEREAS, the Towns joined together in a Memorandum of Understanding with other parties in 1983 to monitor major development in the Mad River Valley through 1992; and

WHEREAS, 24 VSA Chapter 121 provides that municipalities may form a union municipal district for cooperation in providing services and facilities in a manner and under a form of organization that accords best with the needs of those municipalities;

NOW, THEREFORE, it is agreed to create a union municipal district to be known as the **MAD RIVER VALLEY PLANNING DISTRICT**, to be a municipal corporation under the laws of the State of Vermont, and subject to the following Articles of Agreement.

ARTICLE I. PURPOSE

The purpose of the Mad River Valley Planning District (hereinafter "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 Towns of Fayston, Waitsfield and Warren (hereinafter "member Towns") and their inhabitants.

ARTICLE II. DURATION

The District shall be ongoing, unless terminated in accordance with Article IX within.



SECTION I: COMMUNITY

INCLUDES ITEMS #29, 30, 35 FROM THE MEMORANDUM OF UNDERSTANDING

POPULATION

The Mad River Valley (MRV)¹ towns of Warren, Waitsfield and Fayston are situated between the Green Mountains and the Northfield Range. This community, while somewhat secluded, remains linked to the more densely populated and bustling towns of Central Vermont and the Burlington area. While the MRV faces several challenges akin to many rural areas, the MRV is uniquely positioned to leverage its geographical ties. Key demographic indicators of the Mad River Valley such as population shifts, birth and death rates, school enrollment, and the age distribution of its inhabitants offer insights into the community's evolution and trajectory.



Images 1 & 2. Waitsfield Historical Society's Glass Plate Negative Collection

¹ For the purpose of this report, MRV, or Mad River Valley, specifically denotes the three member towns of the Mad River Valley Planning District (MRVPD): Fayston, Waitsfield, & Warren.

Figure 1 shows the combined population of the Mad River Valley from 1960 to 2020. While the largest rate of change was experienced within the three-town region between 1960 and 1990, the combined population of the MRV continued to grow from 3,440 to 5,185 residents between 1990 and 2020 (+51%). This far exceeds the growth rate of Washington County as a whole, which grew by 9% during this timeframe (1990 – 2020).

While all three towns (Warren, Waitsfield, & Fayston) have experienced steady growth over the last 30 years, the growth rate has slowed over the most recent period. Using Warren as an example, its population increased by 43% from 1990 to 2000, and 16% from 2010 to 2020. The other MRV towns follow a similar trend through the selected years.

Population of MRV Towns, 1960 - 2020

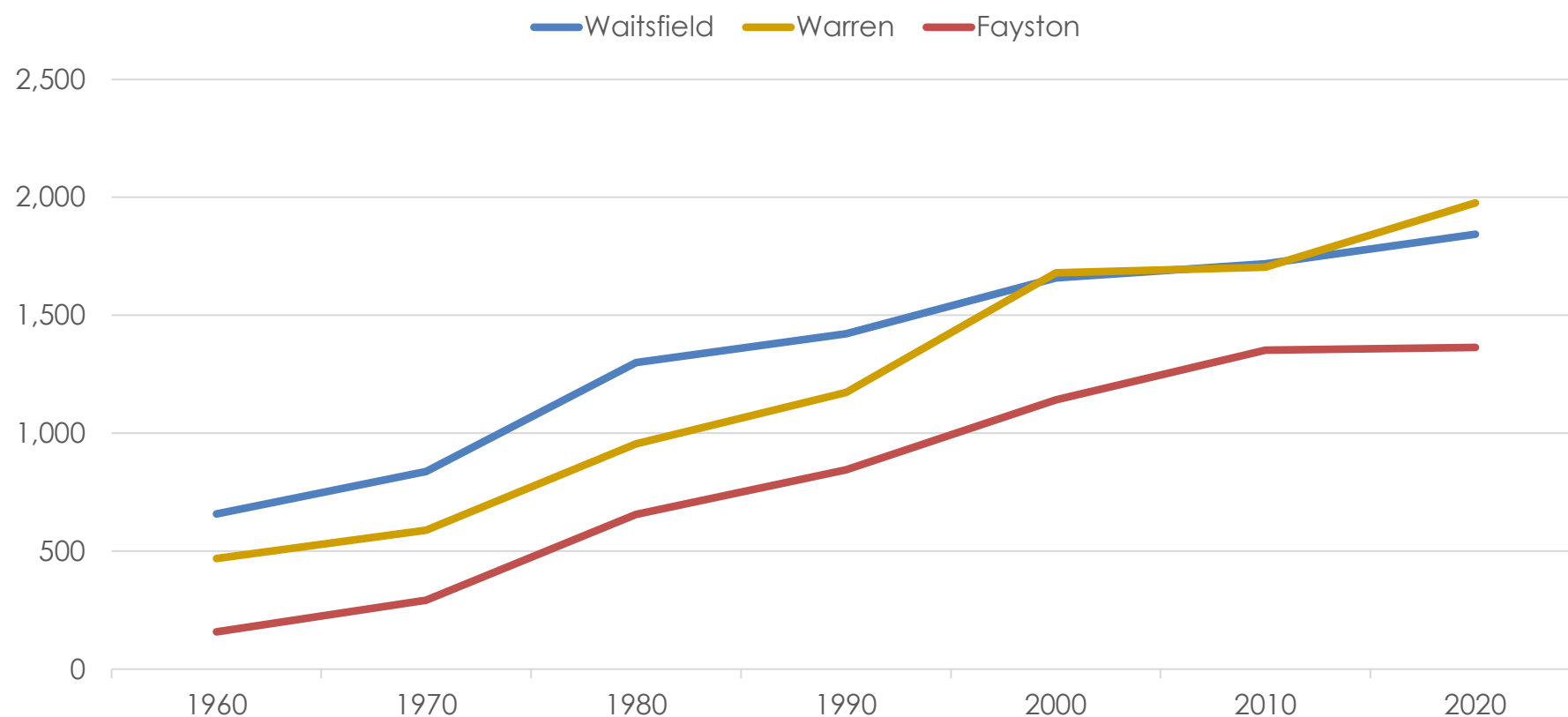
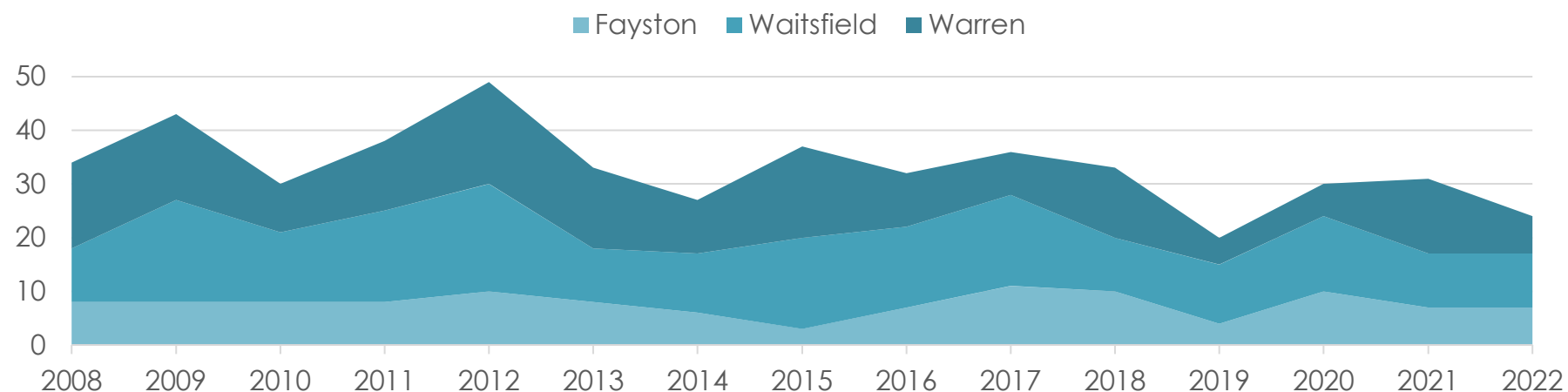


FIGURE 1. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figures 2 show birth and death numbers as recorded by municipal town clerks; the most recent data was collected as of June 1, 2023. There appears to be a cyclical pattern regarding births and deaths in the Mad River Valley. All three towns have a comparable number of each, and it is difficult to observe any consistent trend in the data.

MRV Births, 2008 - 2022



MRV Deaths, 2008 - 2022

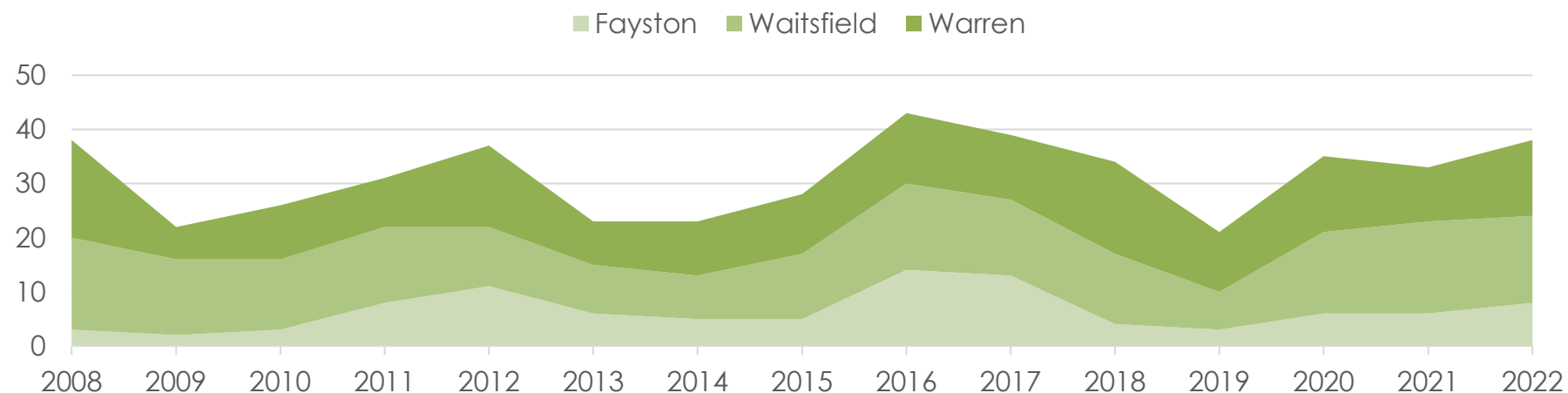


FIGURE 2. SOURCE: FAYSTON, WAITSFIELD, WARREN TOWN CLERKS

An increase or decrease in school enrollment can provide insight into demographic trends. As illustrated in **Figure 3**, total enrollment in the Harwood Unified Union School District (HUUSD) decreased by 16% between the 2009/10 and 2021/22 school years. During this period, the combined population of HUUSD Elementary Schools declined by 15%, the combined population of HUUSD Middle Schools declined by 10%, and Harwood Union High School declined by 22%. During the most recent years, 2020/21 and 2021/22, HUUSD Elementary Schools declined by 1%, the combined population of HUUSD Middle Schools declined by 6%, and Harwood Union High School declined by 1%. Three HUUSD schools experienced an increase in enrollment between 2020/21 and 2021/22: Waitsfield Elementary School (+2%), Fayston Elementary School (+30%), and Warren Elementary School (+5%).

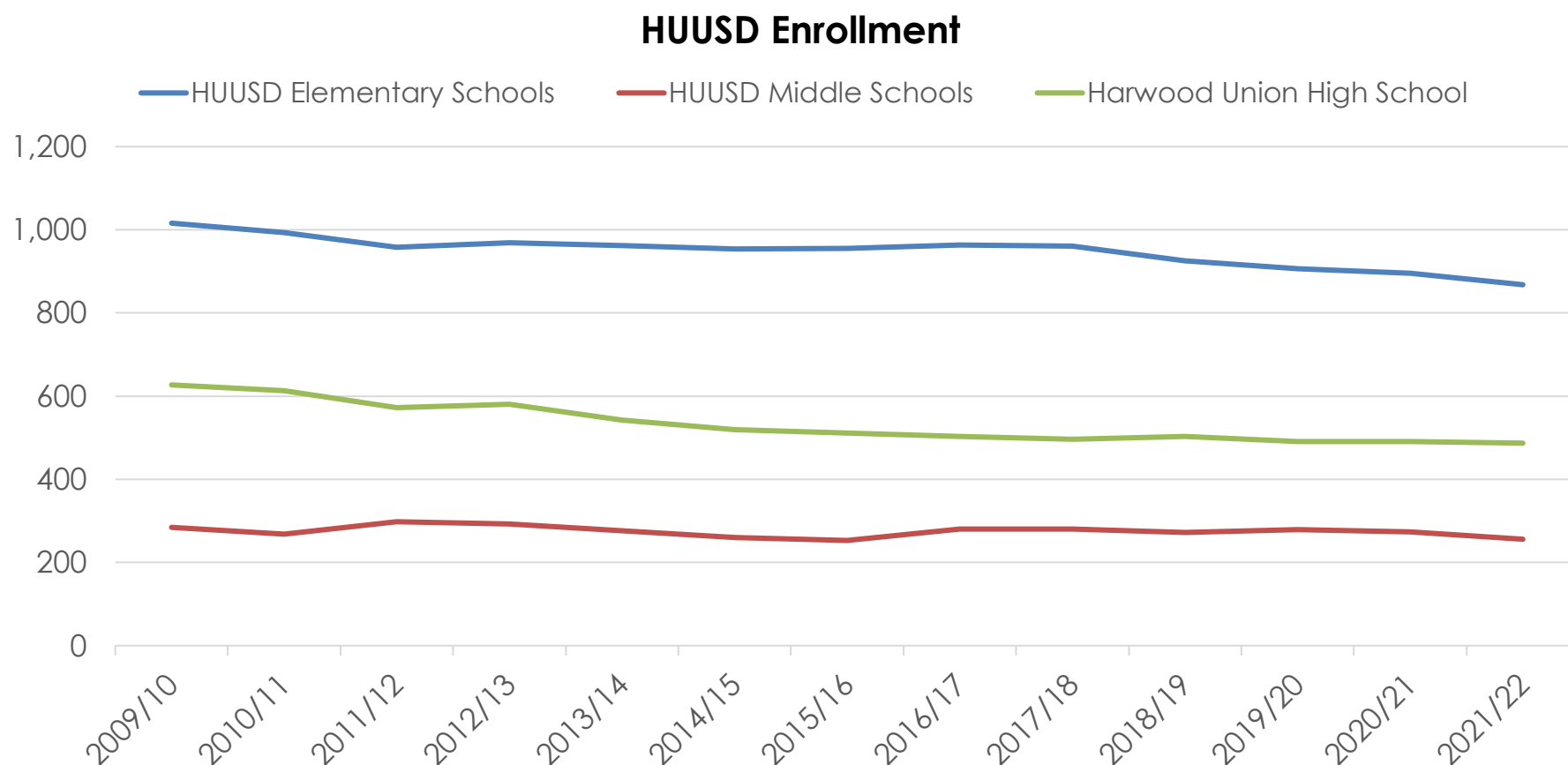


FIGURE 3. SOURCE: VT AGENCY OF EDUCATION ENROLLMENT

Figure 4 provides greater context for HUUSD enrollment trends, comparing them to Washington County and the State of Vermont. Enrollment for these three regions was indexed to the 2009/10 school year. Generally speaking, all three regions experienced a similar decrease in comparative enrollment between the 2009/10 and 2021/22 school years – HUUSD: 16%, Washington County: 11%, and Vermont: 11%. 7% of HUUSD's enrollment decrease occurred between 2017/18 and 2021/22. Similar decreases were experienced by Washington County (+8%) and Vermont (+6%) during this time period. Potential contributing factors are regional population age trends and the effects of the COVID-19 pandemic. Regardless of the cause, it is interesting to note that, generally, school enrollment has declined across all three regions over the last 13 years.

Comparative Indexed School Enrollment (K-12), 2009/10 - 2021/22

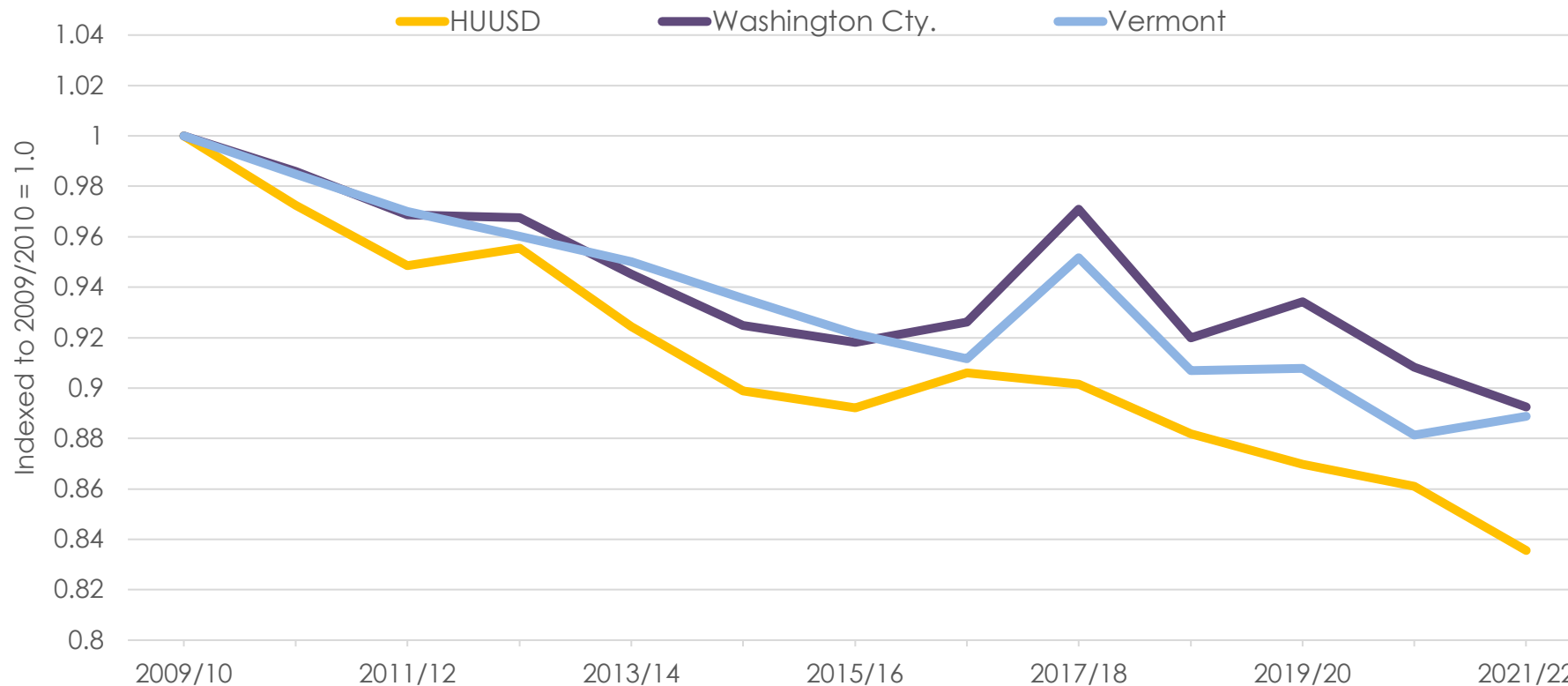


FIGURE 4. SOURCE: VT AGENCY OF EDUCATION ENROLLMENT REPORTS

Figure 5 shows the average class size of HUUSD elementary, middle, and high schools. The average class size was determined by dividing the total number of students in each group by the respective number of grade levels (e.g., Elementary School: 7 grades, Middle School²: 2 grades, & High School: 4 grades). By observing **Figure 5**, we learn that class size among HUUSD schools has remained relatively consistent since 2008. Class sizes vary between 1 – 15% each year, typically totaling to between 140 and 150 students per grade.

HUUSD Schools Average Class Size, 2007/08 - 2021/22

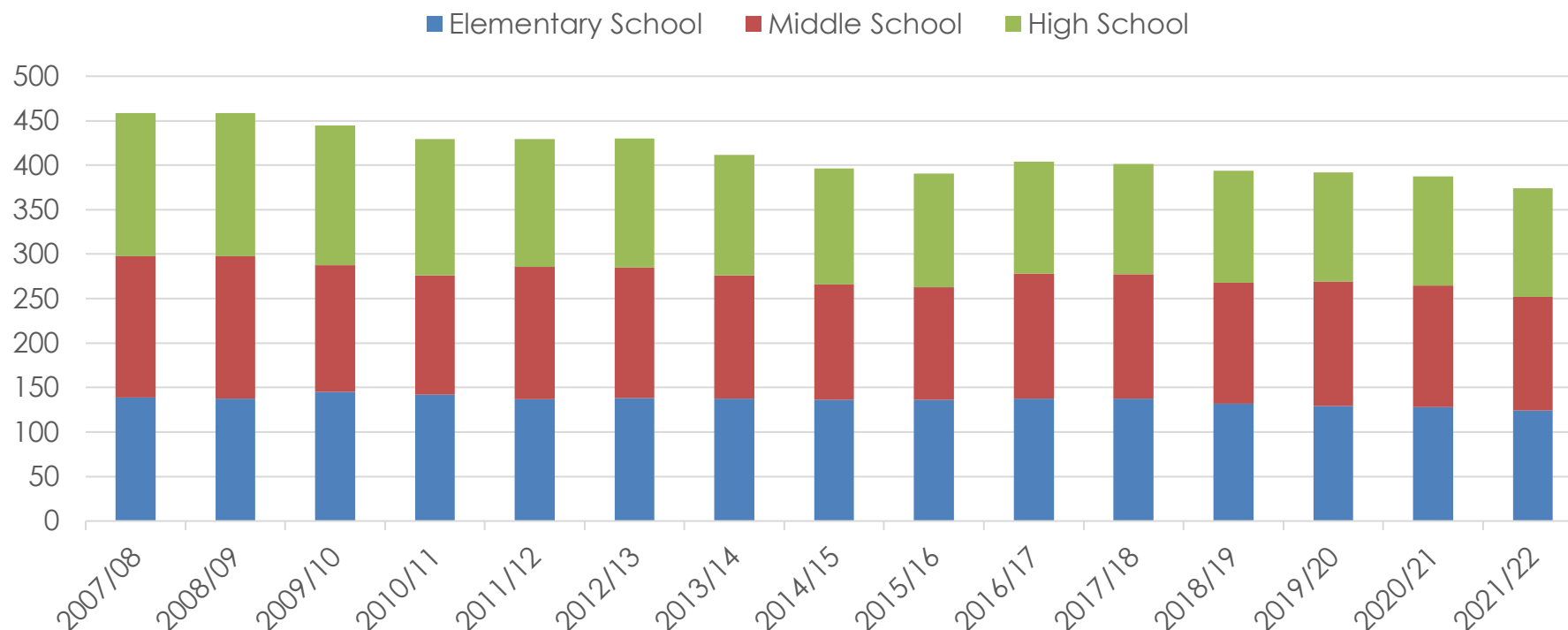


FIGURE 5. SOURCE: VT AGENCY OF EDUCATION ENROLLMENT REPORTS

² For the sake of consistency, Elementary grades were considered to be Kindergarten – 6th, Middle School 7th – 8th, and High School 9th – 12th. As such, Crossett Brook (5th – 8th) grade levels were split between Elementary and Middle School counts.

Figure 6 shows the average enrollment change by grade transition for seven HUUSD cohorts from kindergarten to high school graduation. The cohorts observed entered the district between the years of 2004 – 2010, and graduated between the years 2013 – 2022, making the total observed timeframe 2004 - 2022. This approach provides insight into which grades in the school district have experienced increases and/or decreases in enrollment.

Average Enrollment Change by Grade Transition for Seven HUUSD Cohorts, 2004 - 2022

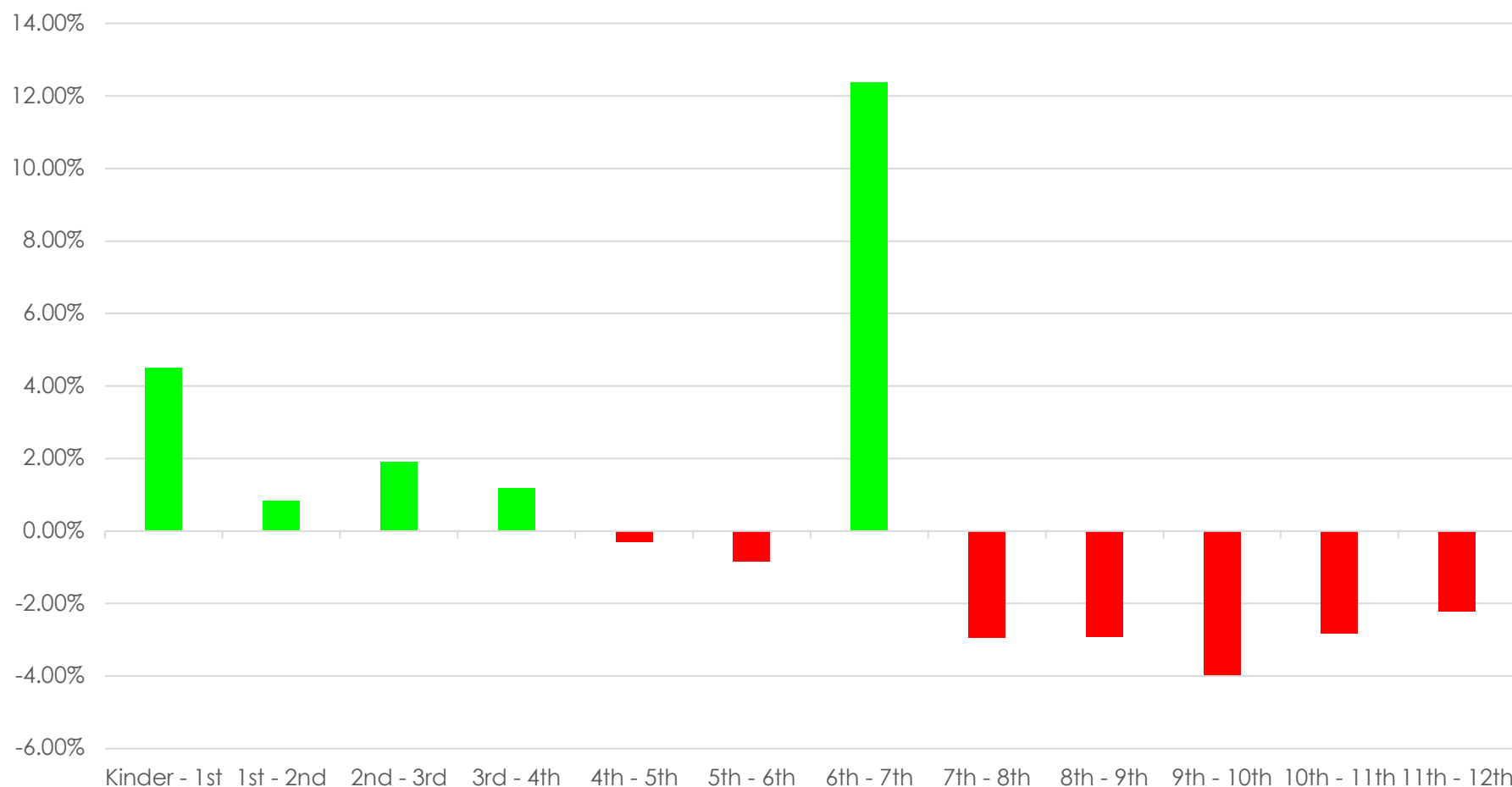


FIGURE 6. SOURCE: VT AGENCY OF EDUCATION ENROLLMENT REPORTS

Median age can provide important insight into the age distribution of a population. Median age illustrates a population's age 'midpoint,' meaning that there are an equal number of people younger and older than the median age. MRV towns have maintained a higher median age than Vermont and the nation as a whole for over 30 years. **Figure 7** illustrates Waitsfield, Fayston, and Warren's median ages between 1990 and 2020, which increased by 39%, 41%, and 54%, respectively. In the same timeframe, Vermont's median age experienced a 32% increase, while the US experienced 21% growth in its median age. It is interesting to note that while all regions observed are aging, the Mad River Valley is aging at a quicker rate. From 2010 to 2020, Waitsfield increased at a similar rate to Vermont and the US, all with a 5% jump in their median age, while Fayston and Warren's median age saw a 10% increase.

Median Age for MRV Towns as compared to VT & US, 1990 - 2020

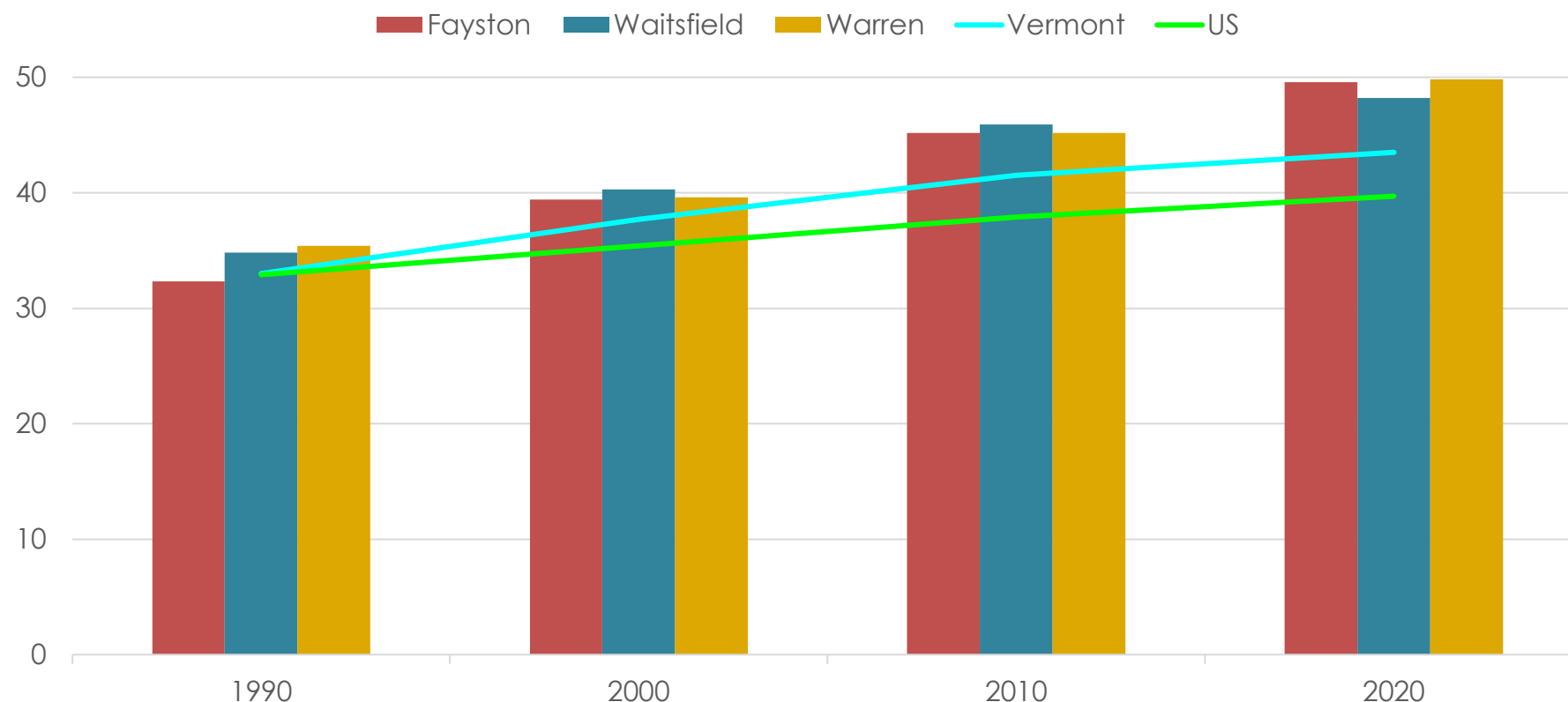


FIGURE 7. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 8 shows the Mad River Valley population by age group, using counts from the 2000, 2010, and 2020 Decennial Census. Between the years 2000 to 2020, the total Mad River Valley population increased by 16%.

From 2000 to 2020, the population over the age of 65 in the MRV increased by 12.7%. In Washington County and Vermont, the population over the age of 65 increased by 8% and 8.2%, respectively. This confirms that while all regions have been aging, the MRV has been aging at a quicker rate. Furthermore, from 2000 to 2020, the MRV population experienced a 3% decrease for those aged 25-34.

