

MAD RIVER VALLEY 2024 ANNUAL DATA REPORT










Acknowledgments

Sam Robinson, Community Planner at the Mad River Valley Planning District, authored this report with assistance from Joshua Schwartz, Executive Director, and Bob Baron, a community member.

Our thanks to the Towns of Fayston, Waitsfield, and Warren, Mad River Valley Ambulance Service, the Mad River Valley Food Shelf, the Mad River Valley Interfaith Council, Sugarbush Resort, Mad River Glen, Friends of the Mad River, Green Mountain Transit, Vermont Natural Resource Council, and the Vermont Energy Investment Corporation for supplying local data. Additional thanks to the Vermont Housing Finance Agency, which produced the Vermont Housing Data website, the VT Department of Taxes, VT State Police, the VT Agency of Commerce & Community Development, Vermont Natural Resource Council, Vermont Department of Transportation, Vermont Center for Geographic Information, United States Geological Survey, VT Agency of Education, National Low-Income Housing Coalition, Department of Housing & Urban Development, and the US Census Bureau, whose data was utilized in the production of this report.

Cover Photograph: [John Howard](#).

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INTRODUCTION

The Mad River Valley Planning District prepared this report to provide information for community use and planning purposes and address its 1998 Memorandum of Understanding (MOU) requirements. Information used in this report was publicly available, except where noted. Sugarbush Resort provided data in compliance with the MOU. For much of the U.S. Census Bureau data, we prioritized the Decennial Census years to minimize the margin of error. American Community Survey data can have high variances for small communities like ours and was avoided when possible. Depending on the category of the report, the most recent and complete data available may be from 2021, 2022, or 2023, based on source availability. This report was finalized in February 2025.

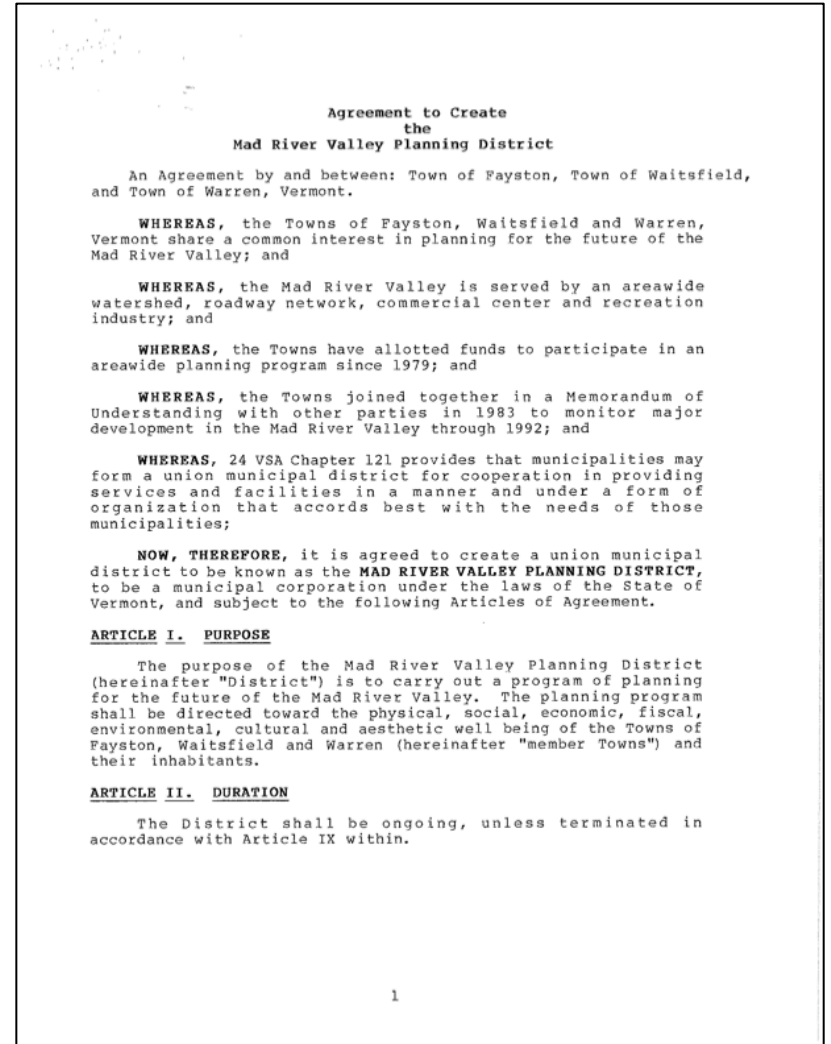
In 2015, our community developed the Mad River Valley Vision Statement through a participatory process, drawing from each of the Town Plans, historic visioning processes, in-depth research and data, and direct input from residents to genuinely reflect the values and priorities of the MRV. The 2024 Data Report aims to build off 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 (MRVPD) in 1985. The District's purpose is to carry out a planning program for the future of the Mad River Valley directed toward the physical, social, economic, fiscal, environmental, cultural, and aesthetic well-being of the member Towns and their inhabitants ([MRVPD Articles of Agreement](#), March 1985).

The Mad River Valley Planning 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. The MRVPD is staffed by an Executive Director and a Community Planner.





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 located between the Green Mountains and the Northfield Range. While somewhat secluded, this community remains linked to Central Vermont's more densely populated and bustling towns 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. MRV Rural Resource Commission's [Historic Photo Collection](#). Donated by Kevin Eurich

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 population² 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).

Population of MRV Towns, 1960 - 2020

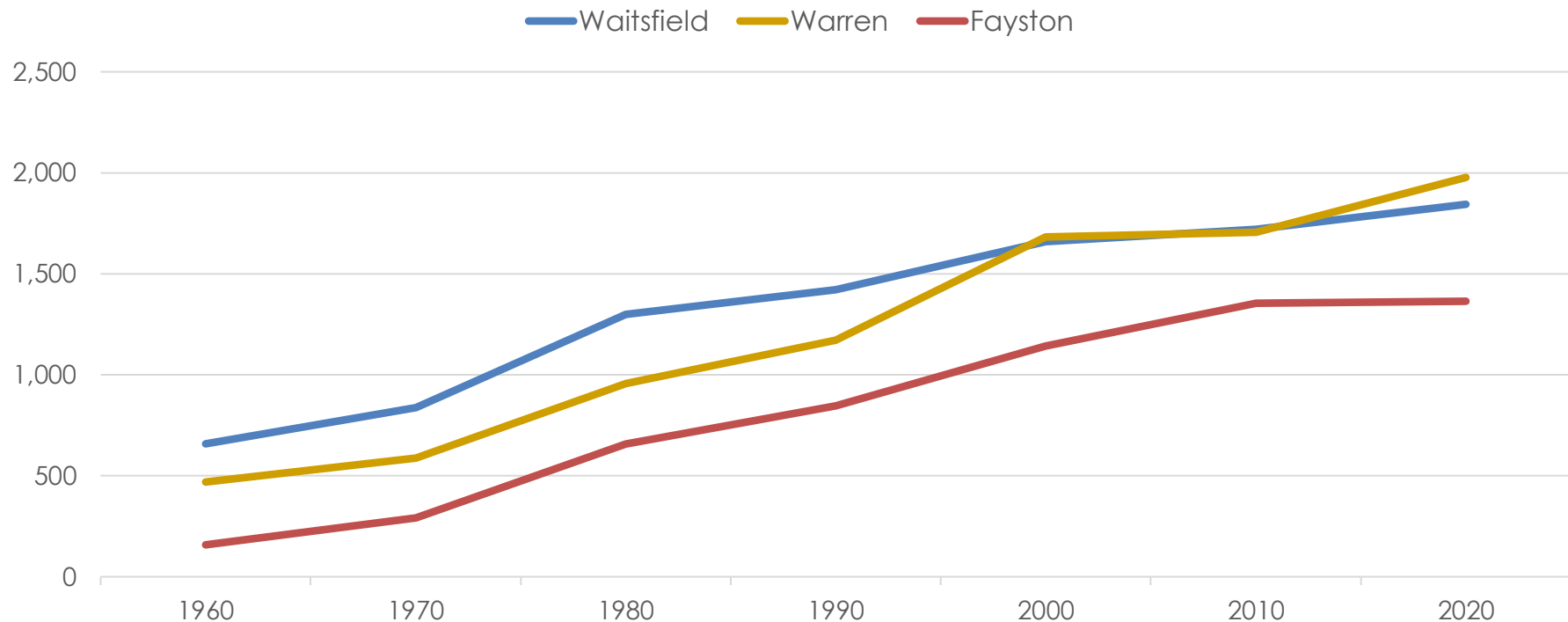


FIGURE 1. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS (1960 – 2020)

² Population data is based on the U.S. Census Bureau's [Usual Residence Criterion](#), which includes individuals who live and sleep in the area most of the time as of April 1 of the census year. This excludes short-term renters and visitors whose primary residence is elsewhere.

Figure 2 illustrates the combined population of the Mad River Valley between 2012 and 2022, based on American Community Survey (ACS) data. While decennial data are ideal for tracking extended trends, as seen in **Figure 1**, the ACS delivers more recent estimates with its 5-year estimates. However, it's important to acknowledge that ACS data comes with larger margins of error, making it less precise than the decennial census. To illustrate this, each ACS data point has an associated margin of error (MOE) bar to indicate each estimate's upper and lower bounds.

The combined MRV population in the most recent ACS estimate, 2022, is 4,651, which is 10% lower than the most recent decennial census count, 5,185 in 2020.

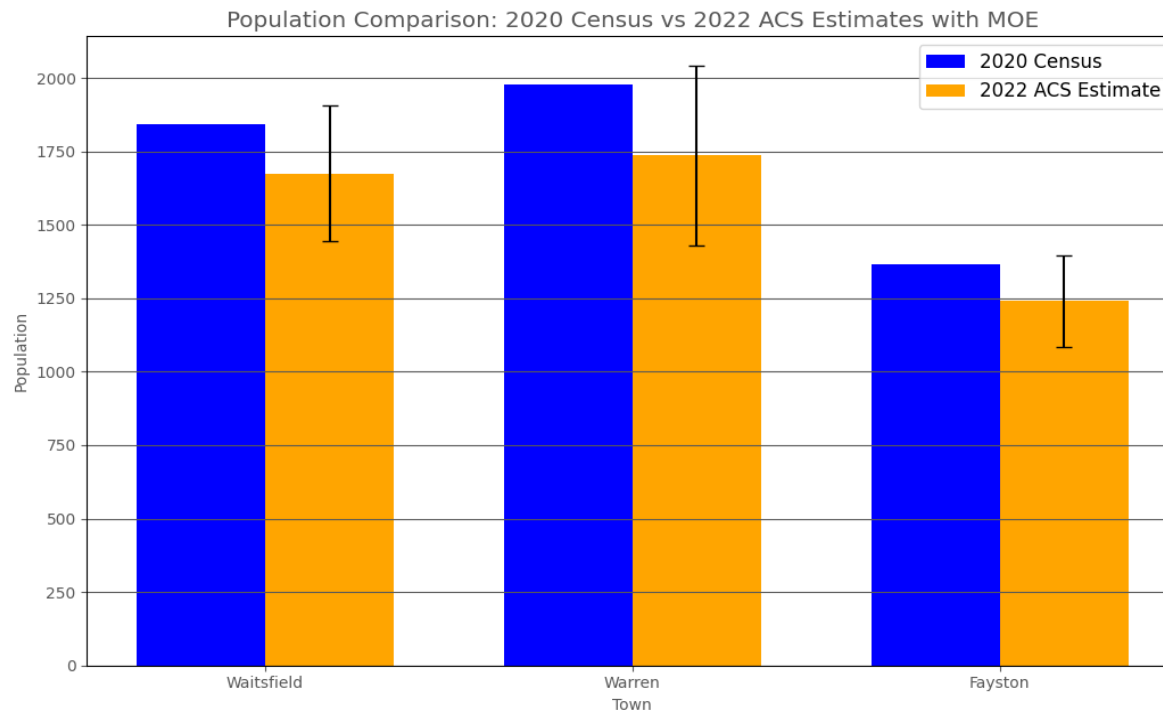
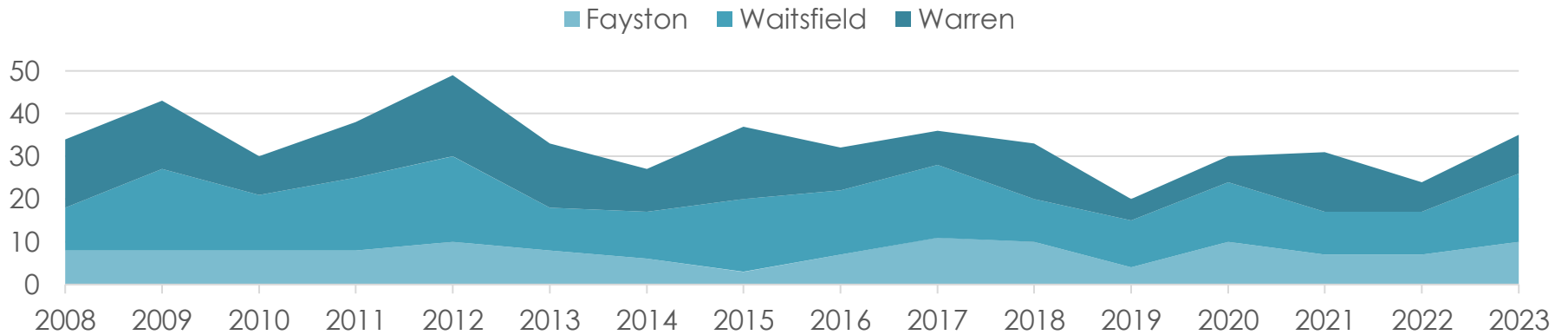


FIGURE 2. SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR POPULATION ESTIMATES

Figure 3's stacked graphs show birth and death counts as recorded by municipal town clerks; the most recent data was collected as of July 1, 2024. 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 - 2023



MRV Deaths, 2008 - 2023

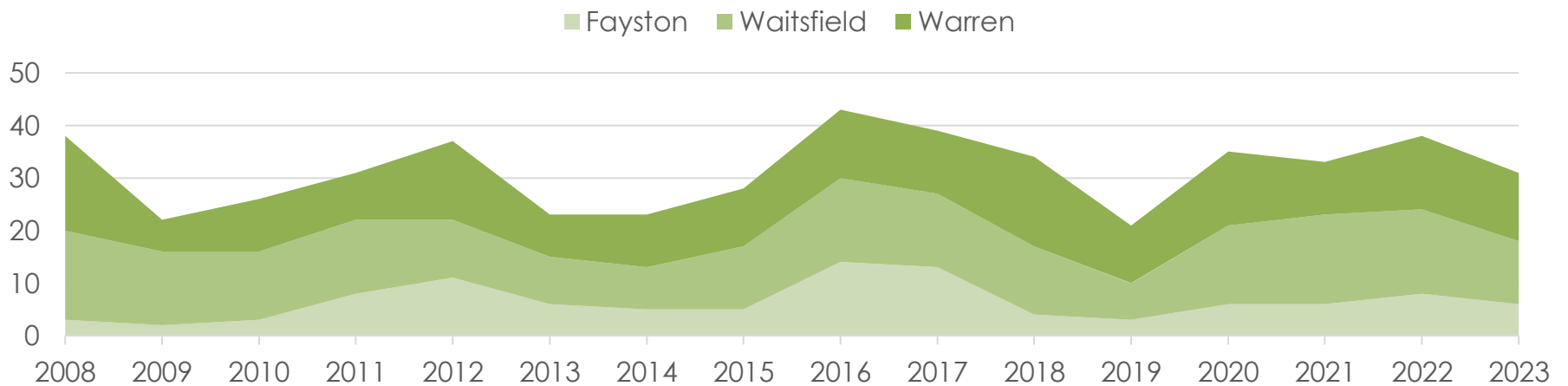


FIGURE 3. SOURCE: FAYSTON, WAITSFIELD, WARREN TOWN CLERKS

An increase or decrease in school enrollment can provide insight into demographic trends. As illustrated in **Figure 4**, total enrollment in the Harwood Unified Union School District (HUUSD) decreased by 13% between the 2011/12 and 2023/24 school years. During this period, the combined population of HUUSD Elementary Schools declined by 9%, the combined population of HUUSD Middle Schools declined by 16%, and Harwood Union High School declined by 20%. Coming out of the COVID-19 pandemic, from the 2021/22 to 2023/24 school years, the combined elementary school population increased by 2%, while the middle and high school populations decreased by 3%.

HUUSD Enrollment, 2011/12 - 2023/24

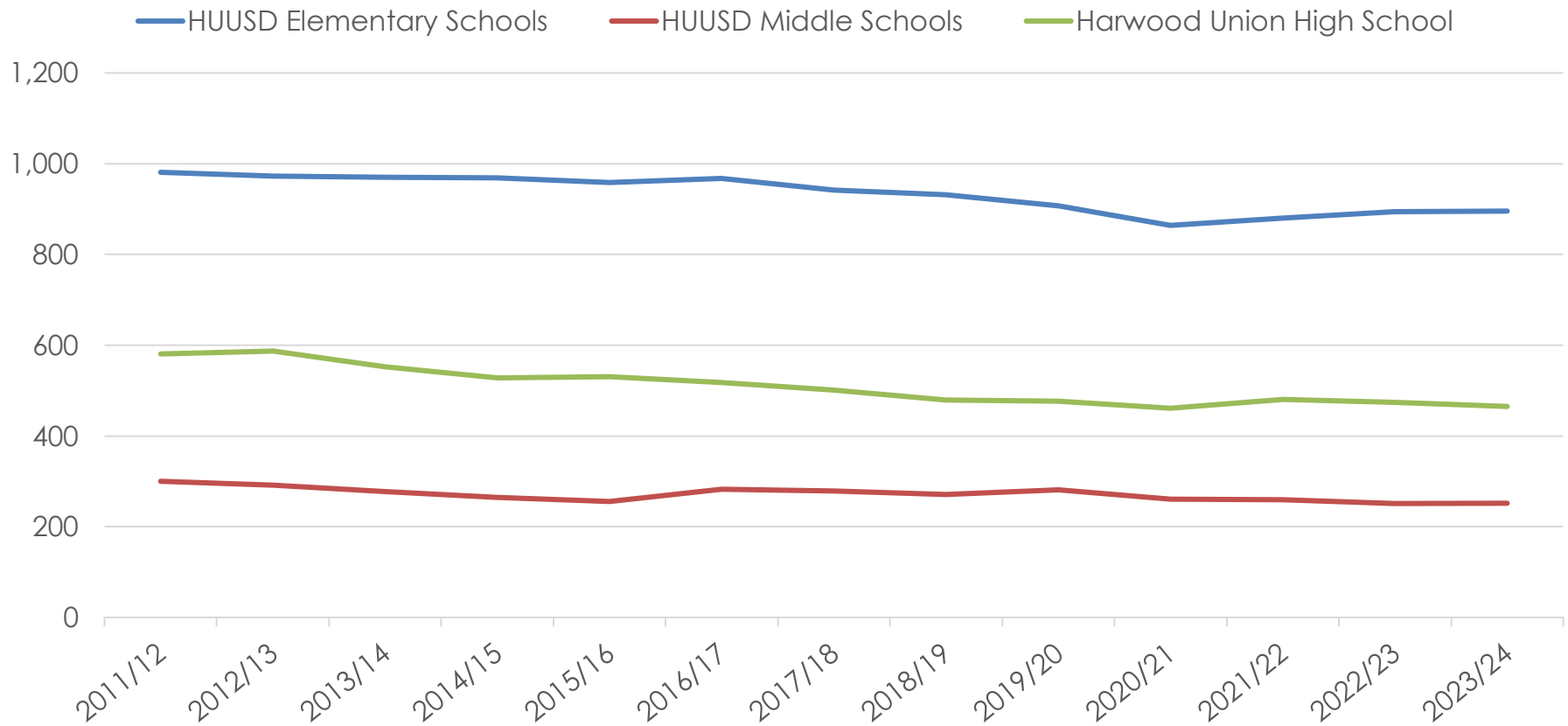


FIGURE 4. SOURCE: NEW ENGLAND SCHOOL DEVELOPMENT COUNCIL (NESDEC) REPORTS

Figure 5 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 2011/12 school year. Generally speaking, all three regions experienced a similar decrease in comparative enrollment between the 2011/12 and 2023/24 school years – HUUSD: 13%, Washington County: 9%, and Vermont: 8%. 5% of HUUSD's enrollment decrease occurred between 2017/18 and 2021/22. Similar decreases were experienced by Washington County (-10%) and Vermont (-7%) 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. It is worth noting that from 2021/22 – 2023/24, enrollment among all regions has appeared to have leveled off slightly.