MRV Population by Age Group, 2000 - 2020

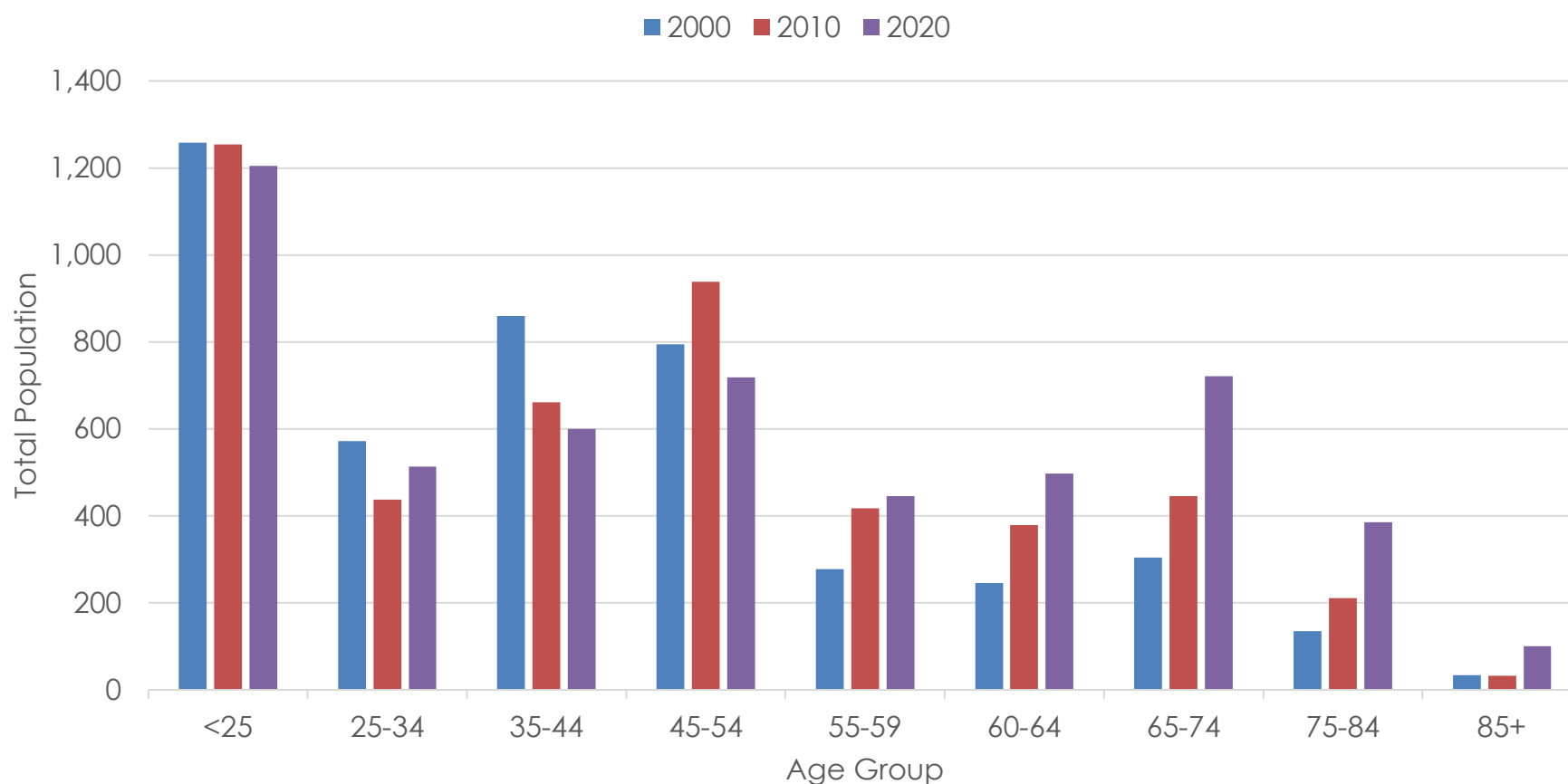


FIGURE 8. U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 9, Population Pyramid of MRV and Vermont, 2000 vs. 2020, visually illustrates how the distribution of the MRV population has changed over time. The pink (Vermont - 2000) and orange (MRV - 2000) dotted lines represent the population distribution as reported by the 2000 Decennial Census, while the solid blue and green blocks show the population distribution gathered during the 2020 Decennial Census. As seen in this figure, all age groups below the age of 55 have decreased in population, while all age groups above 55 have grown.

Population Pyramid of MRV and Vermont - 2000 vs. 2020

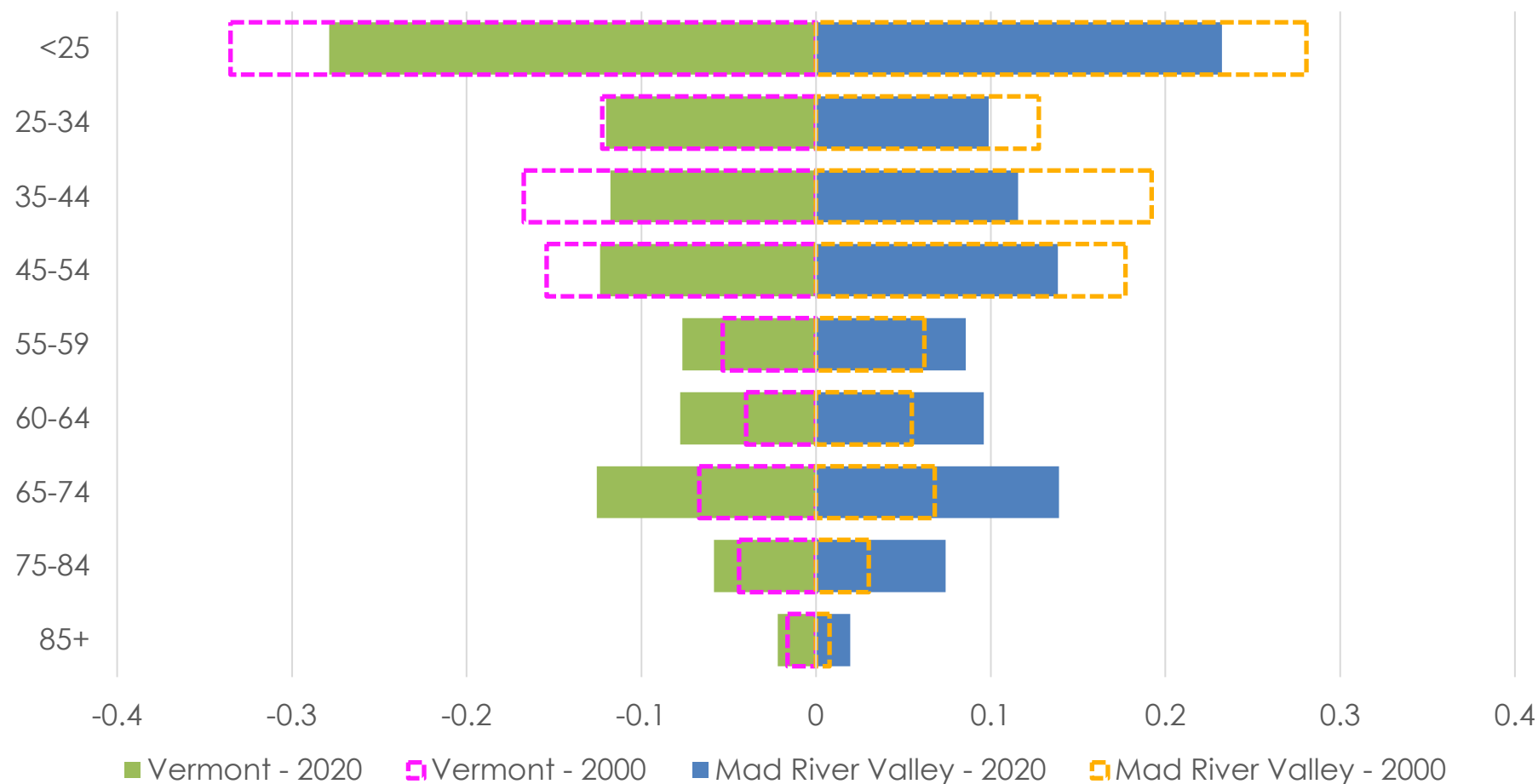


FIGURE 9. U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 10 shows the average household size by town from 1990 - 2020. By comparing the MRV towns to Washington County, we see that the MRV as a whole hasn't followed the regional trend of decreasing household size. From 1990 to 2020, Washington County's average household size decreased by 12%. In the same time period, Waitsfield's average household size decreased by almost double, down 22%, while Fayston and Warren's average household size increased by 1% and 11% respectively.

Household Size Over Time, 1990 - 2020

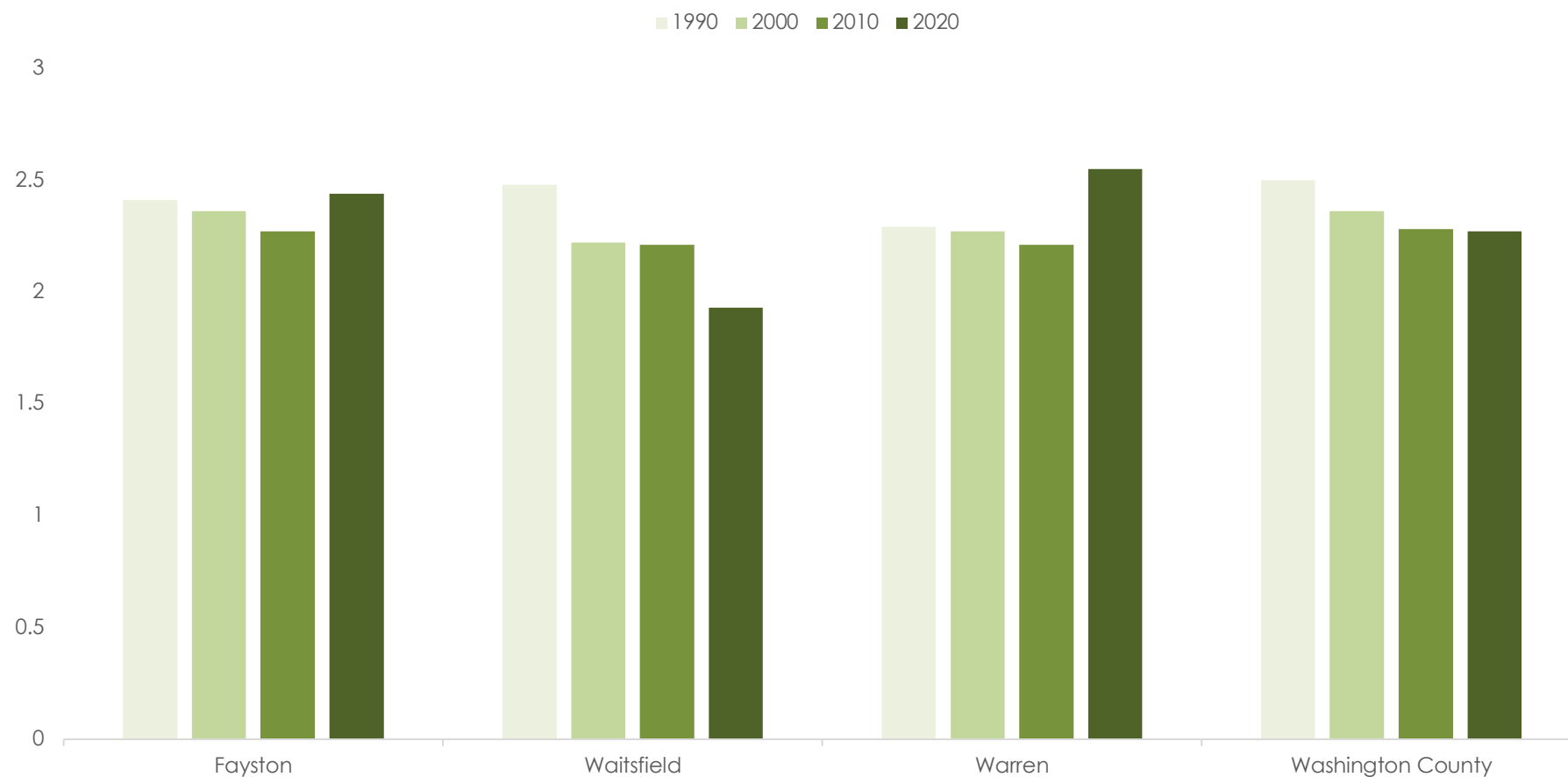


FIGURE 10. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

YEARS AFTER 2010 USE AMERICAN COMMUNITY SURVEY, TABLE B25010

COMMUNITY & SOCIAL SERVICES

The Mad River Valley hosts many community and social service organizations with missions directed toward improving the community's social and physical wellbeing. Community and social services data shed light on trends related to the critical needs of MRV residents, as well as the impact of those working to address them. The following data was contributed by the Mad River Valley Community Pantry and Mad River Valley Interfaith Council, providing insights regarding the persistent need for social services in the MRV.

The Mad River Valley Community Pantry, operated by the MRV Interfaith Council, is located at Evergreen Place in Waitsfield. The MRV Community Pantry tracks visitation by the number of households and the total number of individuals in each household served at monthly and quarterly intervals.

Looking at **Figure 11**, we see the number of quarterly visits typically increases over the summer and into fall.

Total MRV Community Pantry Visits by Quarter, 2016 - 2022

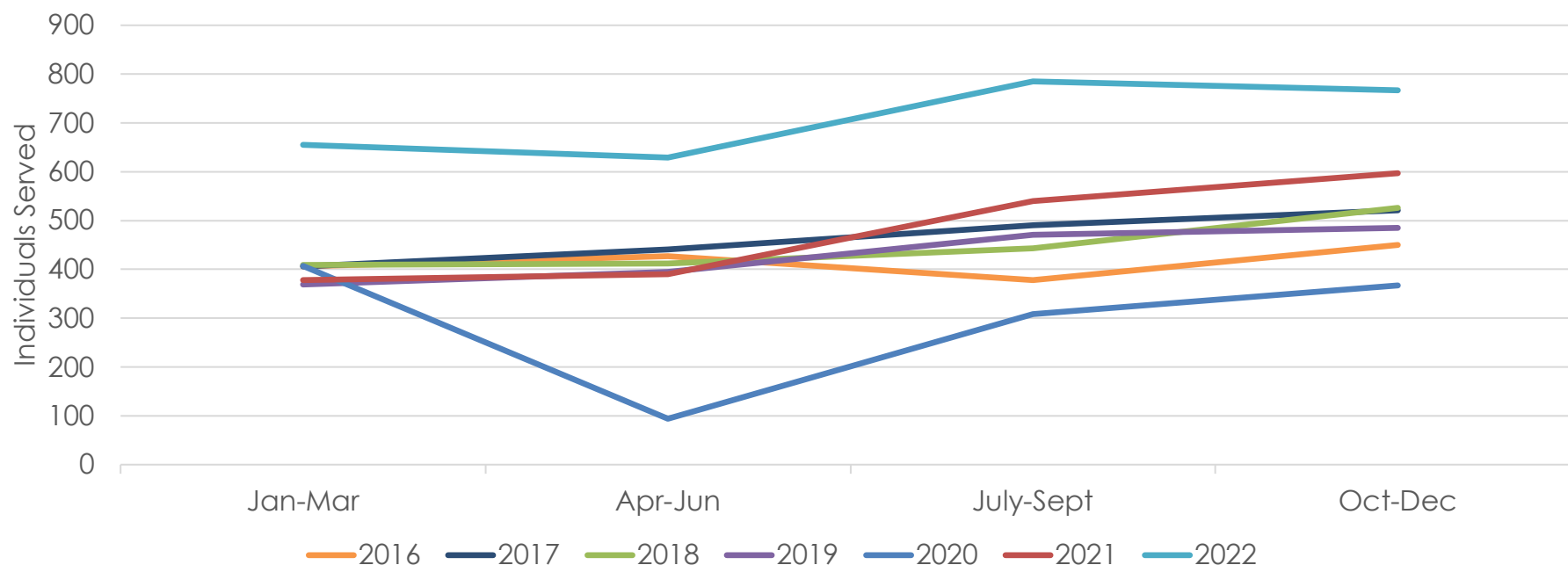


FIGURE 11. SOURCE: MAD RIVER VALLEY COMMUNITY PANTRY

Figure 12 shows the number of MRV Community Pantry visitors annually. From 2016 to 2022, total annual visits increased by 71%. Prior to the COVID-19 pandemic, annual visits tended to hover around 1,700; for the past two years, the Food Shelf has consistently exceeded its pre-pandemic annual visits. From the year 2020 to 2022, the MRV Community Pantry experienced a 141% increase in its total annual visits.

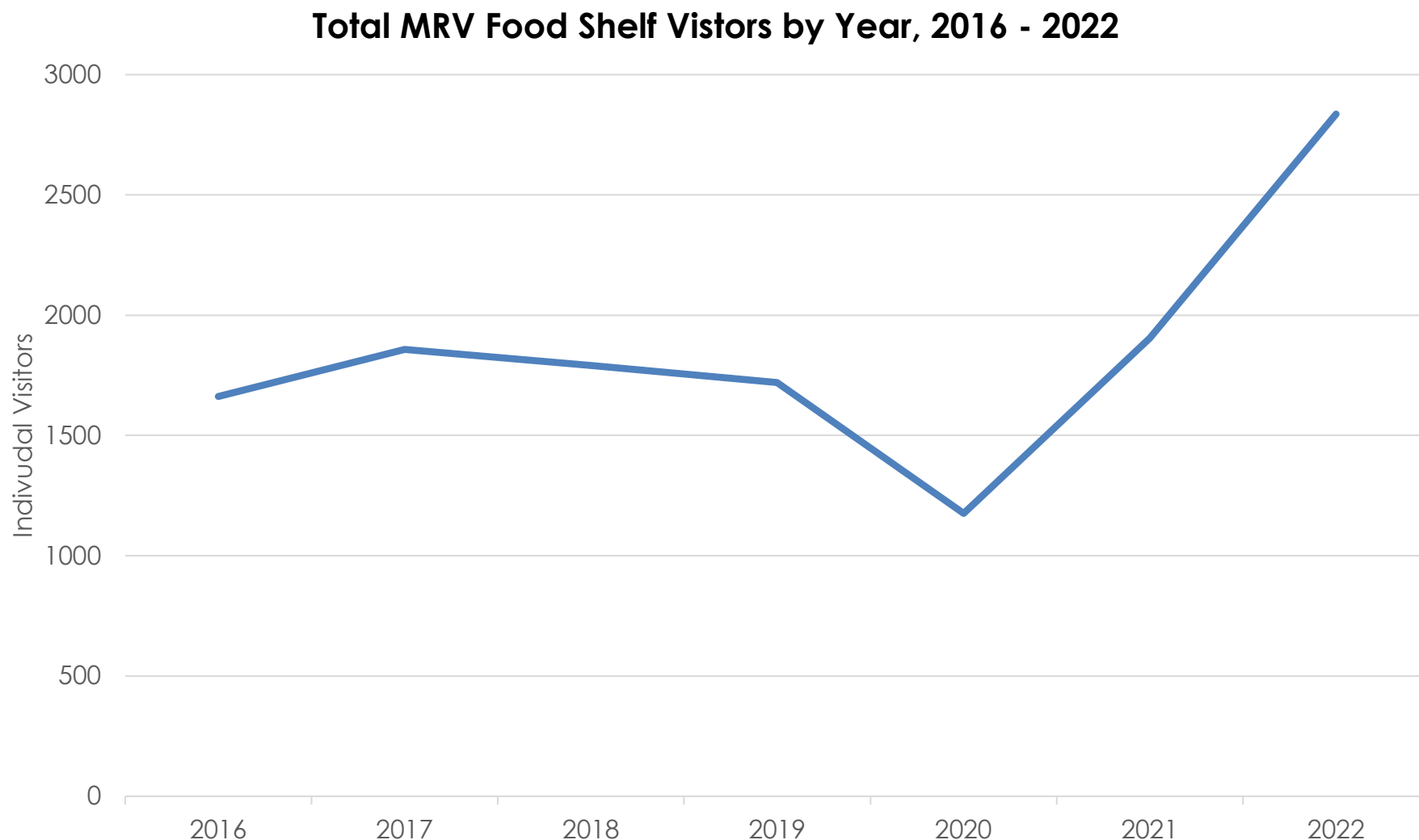


FIGURE 12. SOURCE: MAD RIVER VALLEY COMMUNITY PANTRY

The Mad River Valley Interfaith Council (MRVIC) is a consortium of the MRV's faith institutions, and a community resource providing gap emergency assistance funding to local families. Assistance includes funds to help with costs related to housing, food, medical, transportation, utilities, as well as other needs. As displayed in **Figure 13**, the MRVIC dispersed \$22,774 dollars to families and community members in 2022, representing a 240% increase from 2015 (\$6,694). From 2020 to 2022, the MRVIC annual assistance provided increased by 67%, and just in the last year, the amount of assistance provided increase by 40%.

Illustrating similar trends to that of the food shelf, we have seen an immense increase in support provided by the MRVIC to MRV residents that has been sustained coming out of the pandemic.

MRVIC Emergency Assistance

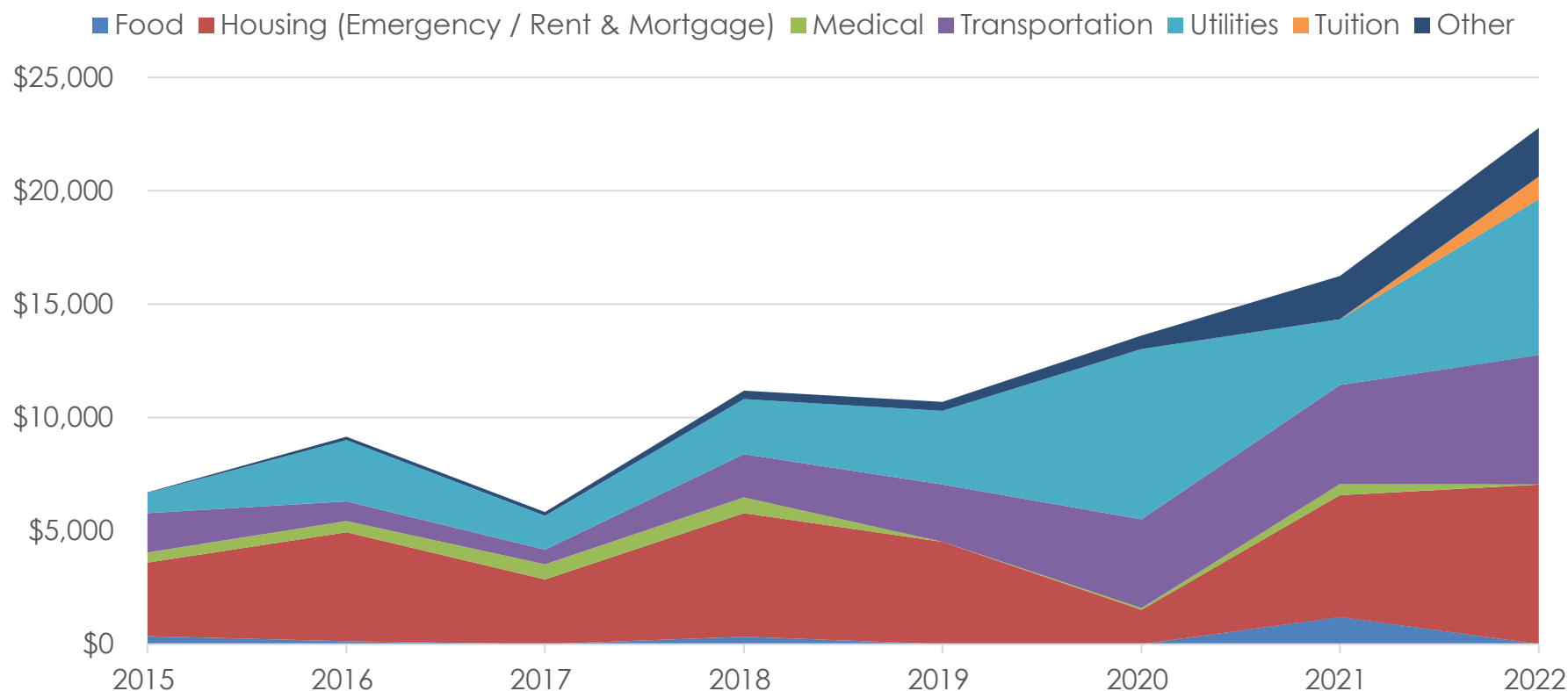


FIGURE 13. SOURCE: MAD RIVER VALLEY INTERFAITH COUNCIL

To put this trend into a more regional perspective, **Figure 14** shows the average total monthly benefits in dollars distributed by 3SquaresVT³, as well as total monthly recipients, from 1988 to 2023. Despite an overall increase in average monthly total benefits across the State, the number of monthly recipients has gone down since 2012 and remained relatively stable for the last several years. It is interesting to see that the MRV does not follow regional trends when community & social services are concerned.

Washington County Avg. Monthly Total Benefits & Monthly Recipients of 3SquaresVT Funding, 1988 - 2023

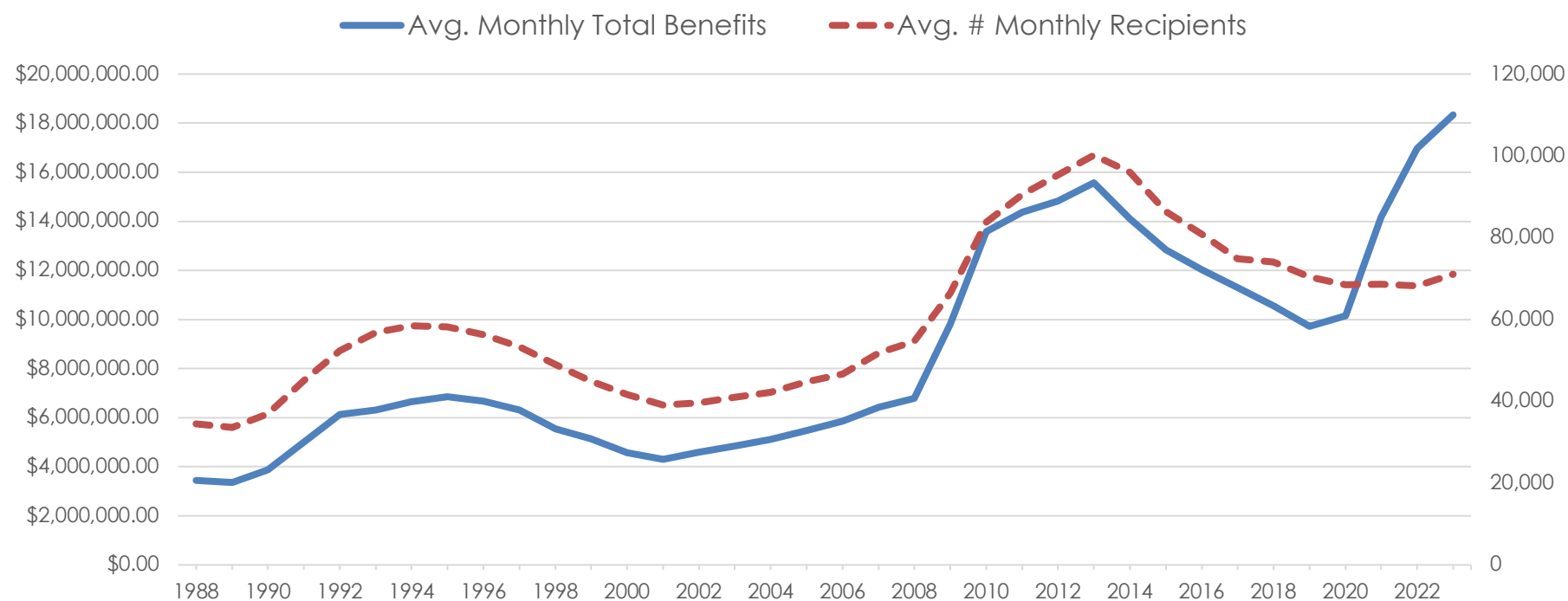


FIGURE 14. SOURCE: VT DEPARTMENT FOR CHILDREN & FAMILIES, 3SQUARES

³ 3SquaresVT is a federal USDA program that provides food assistance to families whose gross household income is less than or equal to 185% of the Federal Poverty Level.

HOUSING

Lack of attainable housing that is affordable has long been identified as a major obstacle in the Mad River Valley. By looking at the number and type of residences sold, we can learn more about the current housing stock in the MRV as well as the current housing needs that are not being met. Since 1988, the number of primary home sales in the MRV has yet to exceed the peak observed in the early 2000s, however, it has experienced significant growth in its primary home sales since a low point in 2010 following the 2008 housing market crash (**Figure 14**). From 2011 – 2019, the total annual number of primary residences sold in the MRV increased from 29 to 74 home sales (+155%). During this time period, primary home sales across Vermont grew by 71%, followed by a slight drop of 9% between 2019 – 2022.

Number of Primary Residences Sold in the MRV, 1988 - 2022

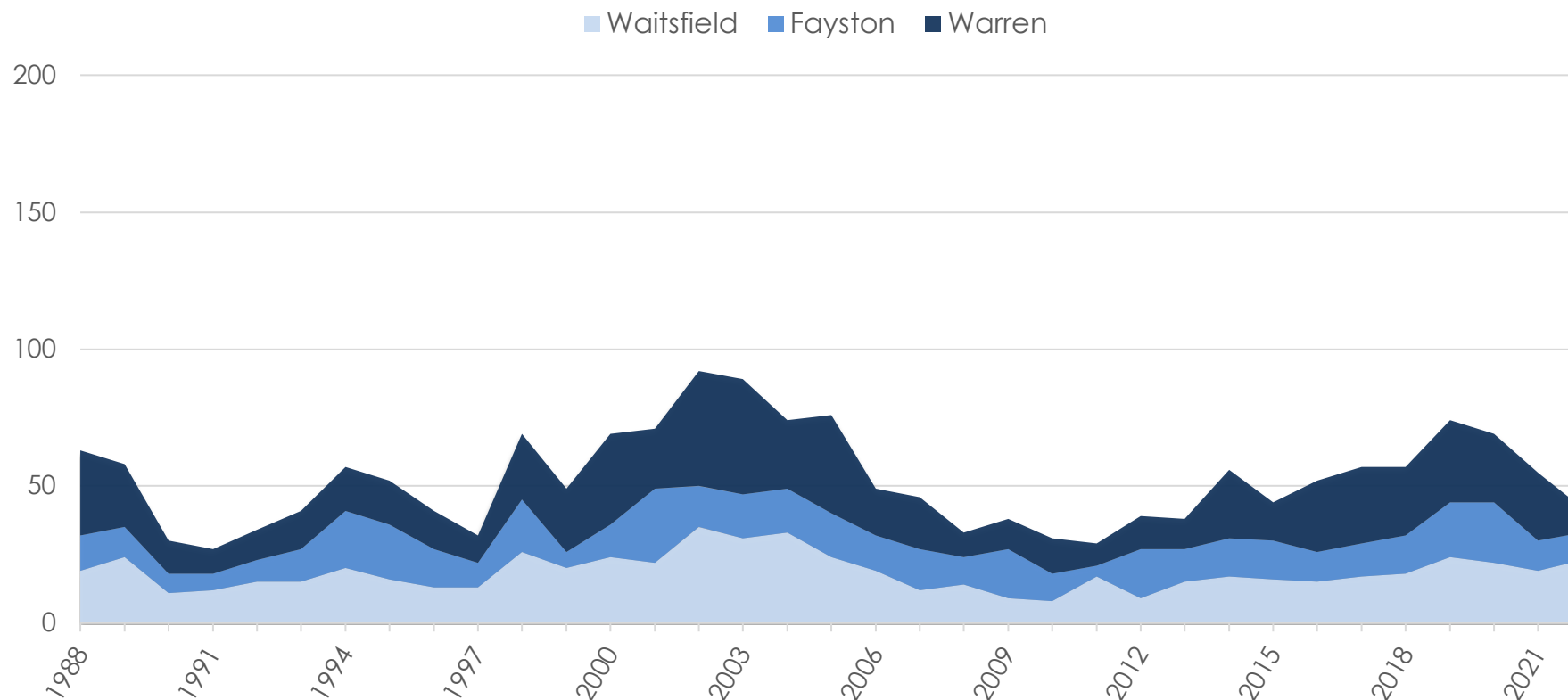


FIGURE 15. SOURCE: VERMONT HOUSING FINANCE AGENCY

Figure 16 shows the MRV's most current vacation home⁴ sales data from 1988 through 2022. Warren experienced the greatest overall volume of vacation homes sold across the MRV during this time, as well as more market volatility. Sales remained lower but relatively stable in Waitsfield and Fayston. There has been a strong uptick in number of vacation homes sold in the MRV 2012 – 2022 (+122%).