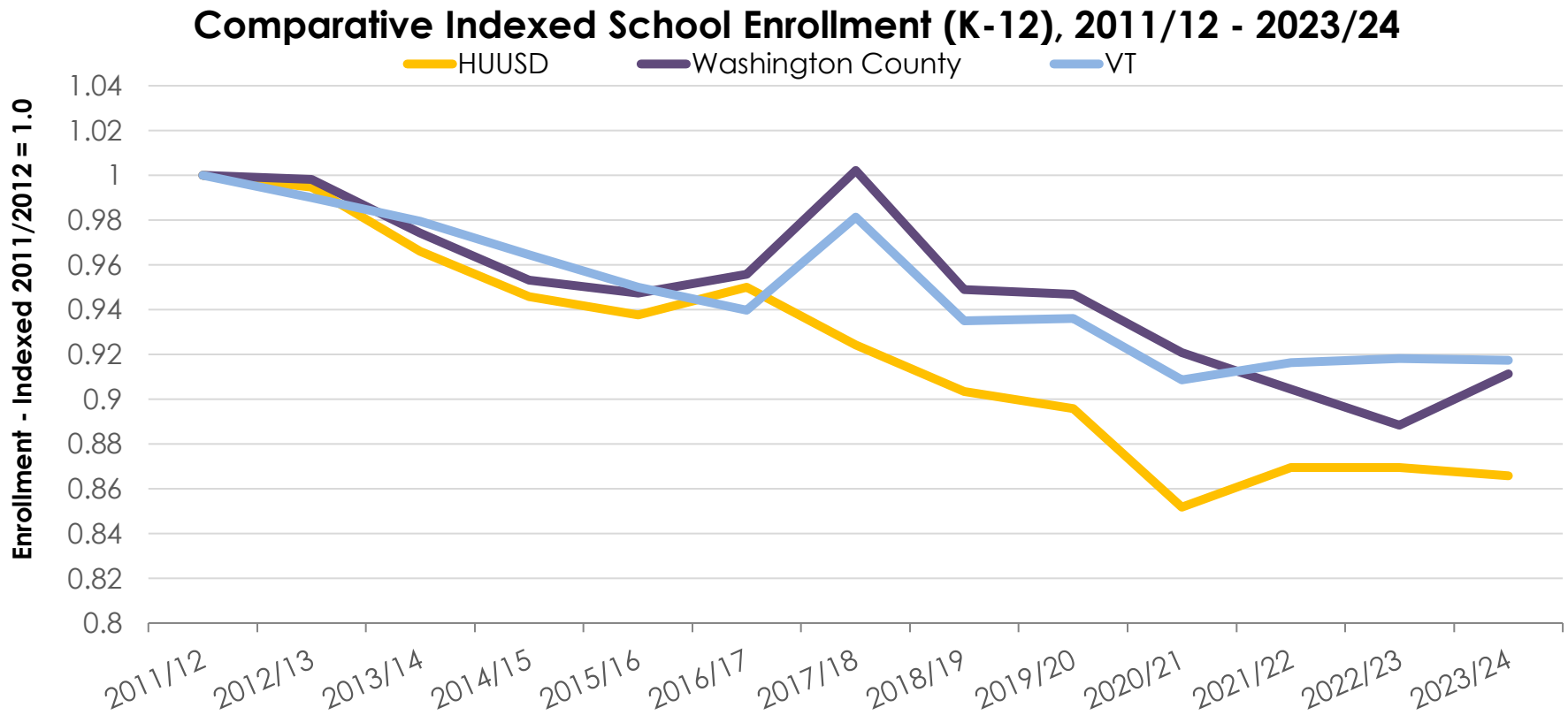


FIGURE 5. SOURCE: VT AGENCY OF EDUCATION ENROLLMENT REPORTS & NEW ENGLAND SCHOOL DEVELOPMENT COUNCIL (NESDEC) REPORTS

Figure 6 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 School³: 2 grades, & High School: 4 grades). By observing **Figure 6**, we learn that class size among HUUSD schools has remained relatively consistent since 2011. The district's average overall class size within this period was 132 students. Since the 2021/22 school year, the average class size for each education level (e.g., elementary, middle, and high) has consistently been below the district average. Specifically, elementary and middle school class sizes were between 1% and 7% below the district average, while high school classes ranged from 9% to 13% below the district average. High school class sizes were consistently among the lowest recorded throughout the study period.

Elementary, Middle & High School Individual Class Size, 2011/12 - 2023/24

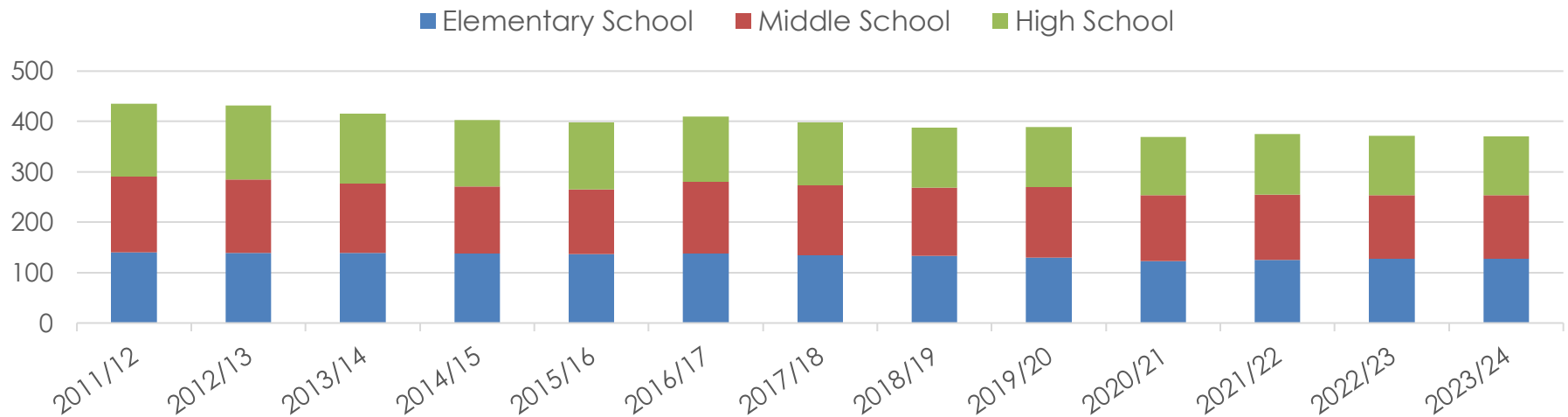


FIGURE 6. SOURCE: NEW ENGLAND SCHOOL DEVELOPMENT COUNCIL (NESDEC) REPORTS

³ 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 7 shows the average enrollment change by grade transition for twelve HUUSD cohorts from kindergarten to high school graduation. The total observed timeframe for this analysis was 2011 - 2024. This approach provides insight into which grades in the school district tend to experience increases or decreases in enrollment. Enrollment typically decreased shortly before and during the high school grades for the observed time period, as shown in **Figure 7**.

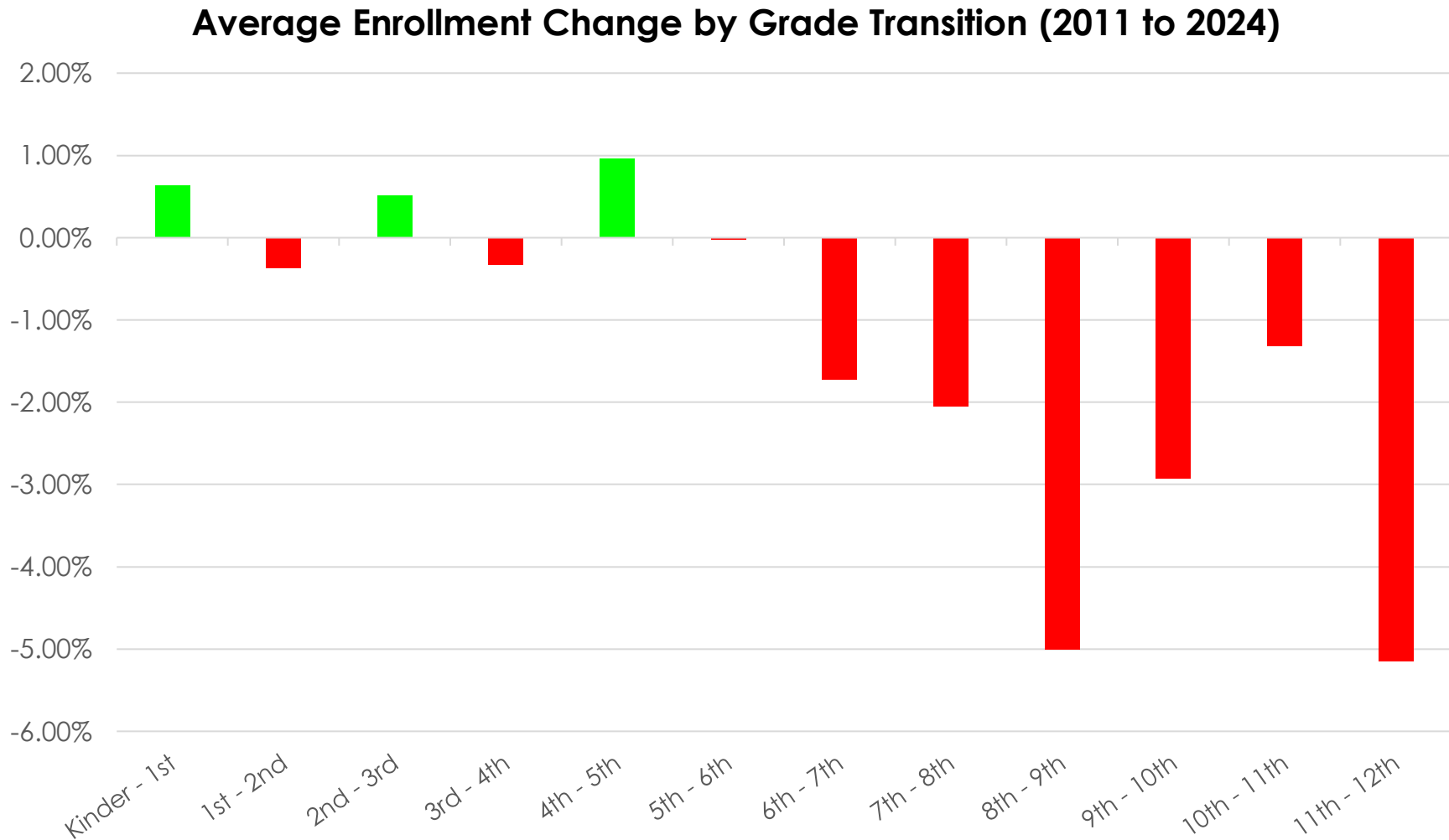


FIGURE 7. SOURCE: NEW ENGLAND SCHOOL DEVELOPMENT COUNCIL (NESDEC) REPORTS

Median age can provide important insight into the age distribution of a population. Median age illustrates a population's age 'midpoint,' meaning 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 for over 30 years. **Figure 8** 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 are aging, the Mad River Valley is aging at a quicker rate. From 2010 to 2020, Waitsfield's median age increased at the same rate of Vermont and the US, with a 5% increase in median age, while Fayston and Warren experienced a 10% rise.

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

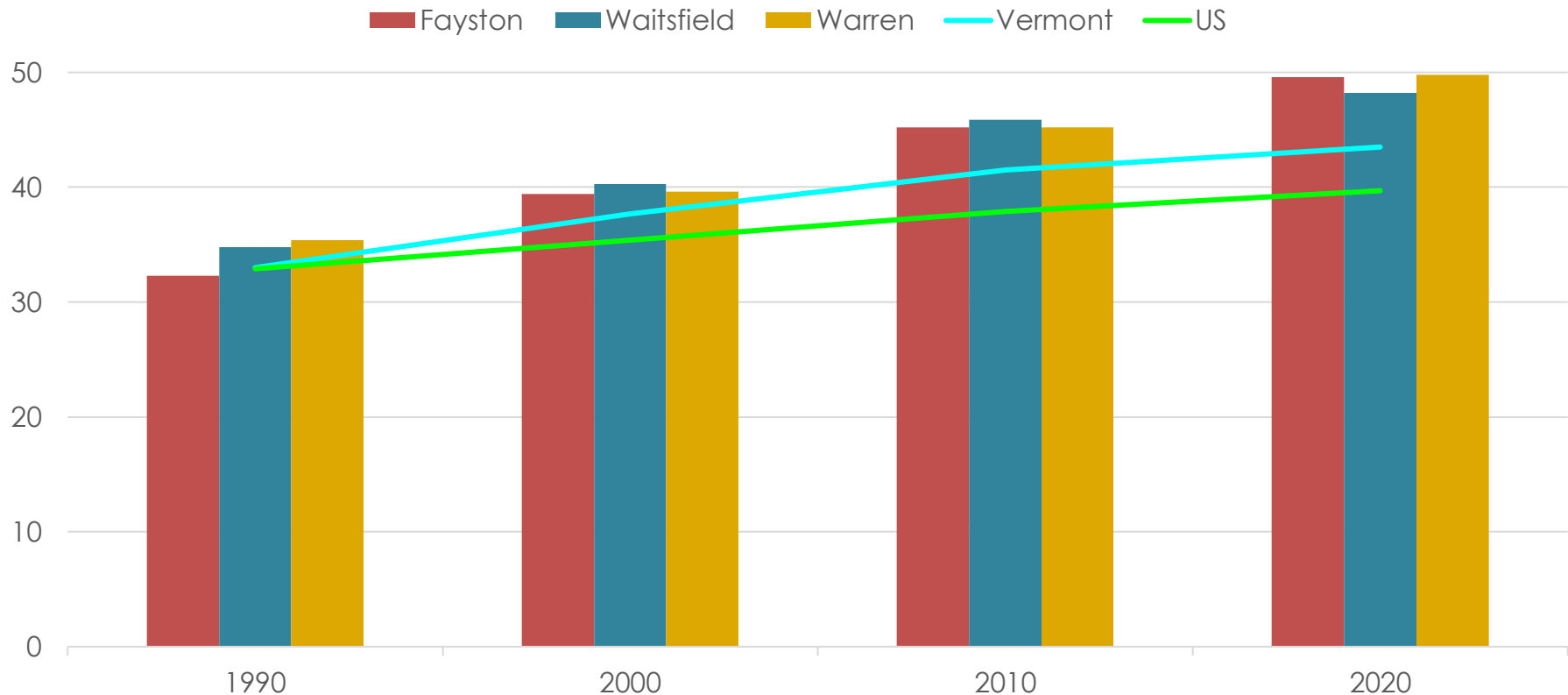


FIGURE 8. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 9 shows the median age for each town in Mad River Valley from 2012 to 2022, based on American Community Survey (ACS) data. The graph shows that the most notable increases in the MRV's median age have occurred in Warren and Waitsfield, with increases of 19% and 10%, respectively, since 2012. In contrast, Fayston saw a modest 1% increase in median age, while Vermont and the United States experienced increases of 3% during the same period.

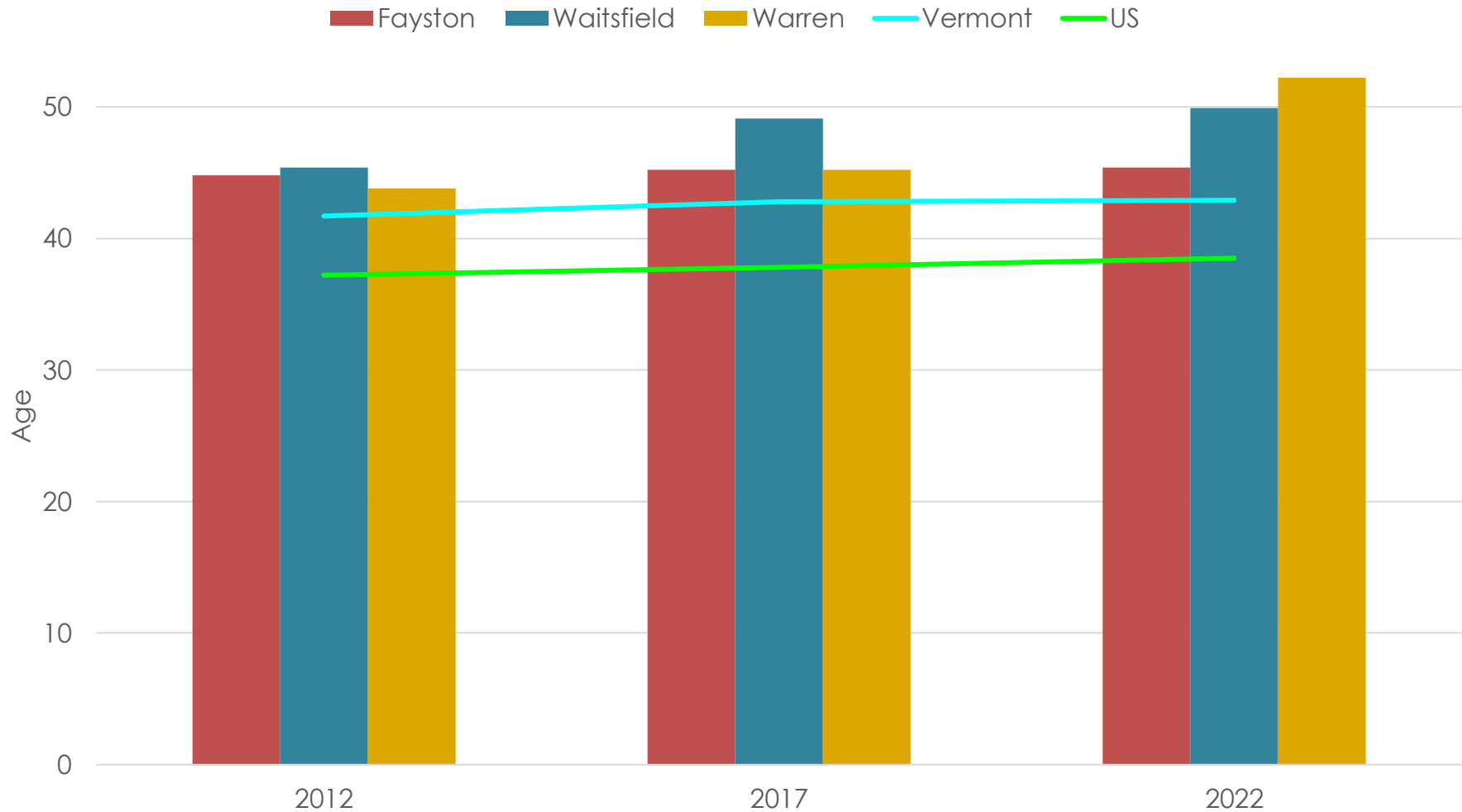


FIGURE 9. SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR POPULATION ESTIMATES

To maintain consistency, we have compared the most recent decennial census data with the latest ACS 5-year estimates to assess changes in the median age across the Mad River Valley since 2020. Similar to **Figure 2**, you will find an associated margin of error bar with each ACS data point illustrating the associated error margin with this data source. Notably, Warren and Waitsfield have experienced an increase in median age, whereas Fayston has slightly declined. These shifts prompt further investigation into potential contributing factors, and continued monitoring of these trends will be vital as we approach the next US decennial census.

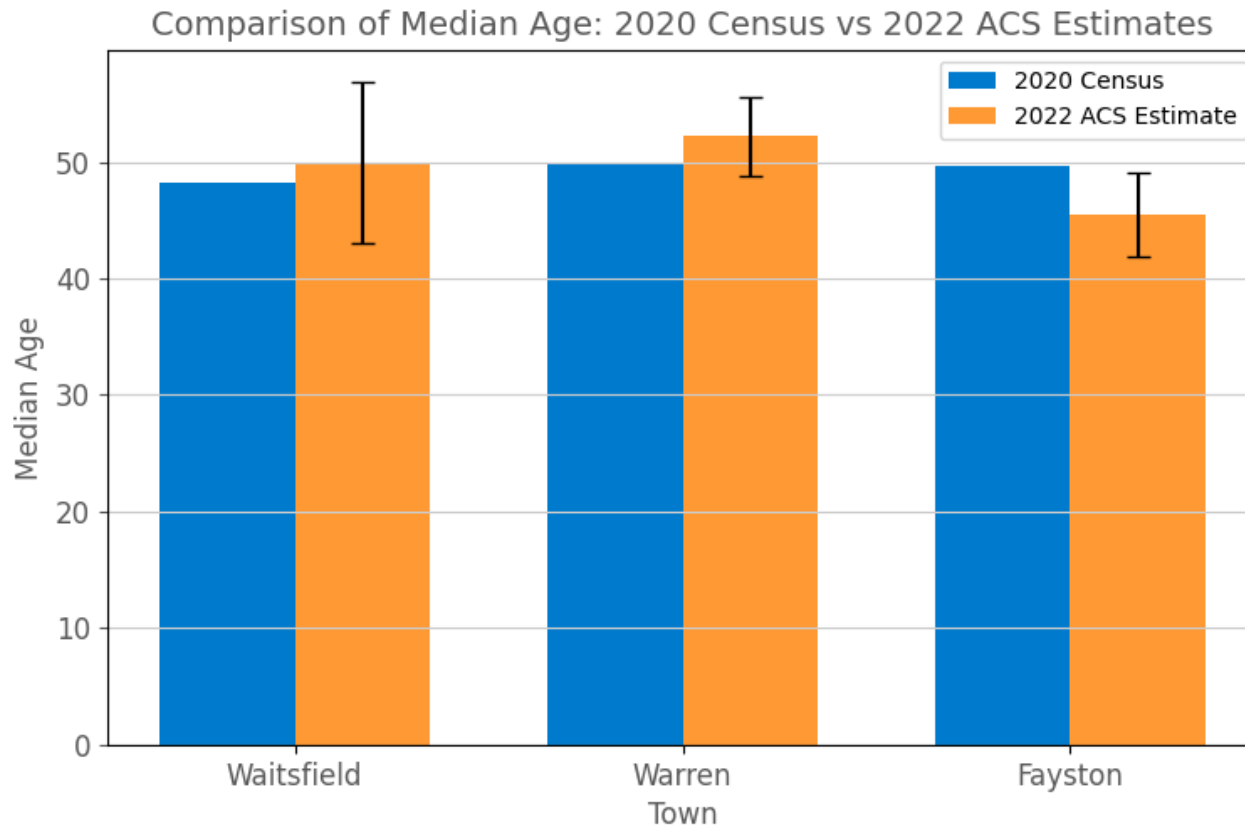


FIGURE 10. SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR POPULATION ESTIMATES

Figure 11 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 MRV's population over 65 increased by 12.7%. Washington County and Vermont's population over 65 increased by 8% and 8.2%, respectively. This confirms that while all regions have been aging, the MRV has been aging faster. Between 2000 and 2020, the MRV population saw a 10% decrease among individuals aged 25-34, a 30% decrease for those aged 35-44, and a 10% decrease for those aged 45-54. In contrast, the population aged 55-59 grew by 60%, those aged 60-64 by 102%, 65-74 by 137%, 75-84 by 185%, and those aged 85 and older by 197%.

MRV Population by Age Group, 2000 - 2020

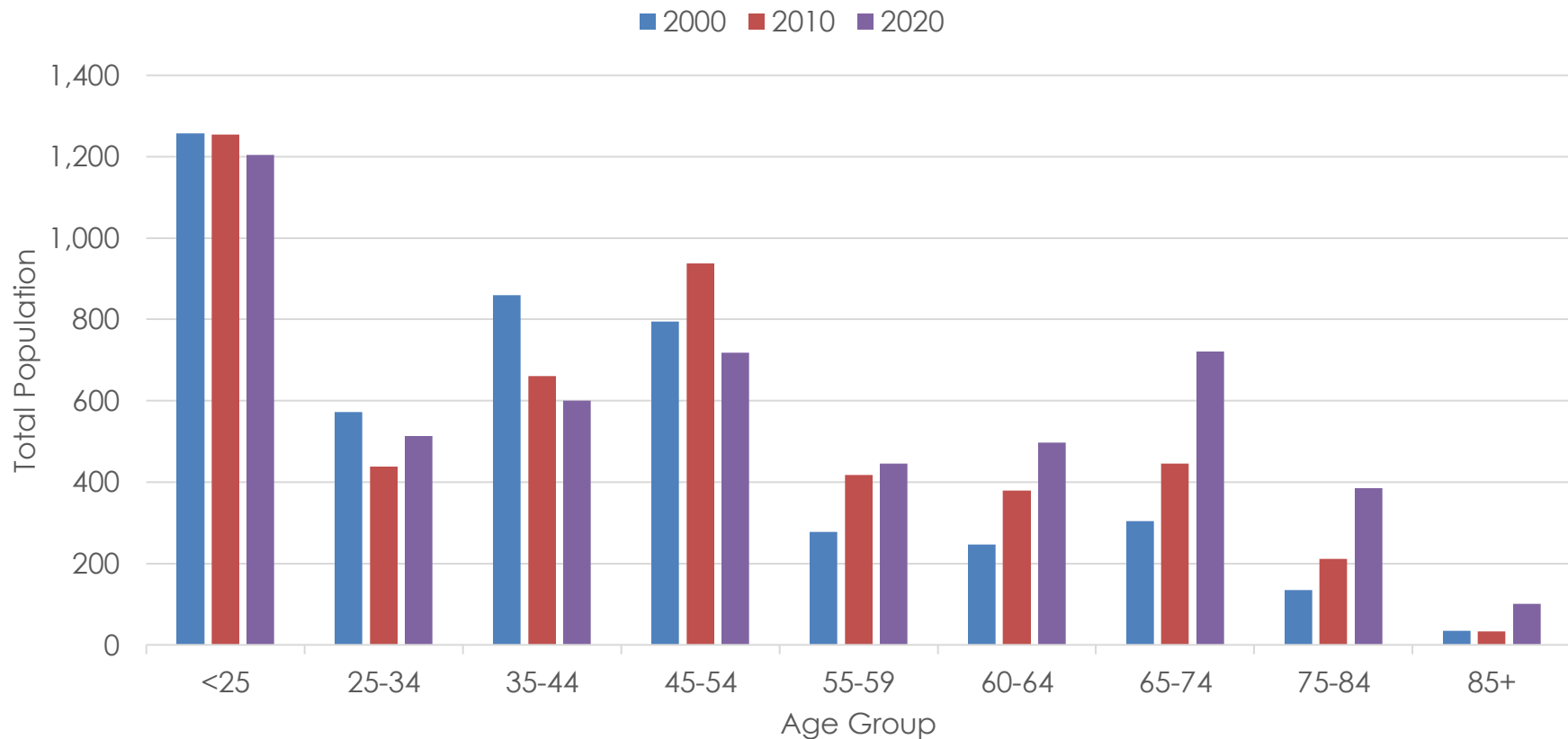


FIGURE 11. U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 12 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 55 have decreased in population, while all age groups above 55 have grown.

Population Pyramid of MRV and Vermont - 2000 vs. 2020

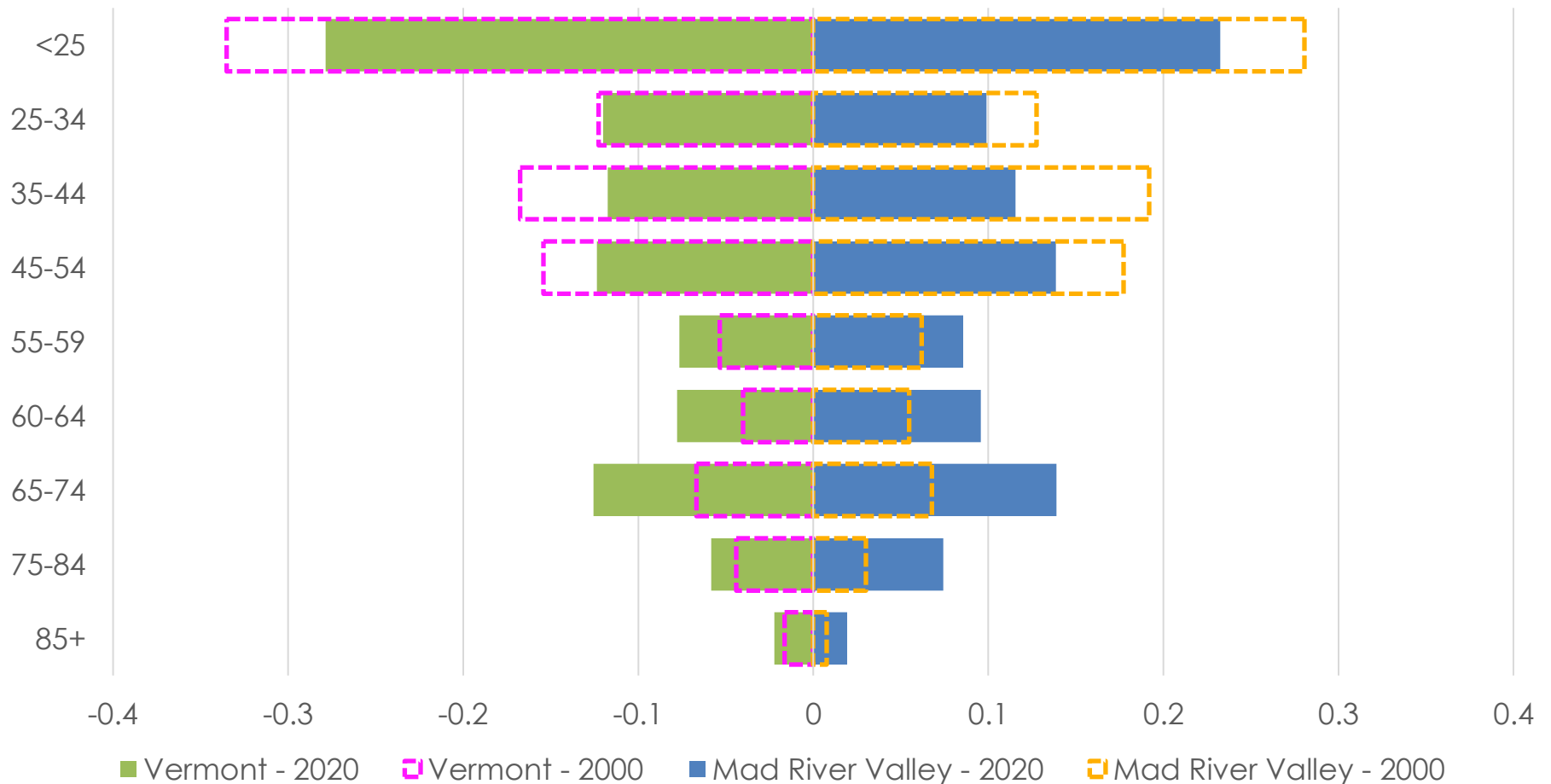


FIGURE 12. U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 13 shows the average household size by town from 1990 - 2020. By comparing the MRV towns to Washington County, we see that the MRV 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

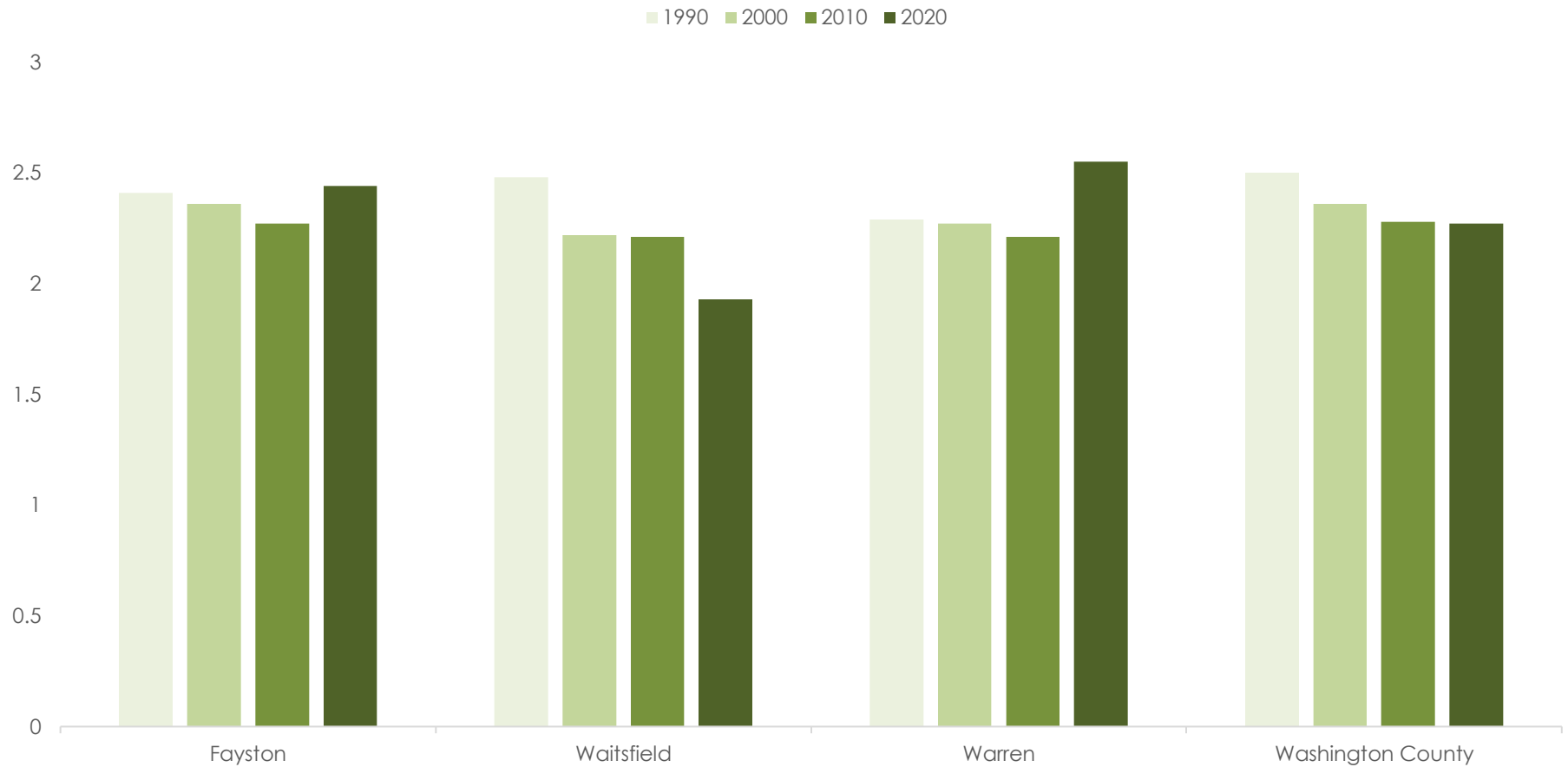


FIGURE 13. SOURCE: U.S. CENSUS BUREAU, DECENNIUM CENSUS

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 to improve the community’s social and physical well-being. Community and social services data shed light on trends related to the critical needs of MRV residents and the impact of those working to address them. The Mad River Valley Community Pantry and Mad River Valley Interfaith Council contributed the following data, providing insights regarding the provision of social services in the MRV.

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

Figure 14 shows that quarterly visits typically increase over the summer and into the fall, and demand for services overall has increased substantially over the past two years.

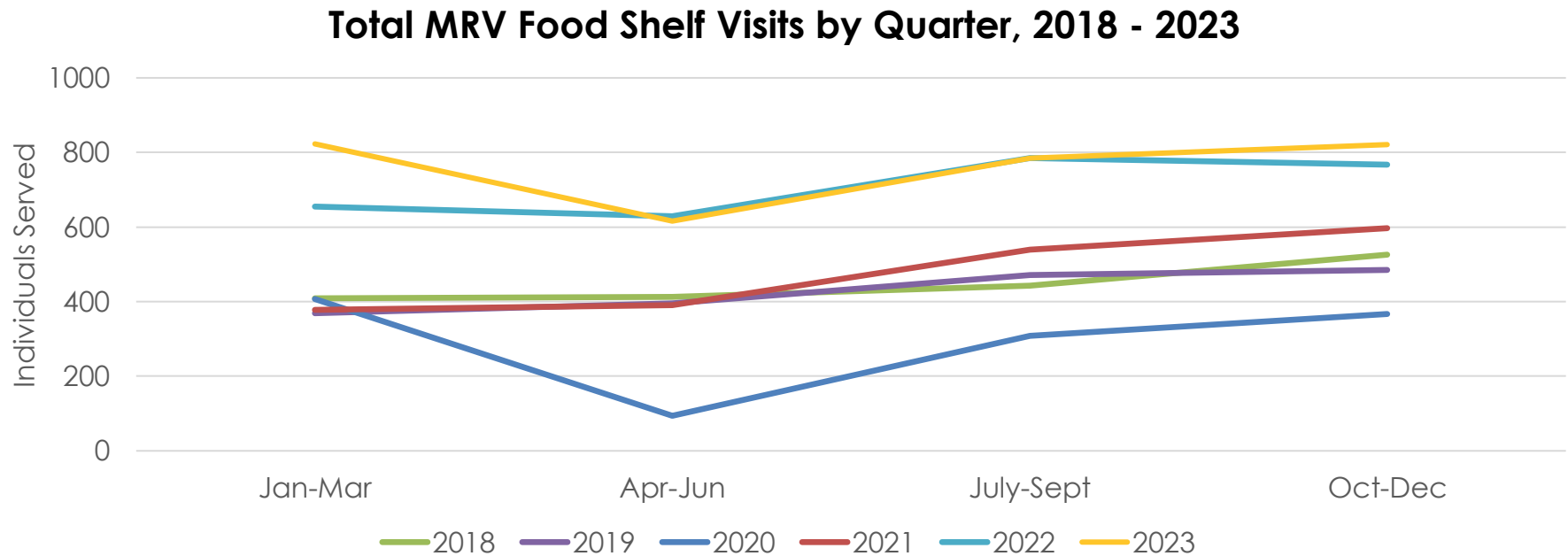


FIGURE 14. SOURCE: MAD RIVER VALLEY COMMUNITY PANTRY

Figure 15 presents the annual number of MRV Community Pantry visitors. From 2016 to 2022, total annual visits increased by 71%. Before the COVID-19 pandemic, annual visits tended to hover around 1,700; the Food Shelf has consistently exceeded its pre-pandemic annual visits for the past three years. From 2020 to 2023, the MRV Community Pantry experienced a 140% increase in annual visits. From 2022 to 2023, however, the Community Pantry experienced no growth in total annual visits, indicating a potential shift in the trend of rapid increases resulting from the COVID-19 pandemic.

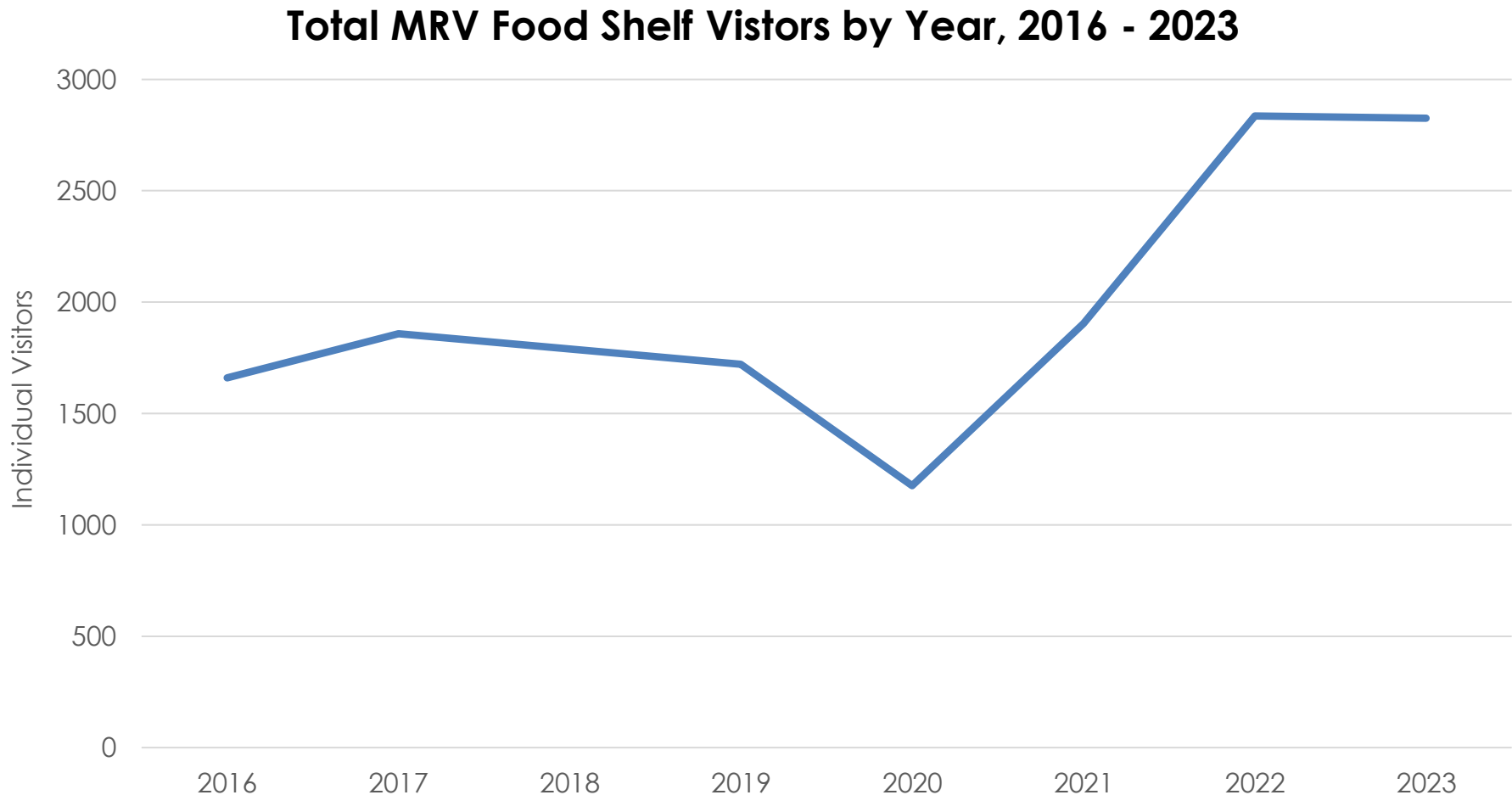


FIGURE 15. SOURCE: MAD RIVER VALLEY COMMUNITY PANTRY

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, and other needs. As displayed in **Figure 16**, the MRVIC dispersed \$10,320 dollars to families and community members in 2023. This represents a 55% decrease from the \$22,774 donated in 2022. When examining the average annual donations from 2015 to 2023, the \$10,320 dispersed in 2023 is 12% lower than the average of \$11,794 for this period.