Number of Vacation Homes Sold in the MRV, 1988 - 2022

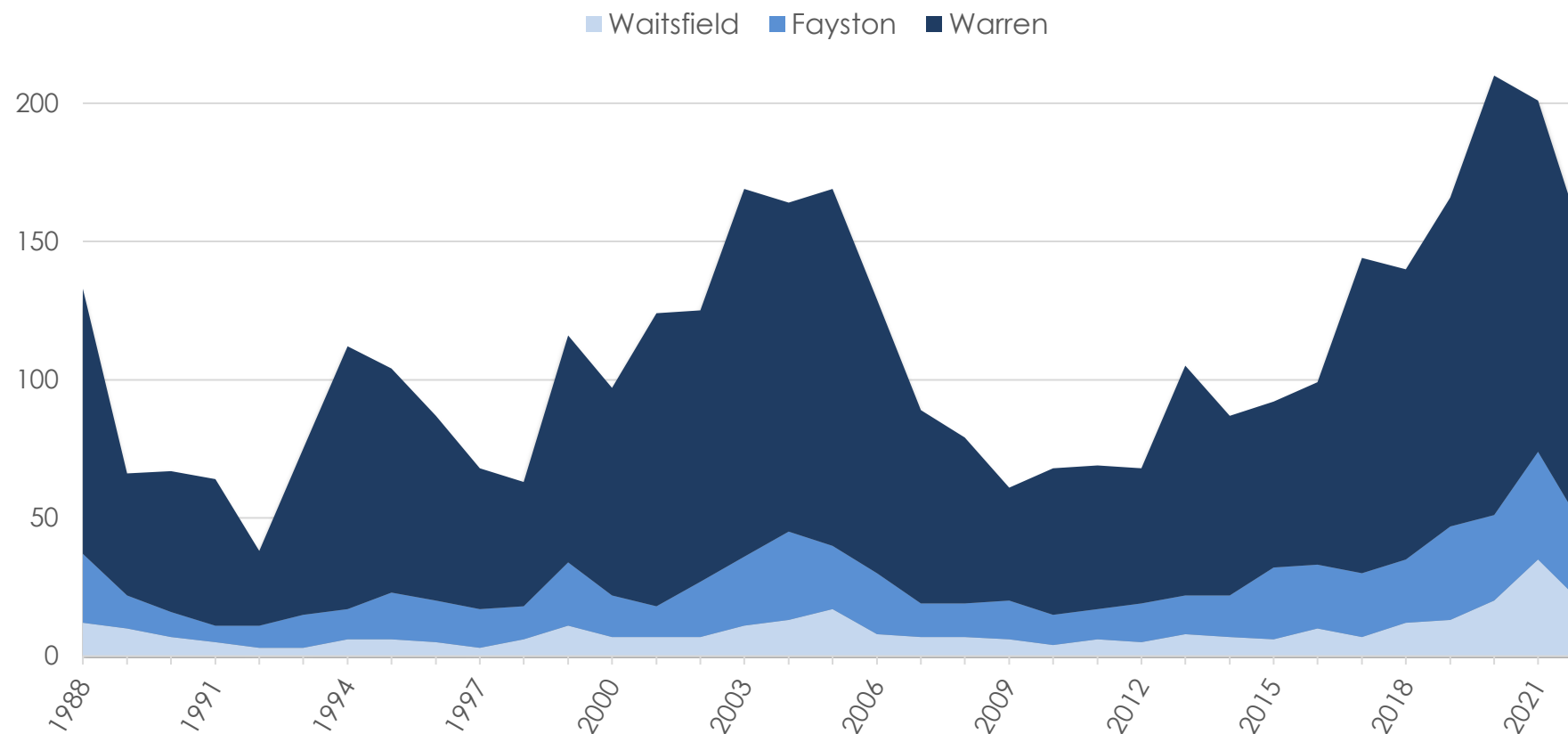


FIGURE 16. SOURCE: VERMONT HOUSING FINANCE AGENCY

⁴ Vacation homes include condominiums that are not primary residences as well as other non-primary residences.

Figure 17 shows the Median Primary Residence Sales price in the MRV since 1988⁵. From 1988 – 2000, median primary residence sales prices among all regions were relatively similar. The early 2000s saw increased volatility as well as increased values in the MRV's median sales price of primary residences. From 2000 – 2006, median primary residence home sales in Waitsfield increased by 107%, Fayston by 181%, and Warren by 88%. In comparison, Washington County and Vermont's median primary residence sales prices increased by 87% and 64%, respectively. Warren followed a similar trend to that of Washington County, but generally speaking, median primary residence sales prices have continued to increase at a faster rate in the MRV compared to Washington County and Vermont as a whole.

MRV median primary home sales prices remained relatively turbulent from 2006 to 2012, falling to a low point in 2013. Between 2013 – 2022, the median primary residence sales price increased by 154% in Waitsfield, 148% in Fayston, and 175% in Warren. When compared to the 60% and 55% increases in Washington County and Vermont, respectively, we see that housing costs in the MRV have become noticeably higher than neighboring regions over the last decade.

Median Primary Residence Sales Price, 1988 - 2022

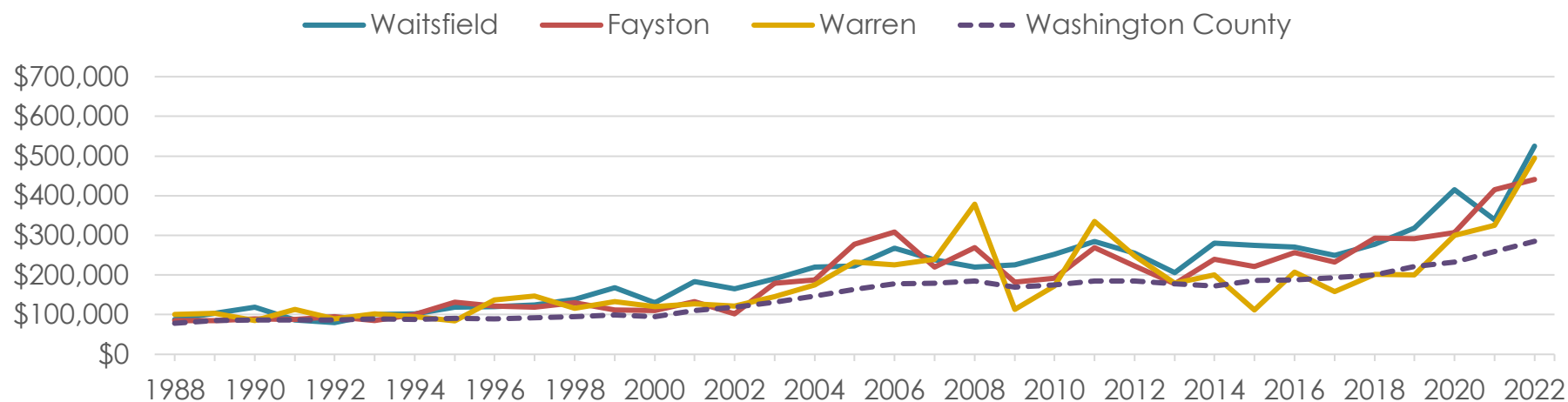


FIGURE 17. SOURCE: VERMONT HOUSING FINANCE AGENCY

⁵ Housing price figures contained in this report are not inflation adjusted, and as such include the effects of inflation. E.g. The 1988 Median Primary Residence Sales Price in Warren was \$100,000. \$100,000 in August 1988 has the buying power of \$258,005 in August 2023 (e.g. inflation adjusted).

Figure 18 shows the most current sales price data for Vacation Homes across the MRV and Washington County. Median sales prices for vacation homes in these regions has been on the rise in recent years. From 2012 to 2022, median vacation home sales price increased by 236% in Waitsfield, 150% in Fayston, 107% in Warren, and 65% in Washington County. Similar to primary residence sales prices, the rise in vacation home sales prices appears to confirm that the cost of housing in the MRV is increasing at a faster rate than neighboring regions, while following similar trends.

Median Vacation Home Sales Price in the MRV, 1988 - 2022

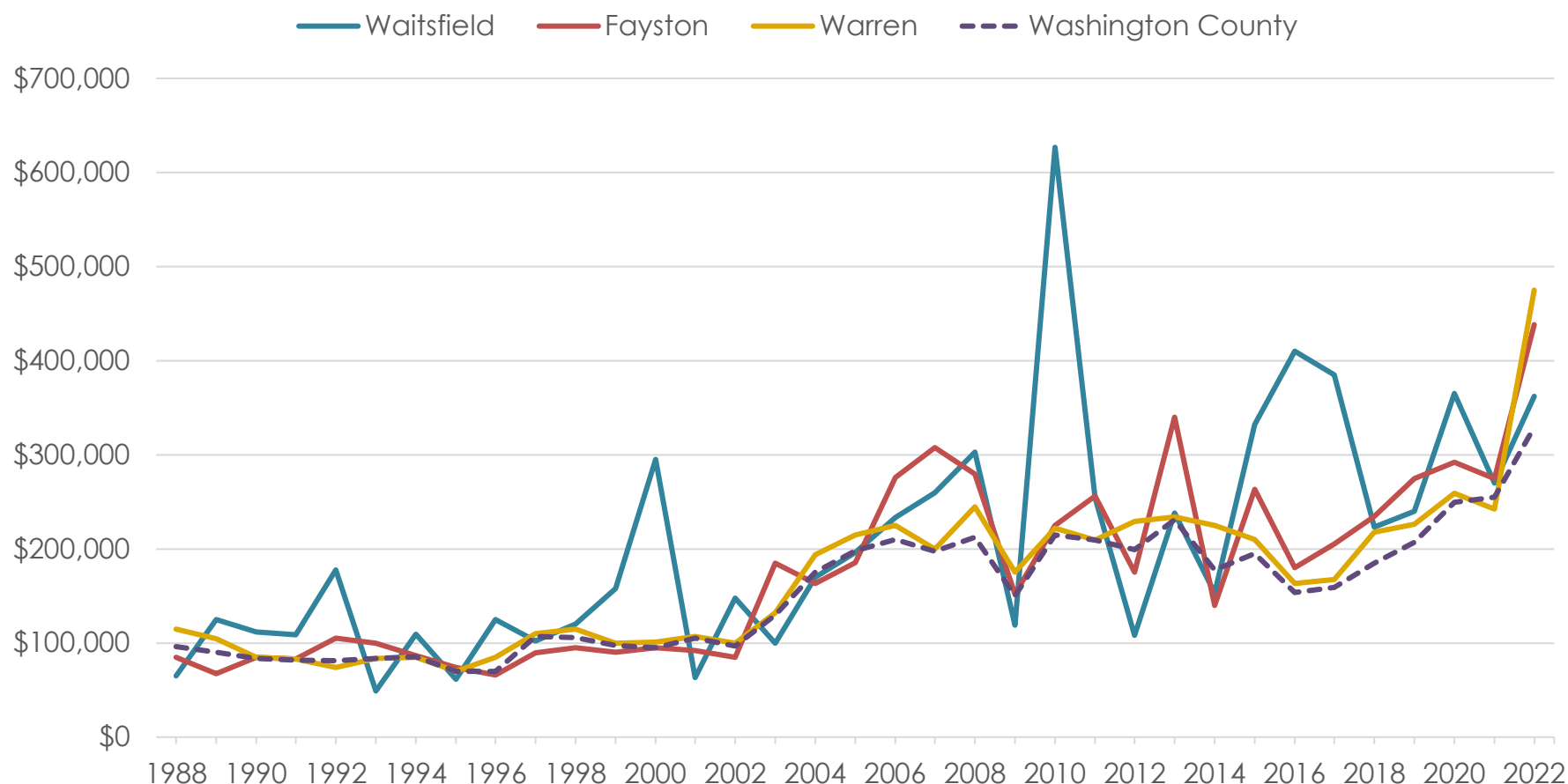


FIGURE 18. SOURCE: VERMONT PROPERTY TRANSFER TAX STATISTICS

Zoning permits serve as a leading indicator of new home construction in a community. **Figure 19** shows the number of single-family houses, detached and attached, (SFH) permits⁶ issued by MRV town from 2000 – 2022. While the numbers have fluctuated over time, the proportions between each town have held relatively steady. Collectively, the number of permits hit a high of 63 in 2002 and a low of 15 in 2012. The total number of SFH permits issued has gradually increased ever since, experiencing a 147% increase from 2012 – 2022. In comparison, Vermont's SFH permits increased by 49% during this same time period.

Single Family Houses, Detached & Attached - Annual Permits Issued by Town, 2000 - 2022

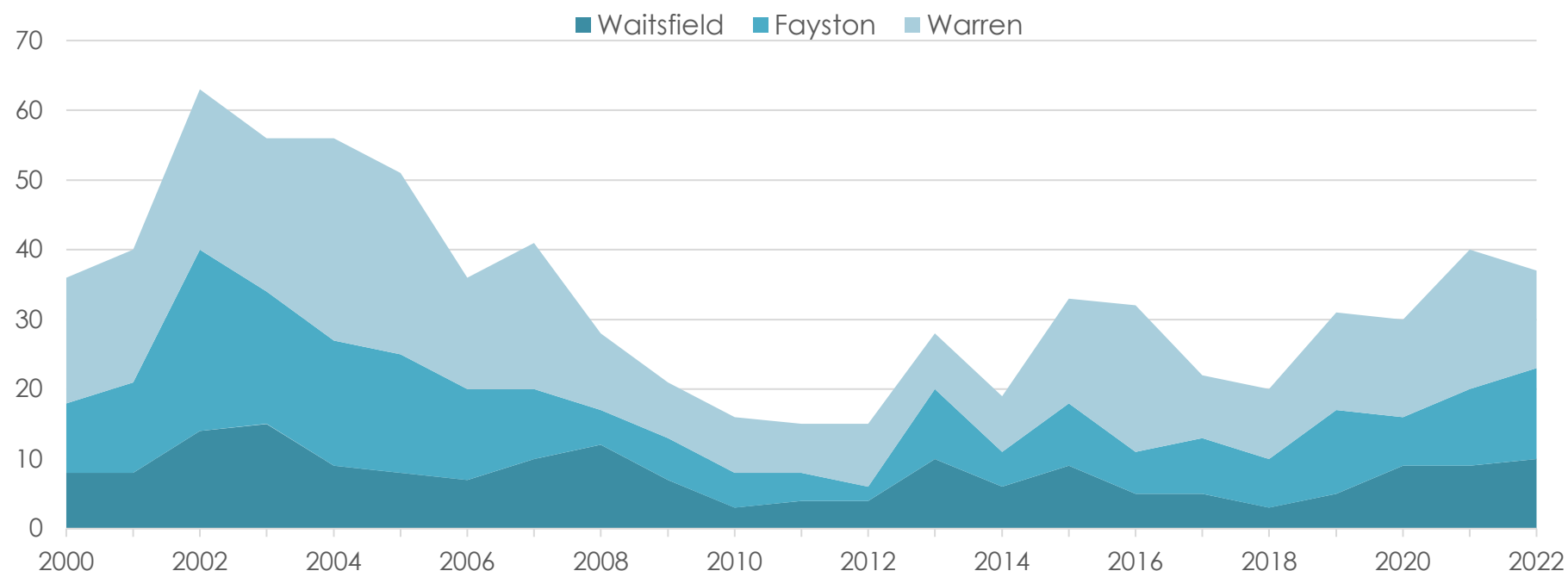


FIGURE 19. SOURCE: U.S. CENSUS BUREAU, U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, TOWN ADMINISTRATORS OF FAYSTON, WAITSFIELD & WARREN

⁶ The Department of Housing & Urban Development counts include Accessory Dwelling Units if they are not an addition, alteration, or conversion of an existing room.

When the permit data is indexed to 2000 levels (**Figure 20**), we see that single-family home permits issued in the MRV have largely followed state-wide trends. The MRV total has been more volatile than that of the state, which is expected given the relatively smaller number of permits being counted. While the trends are similar, SFH permits in the MRV have largely outpaced those across the state, with the exceptions being 2010 and 2012.

Single-Family Houses, Detached & Attached - Indexed Permits

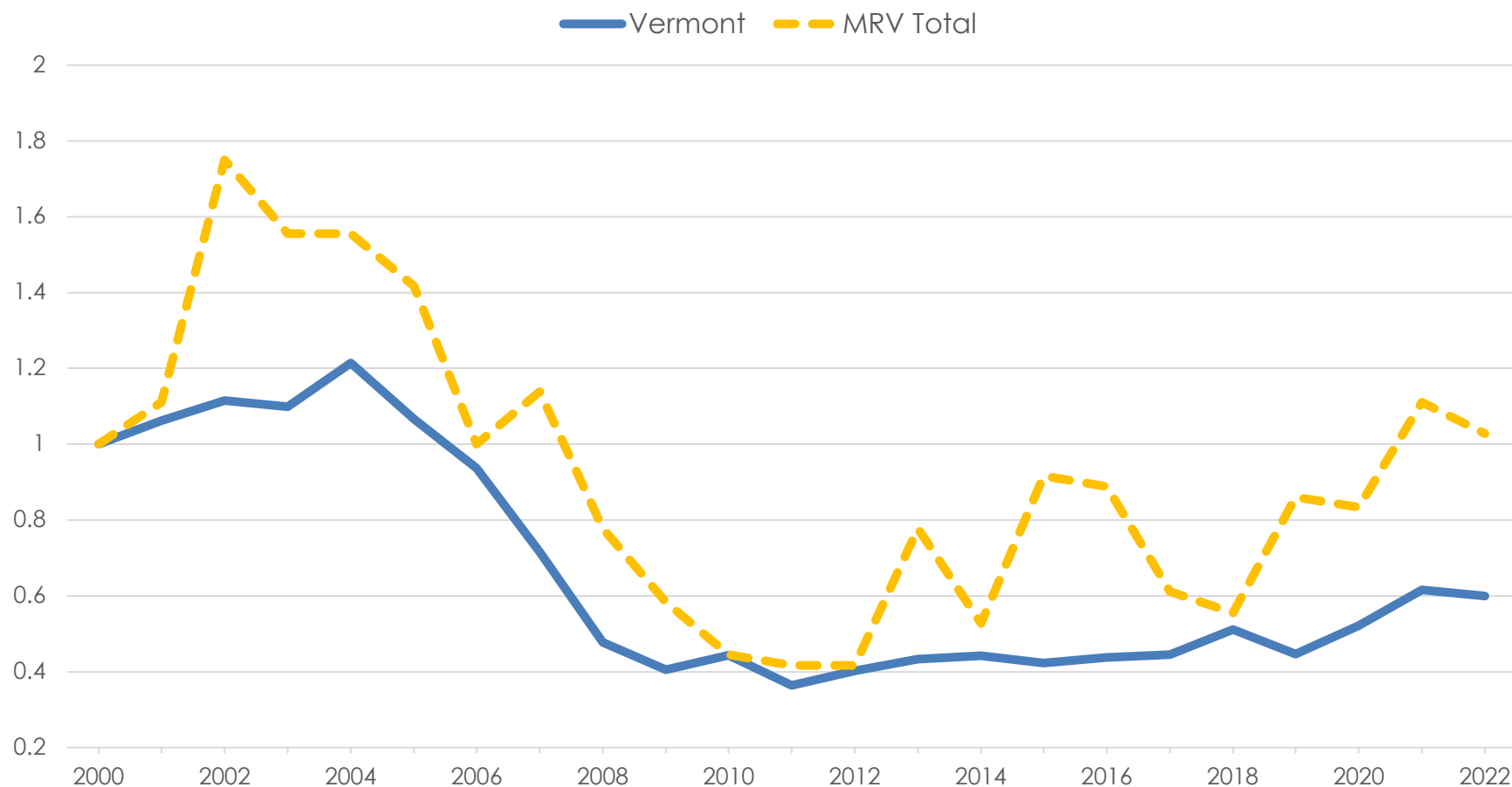


FIGURE 20. SOURCE: U.S. CENSUS BUREAU, U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, TOWN ADMINISTRATORS OF FAYSTON, WAITSFIELD & WARREN

Figure 21 represents the total dollar amount generated by the issuance of SFH permits each year, by town. Since 2010, the total costs of permits in MRV towns have gradually increased. Thinking about the trends seen in **Figures 19 & 20** on previous slides, this trend seems to make sense. As the number of permits being issued increased from 2012 - 2018, so did the total construction costs. Additionally, Warren's new SFH construction costs during this time period were more volatile, ranging between lows of \$1.5 million and highs of \$7 million per year. Fayston and Waitsfield tend to have less fluctuation year-to-year, however, there were some noteworthy drops in 2014, 2018, and 2021.

By looking at the dashed MRV total data series, we are able to see that MRV construction costs have increased during the years of 2010 - 2022 (+172%).

Single-Family Houses, Attached & Detached - New Construction Costs, 2000 - 2022

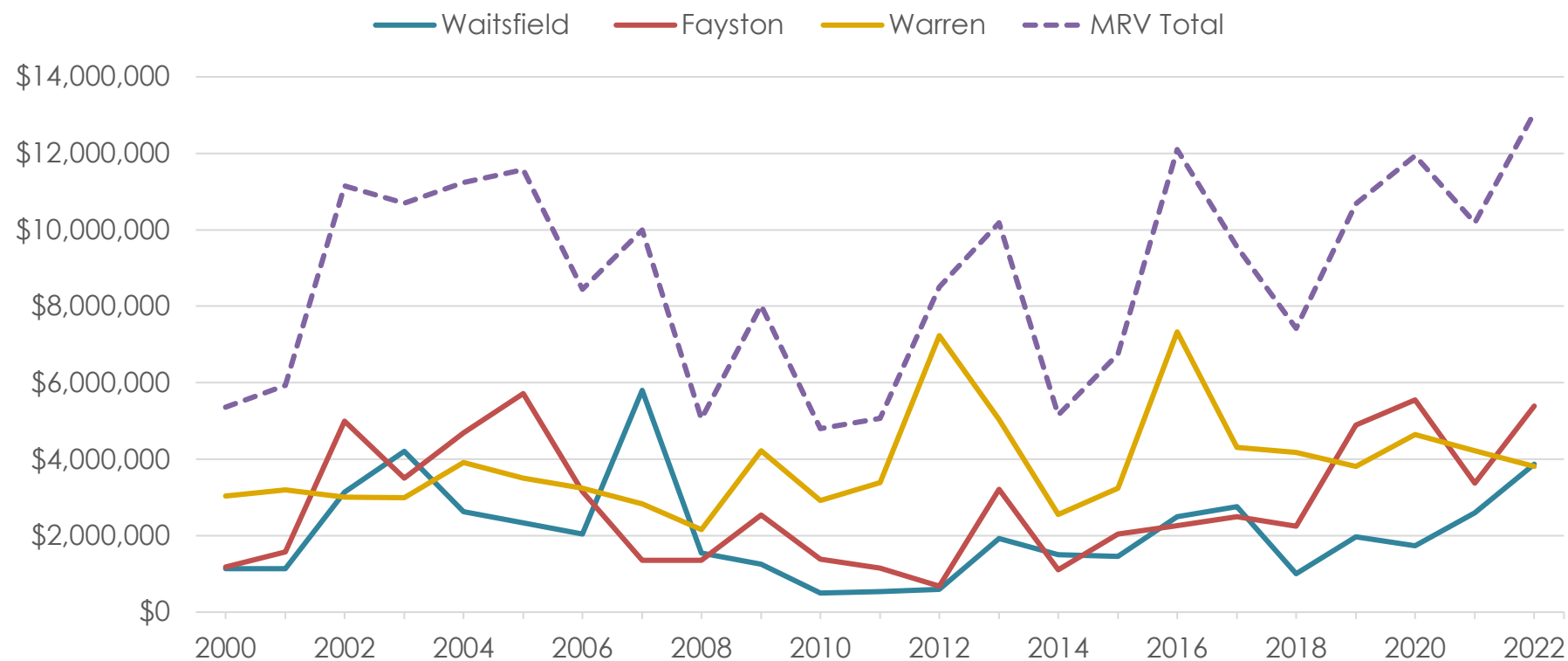


FIGURE 21. SOURCE: U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, VT HOUSING DATA

Figure 22 shows us that despite an increase in total new construction costs in the MRV, the average value of SFH permits appears to be decreasing. This means that while there is a higher volume of homes being built, the value⁷ of each permit has decreased since a high point in 2012.

Single-Family Houses, Attached & Detached - Average Permit Value, 2000 - 2022

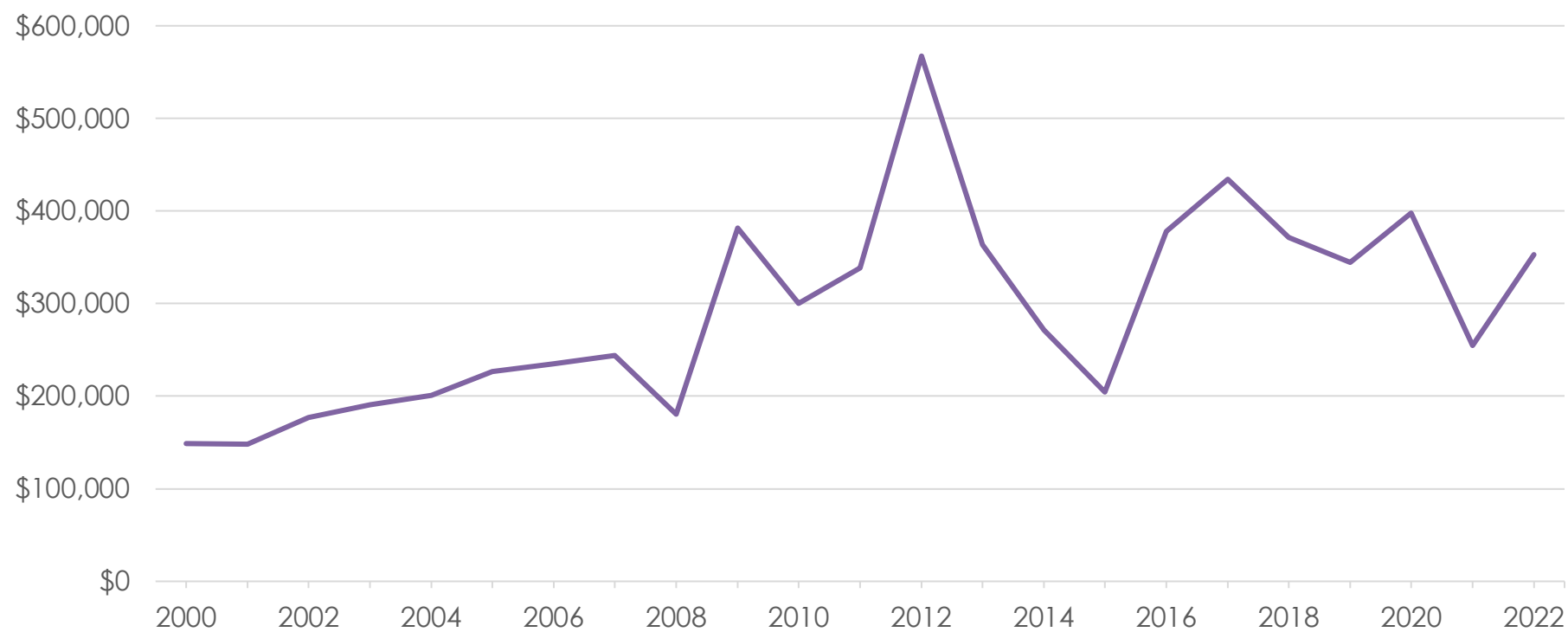


FIGURE 22. SOURCE: U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, VT HOUSING DATA

⁷ Values are submitted by the applicant. If no value is reported for a permit, the Department of Housing & Urban Development can assign it a value based on larger regional trends.

Figure 23 shows the distribution of available housing units in the Mad River Valley. Of the 4,452 total housing units counted during the 2020 Decennial Census, 40% were categorized as Seasonal / Vacation, 43% as Owner-Occupied, 11% as Renter Occupied, and 6% as Vacant.

From the 2000 to 2020 Decennial Census, the number of Vacation Units decreased by 8%, the number of Renter Occupied Units fell by 2%, the number of Owner-Occupied Units increased by 5%, and the number identified as Vacant increased by 4%.

Looking at the distribution of the MRV housing stock, we see limited options for those who are looking to rent or who are unable to afford the purchase of a home. While the data suggests that there are more full-time MRV residents in owner-occupied units, it is interesting to see that there's more than half as many vacant homes as there are rental units in the Mad River Valley.

Distribution of MRV Housing Units by Type, 2020

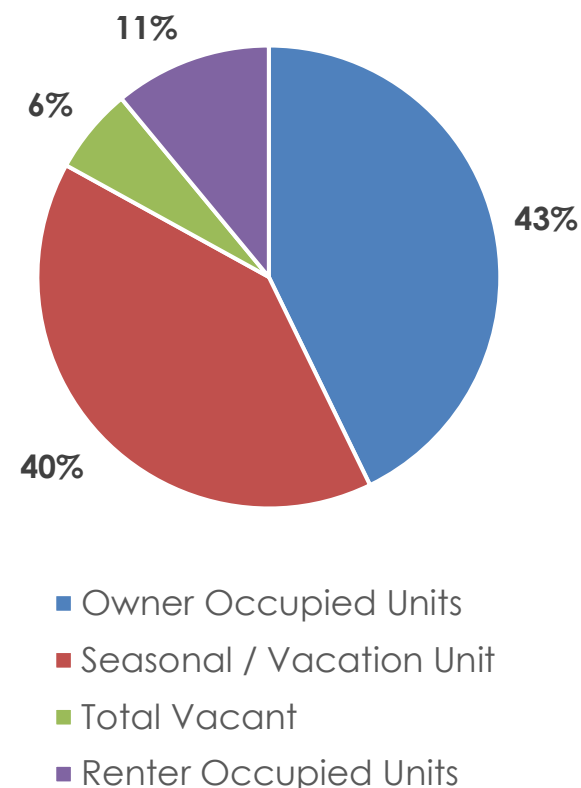


FIGURE 23. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

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⁸ "Seasonal, recreational, or occasional use units are units used or intended for use only in certain seasons or for occasional use throughout the year. Interval ownership units, such as timesharing condominiums, are included in this category." (U.S. Census Bureau: Decennial Census)

Figure 24 shows another representation of the distribution of Vacation Homes and Vacant Units from 1990 to 2020. This percentage has dropped over the years, but still accounts for roughly 46% of the MRV Housing Stock.

MRV % Vacation Homes & Vacant Units, 1990- 2020



FIGURE 24. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

A topic of increasing interest in recent years is in regards to the number of short-term rentals (STR) in the MRV. **Figure 25** shows that from 2018 to 2022, there was slow and relatively steady growth in the number of active whole home STRs in the MRV. Month-to-month fluctuations can be sporadic, but from January 2018 to December 2022, the number of active whole home STR units increased by 33%. This represents an increase of roughly 133 whole home units. Further studies will be needed to understand where these STRs are located, as well as the abundance of part-home rental units, in order to better understand how STRs impact the MRV housing stock and availability.

Total Active STRs by Month in the MRV, 2018 - 2022



FIGURE 25. SOURCE: VERMONT HOUSING FINANCE AGENCY'S VERMONT HOUSING DATA – COMMUNITY PROFILES

Sugarbush Resort collects housing data through annual surveys distributed to its employees as part of its cooperation with the Planning District and Mad River Valley. **Figure 26** depicts where Sugarbush employees resided from the 2007/08 to 2022/23 ski seasons. The percentage of all employees (Combined) that lived in the MRV has varied between 43.8% (2013/14) and 56.1% (2007/08). Year-Round employees have consistently represented the highest percentage of Sugarbush's MRV residents.

During the 2022-23 season, the majority of survey respondents resided in Warren (134), Waitsfield (51), and Addison County (42).

% Sugarbush Employees Residing in the MRV, 2007/08 - 2022/23

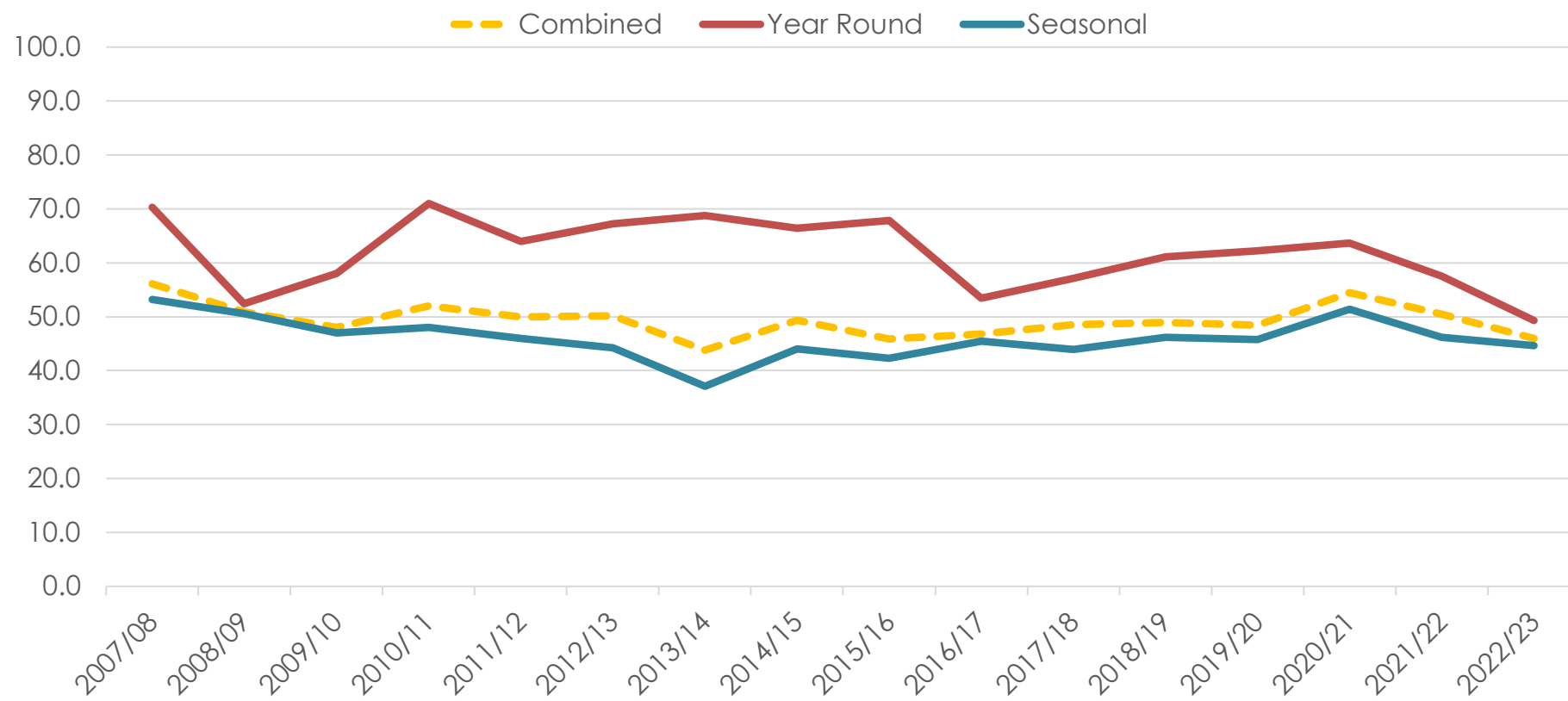


FIGURE 26. SOURCE: SUGARBUSH RESORT

Sugarbush Employees Residence by Type, 2022-23 Season

Figure 27 identifies the type of housing that Sugarbush employees live in during a given season, including those that live outside of the MRV.