MRVIC Emergency Assistance, 2015 - 2023

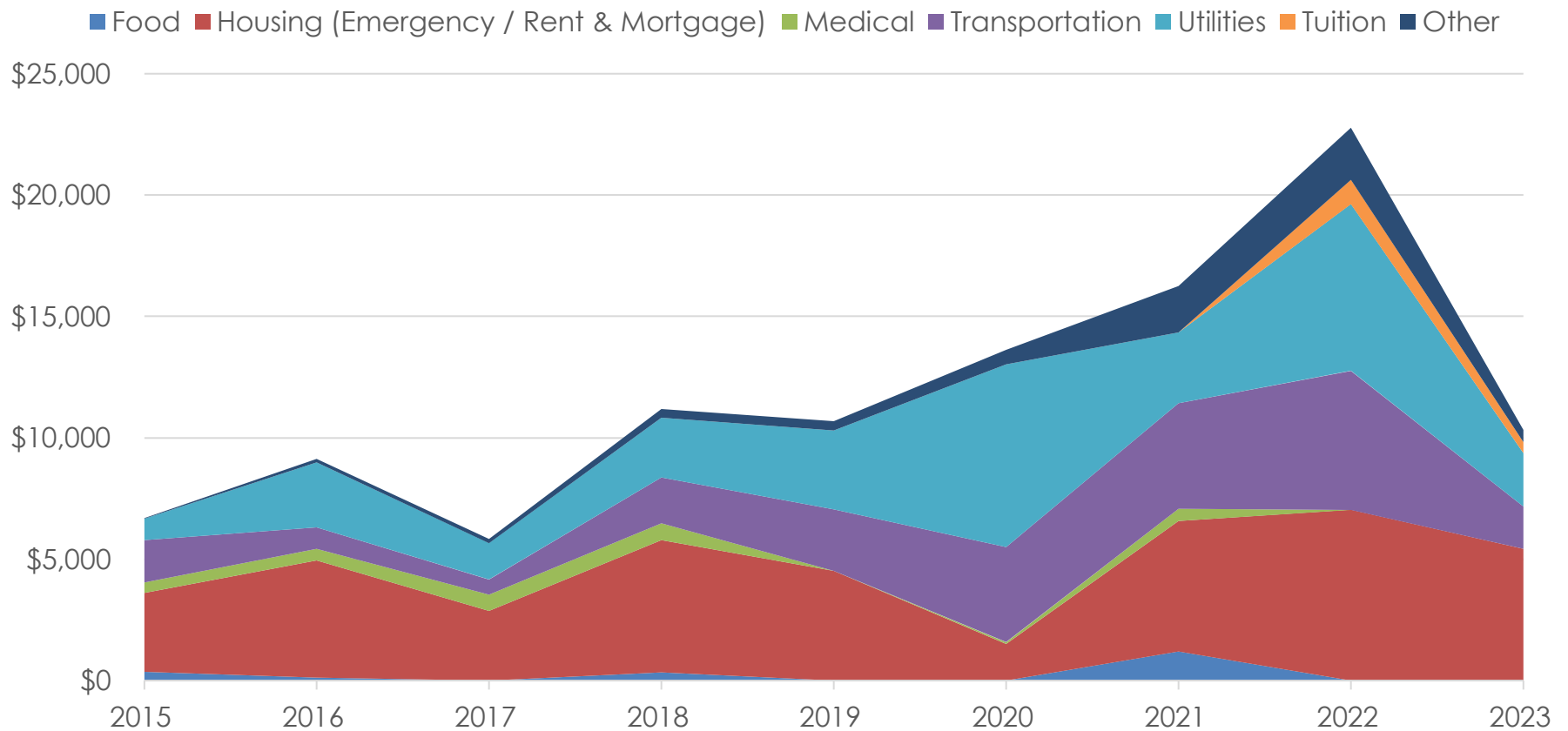


FIGURE 16. SOURCE: MAD RIVER VALLEY INTERFAITH COUNCIL

To put this trend into a more regional context, **Figure 17** shows the average monthly benefits in dollars distributed by 3SquaresVT and total monthly recipients from 1988 to 2024. Although there was an overall increase in average monthly benefits statewide over the observed period (1988–2024), a sharp decline of 30% occurred between 2023 and 2024. Additionally, the number of monthly recipients has decreased since 2012 and remained relatively stable in recent years.

Washington County Avg. Monthly Total Benefits & Monthly Recipients of 3SquaresVT Funding, 1988 - 2024

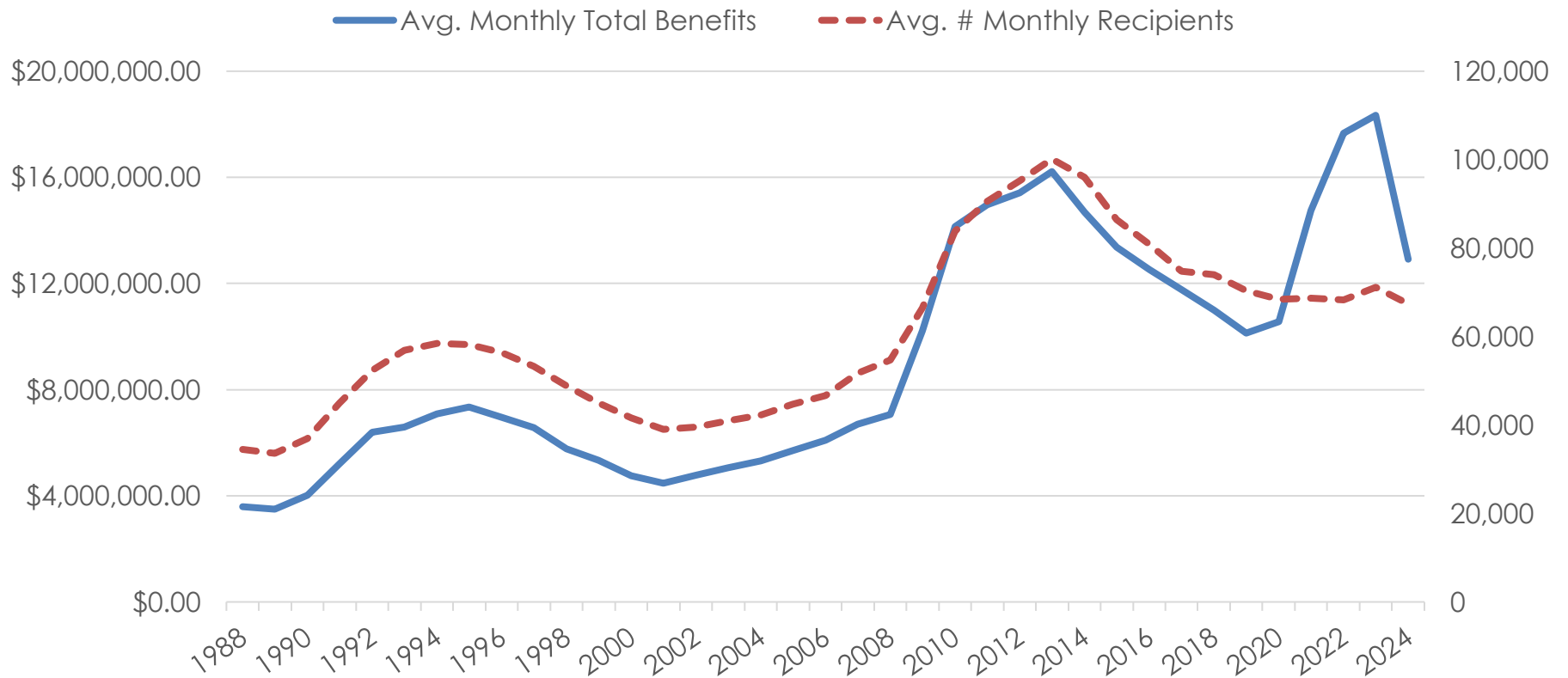


FIGURE 17. SOURCE: VT DEPARTMENT FOR CHILDREN & FAMILIES, 3SQUARES

HOUSING

The 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 and 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 18**). Between 2011 and 2019, the annual number of primary residences sold in the MRV increased from 29 to 74, representing a growth of 155% in annual home sales. During this time period, primary home sales across Vermont grew by 71%, followed by a slight drop of 9% between 2019 and 2022. Despite the increase in primary home sales in the MRV from 2011 to 2019, the period from 2019 to 2023 saw a 66% decline as the region emerged from the COVID-19 pandemic. Furthermore, 2023 recorded the lowest number of primary home sales since 1988, with 25 sales.

Number of Primary Residences Sold in the MRV, 1988 - 2023

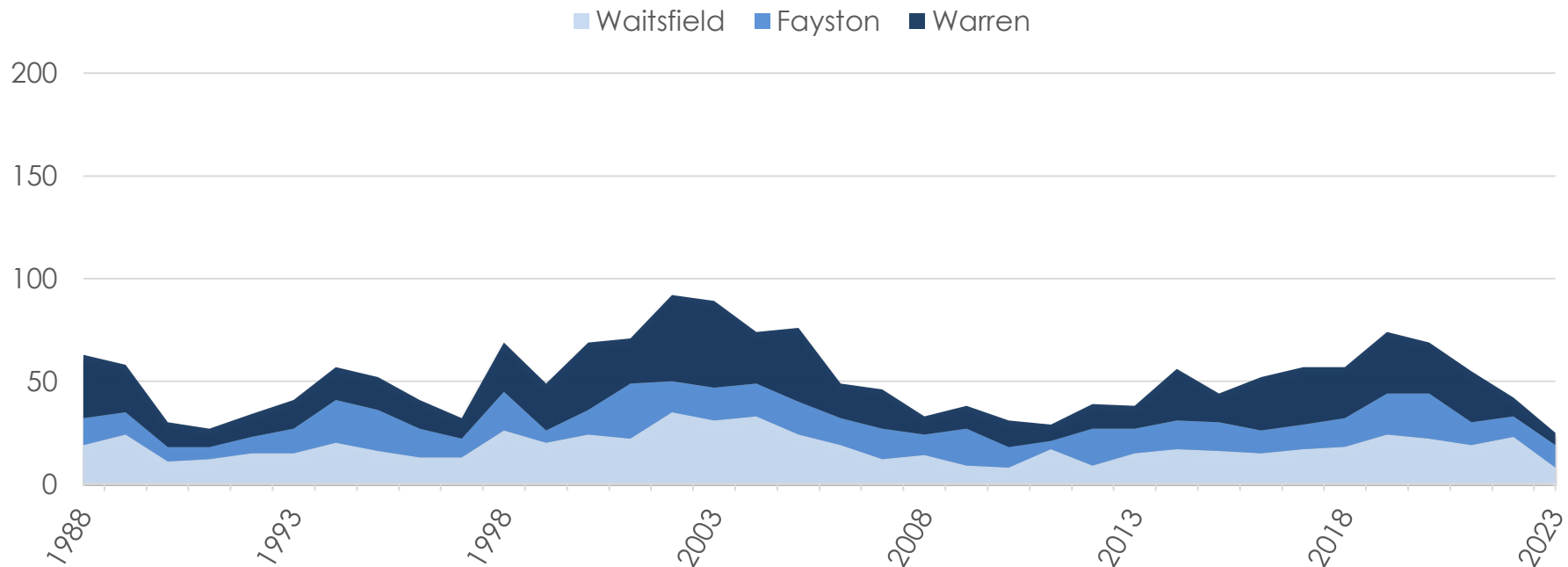


FIGURE 18. SOURCE: VERMONT HOUSING FINANCE AGENCY

Figure 19 compares the trend of total primary residence sales in the Mad River Valley (MRV) to Vermont as a whole from 1988 to 2023. Both regions experienced peak sales in the early 2000s and a sharp decline during the 2008 housing crisis. Vermont's sales volume showed a gradual recovery from 2010, reaching approximately 8,000 sales by 2018, whereas the MRV exhibited a slower and more variable recovery. The data indicate that MRV primary residence sales generally align with statewide trends.

Number of Primary Residences Sold in the MRV vs. VT, 1988 - 2023

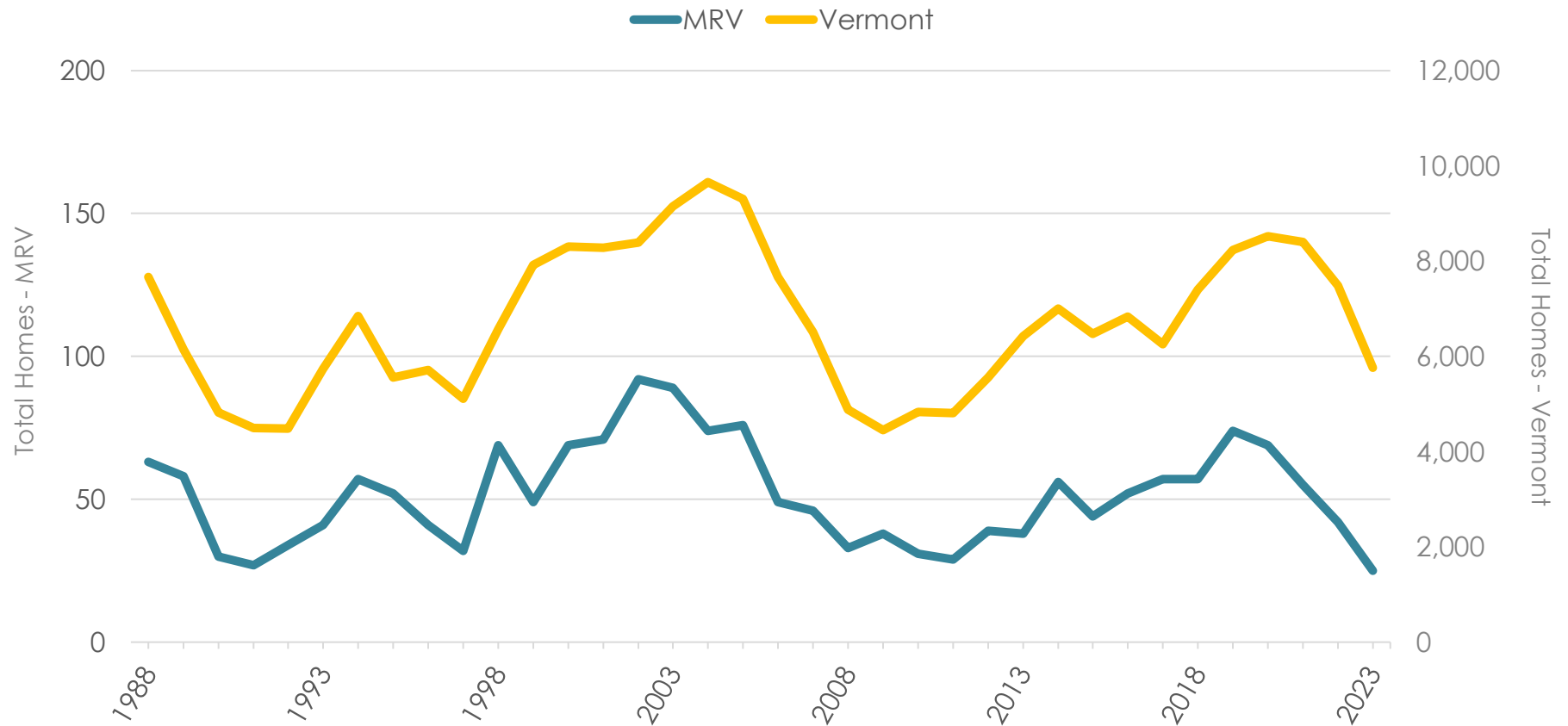


FIGURE 19. SOURCE: VERMONT HOUSING FINANCE AGENCY

Figure 20 shows the MRV's most current vacation home⁴ sales data from 1988 through 2023. During this time, Warren experienced the greatest overall volume of vacation homes sold across the MRV and more market volatility. Sales remained lower but relatively stable in Waitsfield and Fayston. There was a strong uptick in number of vacation homes sold in the MRV 2012 – 2020 (+153%), followed by a 51% decrease from 2021 – 2023.

Number of Vacation Homes Sold in the MRV, 1988 - 2023

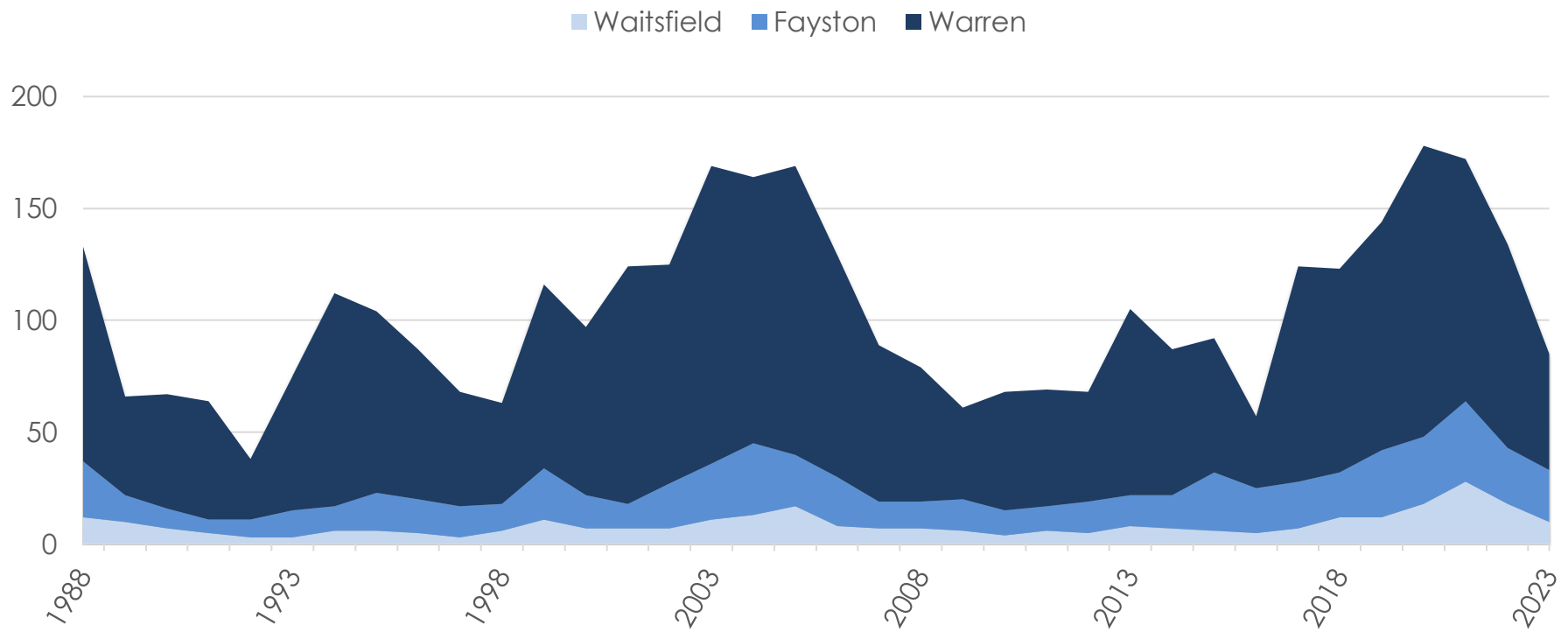


FIGURE 20. SOURCE: VERMONT HOUSING FINANCE AGENCY

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

Figure 21 compares the total vacation home sales in the Mad River Valley (MRV) to those in Vermont from 1988 to 2023. Across Vermont, primary residence sales consistently outnumber vacation home sales. The MRV shows the opposite trend, with vacation home sales consistently exceeding primary residence sales. This distinction highlights the MRV's role as a destination area, contrasting with the statewide market where primary residences dominate. The relative distribution of vacation homes to primary residences underscores the MRV's unique housing market dynamics compared to Vermont as a whole.

Number of Vacation Homes Sold in the MRV vs. VT, 1988 - 2023

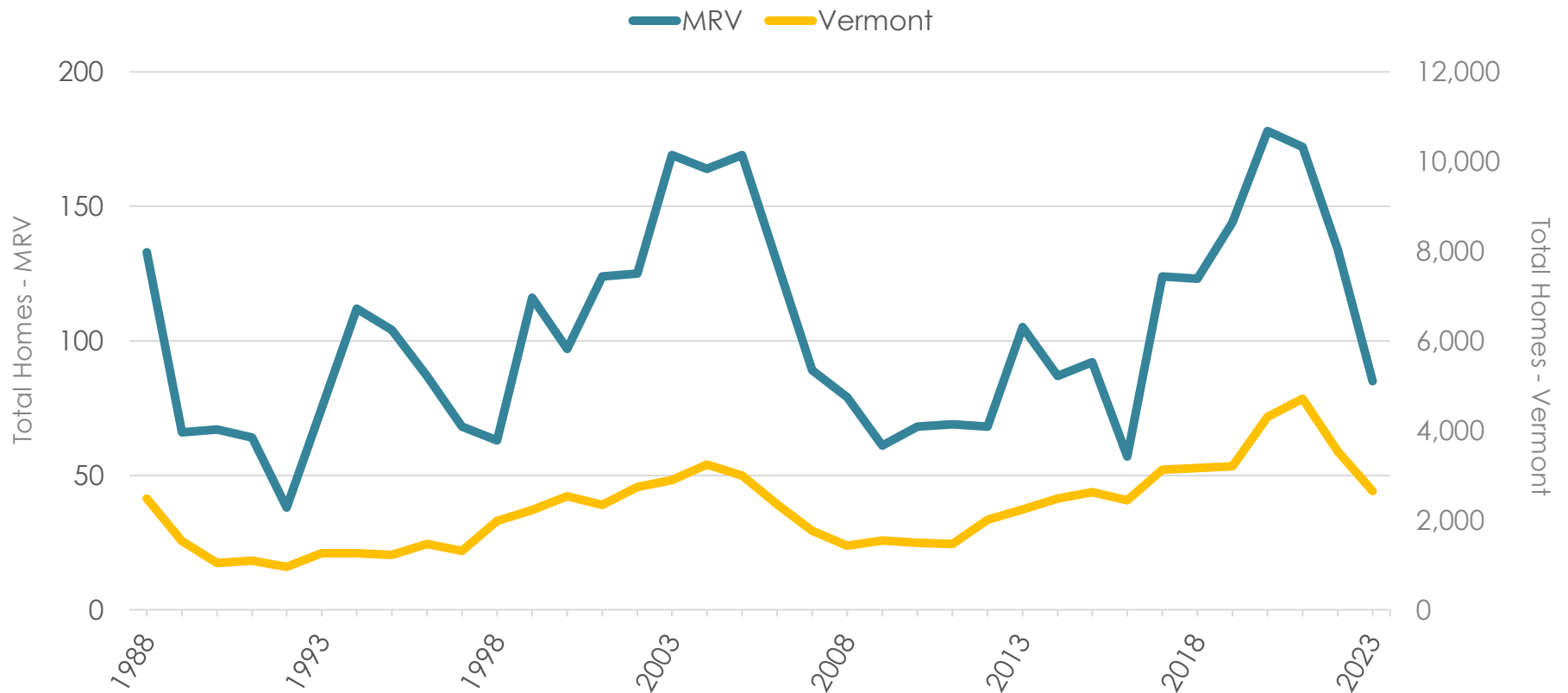


FIGURE 21. SOURCE: VERMONT HOUSING FINANCE AGENCY

Figure 22 shows the relative number of primary vs. vacation home sales in the MRV from 1988 – 2023. This data shows that more vacation homes are typically sold in a given year than primary residences.