The largest percentage of employees own their residence (+52%), followed by those that rent (+20%), and then those that answered "other" (+18%). We expect those that enter "other" to be in workforce housing, or possibly commuters from out of state.

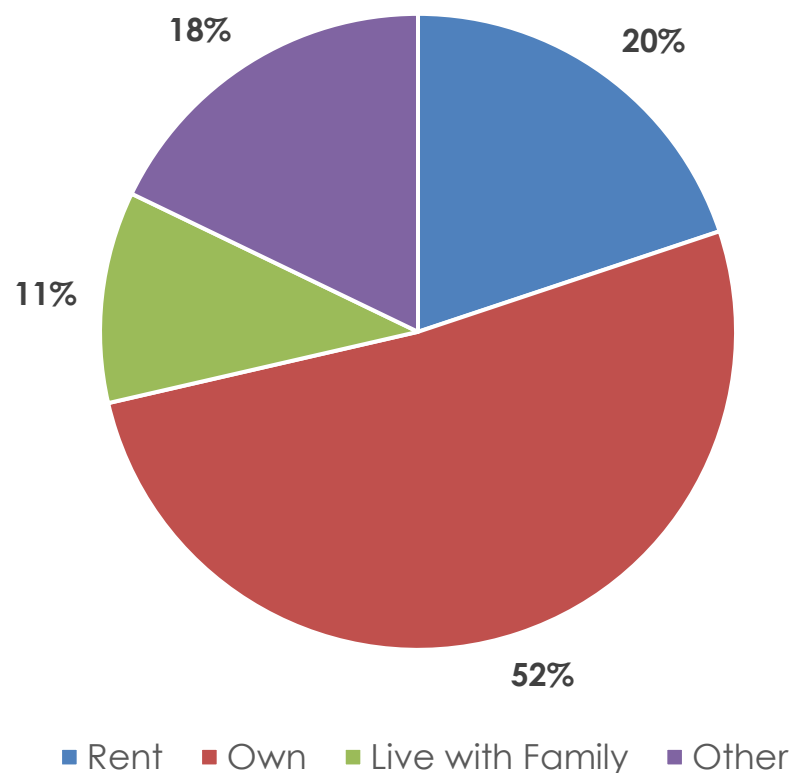


FIGURE 27. SOURCE: SUGARBUSH RESORT

[Tenants for Turns](#) (T4T) is an employee housing program that was researched and developed by the MRVPD, later adopted and implemented by Sugarbush Resort. T4T is a community-based program that was designed to benefit local homeowners, as well as Sugarbush employees in need of local and affordable housing. Local homeowners can contact Sugarbush HR to fill out an application form, which if accepted, enables them to rent their building or unit to a Sugarbush employee in exchange for one of the following perks: a discounted Sugarbush Premium Season Pass, a Family or Individual Sugarbush Health and Recreation Center Membership, or 10 all-mountain lift ticket vouchers.

T4T began during the 2017/18 ski season with great success, housing a total of 26 Sugarbush employees. This grew to 40 employees housed during the 2019/20 season (+54%). After a season of limited activity during the COVID-19 season of 2020/21, the program rebounded in 2022/23 with 22 individuals securing housing via T4T.

Tenants for Turns - Employees Housed, 2017/18 - 2022/23

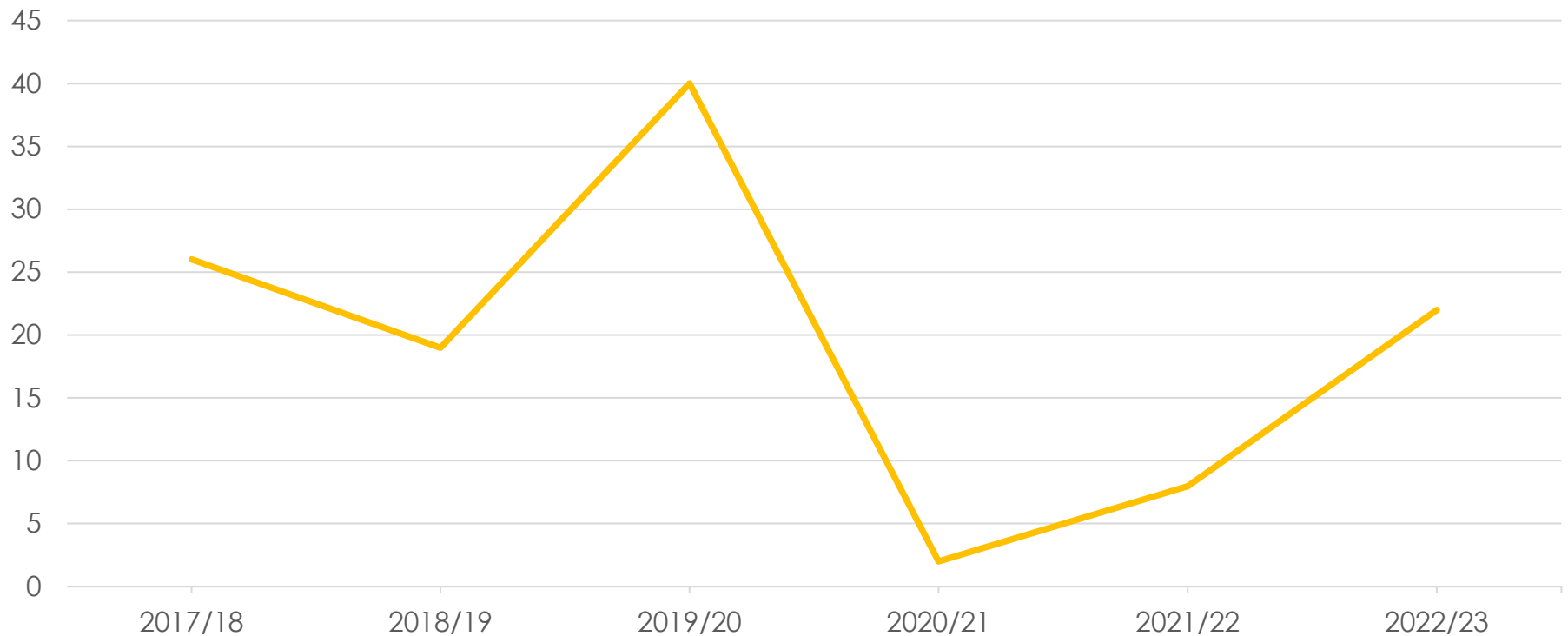


FIGURE 28. SOURCE: SUGARBUSH RESORT

HOUSING AFFORDABILITY

Housing supply and affordability challenges can be attributed to a number of factors, including inflated home and land prices, modest local incomes, and insufficient wastewater systems in zones positioned for residential infill. These housing barriers impact not just current and prospective residents, but also local businesses in search of staff, educational institutions, and various other community dynamics.



Image 3. Joshua Schwartz

Figure 29 shows the Median Gross Rents over time for MRV towns and Washington County, as compared to the 2021 Fair Market Housing Rates (FMHR) for Washington County. These rates are calculated by the U.S. Department of Housing and Urban Development via surveys of typical housing units within a region. Gross rent includes the shelter rent plus all utilities, excluding telephone and internet service.

The graph shows that median gross rent has been most consistent in Washington County over the period, likely due to its large sample size when compared with the MRV towns. Of all MRV towns, Warren has on average had the most affordable to rent in the MRV, but experienced a single year increase of 27% between 2020 – 2021. That said, Warren has been the MRV town closest to FMHR in most cases. Fayston regularly exceeds the county's FMHR. Waitsfield's rent has trended slightly more than Warren's, but dropped 19% between 2015 - 2017.

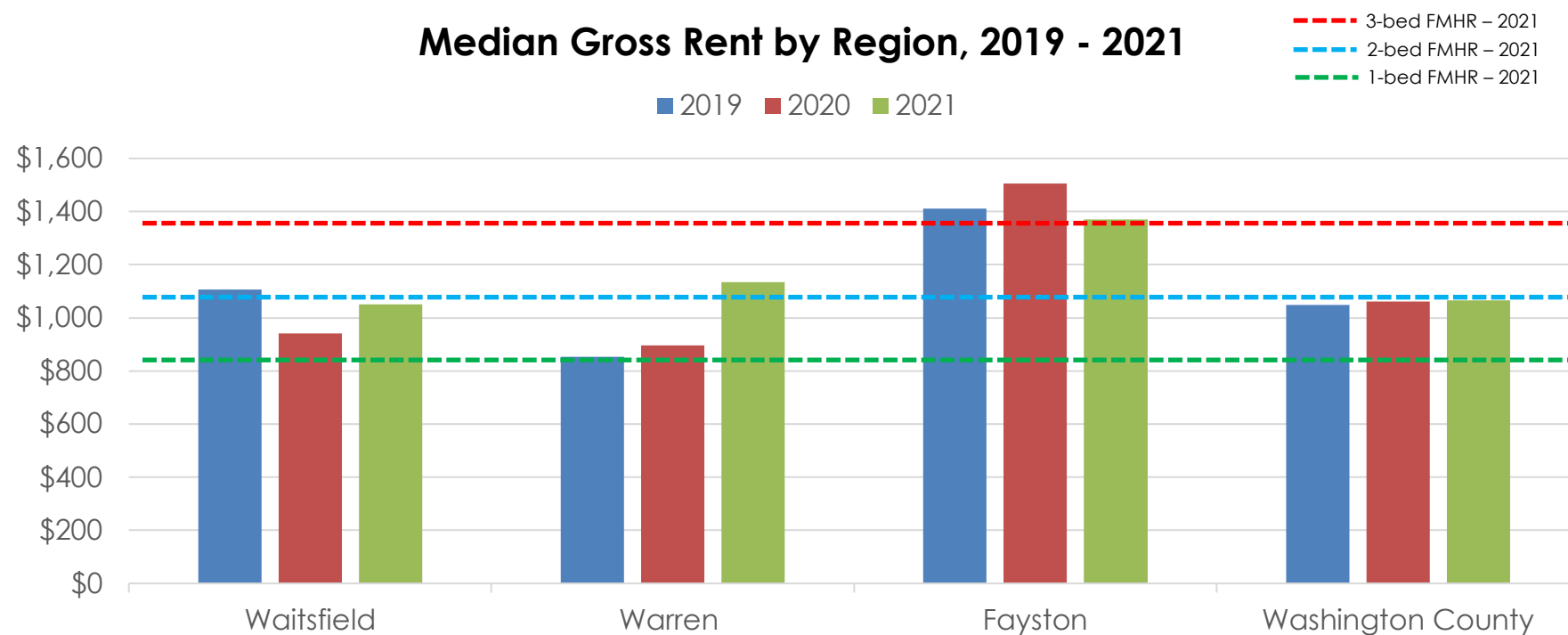


FIGURE 29. ADJUSTED FOR INFLATION. U.S. CENSUS BUREAU, AMERICAN COMMUNITY SURVEY, U.S. DEPT. OF HOUSING AND URBAN DEVELOPMENT (HUD)

Households Distributed by Monthly Costs of Housing, 2021

By looking at **Figure 30**, we are able to see how many residents in each region live in various housing unit price ranges. In 2021, the percent of housing units falling under \$900/month were as follows: Washington County (+51%), Vermont (+58%), and MRV (+35%). Conversely, 65% of MRV monthly costs of housing were between \$1,000 - \$1,900.

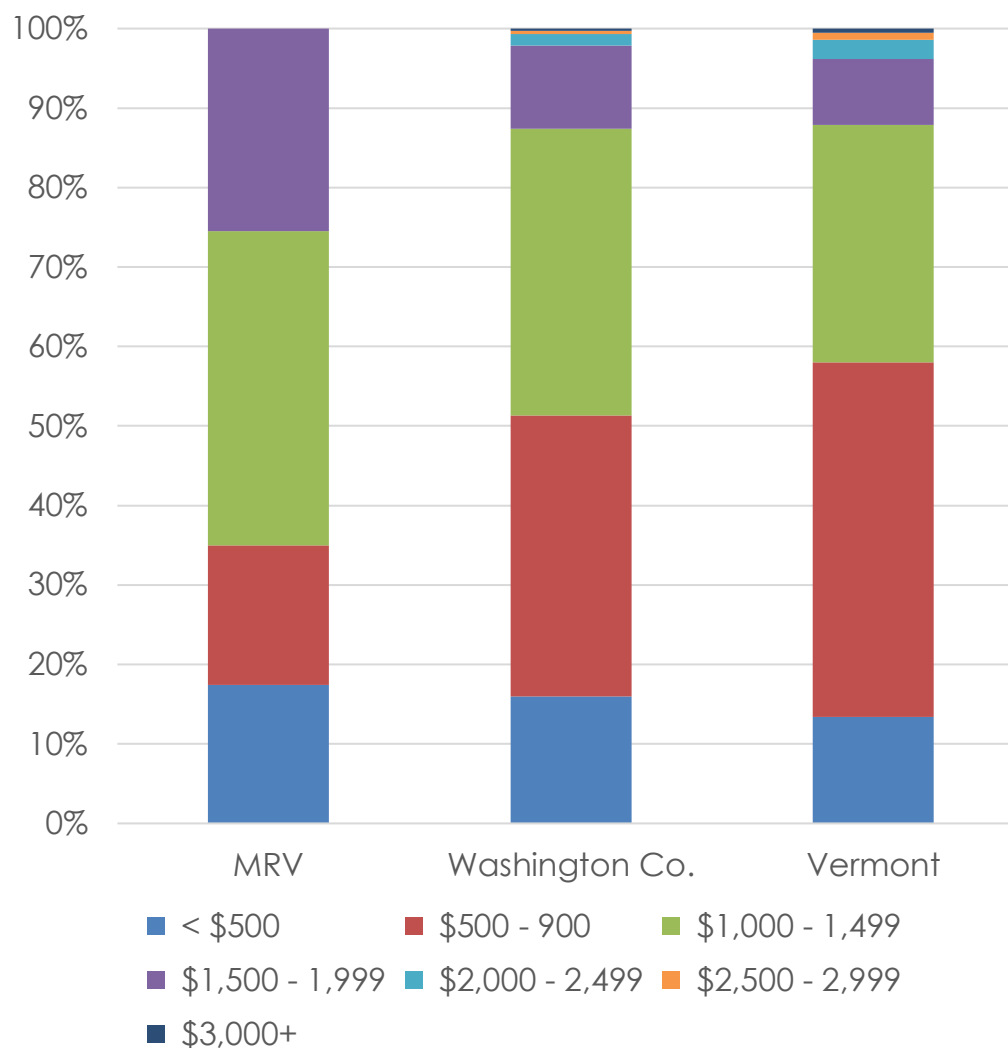


FIGURE 30. SOURCE: VERMONT HOUSING FINANCE AGENCY; AMERICAN COMMUNITY SURVEY

Figure 31 shows the change in the number of owner and long-term renter-occupied housing units in Waitsfield, Warren, and Fayston from 1970 to 2021 as a percentage of total units. Since 1990, long-term renter-occupied housing units as a percentage of total units have dropped from 31% to 19%, with a corresponding increase in owner-occupied units from 69% to 81%.

MRV Owner & Renter-Occupied Housing Units as a % of Total Occupied Units, 1970 - 2021

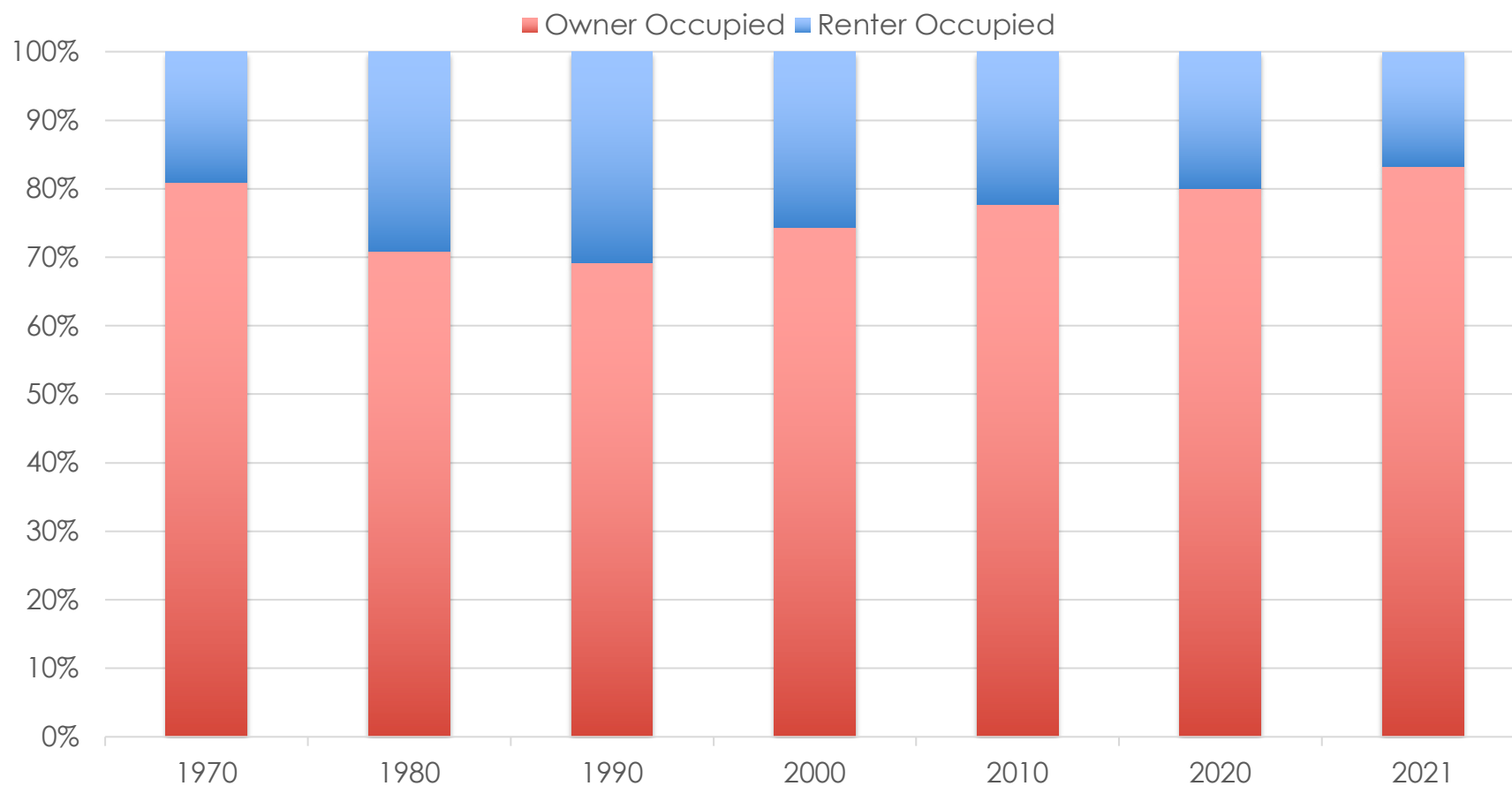


FIGURE 31. U.S. CENSUS BUREAU DECENNIAL CENSUS & AMERICAN COMMUNITY SURVEY

Figure 32 illustrates that the value of owner-occupied units in the MRV is typically higher than in Washington County. Historically, Waitsfield has contained the highest median value of the three MRV towns. Waitsfield's median value of owner occupied unites was surpassed by Warren (2018) and Fayston (2019). This data represents unadjusted dollars, but when inflation adjusted, we see that median values remain stable or decline between 2010 – 2021, with the exception of Warren (which has increased over the period).

Median Value of Owner Occupied Units, 2010 - 2021

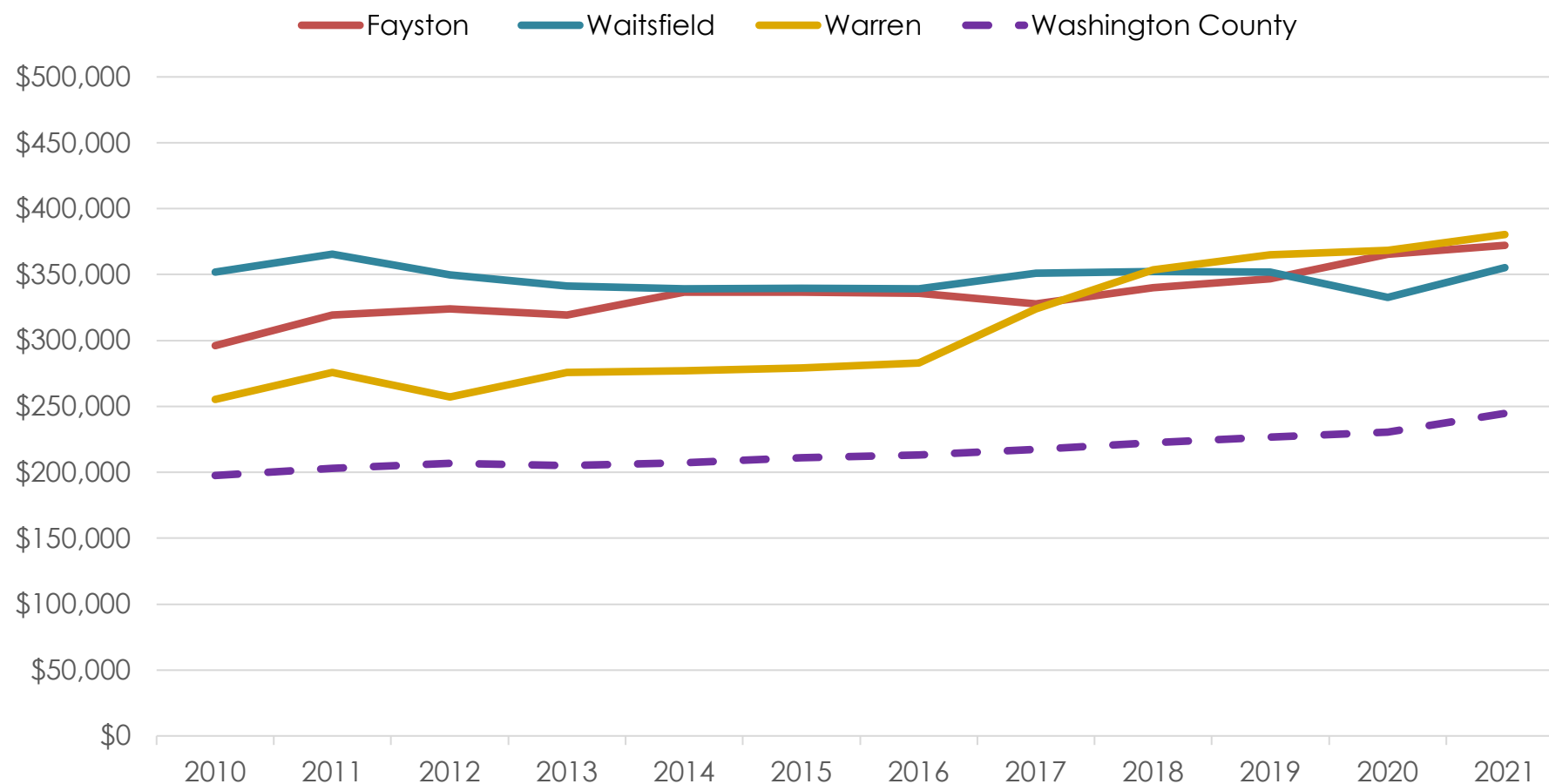


FIGURE 32. U.S. CENSUS BUREAU DECENNIAL CENSUS & AMERICAN COMMUNITY SURVEY

One metric used to analyze housing affordability is a community's "housing wage." Housing wage is defined by the National Low-Income Housing Coalition as "the hourly wage a full-time worker must earn to afford a modest rental home while spending no more than 30% of her or his income on rent and utilities."

Figure 33 shows the 2023 Washington County Housing Wage for one, two, and three-bedroom housing units compared to the State of Vermont minimum wage (\$13.18 as of January 1, 2023).

In 2023, the Washington County housing wage ranged from \$18.33 - \$30.46, resulting in the Vermont minimum wage 28 - 57% below the hourly pay rate needed to comfortably rent a 1, 2, or 3-bedroom housing unit in Washington County. It is recognized that the MRV housing wage would likely differ from Washington County as a whole, but believe this type of county-wide comparison can be helpful in understanding local trends. Based on what we have learned so far, it would be reasonable to imagine that the MRV housing wage may even be higher than Washington County's, which would result in greater stresses on cost-burdened renters.

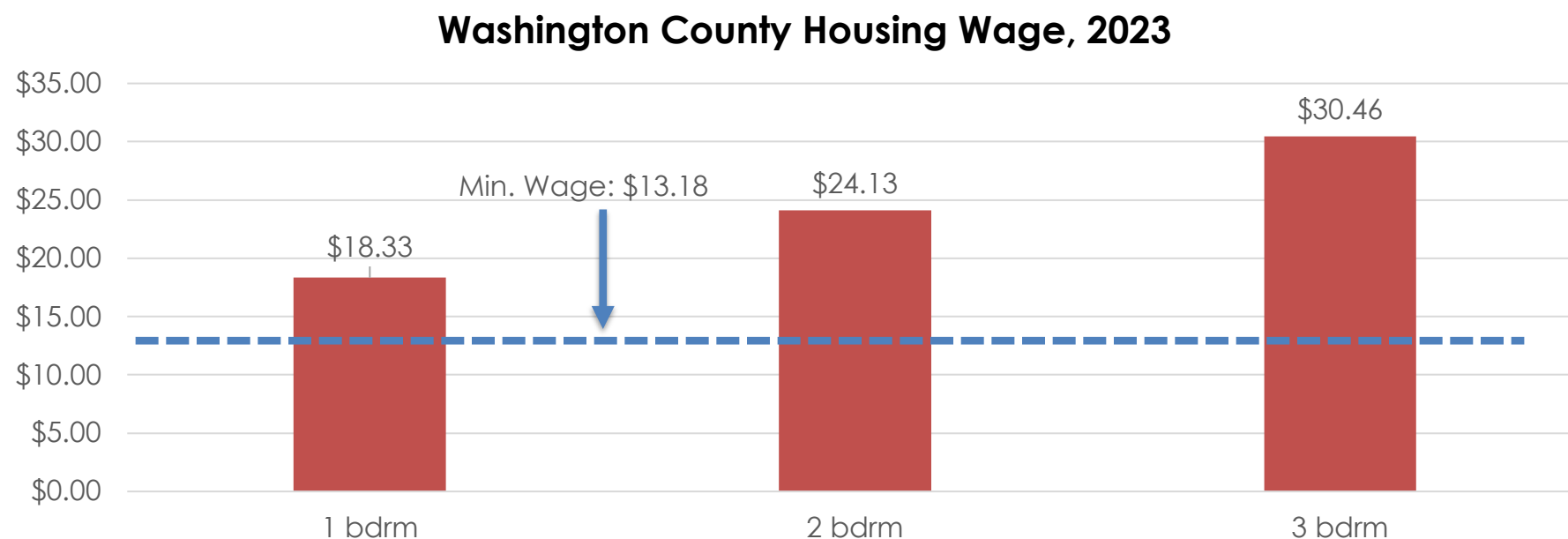


FIGURE 33. SOURCE: NATIONAL LOW-INCOME HOUSING COALITION, VERMONT HOUSING FINANCE AGENCY



SECTION II: ECONOMICS

Includes Items #35 & 36 from the Memorandum of Understanding

TOURISM & HOSPITALITY

Tax revenue trends illuminate the relative health of the MRV's primary tourist industries – outdoor recreation, foliage, and weddings. The craft food and beverage industry also influences these trends, and with the launch of several new eating and drinking establishments since 2019, the addition of dispensaries, and the growing popularity of the MRV as a tourist destination, it will be interesting to monitor changes in the coming years.



Image 4. Kasara Gage

A comparison of Meals, Rooms, and Alcohol tax receipts illustrates steady increases between 2009 and 2016 in the MRV, as shown in **Figure 34**. Alcohol and Rooms receipts experienced declines between 2016 and 2018 (39% and 13%, respectively), while Meals receipts experienced growth of 13% in the same timeframe. All three categories experienced growth between 2018 and 2019, followed by a drastic drop in 2020: Meals (-33%), Alcohol (-52%), and Rooms (-49%). Since the initial Covid-19 pandemic year (2020), Alcohol tax receipts remain the only category that has not recovered to its pre-pandemic level. Note: the data series' containing "MRV2" only include Warren and Waitsfield, as Fayston has lacked sufficient establishments in those categories to meet confidentiality reporting standards specified by the State of Vermont Department of Taxes.

MRV Tax Receipts by Source, 2009 - 2022

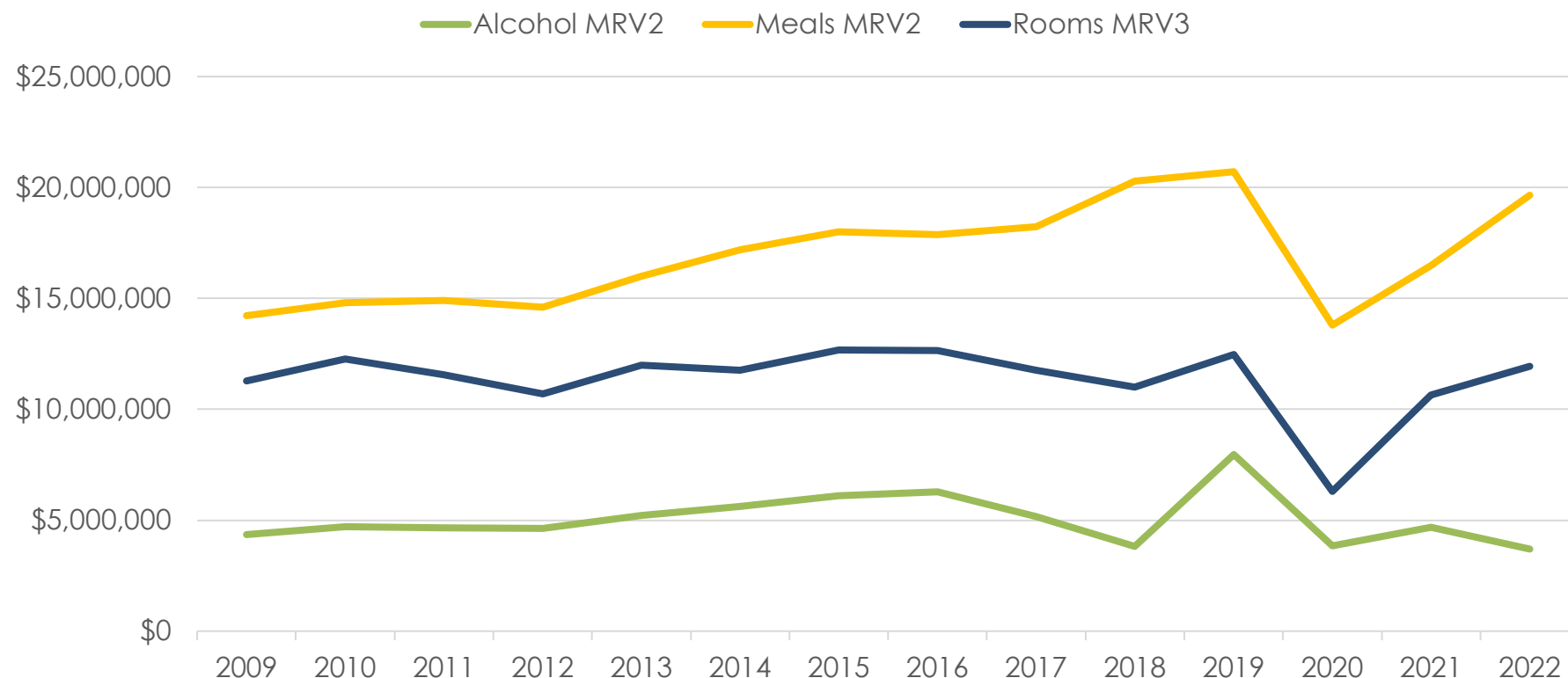


FIGURE 34. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

A comparison of the three towns' combined Meals, Rooms, and Alcohol tax receipts in **Figure 35** illustrates steady growth between 2012 - 2019 in Waitsfield (+ 59%), while Warren and Fayston experienced more erratic changes throughout the same time period. Waitsfield surpassed Warren's combined receipts in 2017. The relatively sharp decline in Warren's tax receipts in 2018 is likely attributed to VT Dept. of Taxes confidentiality reporting standards that restricted certain Warren categories (alcohol receipts) from being reported in the years of 2018 and 2022. In addition, the COVID-19 pandemic likely contributed to decreases between 2019-2020, as Waitsfield and Fayston experienced 45% and 54% declines in tax receipts, respectively, with Warren following shortly behind at 38%.