Total MRV Home Sales - Vacation Homes vs. Primary Residences, 1988 - 2023

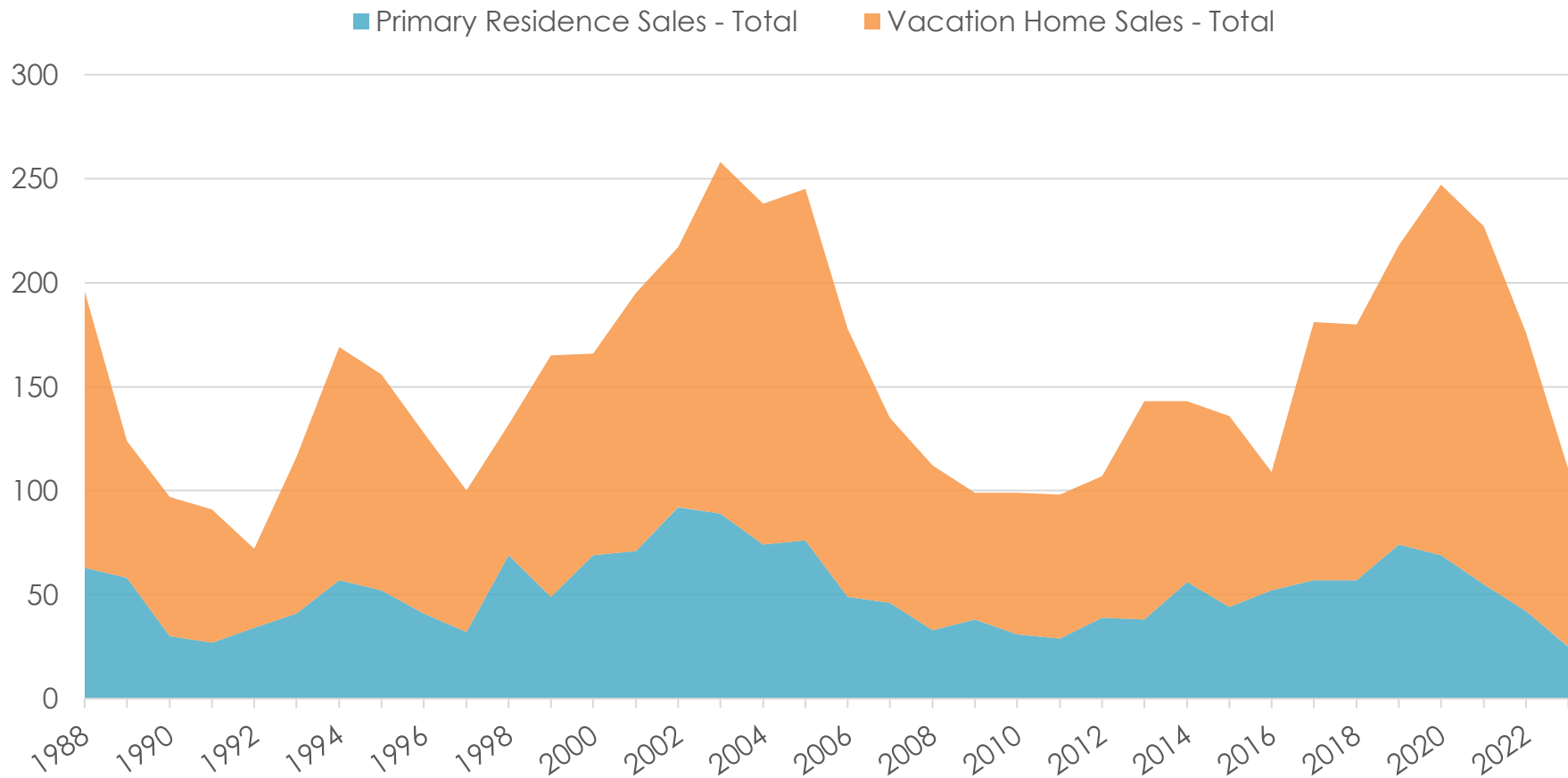


FIGURE 22. SOURCE: VERMONT HOUSING FINANCE AGENCY

Looking at Vermont's Property Transfer Tax (PTT) statistics, we can observe trends regarding the conversion of Primary Residences to Vacation Homes in the Mad River Valley (MRV). The PTT form includes fields for both 'seller-use' and 'buyer-use,' allowing us to categorize transactions where a primary residence is sold to a buyer intending to use it as a vacation home as a "loss" of a resident household. Conversely, a sale where a vacation home becomes a primary residence is categorized as a "gain."

Data from 2012 to 2018 reveals a relatively balanced trend, where the MRV experienced comparable or more residential gains than losses. However, this balance began to shift around 2019. Between 2012 and 2023 residential losses in the MRV increased significantly, from 11 to 21—an increase of 91%. This shift reflects a pattern of increased conversions of primary residences into vacation homes.

From 2019 to 2023, residential losses in the MRV reached 174 units, while gains amounted to only 95 units. This imbalance resulted in a net loss of approximately 79 long-term housing units.

MRV Primary Residence Loss vs. Gain, 2012 - 2023

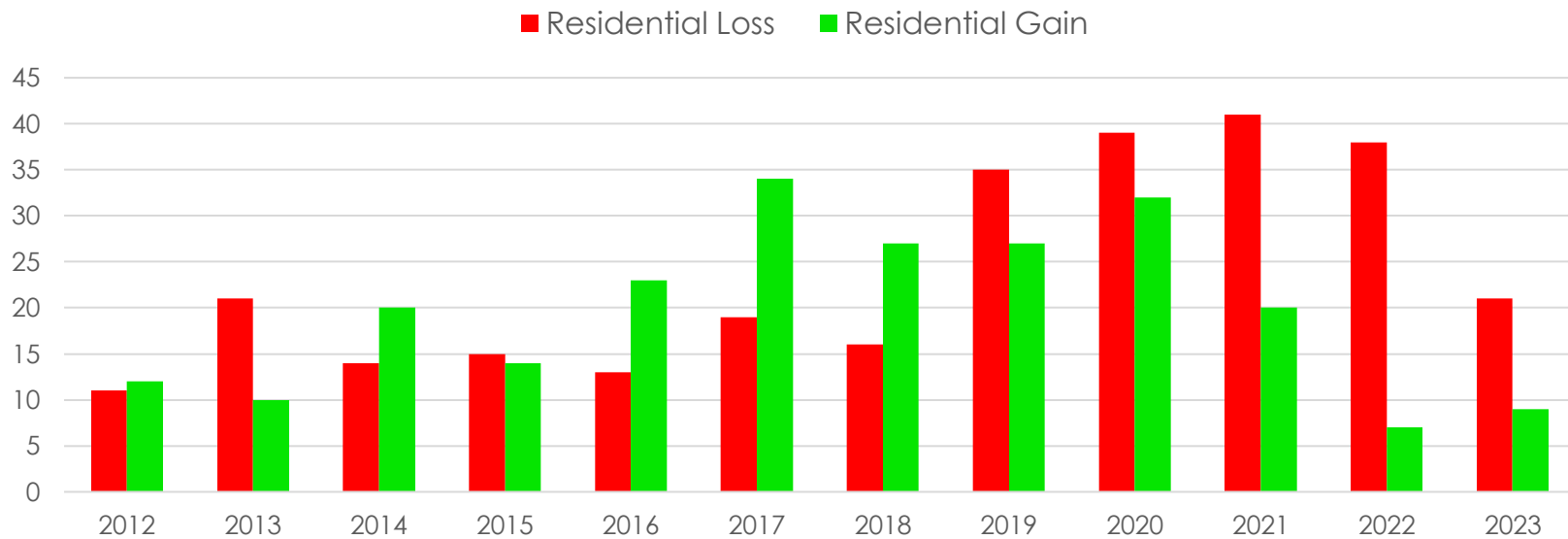


FIGURE 23. SOURCE: VERMONT PROPERTY TRANSFER TAX STATISTICS

Figure 24 shows the Median Primary Residence Sales price in the MRV since 1988⁵. From 1988 to 2000, median primary residence sales prices across all regions were relatively similar. The early 2000s saw increased volatility and 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.

MRV median primary home sales prices remained relatively turbulent from 2006 to 2012, falling to a low point in 2013. Between 2013 and 2023, the median primary residence sales price increased by 50% in Waitsfield, 101% in Fayston, and 297% in Warren. Compared to the 80% and 63% increases in Washington County and Vermont, respectively, housing costs in the MRV have become noticeably higher than in neighboring regions over the last decade.

Median Primary Residence Sales Price, 1988 - 2023

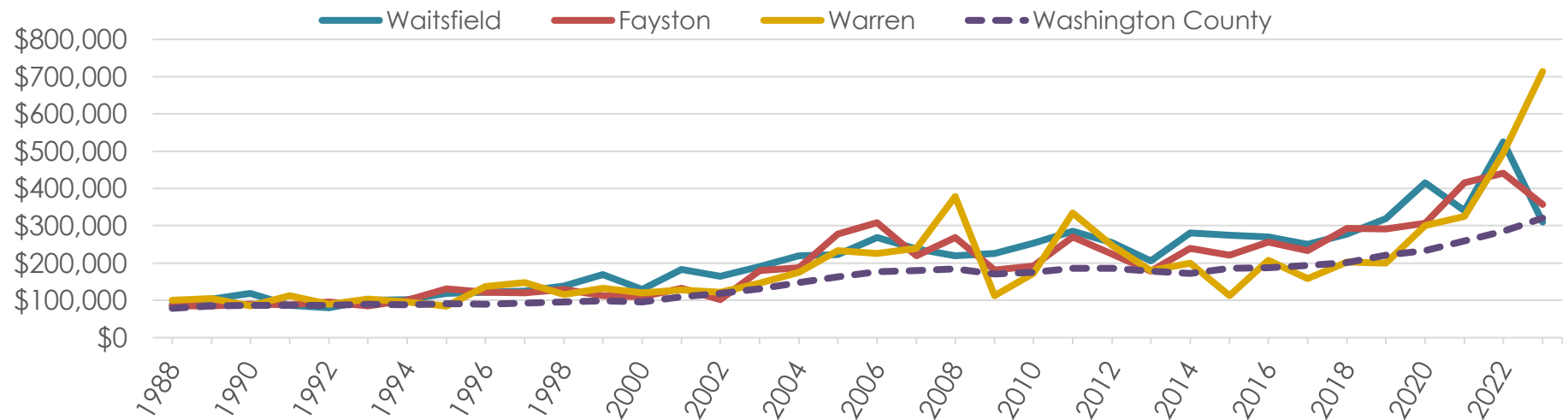


FIGURE 24. SOURCE: VERMONT HOUSING FINANCE AGENCY

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 25 shows the most current sales price data for Vacation Homes across the MRV and Washington County. From 1988 to 2002, the median sales prices of vacation homes across all regions remained relatively stable and similar. Between 2002 and 2008, median prices experienced steady growth, with Waitsfield increasing by 105%, Fayston by 230%, Warren by 146%, and Washington County by 120%. From 2008 to 2013, median sales prices remained stable before decreasing in 2016. Between 2016 and 2023, the median sale price for vacation homes rose by 133% in Warren and 136% in Fayston, while Waitsfield experienced a slight decrease of 1%. Similar to primary residence sales prices, the increase in vacation home sales prices indicates that the cost of housing in the MRV is rising more rapidly than in neighboring regions, with the most pronounced increases typically occurring in Warren and Fayston.

Median Vacation Home Sales Price in the MRV, 1988 - 2023

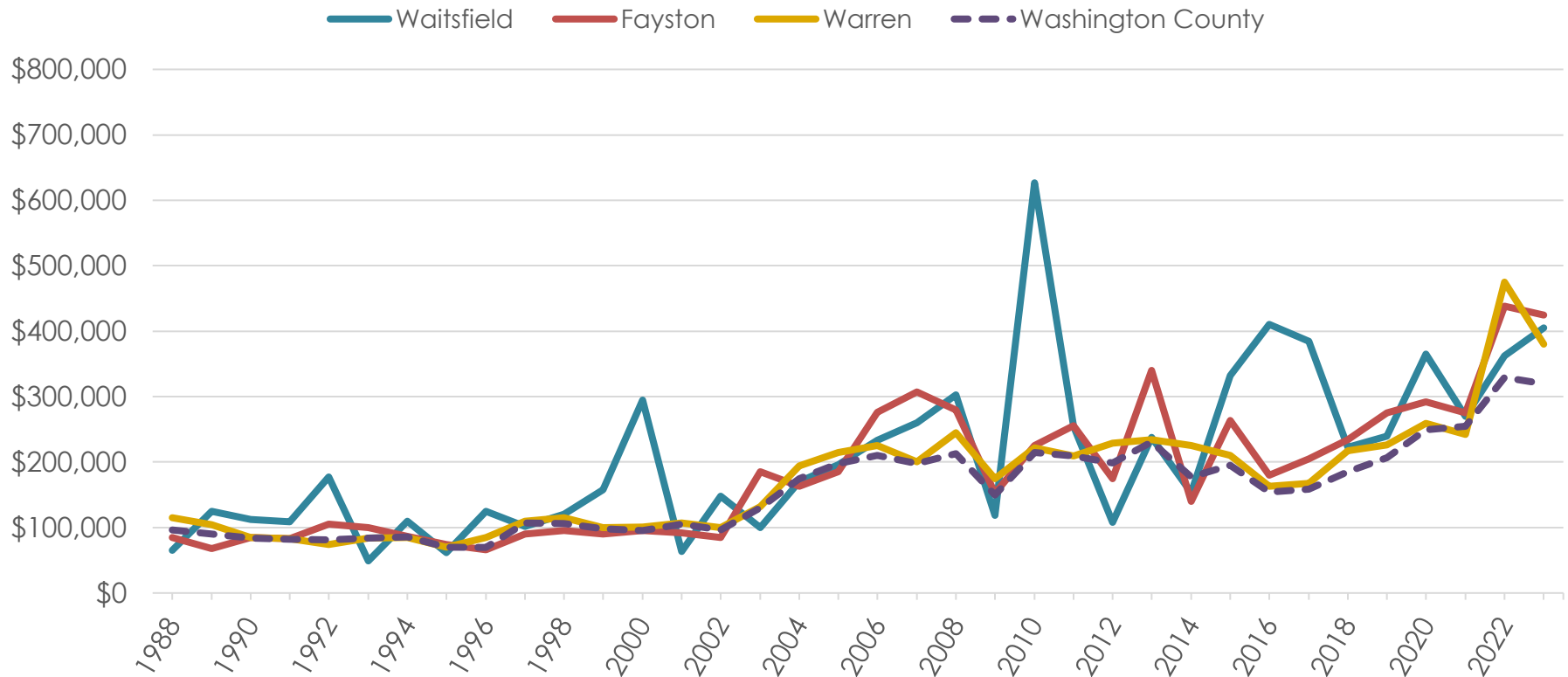


FIGURE 25. SOURCE: VERMONT PROPERTY TRANSFER TAX STATISTICS

Zoning permits are a leading indicator of new home construction in a community. **Figure 26** shows the number of single-family houses, detached and attached, (SFH) permits⁶ issued by MRV towns from 2000 – 2023. While the numbers fluctuated over time, the proportions between each town remained 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 until 2021, experiencing a 167% increase from 2012 – 2021. In comparison, Vermont's SFH permits increased by 53% during this same time period. From 2021 – 2023, however, the number of annual permits issued within the MRV dropped by 25%, while the total permits issued across the state dropped by 4%.

Single Family Houses, Detached & Attached - Annual Permits Issued by Town, 2000 - 2023

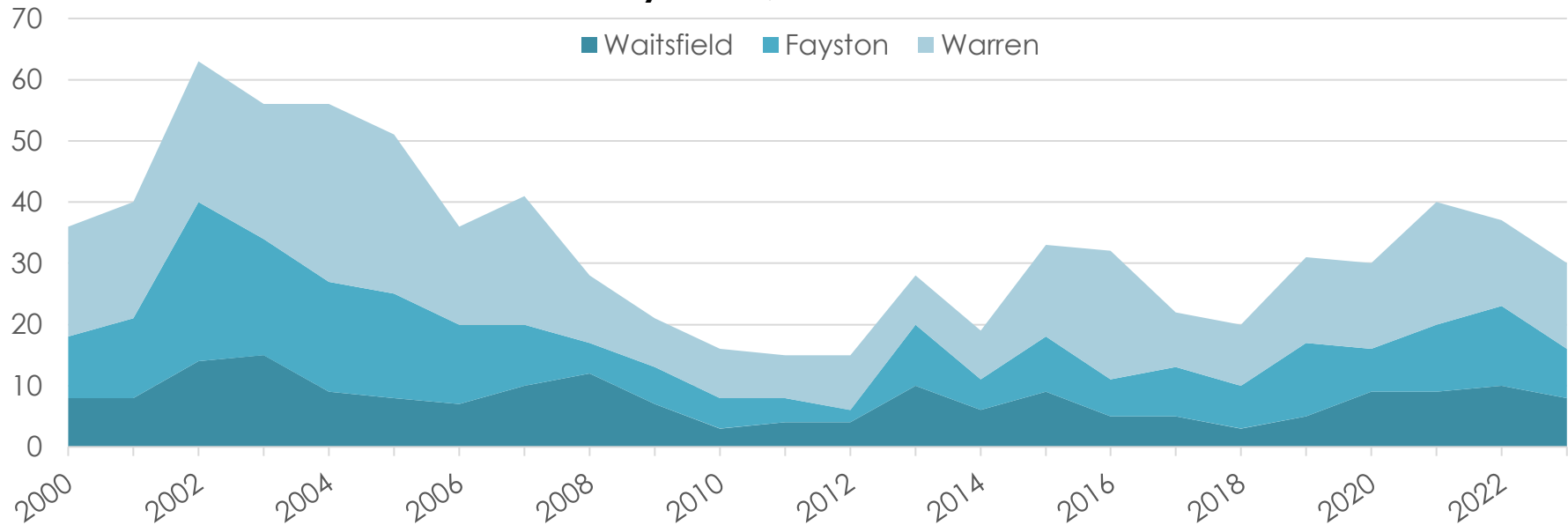


FIGURE 26. SOURCE: U.S. CENSUS BUREAU, U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, TOWN ADMINISTRATORS OF FAYSTON, WAITSFIELD & WARREN

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 27**), 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 the state's, 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, 2000 - 2023

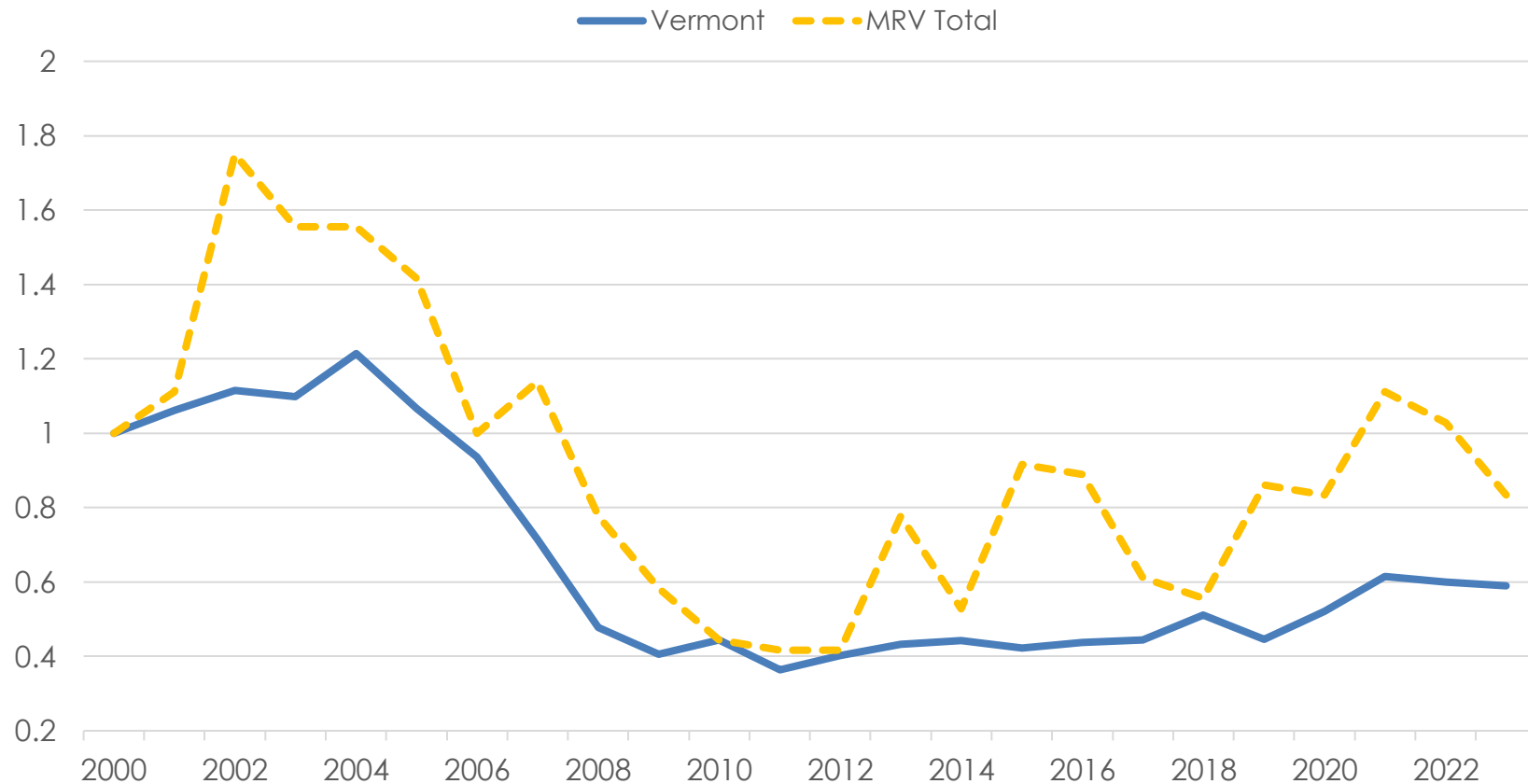


FIGURE 27. SOURCE: U.S. CENSUS BUREAU, U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, TOWN ADMINISTRATORS OF FAYSTON, WAITSFIELD & WARREN

Figure 28 represents the total dollar amount generated by the issuance of SFH permits each year by town. Since 2010, the total cost of permitted construction in MRV towns has gradually increased, tracking the trends illustrated in **Figures 26 and 27**. As the number of permits 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.

The dashed MRV total data series shows that MRV construction costs increased from 2010 to 2023 (+171%).

Single-Family Houses, Attached & Detached - New Construction Costs, 2000 - 2023

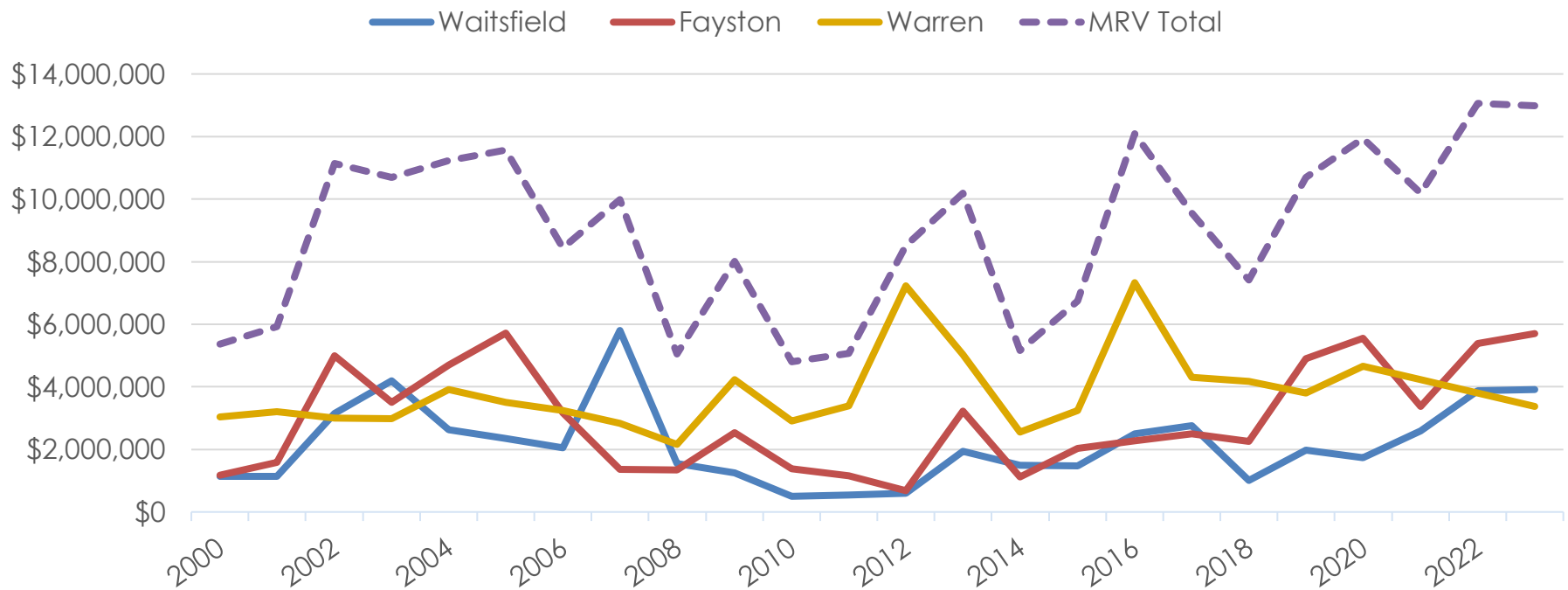


FIGURE 28. SOURCE: U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, VT HOUSING DATA

Figure 29 shows that despite increasing total new construction costs in the MRV, the average value of SFH permits has decreased since a high point in 2012. This seems to indicate that while a higher volume of homes are being built, the value of each permit has decreased. It is worth noting, however, that since a recent low point in 2015, the average value of SFH permits in the MRV has increased by 112%.

Single-Family Houses, Attached & Detached - Average Permit Value, 2000 - 2023

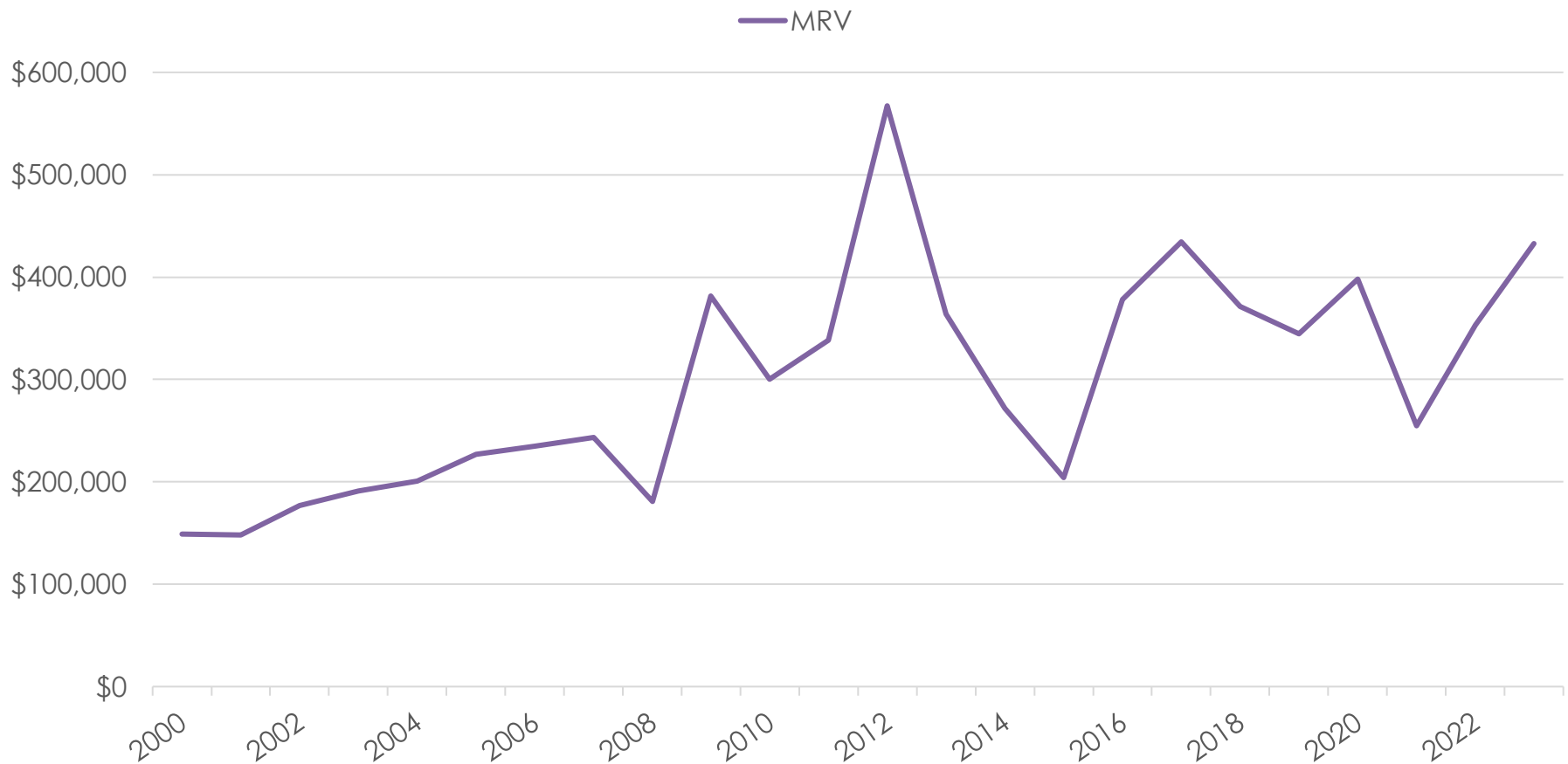


FIGURE 29. SOURCE: U.S. DEPT. OF HOUSING & URBAN DEVELOPMENT, VT HOUSING DATA

Figure 30 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.

In comparison to 2000, the 2020 Decennial Census found 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

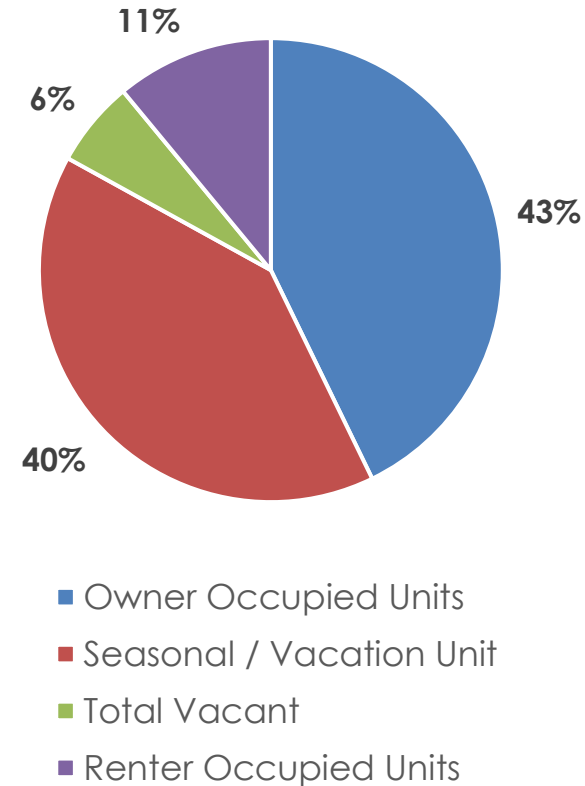


FIGURE 30. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

⁷ "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 31 presents another representation of the distribution of Vacation Homes and Vacant Units from 1990 to 2020. Although this percentage has dropped over the years, it still accounts for roughly 46% of the MRV Housing Stock.

MRV % Vacation Homes & Vacant Units, 1990- 2020



FIGURE 31. SOURCE: U.S. CENSUS BUREAU, DECENNIAL CENSUS

Figure 32 uses American Community Survey (ACS) data to illustrate the distribution of available housing units in the Mad River Valley from 2012 to 2022. While decennial census data are ideal for tracking long-term trends, the ACS offers more recent estimates. However, it's important to note that the ACS data has larger margins of error, making it less accurate than the decennial census.

From 2012 – 2022, the most pronounced changes occurred within the Owner-Occupied and Seasonal / vacation unit categories, which both experienced 5% growth in that timeframe. By narrowing the focus to 2017 – 2022, we saw all categories decrease except seasonal / vacation units, which experienced a 2% increase. During the same timeframe, owner-occupied units decreased by 1%, renter-occupied decreased by 3%, and vacant units decreased by 36%. Looking at **Figure 32**, we see that there are more seasonal or vacant units than owner or renter-occupied units in a given year.

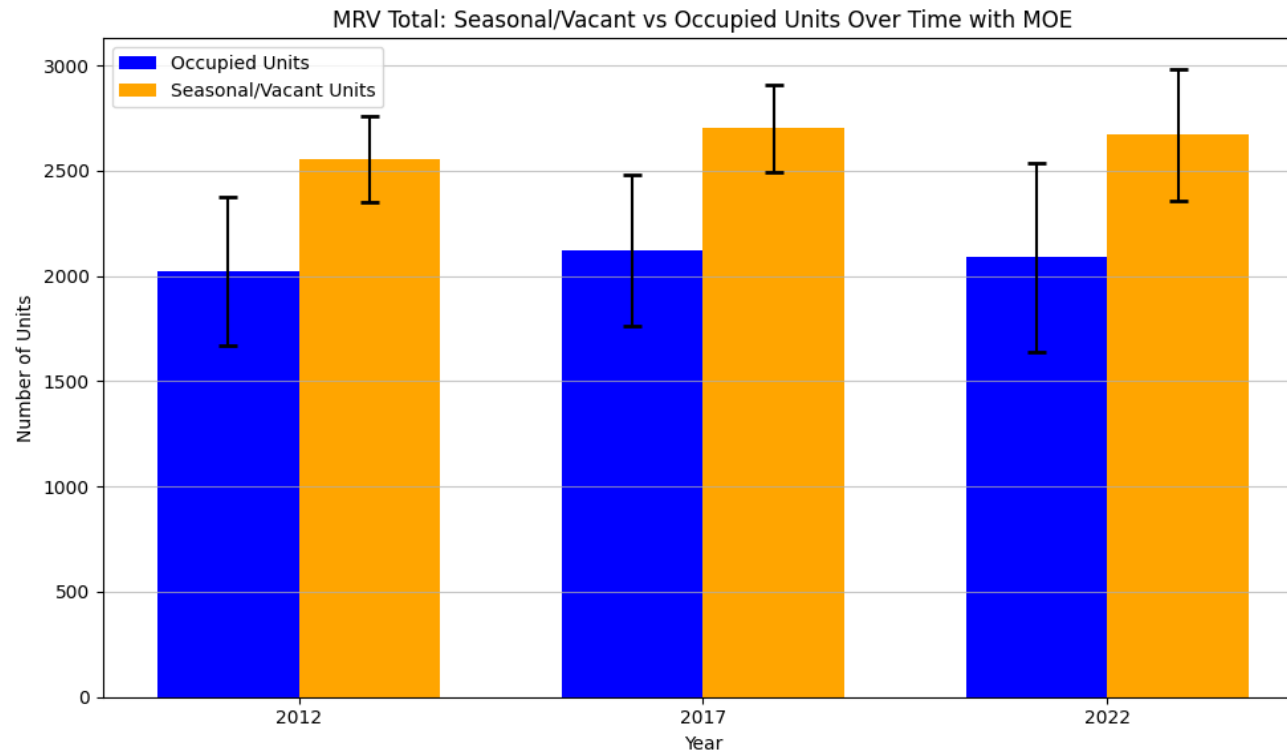


FIGURE 32. SOURCE: AMERICAN COMMUNITY SURVEY 5-YEAR POPULATION ESTIMATES

A topic of growing interest in recent years is the number of short-term rentals (STR) in the MRV. **Figure 33** shows that between January 2018 and December 2022, there was slow and relatively steady growth in the number of active whole-home STRs in the MRV. Month-to-month fluctuations were sporadic, but the total number of active whole-home STRs increased by 33% during this time, representing 133 whole-home units.

From January 2023 to January 2024, the number of active whole-home STRs increased by 42%, which is a faster increase than historically observed. Further analysis is needed to identify the locations of these STRs and the prevalence of part-home rental units to better assess their impact on the MRV housing stock and availability.

Total Active STRs by Month in the MRV, 2018 - 2024



FIGURE 33. SOURCE: VERMONT HOUSING FINANCE AGENCY

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 34** depicts the proportion of Sugarbush employees who resided in the MRV from the 2007/08 to 2023/24 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 2023-24 season, the majority of survey respondents resided in Warren (332), Waitsfield (103), and Chittenden County (88).

% Sugarbush Employees Residing in the MRV, 2007/08 - 2023/24

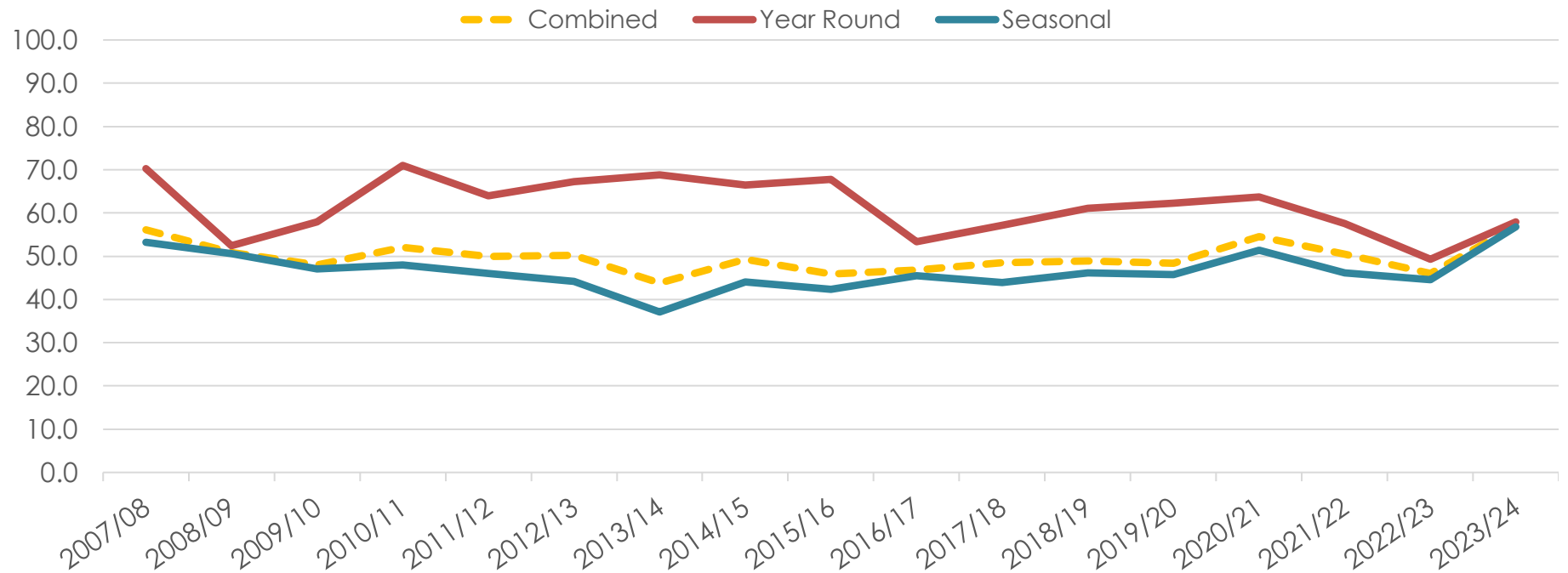


FIGURE 34. SOURCE: SUGARBUSH RESORT

Sugarbush Employees Residence by Type, 2023/24 Season

Figure 35 provides detail on the type of housing that Sugarbush employees lived in during the 2023/24 season, including those that lived outside of the MRV.

The largest percentage of employees owned their residence (36%), followed by those that answered 'Other' (26%), and then those that rented their residence (23%). The 'Other' category includes those that are hosted in workforce housing, camping, staying with a friend or coworker, or that were unsure of their housing situation while taking the survey.

From the 2022-23 to 2023-24 season, the number of employees that rented increased by 105%, those that lived with family increased by 140%, and those that were in the "Other" category increased by 153%, mainly due to a 228% increase in the employees that reported renting Sugarbush employee housing.