Meals, Rooms, Alcohol Tax Receipts by Town, 2008 - 2022

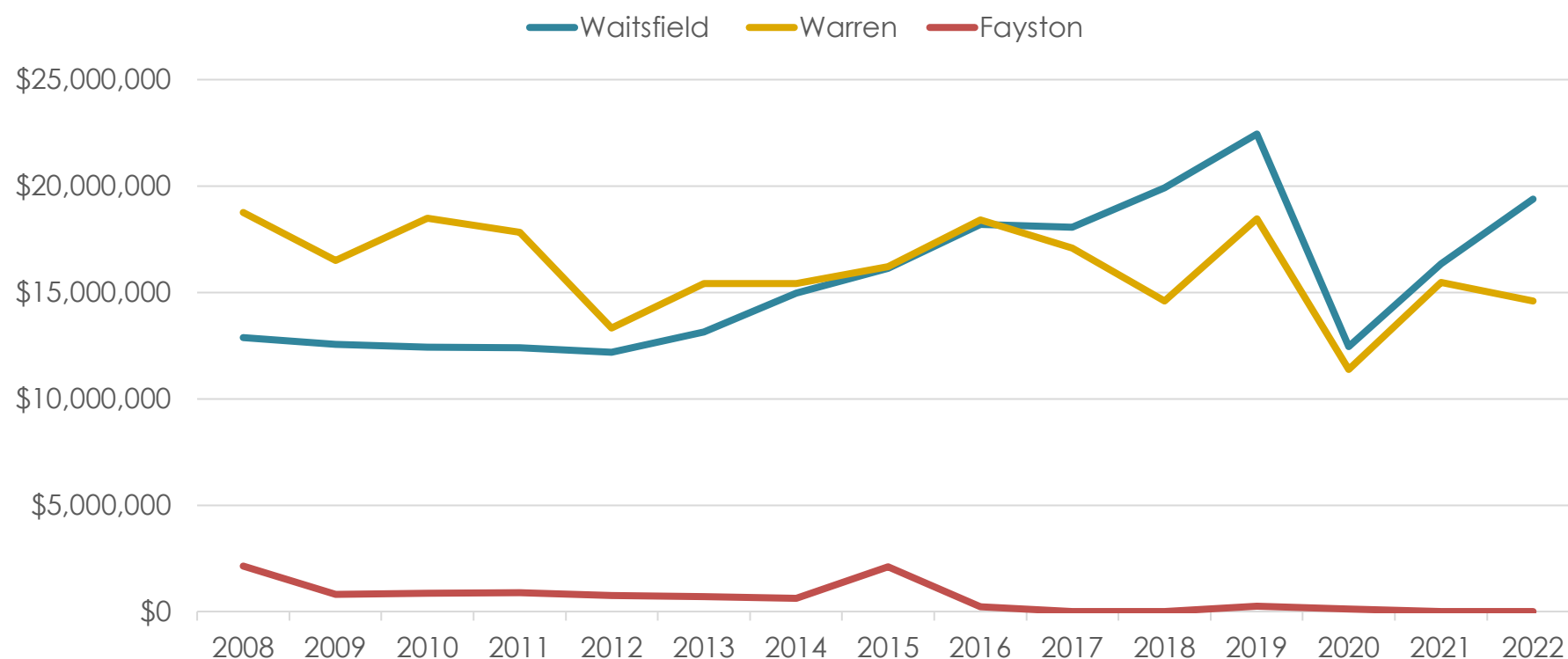


FIGURE 35. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Figure 36 provides a regional perspective regarding the health of the MRV tourism and hospitality sector over time. Generally speaking, the Mad River Valley appears to follow the trends of neighboring towns when it comes to this sector. The total dollar amount between the three listed regions can vary greatly each year (between \$5 - \$10 million, generally), but the trendlines of each data series follow one another closely. All three areas experienced a sharp decline in 2020 due to the COVID-19 pandemic, quickly recovering in recent years. The MRV's combined Meals, Rooms, and Alcohol tax receipts surpassed Montpelier's receipts in 2019, continuing through the most recent time period.

Meals, Rooms, Alcohol Tax Receipts by Region, 2005 - 2022

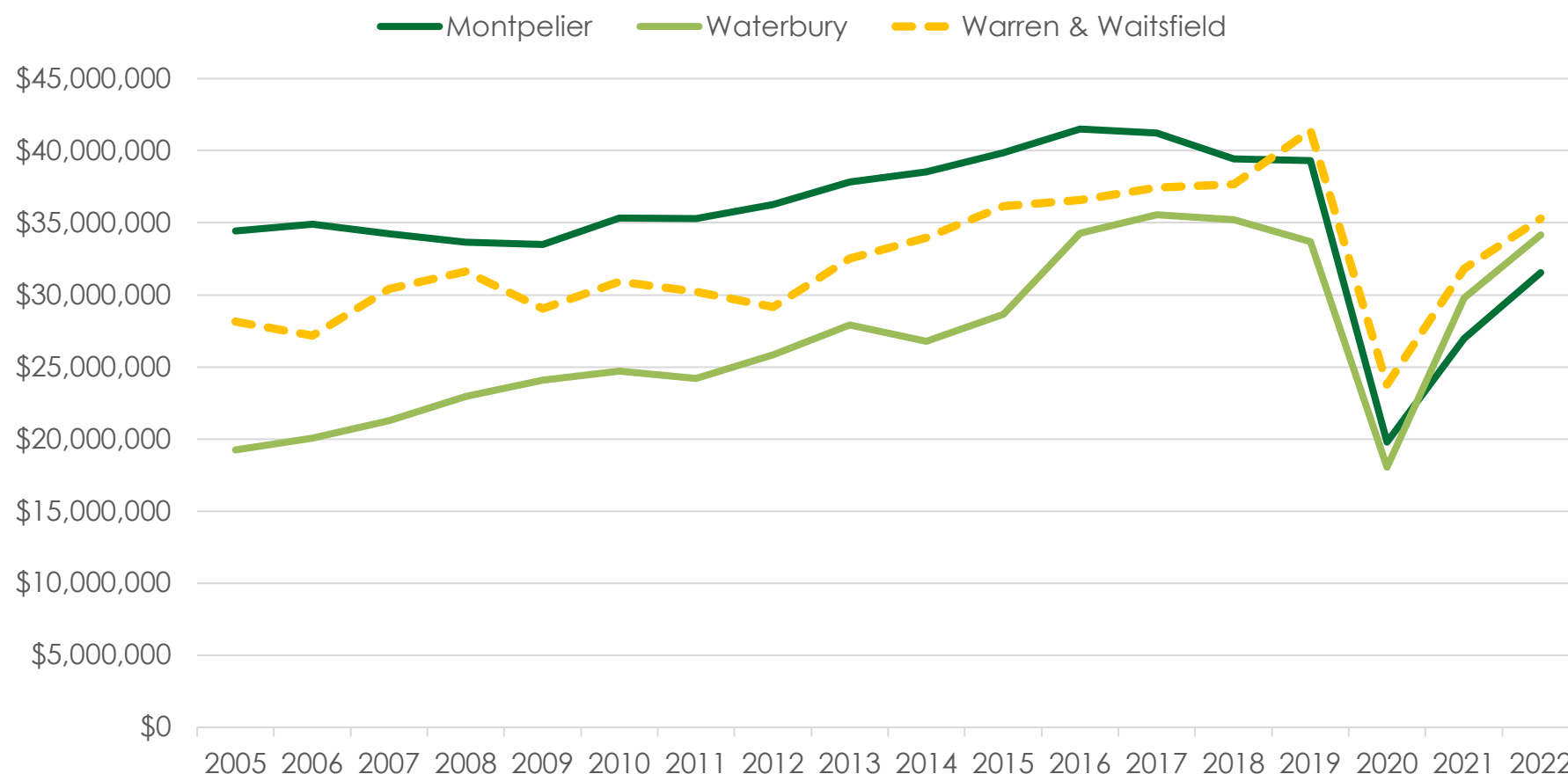


FIGURE 36. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

The draw of the Mad River Valley's winter and summer tourist seasons can be compared by exploring quarterly tax receipt data. It is important to note that by splitting up the seasons into quarters (First: January-March, Third: July-September) we lose a percentage of the actual tourist season, however, this is as close of an approximation and we can get with current resources. **Figure 37** shows Third Quarter receipts fairly stable year to year, growing by 56% between 2005 - 2022. We suspect the relative stability of Third Quarter receipts year to year to be related to its lesser reliance on weather fluctuations, when compared to the impact that skiing conditions pose to First Quarter tax receipts. The Third Quarter of 2020 took a much steeper decline than First Quarter, most likely because the pandemic didn't begin until Quarter Two of that year. The trendlines illustrate relative stable growth of Third Quarter over the period, with First Quarter receipts more variable and declining slightly.

MRV Meals, Rooms, Alcohol Tax Receipts by Quarter, 2005 - 2022

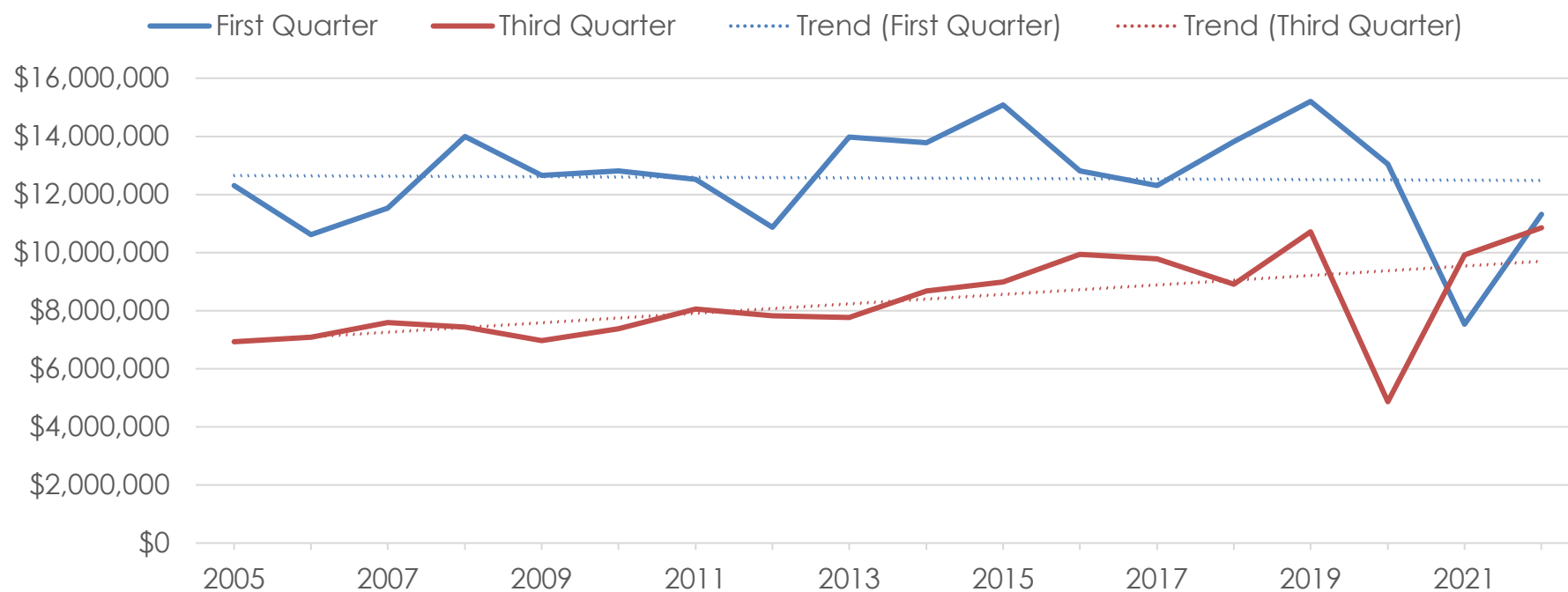


Figure 37. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Similarly to the Quarterly Tax receipts, October tax receipts are largely impacted by seasonality. The purpose of showing October tax receipts for Waitsfield is to provide insight into the effect that the fall tourist and wedding season has on the Mad River Valley.

Waitsfield October receipts remained steady from 2005 to 2013, starting to rise toward a new plateau in 2014. Rapid increase was experienced across all categories from 2018 to 2019: Meals (+26%), Rooms (+21%), and Alcohol (+43%). Waitsfield's October receipts reacted similarly to the COVID-19 pandemic as with other areas, with a sharp decline in all categories between 2019 – 2020. The largest decrease was experienced in Alcohol (-71%). A strong rebound to nearly previous levels was experienced in 2021, strengthening in 2022.

Warren did not meet the VT Dept. of Taxes confidentiality reporting standards, and for that reason we do not have access to current sales receipt data for the month of October.

Waitsfield Tax Receipts, October, 2000 - 2022

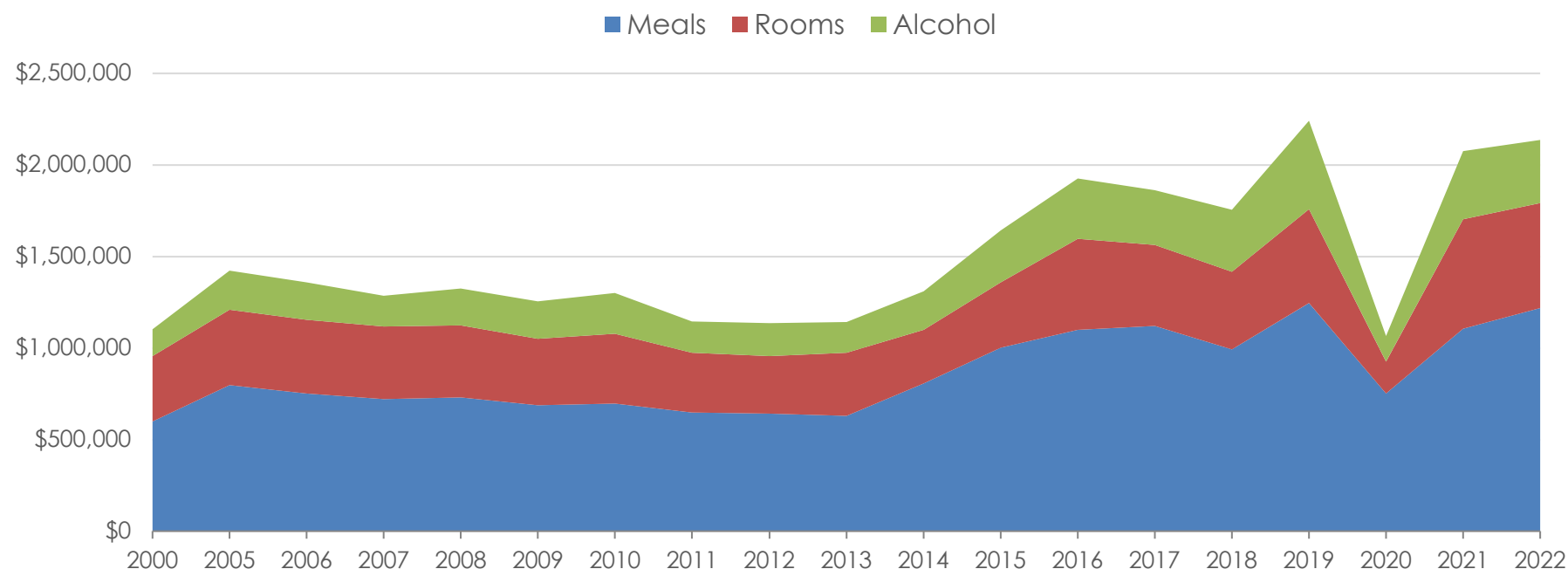


FIGURE 38. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

RETAIL SECTOR

Figure 39 compares 2022 Gross Sales⁹ tax receipts by town. While Waitsfield still reported the highest sales receipts (\$134,227,966), Warren's commercial activity (\$88,685,753) represents an increase of 54% since 2018. Conversely, Waitsfield and Fayston's Gross Sales Tax Receipts decreased by 10% and 61%, respectively, during the same timeframe. Despite those decreases, the MRV's total gross sales increased by 7% between 2018 - 2022.

MRV Gross Sales Tax Receipts by Town, 2022

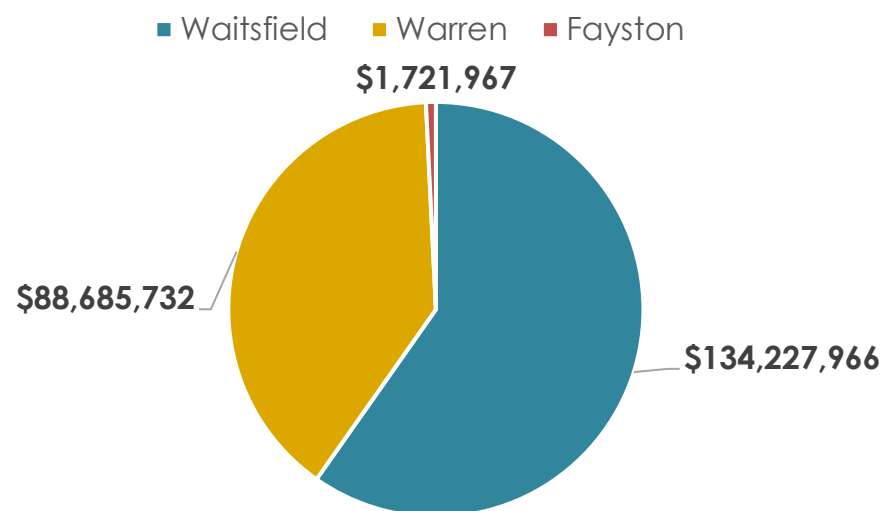


FIGURE 39. SOURCE: VT DEPT. OF TAXES

⁹ "Gross" receipts may or may not include sales subject to exemptions. This category can be thought of as the sum of all sales that happen in a municipality. This may include both taxable sales (toys, tools, etc.) and nontaxable sales (clothing, food products, etc.) but will not include the sales for which Use tax is remitted by businesses in that town.

A comparison of Gross Sales and Retail Tax Receipts in **Figure 40** shows the MRV's trend since 2005. As noted in the prior data report (2019), Gross Sales steadily fell from 2005 to 2018, when the category began to experience its first upward trend in recent years. From 2018 to 2022, Gross Sales increased by 7%, but this is still 23% less than the Gross Sales reported in 2005.

Retail receipts have remained stable from 2005 to 2022, with a slight decrease of 4% across these 17 years. Since 2018, Retail Sales have increased by 1%. Between 2019 – 2020, the beginning of the COVID-19 pandemic, reported Retail Sales receipts decreased by 8%, while Gross Sales decreased by 15%.

MRV Tax Receipts by Source, 2005 – 2022

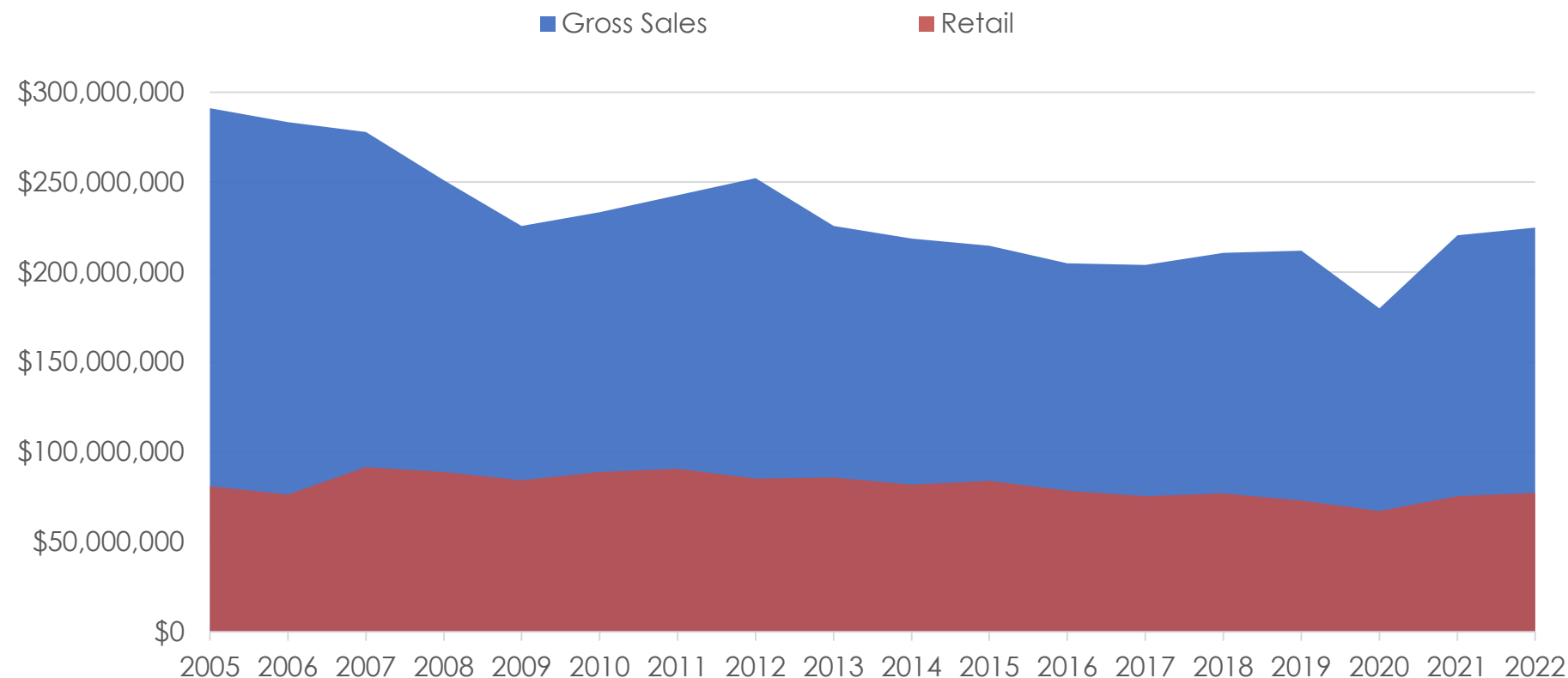


FIGURE 40. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Figure 41 provides a more granular view of the MRV's Gross Sales Tax Receipts, showing the proportion reported by each town. Since 2005, Waitsfield has continually decreased in Gross Sales Tax Receipts, reporting a total loss of 43% in 2022. A majority of the decline in overall MRV Gross Sales (-23% since 2005 as seen in **Figure 40** on the prior page) can be attributed to Waitsfield. Fayston was also a contributor, experiencing its own -83% decrease in Gross Sales since 2005, but due to its lower volume of sales receipts had less of an influence proportionally. Warren is the only town in the MRV that had a positive trend in this timeframe, with an increase of 129% from 2005 - 2022, 62% between 2017 - 2022.

Gross Sales Tax Receipts by Town, 2005 - 2022

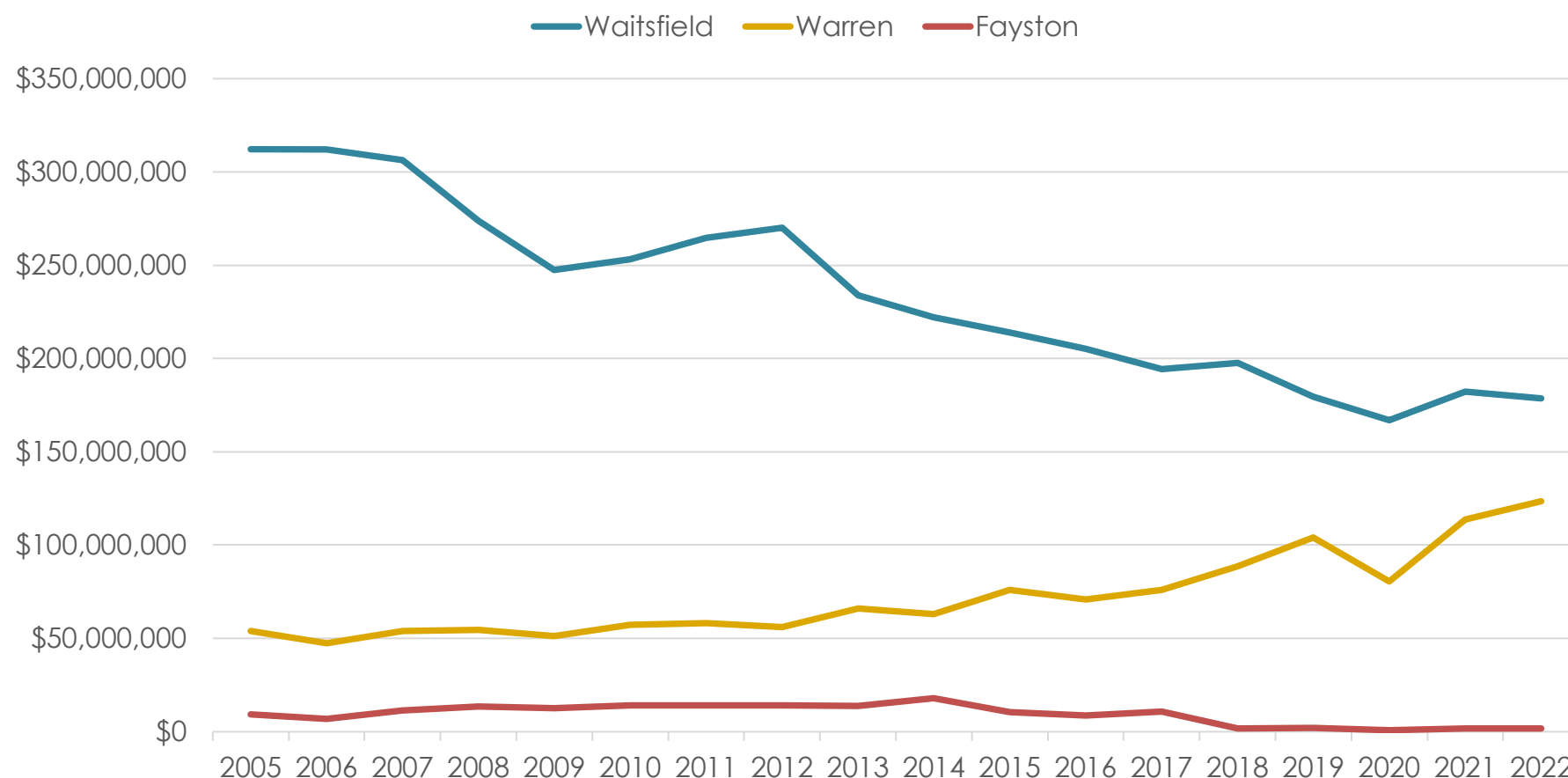


FIGURE 41. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

SKIER VISITS

Despite a winter season with average to below-average total snowfall amounts, both Sugarbush and Mad River Glen experienced increases in total skier visits when compared to the 2021-22 ski season (**Figure 42**). Sugarbush saw an increase of 6% and Mad River Glen experienced an increase of 23%. Sugarbush has continued to rise in its number of skier visits since a recent low point during the 2020-21 season, and was only 12,000 visits away from exceeding its peak number of visits within the last 10 years. Mad River Glen has had below-average visits for the last three ski seasons, but experienced strong growth in the 2022-23 season.

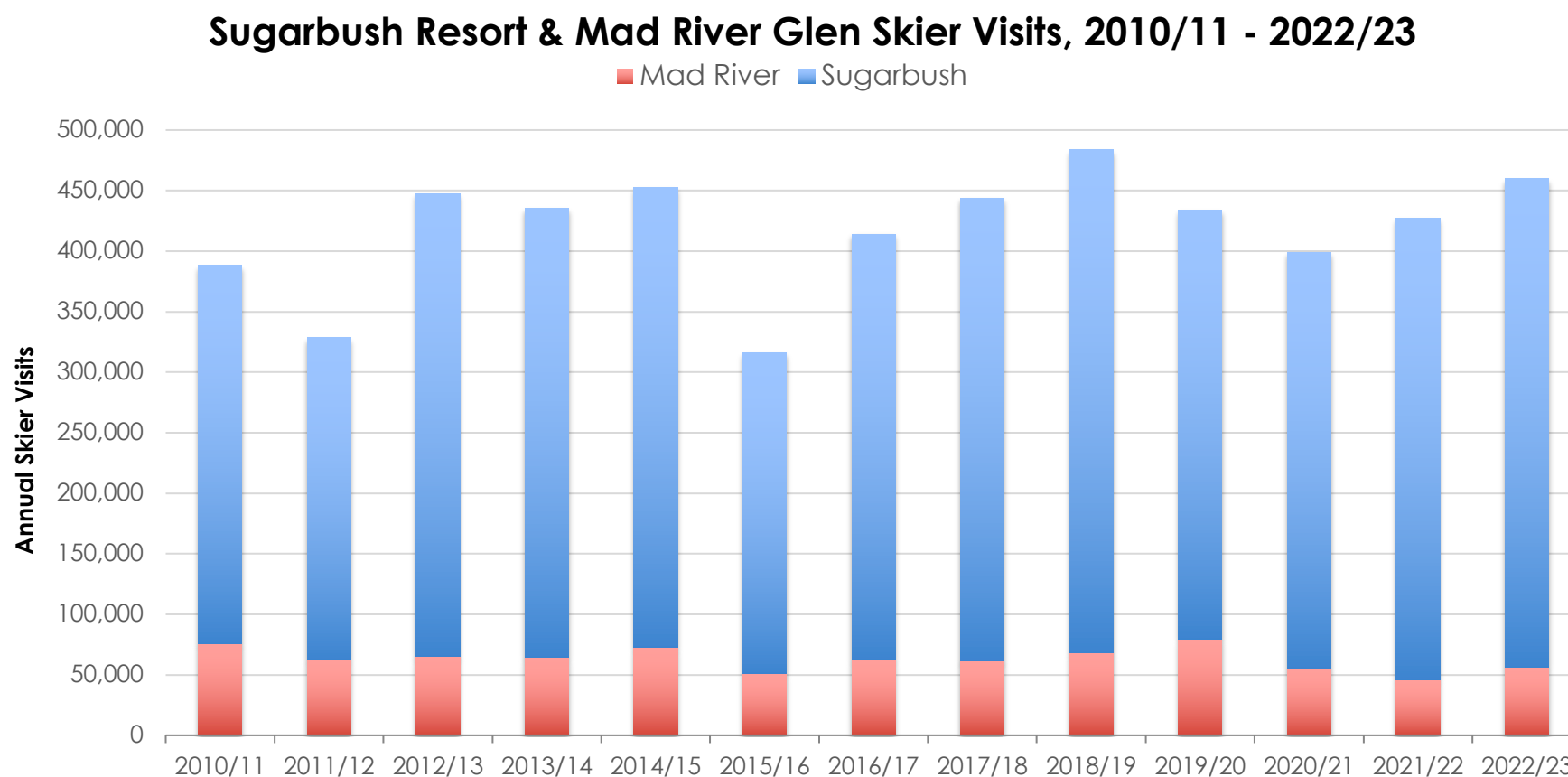
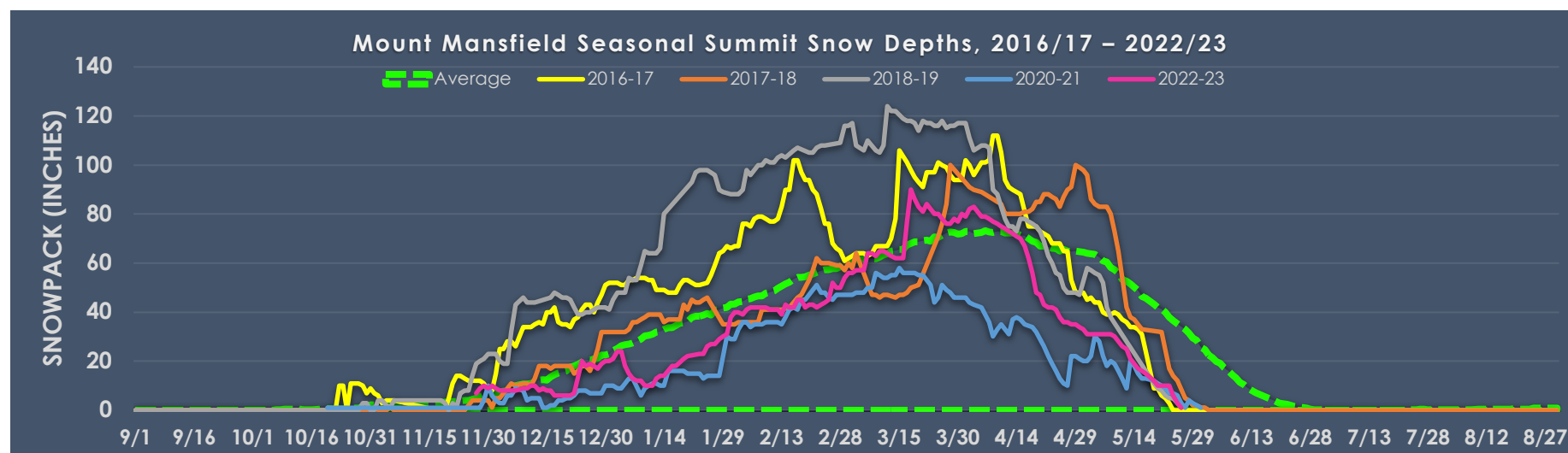


FIGURE 42. SOURCE: SUGARBUSH RESORT & MAD RIVER GLEN

Figure 43 shows seasonal and average snowfall depths collected at the summit of Mount Mansfield. The graph provides a visual benchmark comparing details across five recent winter seasons and the average snowfall of the last 68 years. Snowfall depth on Mount Mansfield was slightly below average through the majority of the 2022-23 season, with a brief period between mid-March and mid-April when the snowpack rose to above-average levels. **Figure 44** shows Sugarbush's reported natural snowfall over the last ten winter seasons.