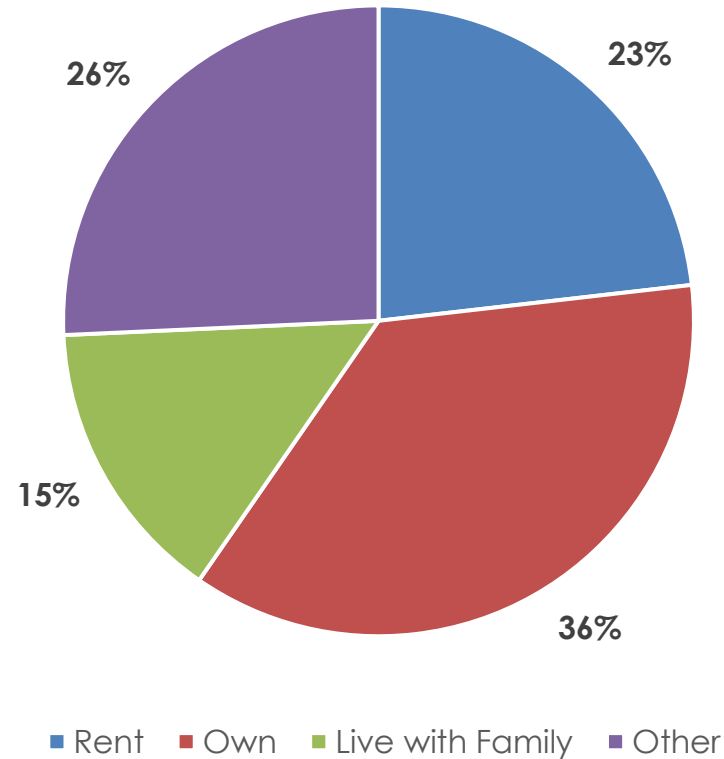


FIGURE 35. SOURCE: SUGARBUSH RESORT

[Tenants for Turns](#) (T4T) is an employee housing program researched and developed by the MRVPD, later adopted and implemented by Sugarbush Resort. T4T is a community-based program designed to benefit local homeowners and 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 ten all-mountain lift ticket vouchers.

T4T began during the 2017/18 ski season with great success, housing 26 Sugarbush employees. This grew to 40 employees housed during the 2019/20 season (+54%). After several seasons of limited activity during and following the COVID-19 pandemic, the program rebounded to near pre-pandemic participation levels in 2023/24, with 34 individuals securing housing via T4T.

Tenants for Turns - Total Employees Housed, 2017/18 - 2023/24

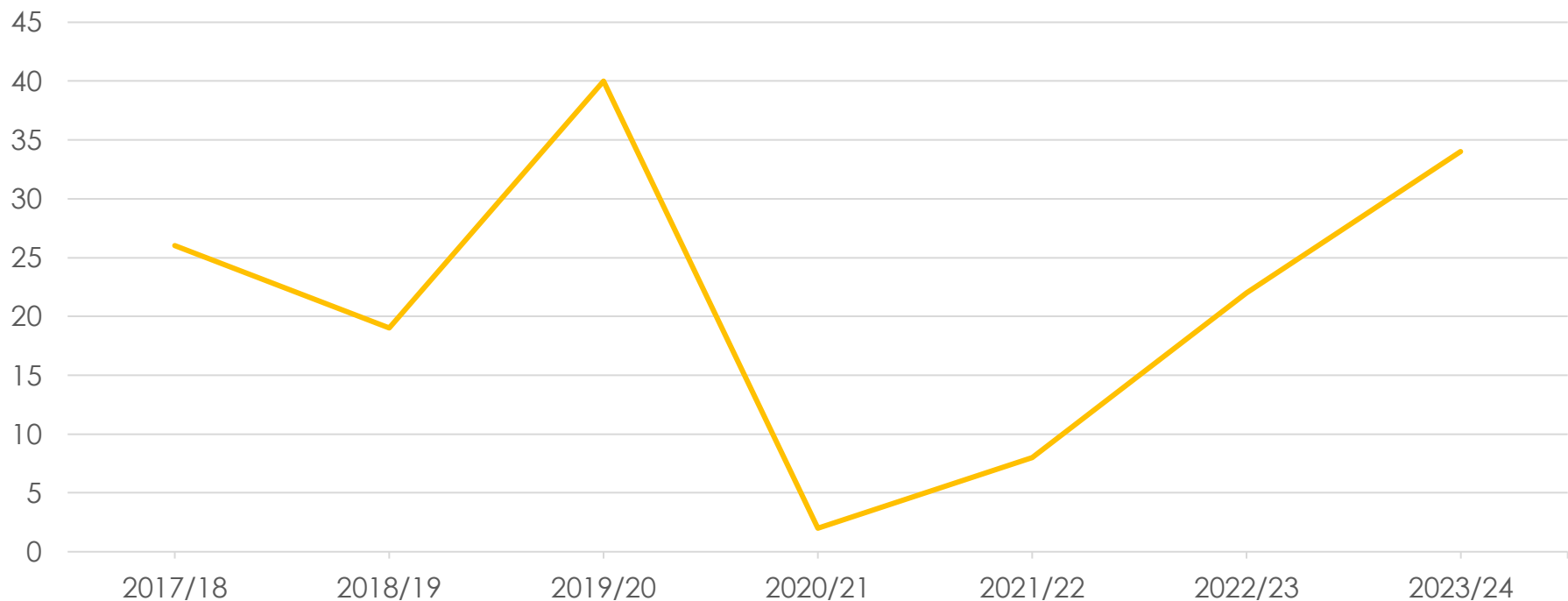


FIGURE 36. SOURCE: SUGARBUSH RESORT

HOUSING AFFORDABILITY

Housing supply and affordability challenges can be attributed to several factors, including inflated home and land prices, modest local incomes, and insufficient wastewater systems in zones positioned for residential infill. These housing barriers impact current and prospective residents and local businesses seeking staff, educational institutions, and various other community dynamics.

Much of the planning efforts in recent years within the MRV have been targeted at increasing the stock of available and affordable housing for Mad River Valley residents. Several key initiatives include the Waitsfield Community Wastewater Project, Irasville Master Planning Municipal Planning Grant, Waitsfield's creation of a Neighborhood development area, and the modernization of zoning bylaws within the MRV towns.



Image 3. Joshua Schwartz, taken at the 2022 MRV Housing Summit

Figure 37 shows the Median Gross Rent over time for MRV towns and Washington County, compared to the 2024 Fair Market Housing Rates (FMHR) for Washington County. The U.S. Department of Housing and Urban Development calculates these rates 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 compared to the MRV towns. Of all MRV towns, Waitsfield has had the most consistent affordable rent during this time period. Warren is also frequently at or below the county FMHR, while Fayston regularly exceeds the county's FMHR.

Median Gross Rent by Region, 2010 - 2022

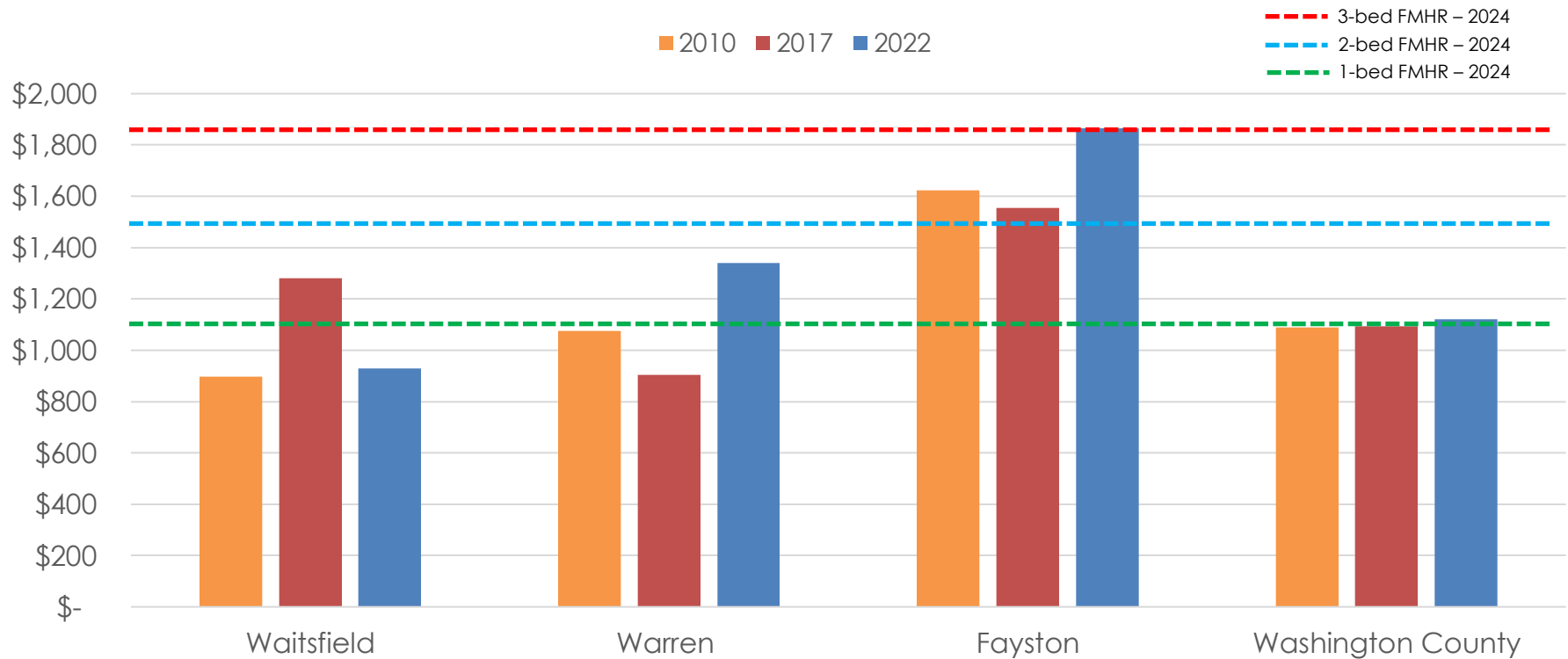


FIGURE 37. ADJUSTED FOR INFLATION. U.S. CENSUS BUREAU, AMERICAN COMMUNITY SURVEY, U.S. DEPT. OF HOUSING AND URBAN DEVELOPMENT (HUD)

Households Distributed by Monthly Costs of Housing, 2022

Figure 38 shows the number of residents in each region living in various housing unit price ranges. In 2022, the percent of housing units falling under \$900/month were as follows: MRV (32%), Washington County (43%), and Vermont (40%). Conversely, 65% of MRV monthly housing costs were between \$1,000 and \$1,900.

Comparing the 2021 & 2022 data, we saw that all regions experienced increases in the proportion of residents that pay over \$2,000/month for housing. This category increased by 14% in the MRV, 2% in the county, and 4% in the State.

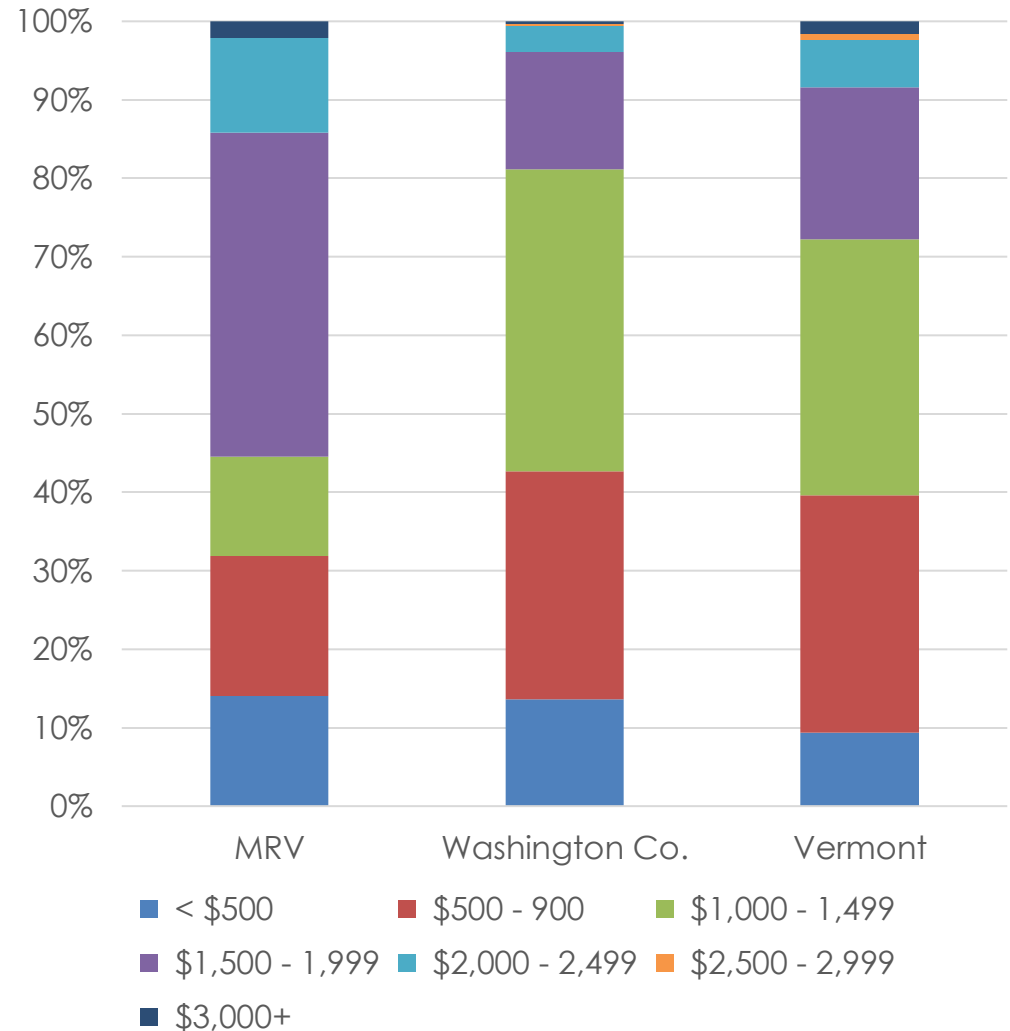


FIGURE 38. SOURCE: VERMONT HOUSING FINANCE AGENCY; AMERICAN COMMUNITY SURVEY

Figure 39 shows the long-term change in the number of owner and renter-occupied housing units in Waitsfield, Warren, and Fayston from 1970 to 2020 as a percentage of total units. Since 1990, renter-occupied housing units 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 - 2020

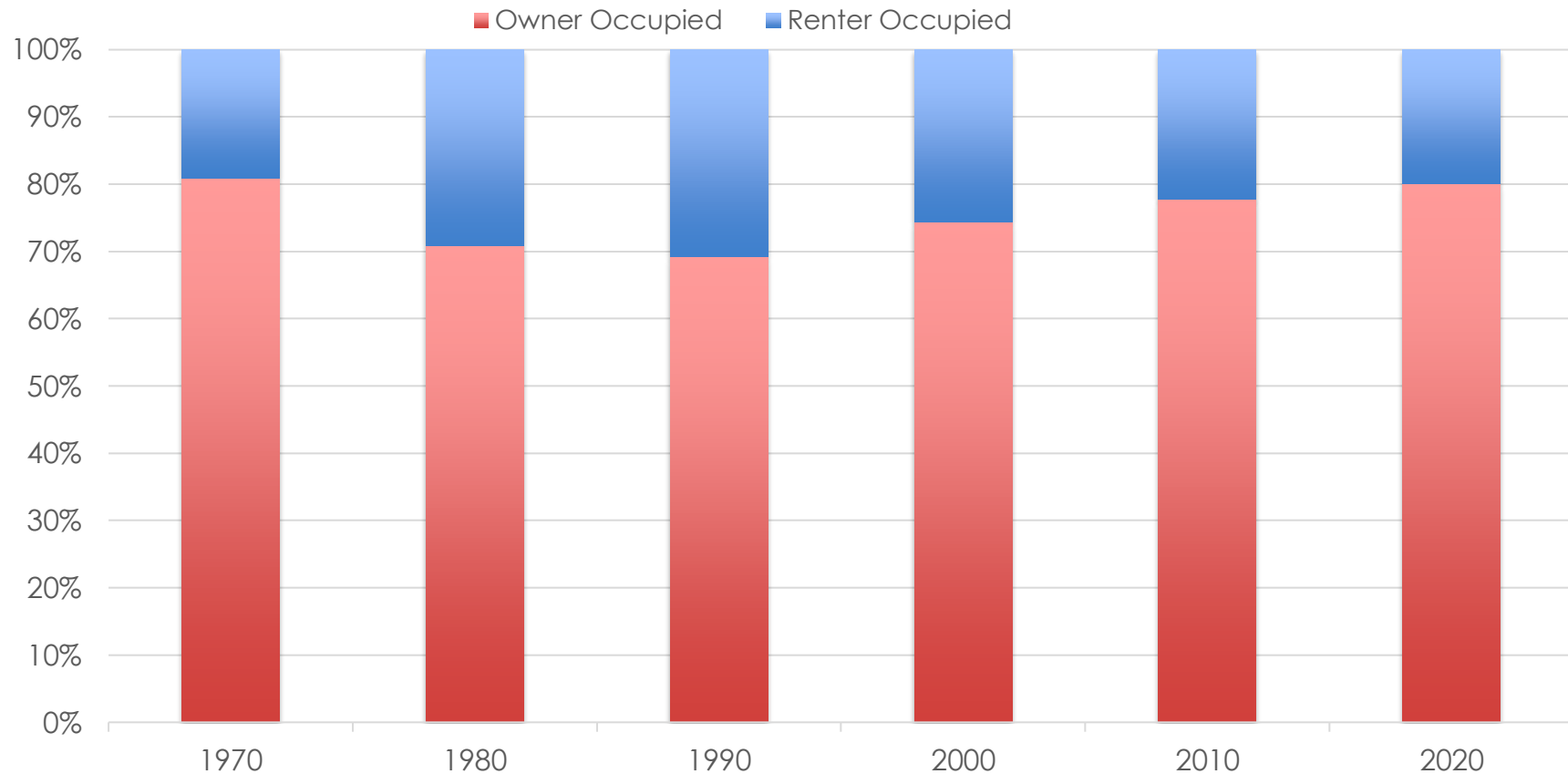


FIGURE 39. U.S. CENSUS BUREAU DECENNIAL CENSUS

Figure 40 illustrates that the value of owner-occupied units in the MRV is typically higher than in Washington County. Historically, Waitsfield had the highest median value of the three MRV towns. This was the case until around 2020 when Waitsfield's median value of owner-occupied units was surpassed by Warren (2018) and Fayston (2019). This data represents unadjusted dollars, but when inflation is adjusted, we see that median values in Fayston & Warren gradually increased by 16% and 30%, respectively, from 2010 - 2021, while Waitsfield's median value declined by 24%. Similarly, from 2021 – 2022, Fayston and Warren's median value increased by 15% and 8%, while Waitsfield's median value decreased by 7%.

Median Value of Owner Occupied Units, 2012 - 2022

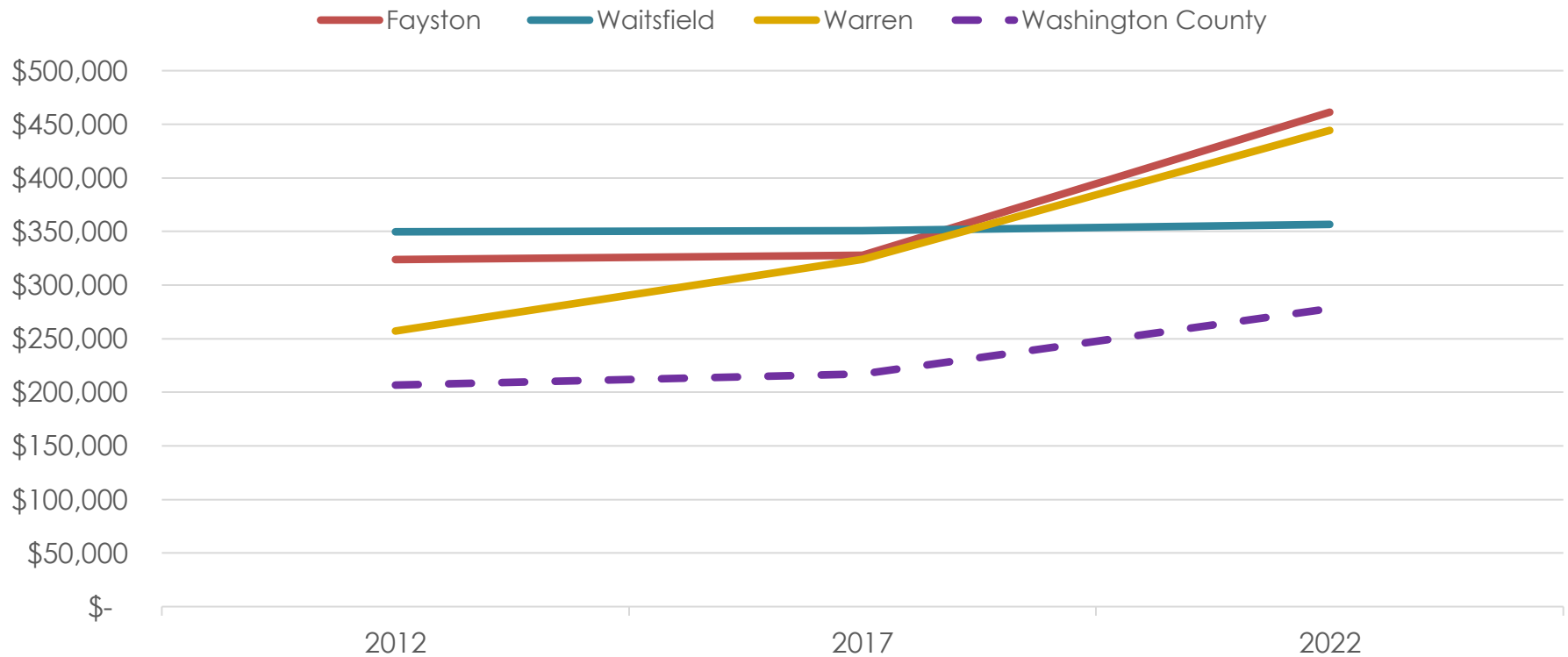


FIGURE 40. U.S. CENSUS BUREAU DECENNIAL CENSUS & AMERICAN COMMUNITY SURVEY

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

Figure 41 shows the 2023 Washington County Housing Wage for one-, two-, and three-bedroom housing units compared to the State of Vermont minimum wage (\$13.67 as of January 1, 2024).