Sugarbush Annual Natural Snowfall, 2010/11 – 2022/23

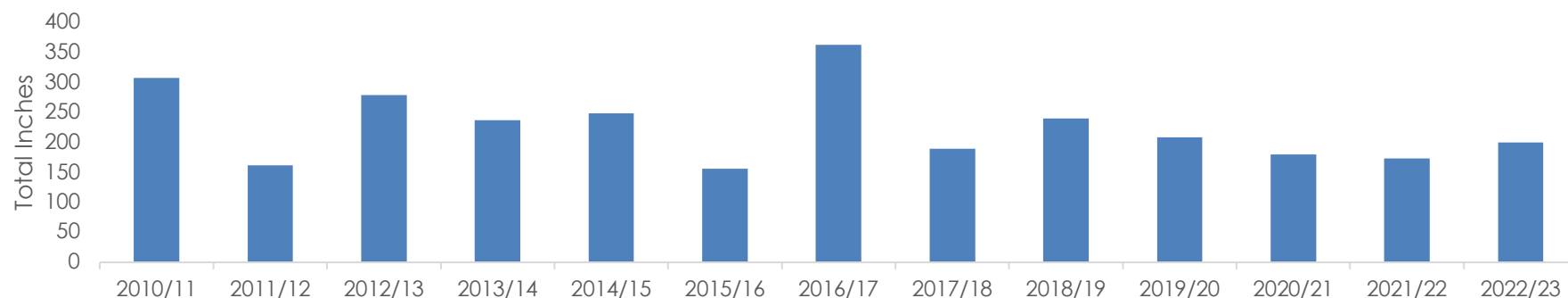


FIGURE 43. SOURCE: SKIYT-L, NATIONAL WEATHER SERVICE

FIGURE 44. SOURCE: SUGARBUSH RESORT

Recreation Trail Use

In 2018 & 2020, the MRVPD partnered with the Central Vermont Regional Planning Commission (CVRPC) and the Mad River Valley Trails Collaborative to update trail user count data taken during the 2016 MRV Moves Active Transportation Plan. The four count sites profiled in 2016, along with 4 additional locations, were analyzed in 2020 during ~2-week periods from August 10 – October 16, using consistent methodology to extrapolate average weekly data to annual average daily counts¹⁰. The average annual numbers account for seasonal variation in user activity as summer/fall activity is generally higher than winter/spring.



Image 5. Sam Robinson

¹⁰ All counts collected through the MRV Moves Study utilized the National Bike & Pedestrian Documentation Project Extrapolation Formula Workbook.

2020 trail user count data is illustrated in **Figure 45**, below. Compared to 2018, Blueberry Lake Trails activity increased by 59%, Revolution Trail activity increased by 33%, Waitsfield West Sidewalk decreased by 44%, and the Hosford Heart of the Valley Wetlands Boardwalk increased by 234% (the boardwalk was under construction in 2018), Chase Brook Town Forest increased by 154%, and the Mad River Path Greenway decreased by 10%. CVRPC is once again undertaking trail counts in 2023, which will be presented in the 2024 Data Report.

Average Daily MRV Trail User Count, 2016 - 2020

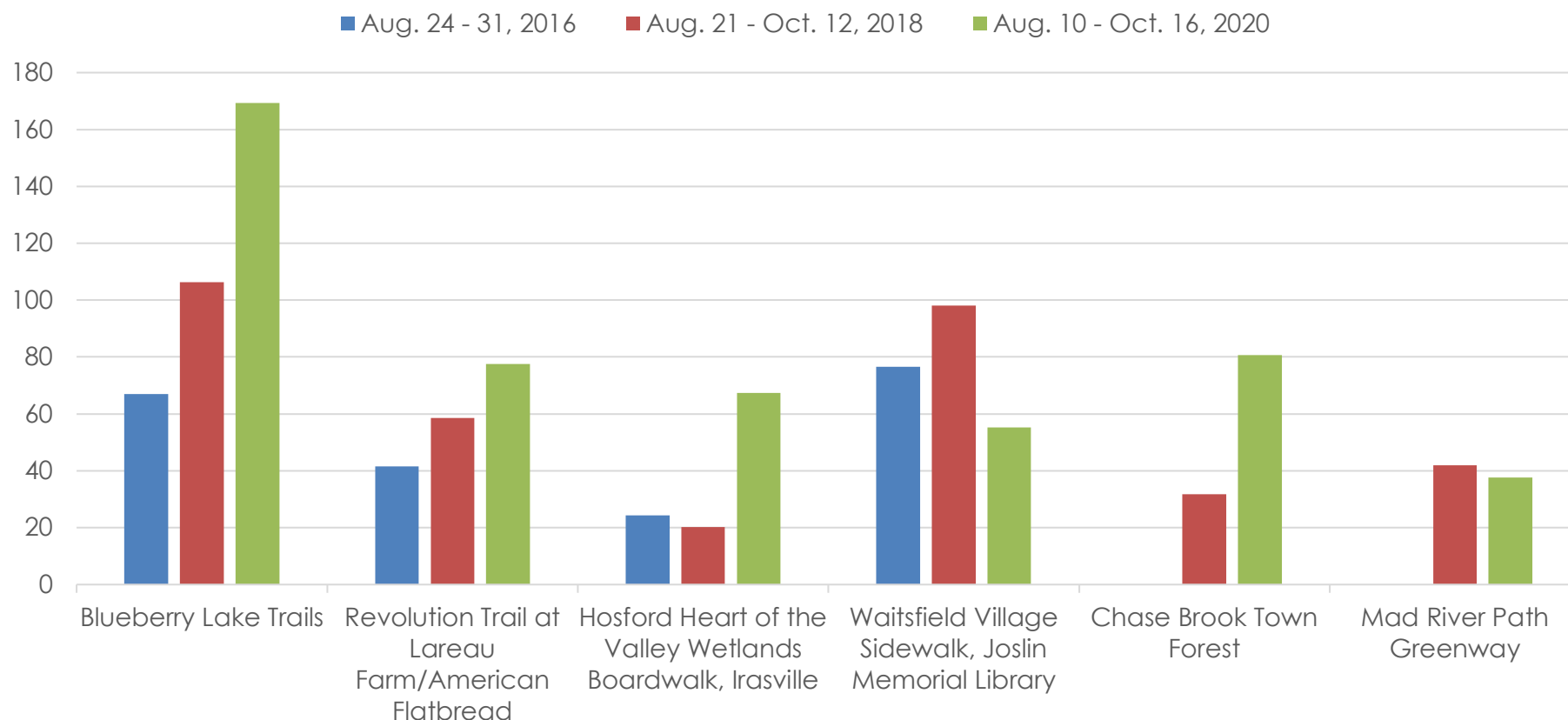


FIGURE 45. MRVPD, CVRPC, MRV TRAILS COLLABORATIVE



SECTION III: EMPLOYMENT

Includes Items #35 & 36 from the Memorandum of Understanding

Total employment¹¹ data from the Vermont Department of Labor's Economic & Labor Market Information (VTLEMI) shows the number of employed MRV residents rose between 1990 and 2022, aside from a dip experienced around the time of the COVID-19 pandemic, as shown in **Figure 46**, below. This trend generally aligns with MRV population changes.

Total Employment Within MRV Towns, 1990 - 2022

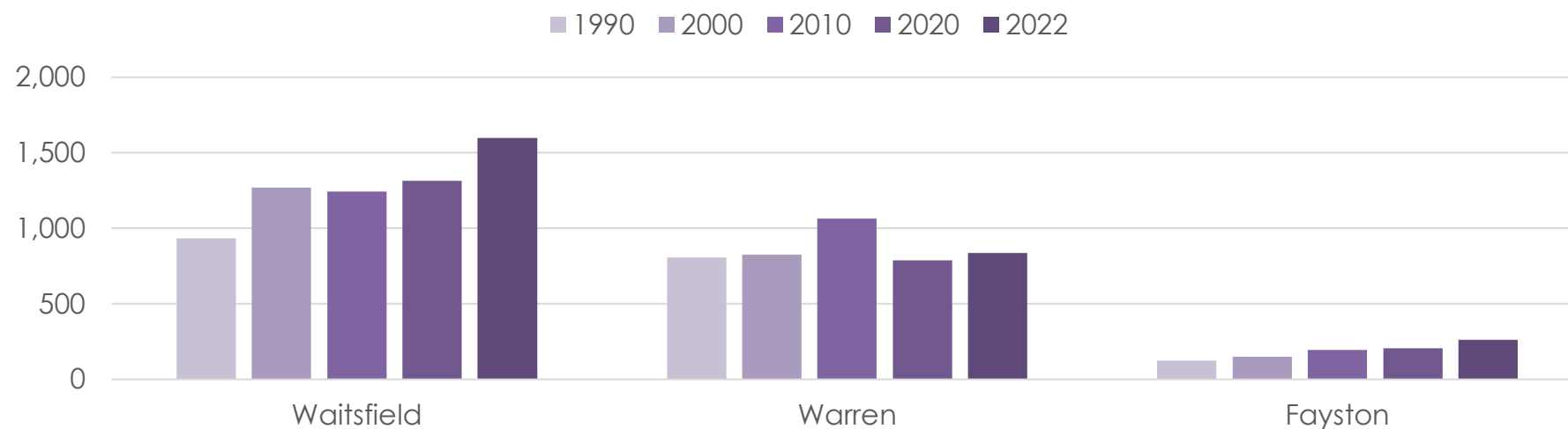


FIGURE 46. SOURCE: VERMONT ECONOMIC & LABOR MARKET INFORMATION (VTLEMI)

¹¹ **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 number of workers within a town's physical constraints, regardless of residence, and does not include remote workers or those who commute to neighboring towns or regions for employment.

Figure 47 shows Comparative Employment in MRV, Washington County, and Vermont indexed to the year 1990. MRV Total Employment experienced a slow increase between 1990 – 2004, after which it plateaued between 2004 - 2012. Total employment increased steadily from 2012 - 2020, but experienced a sharp drop in 2020, similarly to Washington County and Vermont, but more pronounced in the MRV. The MRV Comparative Employment surpassed that of the county and state since 1994. MRV employment tends to follow regional trends, while being more volatile than that of the county and state.

Comparative Employment by Region, Indexed to 1990

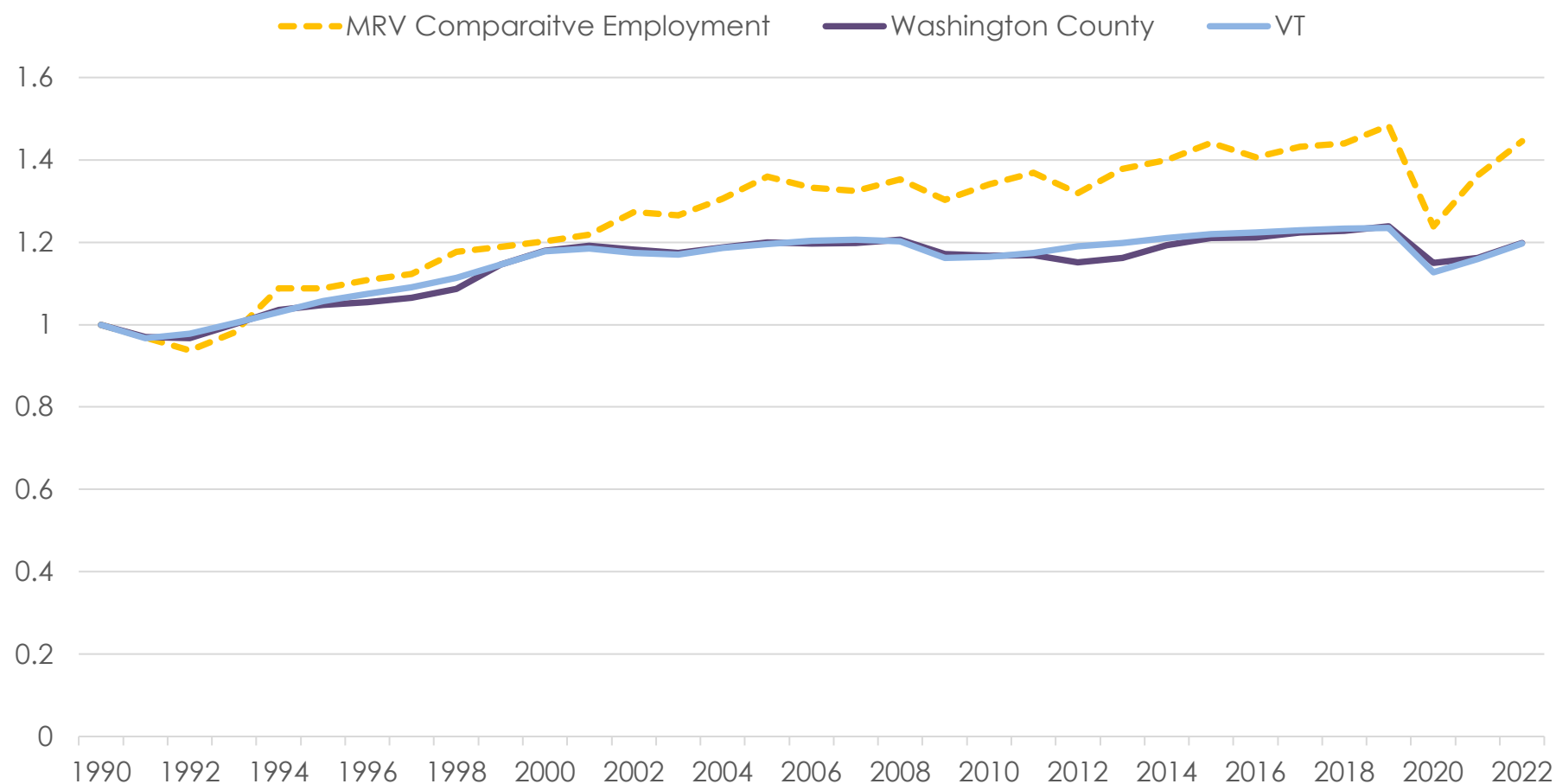


FIGURE 47. SOURCE: VERMONT ECONOMIC & LABOR MARKET INFORMATION (VTLEMI)

INDUSTRIES

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 Vermont. Data includes monthly employment level and wages at each worksite. Please see descriptions of each industry¹² below:

- **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 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.
- **(c*)** represents jobs withheld from reporting due to not meeting VT confidentiality reporting standards

¹² The following graphs do not depict all industry categories, though the key sectors chosen represent the vast majority of jobs in the MRV. A full list of industries by North American Industry Classification System (NAICS) code is available at https://www.bls.gov/iag/tgs/iag_index_naics.htm.

Figure 48 shows the Number of MRV Businesses by Industry between 2008 - 2022. Overall, the sectors with the greatest number of businesses are Professional Business Services, followed by Construction, and then Leisure & Hospitality. Industries that gained businesses from 2021 - 2022 were Agriculture (+16.7%), Financial Services (+3.2%), Education & Health Services (+10.5%), Information (+36.4%), Professional Business Services (+7.7%), and Wholesale Trade (+7.6%). From 2021 - 2022, the total number of businesses within the MRV grew by 4%.

From 2013 - 2022, the sectors with the most dramatic fluctuations Professional Business Services sector (+59%) and Retail Trade (-26%).

Number of MRV Businesses by Industry, 2008 - 2022

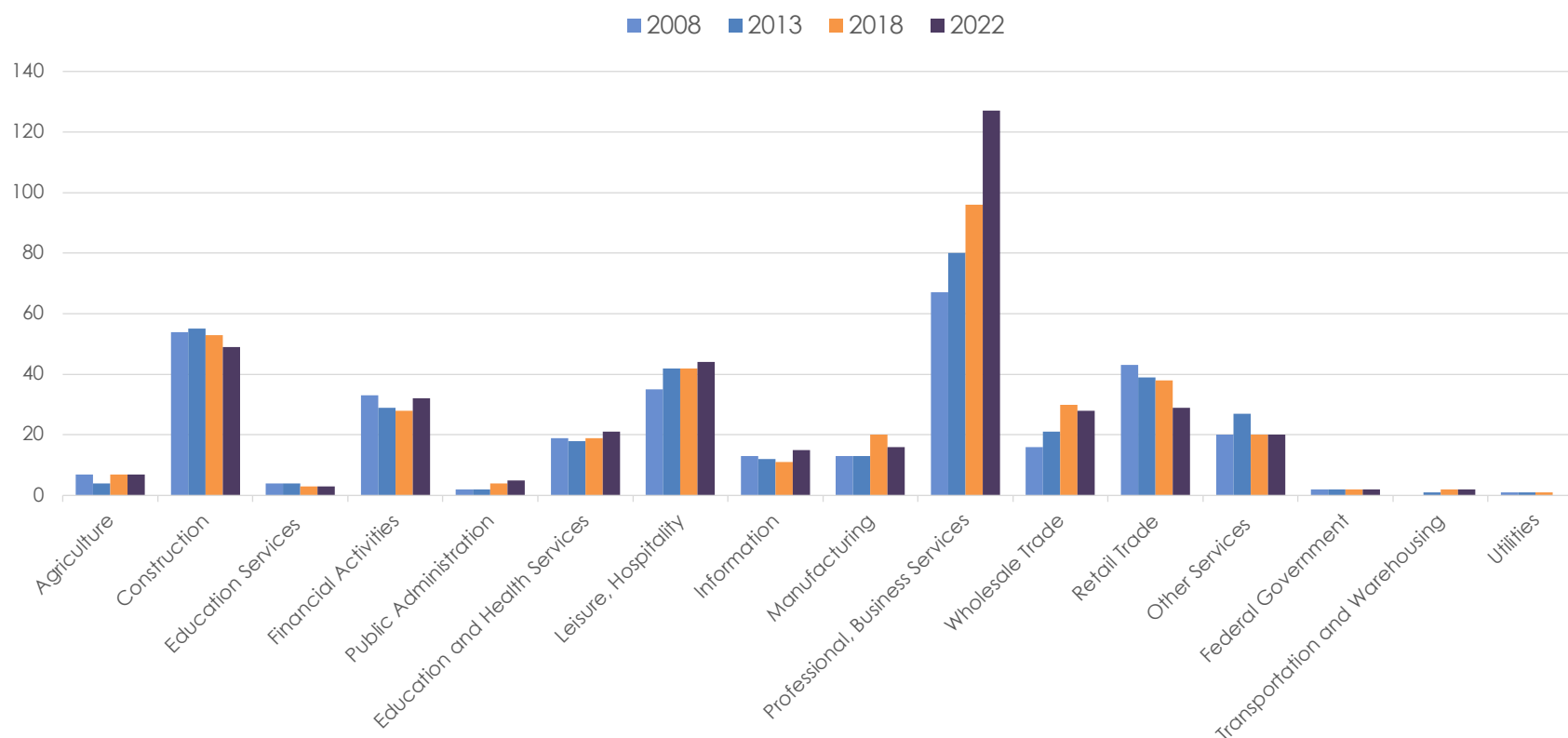


FIGURE 48. SOURCE: VTLM

The MRV attracts businesses from many major sectors, however, **Figure 49** shows that the dominant employers in the MRV are within the Construction, Leisure & Hospitality, and Professional Business Services domains. Beginning in 2020, Warren no longer met VTLM's confidentiality reporting standards for disclosing the number of employees within the Leisure & Hospitality sector, and thus, the MRV saw a large drop in the number of employees in that industry. Total MRV covered employment stayed relatively stable (between 2,500 - 2,700 jobs) from 2008 - 2019, but quickly fell in 2020 (coinciding with the COVID-19 pandemic). Since the primary pandemic year, the MRV has experienced an upward trend in covered employment, with a 19% increase from 2020 - 2022, and a 4% increase in just the last year.

Number of Jobs by Industry, 2008 - 2022

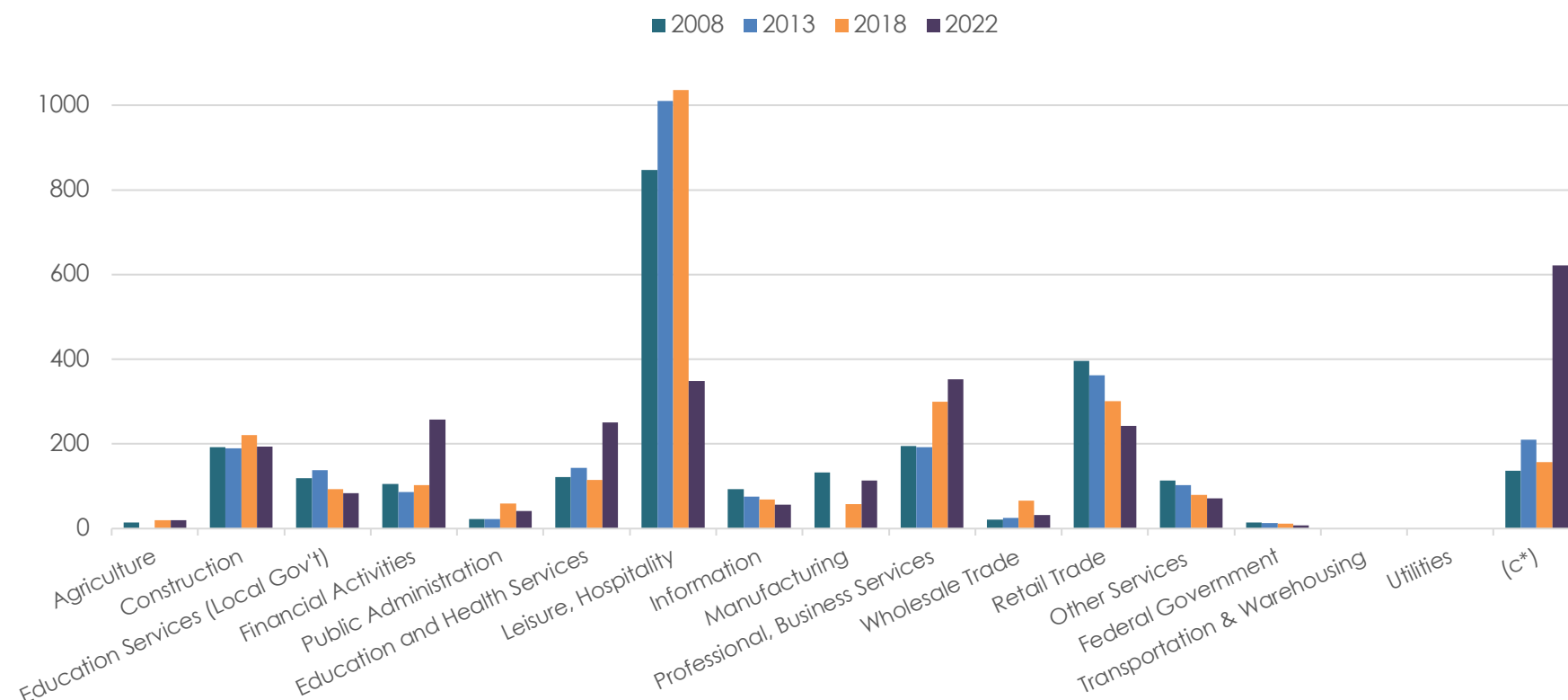


FIGURE 49. SOURCE: VTLM

Similar to covered employment, the sectors of Construction, Leisure & Hospitality, and Professional Businesses Services earn the most total annual wages in the Mad River Valley. Despite generating more total annual wages on average, Leisure & Hospitality saw a decrease in total annual wages from 2013 – 2022 (-54%). Industries that experienced an increase from 2013 – 2022 were Agriculture (+141%), Financial Activities (+159%), Public Administration (+154%), Education & Health Services (+39%) Manufacturing (+268%), and Professional Business Services (+128%). This represents a 5% increase from 2013 - 2022 across all categories. From 2021 - 2022, there was less growth across all industries, which resulted in a 5% decrease in total annual wages in the MRV.

MRV Total Annual Wages by Industry, 2008 - 2022

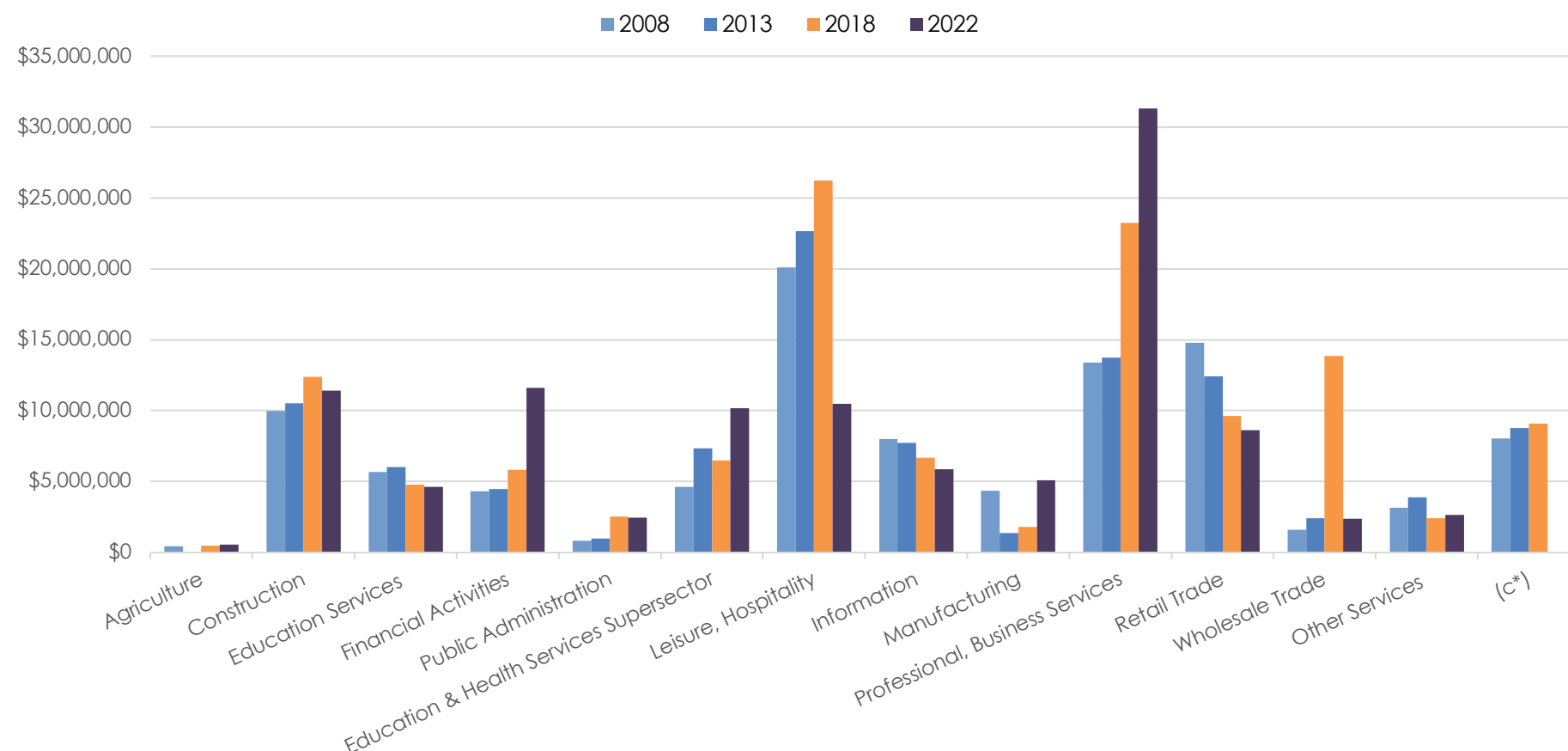


FIGURE 50. ADJUSTED FOR INFLATION. SOURCE: VTLM

Figure 51 shows Waitsfield's average annual wage by industry from 2019 - 2022. The dotted lines represent the 2022 Washington County Housing Wage for one-bedroom (maroon) and three-bedroom (orange) housing units. Waitsfield is used as a benchmark for the greater Mad River Valley, providing insight on how our region's average annual wages by industry correspond to housing affordability. **Figure 51** illustrates that the average annual wage ranges from around \$28,000 in the Agricultural industry to upwards of \$100,000 in the Information sector. Between 2019 - 2022, the largest increases in average annual wage were seen in Public Administration (+75%), Manufacturing (+44%), Leisure & Hospitality (+22%), and Retail Trade (+10%). The greatest decreases occurred in Wholesale Trade (-26%), Financial Activities (-22%), and Education & Health Services (-16%).

From 2019 - 2022, the average wage for Agricultural and Leisure & Hospitality employees in Waitsfield was less than the one-bedroom and three-bedroom Washington County Housing Wage. Furthermore, the only industries that consistently maintained an average annual wage sufficient to comfortably afford three-bedroom housing in Washington County were Information, Professional Business Services, and Wholesale Trade. Several other sectors, such as Construction, Education Services, and Public Administration were on the edge of being able to comfortably afford three-bedroom housing in Washington County, but when one considers the higher housing costs in the MRV compared to the rest of Washington County, it raises the question as to whether or not those workers could comfortably rent a three-bedroom residence in the MRV. By looking at **Figure 51**, we are able to visually observe how the cost of living corresponds to the average annual wage in the MRV.

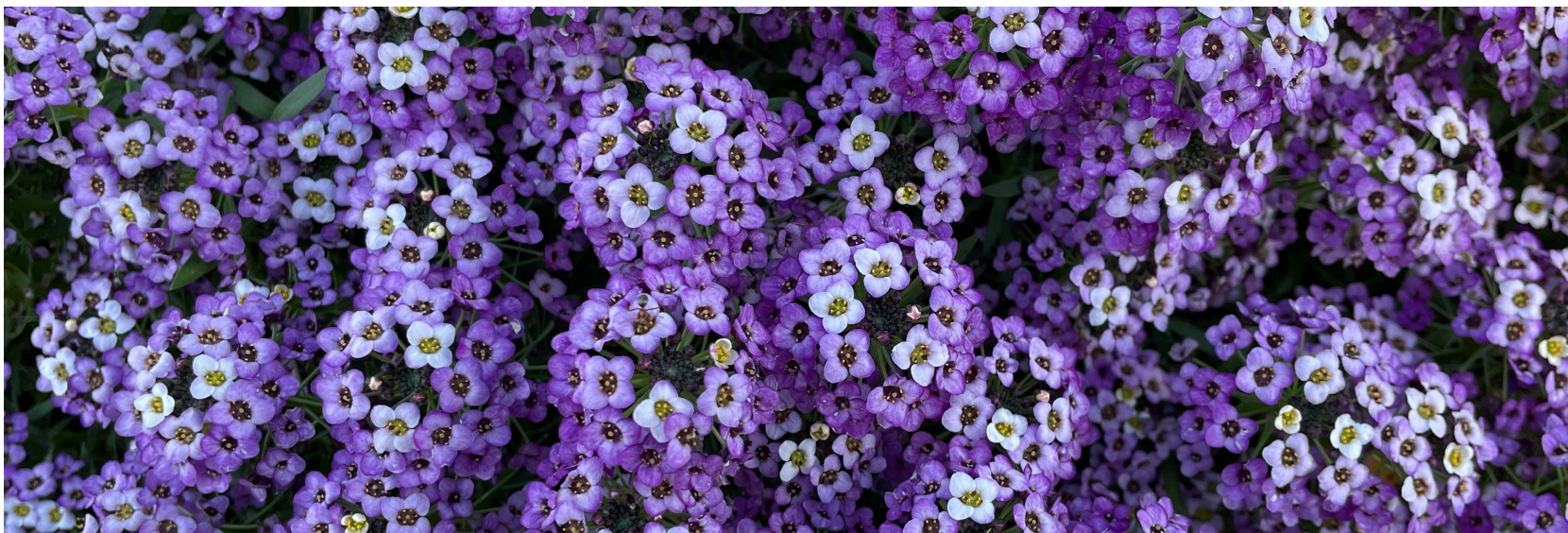


Image 6. Kasara Gage

Waitsfield Average Annual Wage by Industry and 2022 Washington Co. Housing Wage, 2019 - 2022

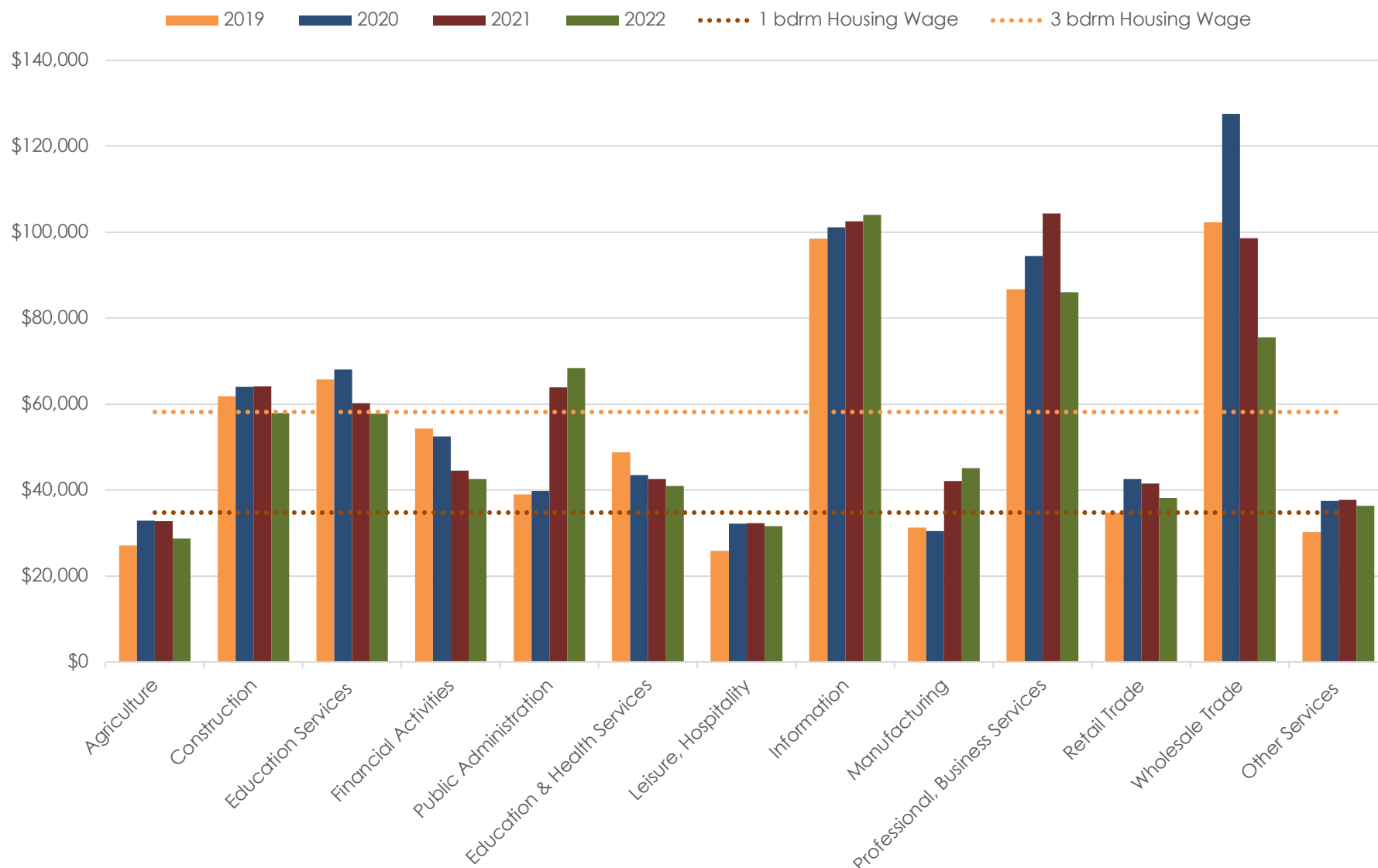


FIGURE 51. ADJUSTED FOR INFLATION. SOURCE: VTLM; VHFA

Figure 52 shows the Monthly Average Covered Employment by Town. Monthly totals were averaged between 2010 – 2022 in an effort to understand how the MRV tourism economy and distinctive seasons influence regional employment trends. **Figure 52** shows that winter months typically experience a surge in employment opportunities, possibly due to the influx of winter sports enthusiasts to the region's ski resorts. This could result in higher demand for workers in the hospitality and recreation sectors, including ski instructors, lodge staff, and other related service industries. It is interesting to see that while Fayston and Warren experience a decline in employment during the summer months, Waitsfield experiences an increase.

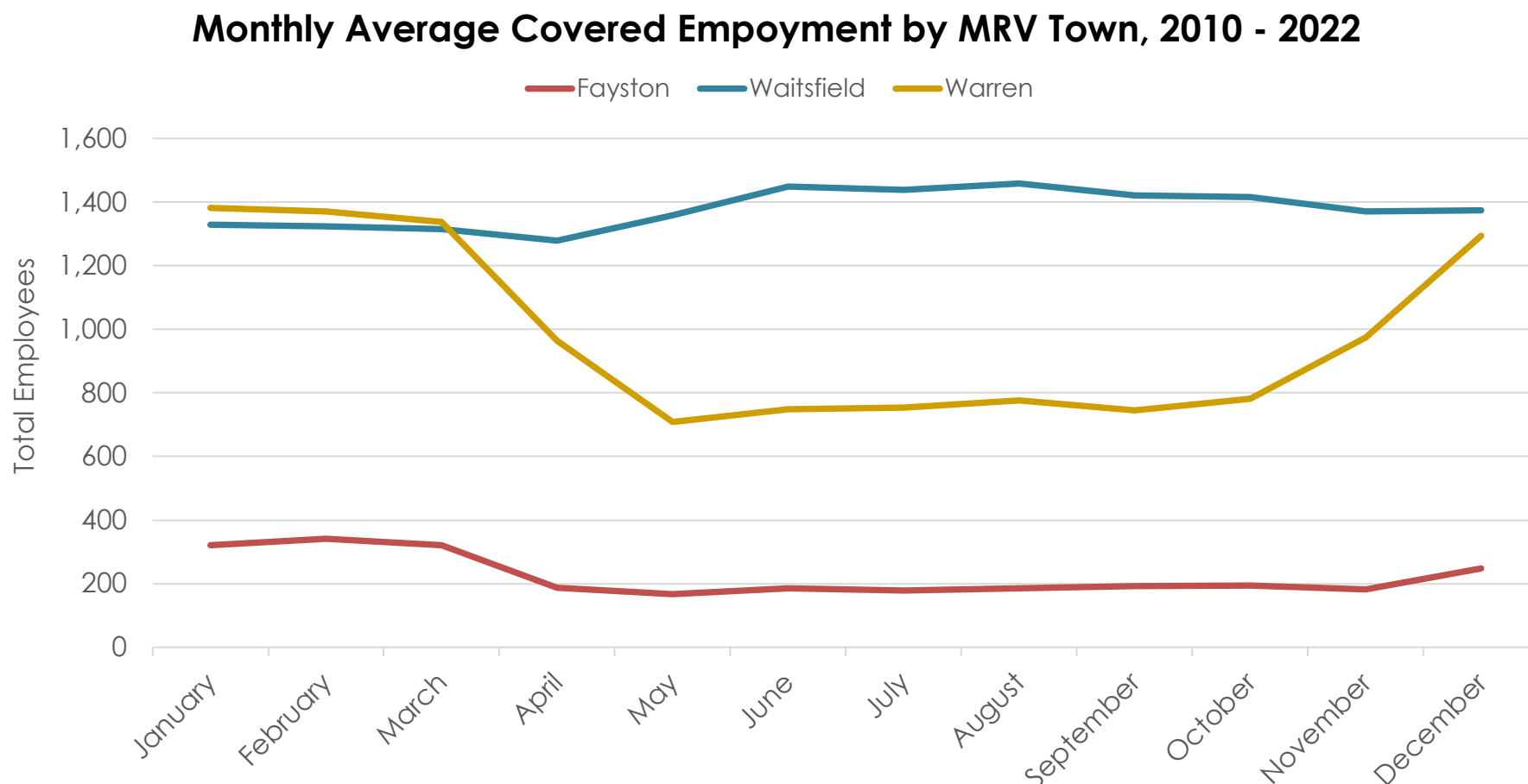


FIGURE 52. SOURCE: VTLM

Figure 53 shows that unemployment rates in the observed regions consistently dropped from 2010 - 2019, with the exception of Fayston (which was steady, increased, and decreased). All regions experienced an increase in unemployment at the onset of 2020 and the COVID-19 pandemic, likely due to the several-month quarantine that prevented many from working. In 2020, the unemployment rate increased by 300% in Fayston, 200% in Waitsfield, 415% in Warren, 145% in Washington County, and 171% in Vermont. Regional unemployment rates have yet to return to the prior lows seen in 2019, but have dropped since 2020, with all regions reducing the unemployment rate by between 51% - 75%.

The MRV seemed to follow similar trends to Washington County and Vermont as a whole, with the exception of Fayston, which maintains a slightly above average unemployment rate when compared to the larger region.

Annual Unemployment Rate by Region, 2010 - 2022

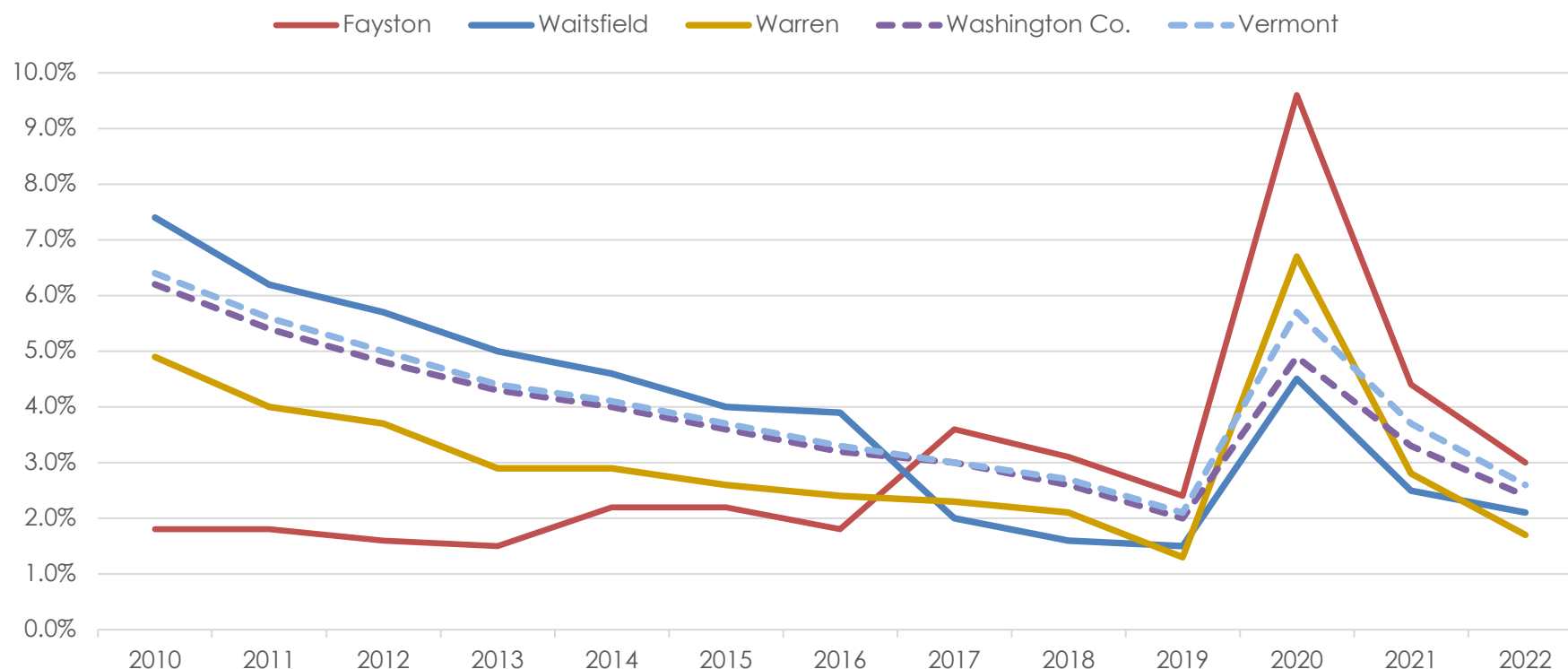


FIGURE 53. SOURCE: VT DEPT. OF LABOR, VT ECONOMIC & LABOR MARKET INFORMATION

WORKER FLOW

By observing the daily flow of commuters in and out of the MRV, we can gain valuable insights into housing needs, employment opportunities, and general affordability. Heavy traffic flows also influence road conditions and maintenance, parking supply, demand for public transit, and increase greenhouse gas emissions.

Employment trends can be seen in **Figure 54**. It is interesting to learn that a majority of MRV workers live in other regions, while many residents commute out of the valley for work on a daily basis. Less than 40% of MRV residents also worked in one of the three towns during 2020, which is the most recent available data from On The Map.

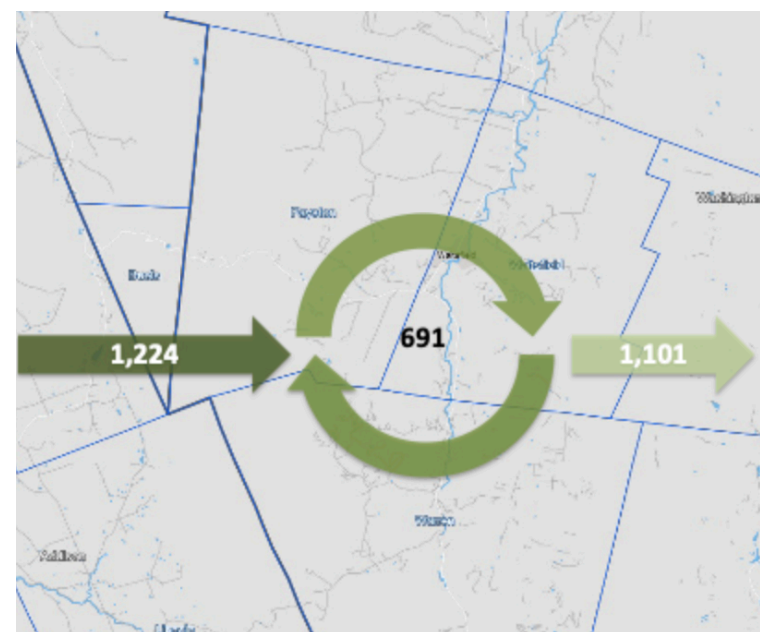
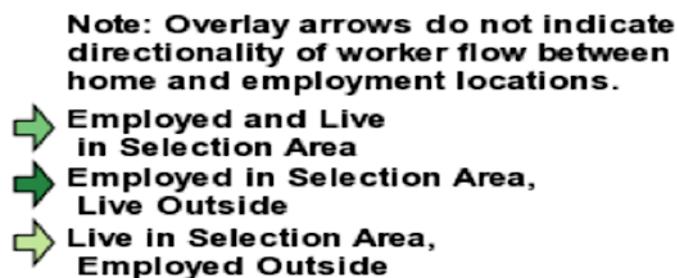


FIGURE 54. SOURCE: U.S. CENSUS BUREAU, ON THE MAP

Figure 55 shows MRV commuting patterns from 2013 - 2020. The number of employees in the MRV remained relatively stable (between 2,200 - 2,500) from 2013 - 2019, but experienced a decline in 2020 (-26%), likely resulting from the COVID-19 pandemic. Looking at **Figure 55**, it appears that the pandemic affected employers and employees within the MRV more than those who work in regions outside of the valley towns. This is illustrated by a 36% decline in the population that resides and works within the MRV from 2019 - 2020, an 18% decline in the number of commuters to the valley, compared to a 2% decline in the number of commuters out of the valley.

Since 2013, the proportion of MRV employee residents vs. employee non-residents has remained relatively stable. On average, 39% of MRV employees are residents, and 61% of MRV employees are non-residents.

MRV Commuting Patterns Over Time, 2013 - 2020

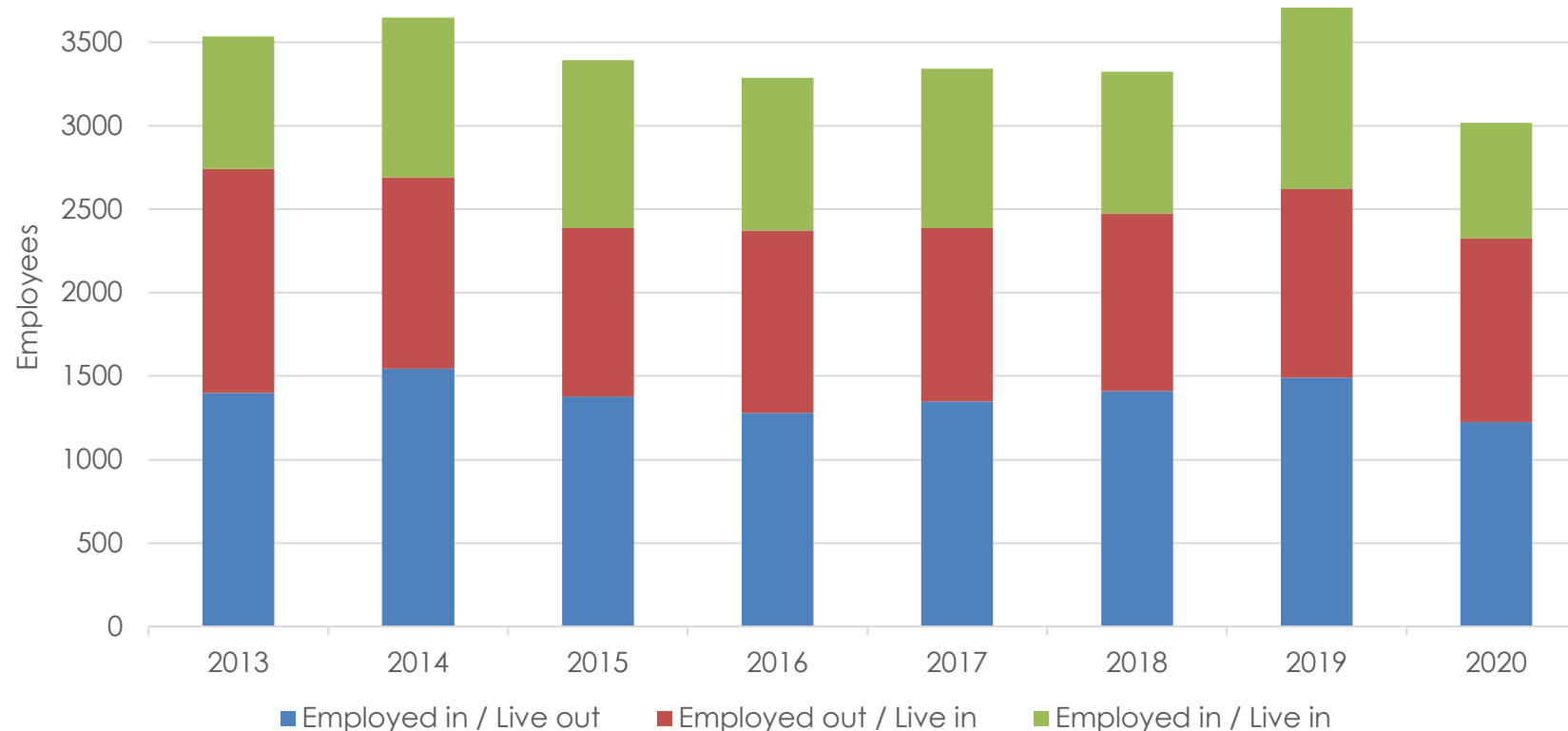


FIGURE 55. SOURCE: U.S. CENSUS BUREAU, ON THE MAP



SECTION IV: TRAFFIC & TRANSIT

Includes Items #24, 25 & 32 from the Memorandum of Understanding.

ANNUAL TRAFFIC SUMMARY

One aspect of the Memorandum of Understanding (MOU) between Sugarbush and the MRV Towns is to monitor traffic counters in the following key locations: The intersection of VT 100 & VT 17, the Sugarbush Access Road north of the Sugarbush Inn, and VT 17 west of German Flats Road. **Figure 56** shows the Average Annual Daily Traffic (AADT)¹³ for the south leg of the VT 100/VT 17 intersection from 1997 to 2021, and the west and north legs up until 2016. Traffic at all three locations remained steady from 1997 - 2006, at which point all locations experience slight drops in their respective AADT. Traffic counts between 2006 – 2016 experienced gradual decreases (between +3 – +10%). From 2016 – 2019, the south leg of VT 100 experienced a slight increase in traffic (+17%), before declining again in 2020 likely due to the COVID-19 pandemic (-15%).

Average Annual Traffic Counts - VT 100 & VT 17, 1997 - 2021

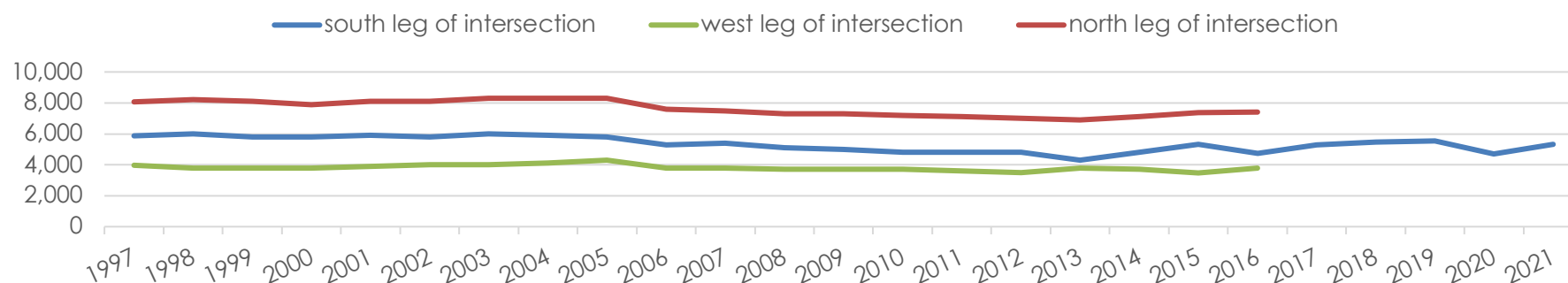


FIGURE 56. SOURCE: VTRANS

¹³ AADT is the total volume of traffic on a highway segment for one year divided by the number of days in the year.

Between 1997-2021, Sugarbush Access Road's AADT has dropped by 21%. A majority of this decrease occurred between the years 2019 – 2021 (-13%). Although less pronounced, VT 17 counts also experience a slight drop from 2019 – 2021 (-1%). From 1997 – 2021, the VT 17 traffic counter experience growth of 16%.

Average Annual Traffic Counts - Sugarbush Access Road, VT 17, 1997 - 2021

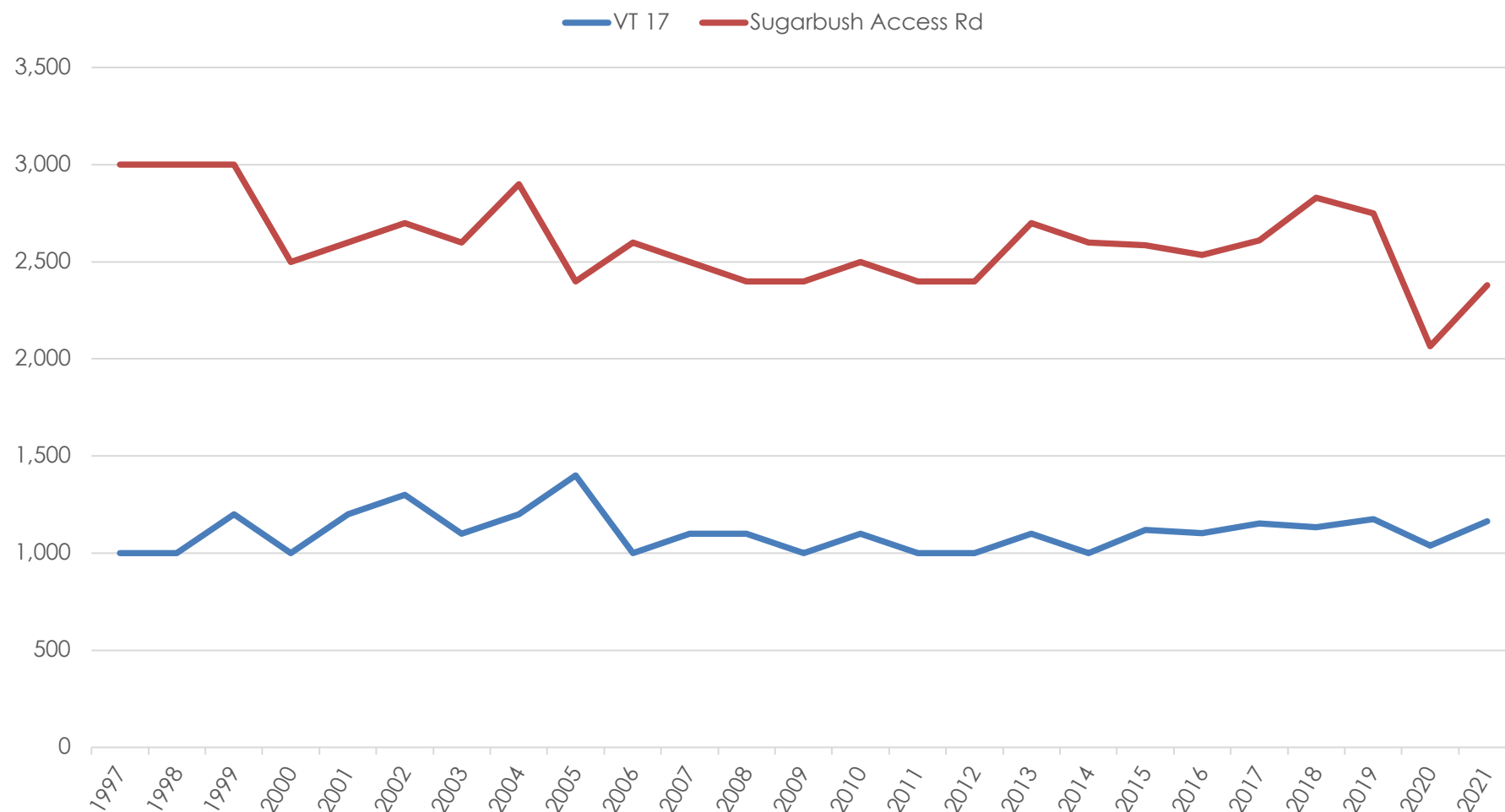


FIGURE 57. SOURCE: VTRANS

TRANSIT

Green Mountain Transit (GMT) began operating 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 2003 until 2005, when it was scaled back to winter season service (November-March). GMT also operates a Volunteer Driver Service that transports adults over 60 years of age and residents with limited mobility to medical appointments as well as other destinations when they call GMT to request a ride in advance.



Image 7. Kristine Keeney

Figure 58 shows Mad Bus ridership from the Fiscal Year 2003 to 2023. Green Mountain Transit operated the following four free-of-charge MRV Bus Routes during the 2022 - 2023 ski season: Valley Floor Shuttle, Mount Ellen, Mountain Condos, and Access Road. By averaging the total annual ridership for the twenty-season period, we find the average annual ridership to be 50,483. The 2020 – 2021 saw a dramatic decrease in annual bus ridership (-71%). This decrease was likely due to COVID-19 restrictions that limited the number of passengers allowed per shuttle, coupled with the potential aversion some people may have had to riding with others on public transit during the pandemic. Between 2021 and 2023, bus ridership rebounded to pre-pandemic levels (+237%).

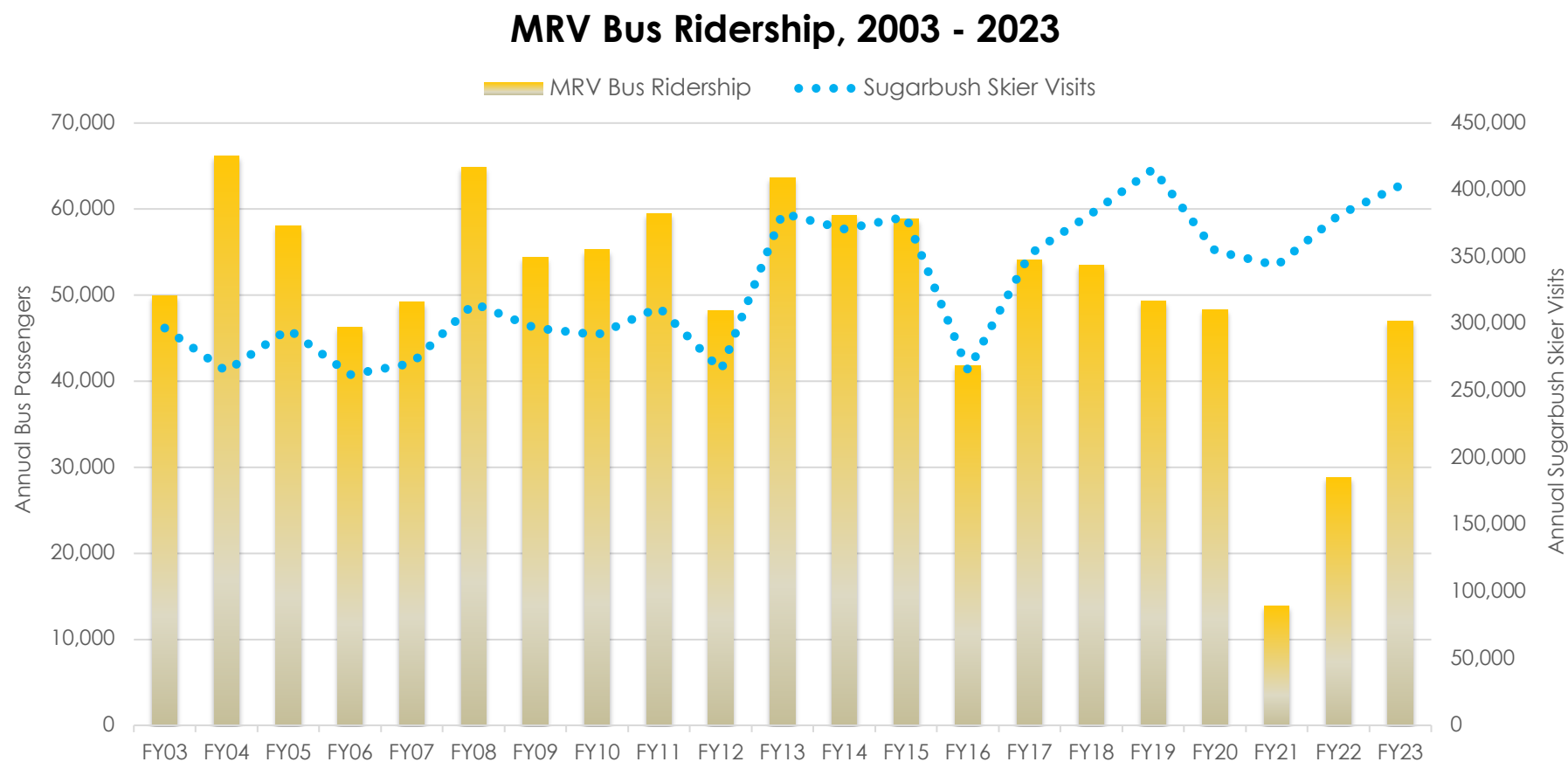


FIGURE 58. SOURCE: GREEN MOUNTAIN TRANSIT (GMT)



SECTION V: TOWN INFRASTRUCTURE

Includes Items #27 & 35 from the Memorandum of Understanding

EMERGENCY SERVICES

Figure 59 shows the number of combined MRV Ambulance and MRV Fire department calls from 2010 to 2022. The number of MRV Ambulance Service calls remained mostly stable from 2010 - 2019 (+2%). Similarly, the MRV Fire Departments increased their total annual calls by 10% from 2010 - 2019. From 2019 - 2022, both department's call volumes began to increase at a faster rate. During this time, the MRV Ambulance Service and MRV Fire Department's total calls increased by 24% and 42%, respectively.

Number of Calls to MRV Ambulance & Fire Departments

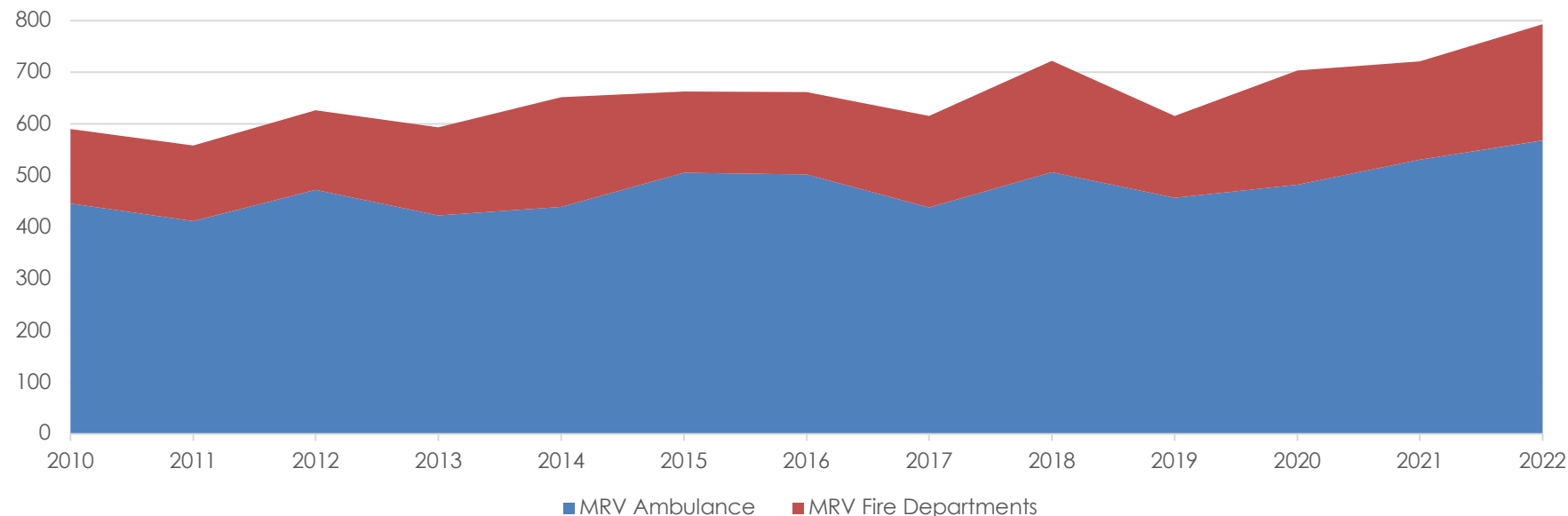


FIGURE 59. SOURCE: ANNUAL MRV TOWN REPORTS, WAITSFIELD-FAYSTON, WARREN FIRE DEPARTMENTS

CRIME

Figure 60 shows MRV crime data between 2007 and 2022. It is interesting to see that while crimes against persons remain relatively stable, the number of MRV-reported crimes against property varies greatly year-to-year. That said, crimes against property dropped by 55% from 2018 - 2019, and have remained stable for several years.

Crime Against Person and Property Reported in MRV

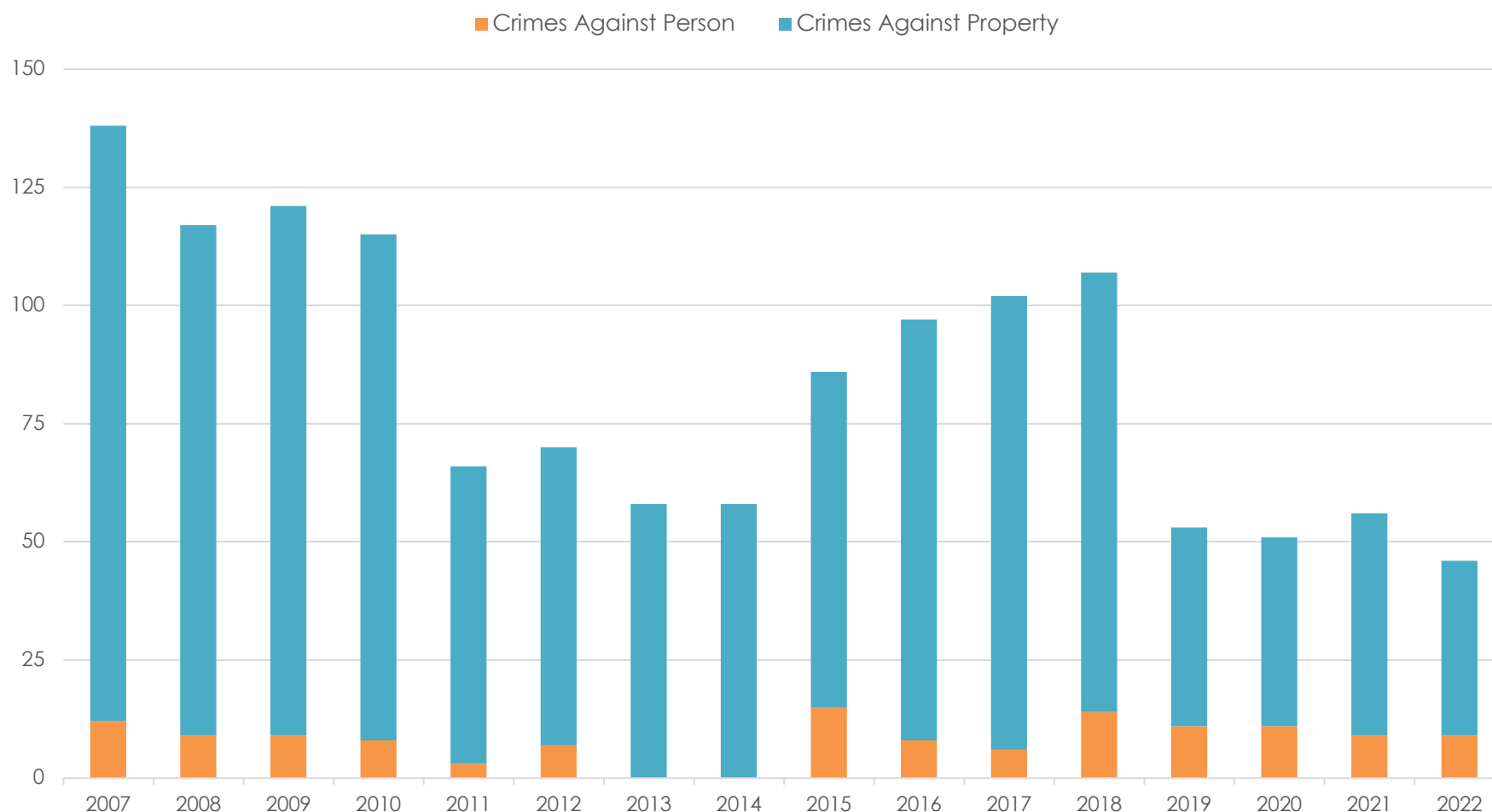


FIGURE 60. SOURCE: VT DEPT OF PUBLIC SAFETY, VERMONT CRIME INFORMATION CENTER, VT STATE POLICE

Figure 61 and **Table 1** show the Grand Lists and 2022 Tax Rates for the Towns of Fayston, Waitsfield, and Warren. There were only slight changes between 2009 and 2022—Waitsfield and Warren saw increases of 1%, while Fayston experienced a 1% decrease. Also worth noting, all towns reached an 80% or lower common level of appraisal in 2022, triggering the need for town-wide reappraisals.

MRV Grand Lists, 2009 - 2022

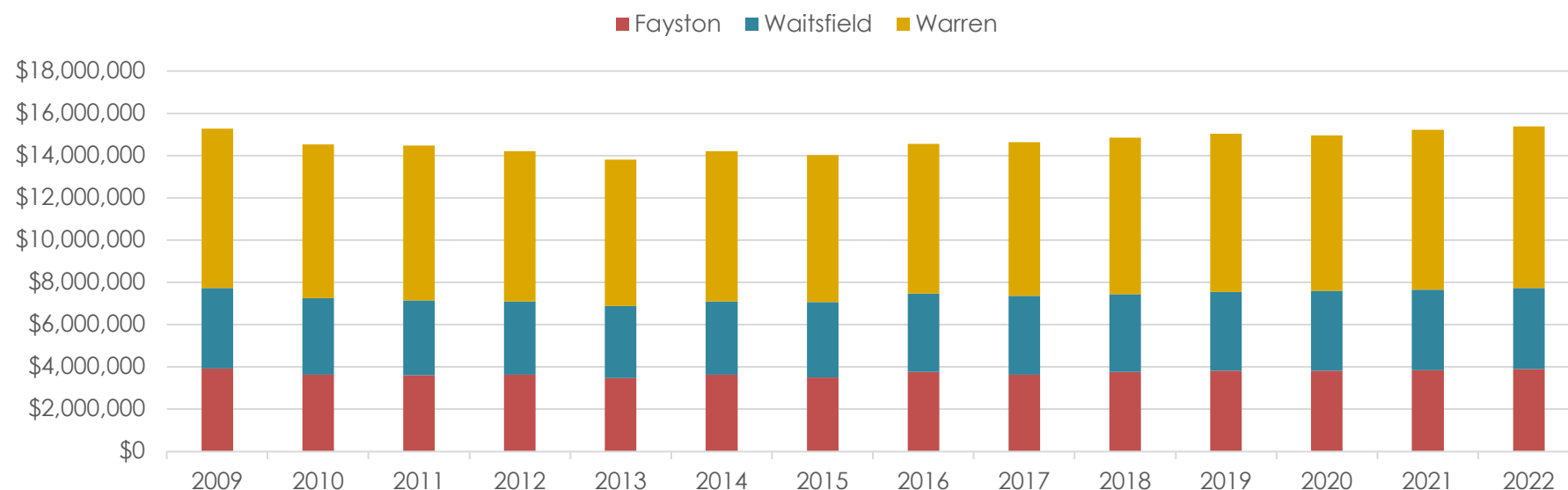


FIGURE 61. SOURCE: TOWNS OF FAYSTON, WAITSFIELD, & WARREN

2022 Tax Rates				
2022 Tax Rates	Homestead Education Tax Rate	Municipal Tax Rate	Non-Residential Tax Rate	CLA
Fayston	1.6978	0.3102	1.6336	80.85%
Waitsfield	1.7183	0.4581	1.6776	79.73%
Warren	2.1804	0.393	2.1128	73.46%

TABLE 1. SOURCE: TOWNS OF FAYSTON, WAITSFIELD, WARREN, & VT DEPT. OF TAXES



SECTION VI: ENVIRONMENT

Includes items #26, 31, 33 & 34 from the Memorandum of Understanding

ENERGY

In 2011, the State of Vermont adopted the bold goal of meeting 90% of Vermont's energy needs from renewable resources by the year 2050. Meeting this goal would largely eliminate the state's dependence on fossil fuels, realize great cost savings, and provide countless environmental benefits to Vermont and those who live here.

In 2021, Vermont passed its first Climate Action Plan (CAP), which was a requirement of the Global Warming Solutions Act (GWSA) of 2020. The CAP outlines 26 strategies and proposes 64 methods to meet the reduction requirements imposed by the GWSA, but puts special emphasis on the need to reduce greenhouse gas (GHG) emissions from the transportation and thermal sectors. At the time of this report, nearly 75% of Vermont's GHG emissions come from these two energy sectors¹⁴.



Photo 8. Joshua Schwartz

¹⁴ Detailed in the Energy Action Network's [2022 Annual Report](#)

Figure 62 details the breakdown between residential and commercial & industrial electrical consumption by town. In 2022, residential use accounted for 52% of the MRV's total usage. Of the three towns, Warren's usage was the highest, representing 56% of the MRV's total energy consumption.

Between 2018 – 2022, total MRV electrical energy usage increased by 20%. This increase took place during a time of increased investment in energy-efficient technology. In 2022, MRV customers saved a total of \$211,163 on energy and water use during the first year that an energy-efficient technology was installed, such as a heat pump, outdoor wood boiler, cold climate heat pump, or some level of weatherization project was undergone. It is promising to see that despite an increase in energy usage, it appears that the efficiency of the energy being used has increased in recent years.

MRV Electrical Usage, 2022

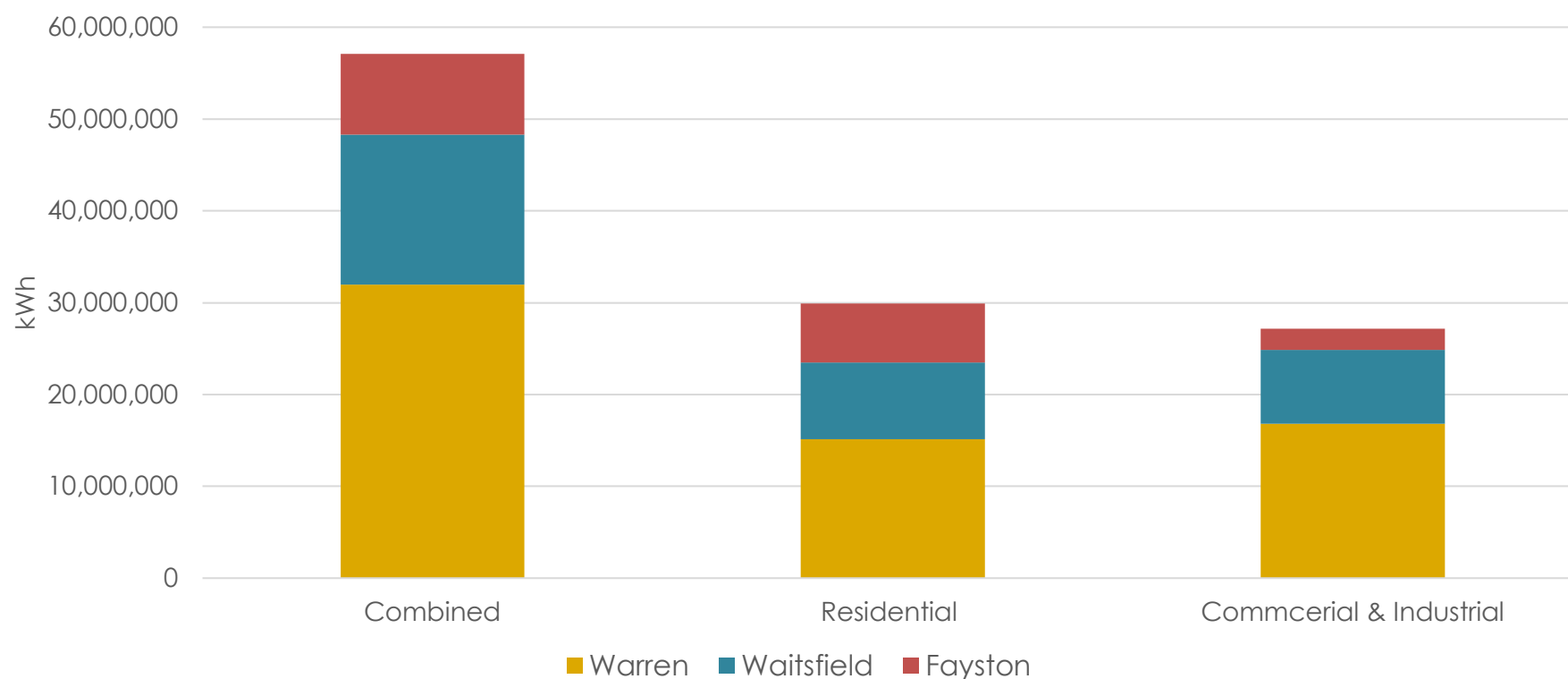


FIGURE 62. SOURCE: EFFICIENCY VERMONT, VT ENERGY INVESTMENT CORPORATION (VEIC)

Sugarbush Resort's monthly peak energy demand for the 2022-2023 season (**Figure 63**) began higher than years past, but lowered as the season progressed. Energy usage was likely higher due to the lack of snowfall seen between the months of November – January.

Sugarbush Monthly Peak Demand, 2016/17 – 2022/23

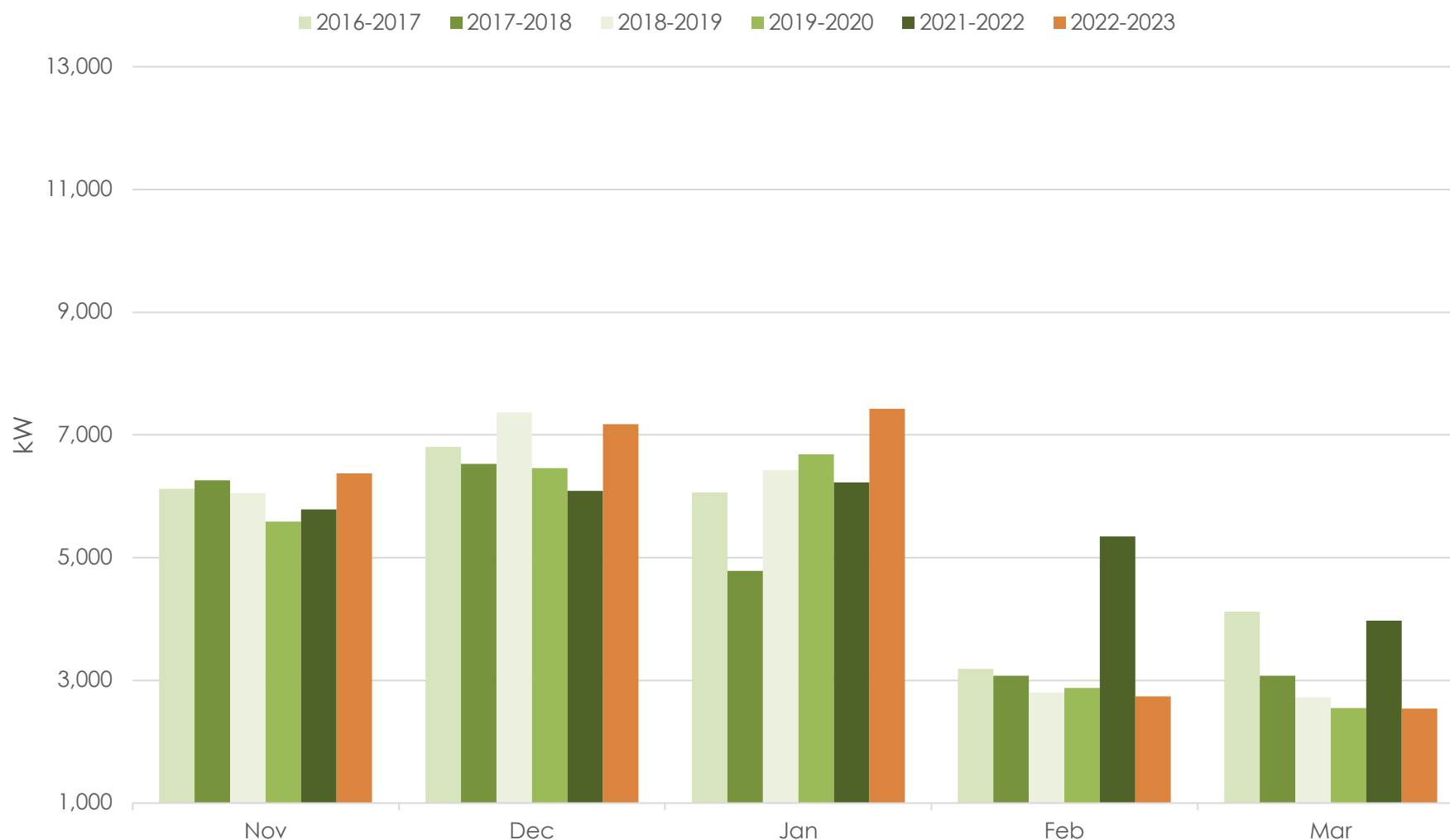


FIGURE 63. SOURCE: SUGARBUSH RESORT

Figure 64 shows that Sugarbush's Annual Energy Usage has decreased by 40% since 2002. Additionally, Sugarbush's energy usage has remained below average (2002 – 2022 \approx 13,150,091 kWh) since 2014.

Annual Sugarbush Energy Usage (kWh), 2002 - 2022

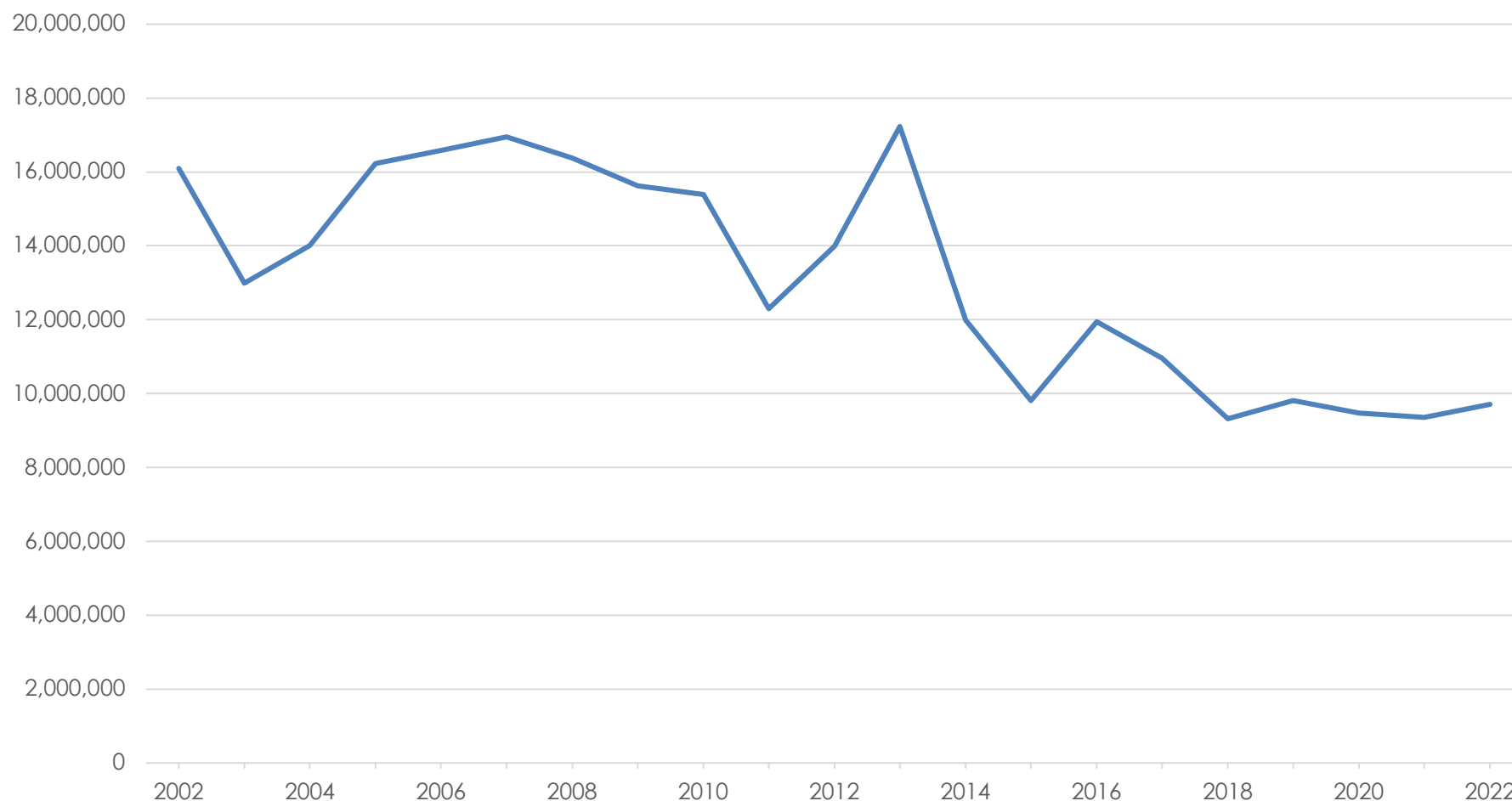


FIGURE 64. SOURCE: SUGARBUSH RESORT

WATER QUALITY

Since 1985, Friends of the Mad River¹⁵ (Friends) has monitored pollutant levels at approximately 30 sites along the main stem and major tributaries throughout the watershed as part of its volunteer-driven Mad River Watch program. Friends collects nutrient data, including phosphorus and nitrogen, for use in directing stewardship efforts across the watershed. Friends historically collected bacteria data, such as *E. coli*, but discontinued this testing in 2021.

While *E. coli* levels are no longer studied by Friends of the Mad River, the most recent data from 2020 has been added to **Figure 65**. It appears that *E. coli* counts remained relatively low during the summer of 2020. **Figure 65**¹⁶ also shows that *E. coli* counts generally increase from upstream to downstream areas.



Image 9. Kasara Gage

¹⁵ Friends of the Mad River is a member-supported, nonprofit organization, founded in 1990, dedicated to stewarding the Mad River Valley's healthy land and clean water for our community and for future generations. Friends bring people together to: learn about the health of the land and water; conserve our valued natural resources; and celebrate this special place.

¹⁶ Mad river upstream to downstream areas shown left to right.

Mad River E. coli Monitoring

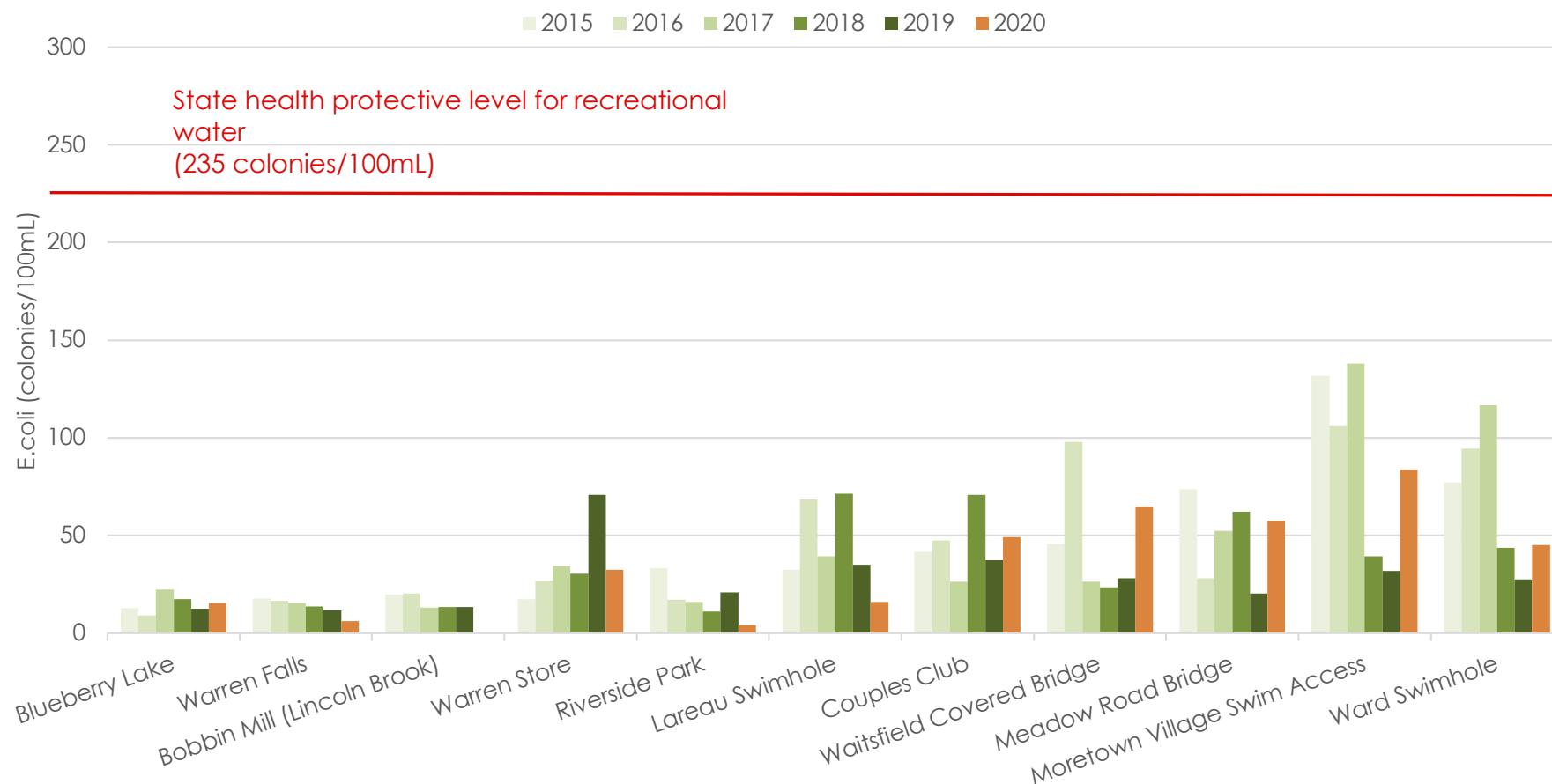


FIGURE 65. FRIENDS OF THE MAD RIVER

Friends explained that it had essentially answered the question it originally set out on in regard to understanding how *E. coli* counts behave in the Mad River Valley. FOMR notes that *E. coli* counts tend to increase as you head downstream from Warren to Moretown, and a majority of the time, counts do not reach or exceed a level that would be considered a human health concern. That said, *E. coli* counts tend to be higher during the 24 - 48-hour period following a heavy precipitation event, represented by **Figure 66**.

While *E. coli* counts will *not always* be higher during these times, the MRVPD received guidance from Friends that following such rainfall events, one can expect that *E. coli* levels may be higher for roughly 48 hours.

Mad River Average Daily Discharge and Average Daily Precipitation, 2023

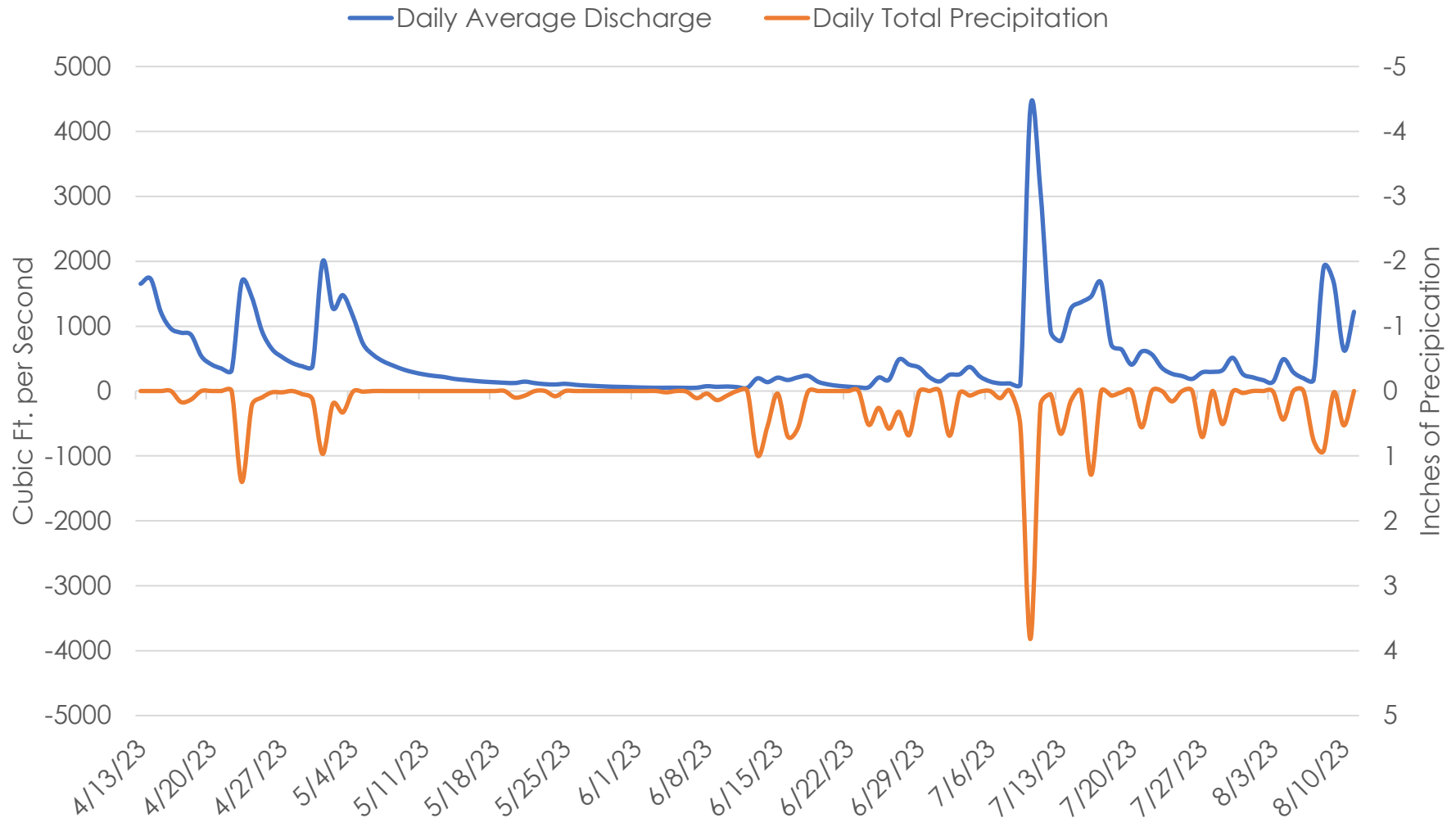


FIGURE 66. SOURCE: FRIENDS OF THE MAD RIVER & U.S. GEOLOGIC SURVEY

LAND CONSERVATION

The Mad River Valley boasts a rich legacy of land conservation, dating back to the 1980s with the formation of the Mad River Valley Planning District and the Rural Resource Protection Plan. This plan emphasized preserving agricultural, scenic, historical, ecological, and riparian treasures. The MRV now has an impressive mix of public and conserved private lands. Key collaborators in this venture include nonprofit organizations like the Vermont Land Trust, state agencies, local bodies, and recreational groups such as the Catamount Trail Association and Mad River Path Association.

This diverse blend of forests, family farms, and riverside lands enriches the MRV's lifestyle and economic vigor. Furthermore, these safeguarded areas support crucial economic sectors outlined in the 2014 MRV Economic Study, encompassing Agriculture and Food Production, Dining and Lodging, and Health Care & Wellness.



Image 10. Kasara Gage

As seen in **Table 2**, the MRV consists of 65,646 total acres, 27% of which is classified as conserved by the Vermont Protected Lands Database (last updated June 2021). Since 2019, the MRV increased the number of conserved acres by 1,600. **Figure 67** shows the breakdown of land conservation by type.

2021	Total Acres	State/Federal	Municipally Conserved	Privately Conserved	Total Conserved Acres	% of Town Conserved
Fayston	23,369	3,709	105	2,534	6,348	27%
Waitsfield	16,591	550	798	1,260	2,608	16%
Warren	25,685	7,332	244	1,016	8,592	33%
Total	65,646	11,591	1,147	4,810	17,548	27%

TABLE 2. SOURCE: VCGI, VERMONT PROTECTED LANDS DATABASE

MRV Land Conservation by Type, 2021

■ State/Federal Land ■ Municipal Conserved/Open Space ■ Privately-owned Conserved

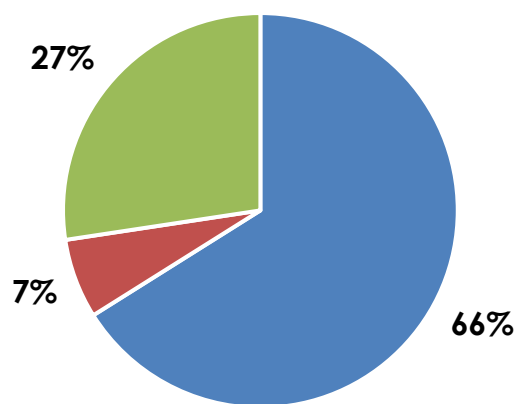


FIGURE 67. SOURCE: VCGI, VERMONT PROTECTED LANDS DATABASE