In 2023, the Washington County housing wage ranged from \$18.33 for a one-bedroom unit to \$30.46 for a three-bedroom unit. From 2022 to 2023, the housing wage for one-bedroom units increased by 10%, while the wage for three-bedroom units rose by 9%. These increases outpaced the 3.7% rise in Vermont's minimum wage during the same period. As a result, the state's minimum wage as of January 1, 2024, remains 28-57% below the hourly earnings required to afford a modest one-, two-, or three-bedroom rental in Washington County. It is recognized that the MRV housing wage would likely differ from Washington County; however, we believe this type of county-wide comparison can help understand local trends. Based on what we have learned, it would be reasonable to imagine that the MRV housing wage may even be higher than Washington County's, resulting in greater stress on cost-burdened renters.

Washington County Housing Wage, 2023

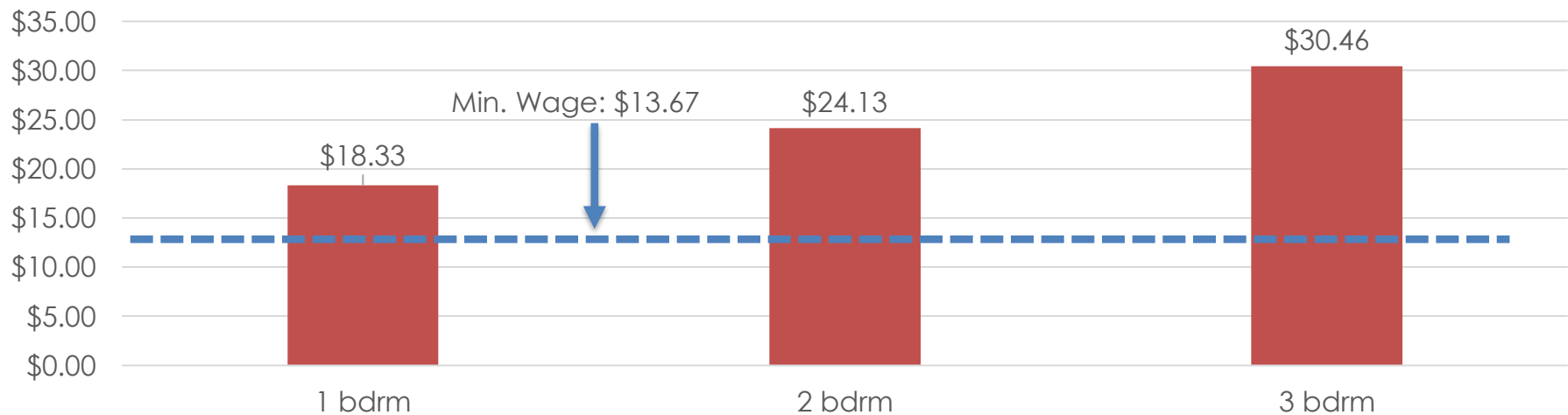


FIGURE 41. SOURCE: NATIONAL LOW-INCOME HOUSING COALITION, VERMONT HOUSING FINANCE AGENCY



SECTION II: ECONOMICS

Includes Items #35 & 36 from the Memorandum of Understanding

TOURISM & HOSPITALITY

Tax revenue trends can 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. With the launch of several new eating and drinking establishments, 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 MRV Meals, Rooms, and Alcohol tax receipts illustrates steady increases between 2009 and 2016, as shown in **Figure 42**. 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 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. Despite this, alcohol receipts experienced an 86% increase from 2022 – 2023, while meals and rooms changed by 0% and 2.5% respectively. Note: the data series' containing "MRV2" only includes 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 - 2023

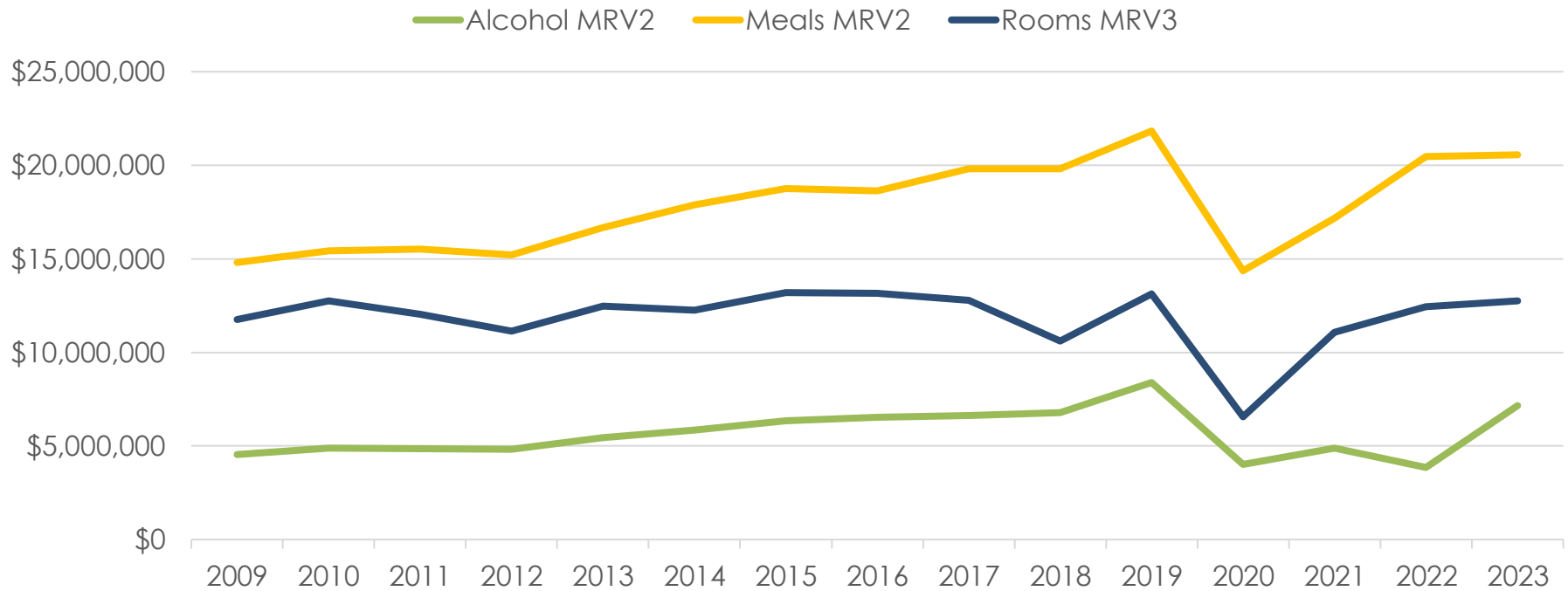


FIGURE 42. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

A comparison of each MRV towns' combined Meals, Rooms, and Alcohol tax receipts in **Figure 43** illustrates steady growth between 2012 and 2019 in Waitsfield (+ 59%), while Warren and Fayston experienced more erratic changes throughout the same 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 specific Warren categories (alcohol receipts) from being reported in 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%.

From 2022 to 2023, Warren's combined receipts increased by 26%, primarily due to the town meeting the state's confidentiality reporting standards, allowing the release of its 2023 alcohol tax receipts, which had been withheld in 2022. In 2023, Warren reported \$3.4 million in alcohol receipts, 54% higher than the last recorded value from 2021.

Meals, Rooms, Alcohol Tax Receipts by Town, 2008 - 2023

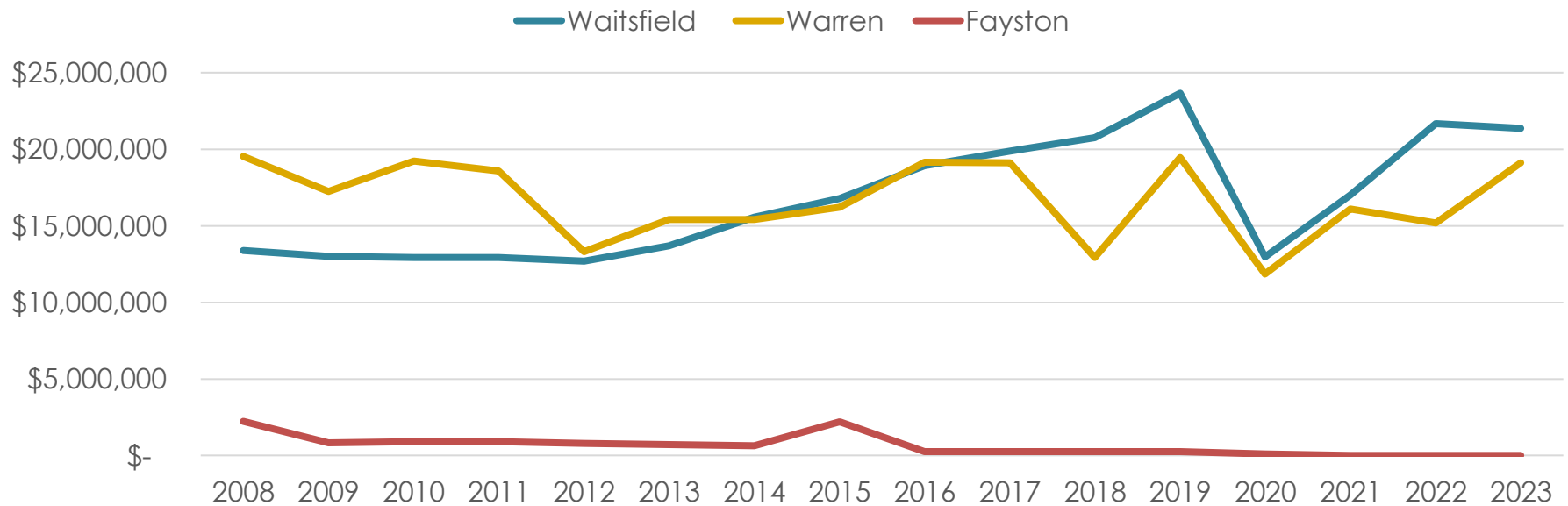


FIGURE 43. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Figure 44 provides a broader regional perspective regarding the health of the MRV tourism and hospitality sector over time. Generally speaking, the Mad River Valley follows the trends of its neighboring towns. 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 in 2019, continuing through the most recent period.

From 2022 to 2023, Montpelier saw a 12% decline in combined receipts, while the Mad River Valley and Waterbury experienced increases of 10% and 14%, respectively. Montpelier's decline was likely due to the significant flooding on July 10, 2023, severely impacting its downtown and surrounding areas. Although Waterbury and the Mad River Valley were also affected by the storm, Montpelier suffered the most damage, possibly contributing to its overall decrease in receipts over the past year.

Meals, Rooms, Alcohol Tax Receipts by Region, 2005 - 2023

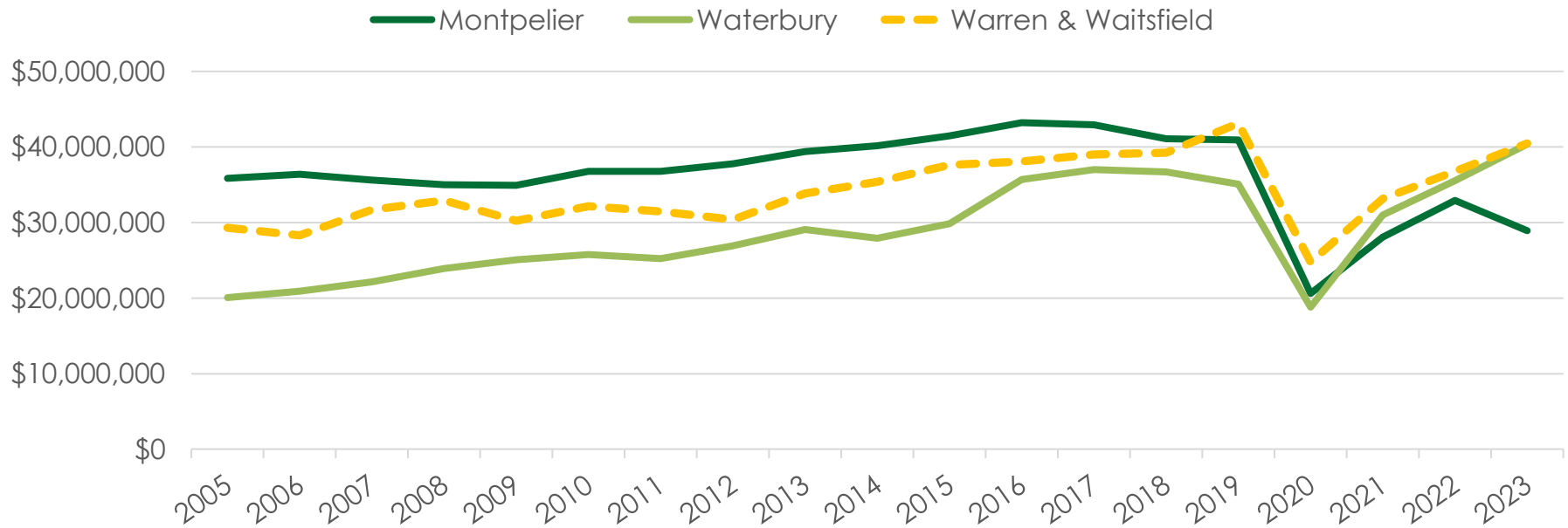


FIGURE 44. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

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 splitting the seasons into quarters (First: January-March, Third: July-September) means we lose a percentage of the full tourist seasons. However, this is as close of an approximation as we can get with current resources. **Figure 45** shows Third Quarter receipts reasonably stable year to year, growing by 47% between 2005 - 2023. 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 saw a much steeper decline than the first quarter, most likely because the pandemic onset began at the end of quarter one of that year. The trendlines illustrate relatively stable growth of Third Quarter receipts over the period, with First Quarter receipts more variable and declining slightly. From 2022 to 2023, however, we see the opposite, with Third quarter receipts declining by 6% and First Quarter receipts increasing by 4%.

MRV Meals, Rooms, Alcohol Tax Receipts by Quarter, 2005 - 2023

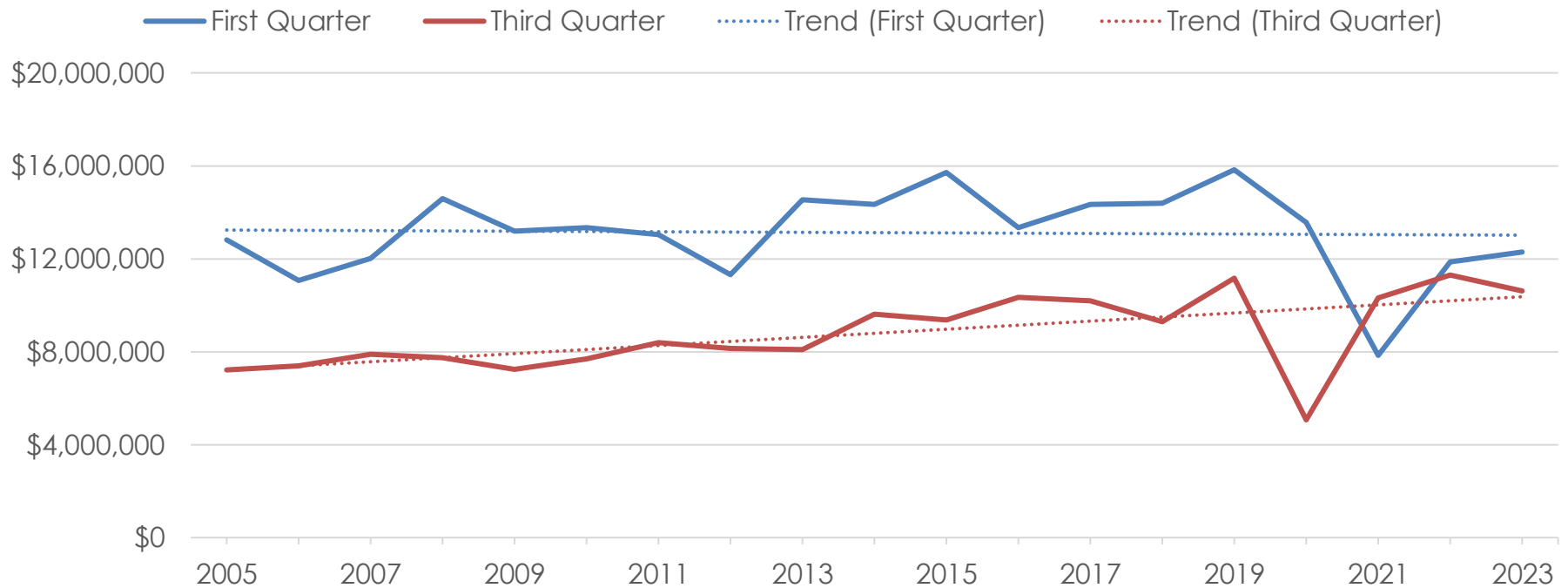


Figure 45. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Similarly to the Quarterly Tax receipts, October tax receipts are largely impacted by seasonality. The purpose of showing October tax receipts for Waitsfield, **Figure 46**, is to provide insight into the effect of the fall tourist and wedding season on the Mad River Valley.

Waitsfield's October receipts remained relatively steady from 2005 to 2013 and began to rise in 2014. There was a rapid increase across all categories from 2018 to 2019: Meals (+26%), Rooms (+21%), and Alcohol (+43%). Waitsfield's October receipts declined sharply from 2019 to 2020, similar to other areas affected by the COVID-19 pandemic. The largest decrease was experienced in alcohol receipts (-71%). In 2021, there was a strong rebound that brought levels close to what they had been before. This trend continued to strengthen in 2022. From 2022 – 2023, meals and alcohol receipts declined by 14% and 4%, respectively, while room receipts experienced a 14% increase. This could be partly due to the rise in first quarter (winter) receipts reported and the addition of a new lodging facility in Waitsfield.

Warren & Fayston did not meet the VT Department of Taxes confidentiality reporting standards, so we do not have access to current sales receipt data for the month of October.

Waitsfield Tax Receipts, October, 2000 - 2023

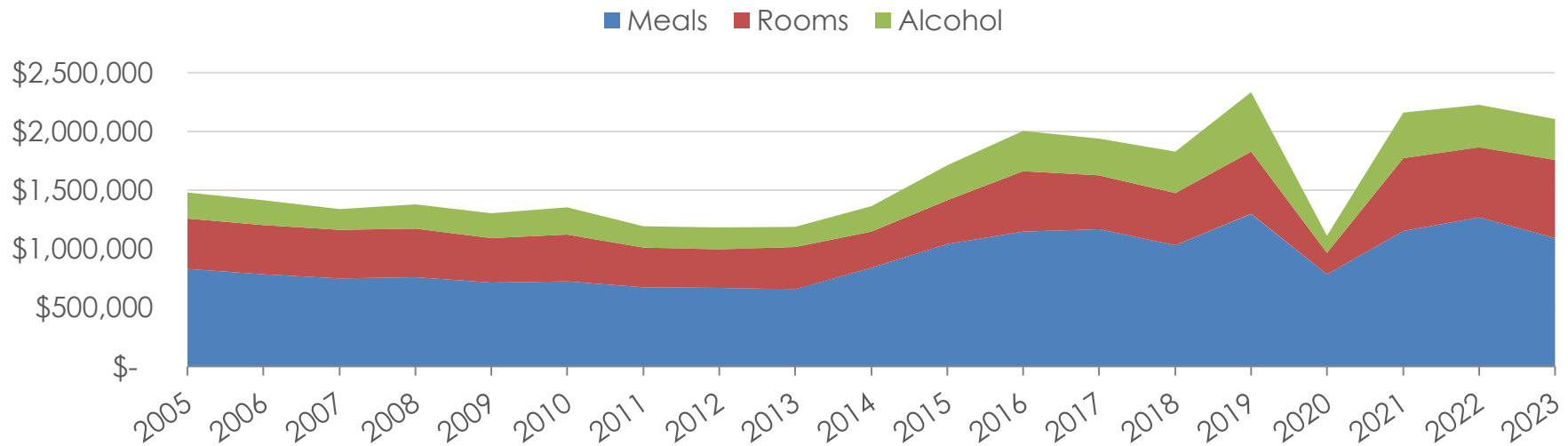


FIGURE 46. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

RETAIL SECTOR

Figure 47 compares 2023 Gross Sales⁸ tax receipts by town. While Waitsfield still reported the highest sales receipts (\$130,639,320), Warren's commercial activity (\$80,614,126) represents an increase of 54% since 2018. Conversely, during the same timeframe, Waitsfield and Fayston's Gross Sales Tax Receipts decreased by 10% and 61%, respectively. Despite those reductions, the MRV's total gross sales increased by 7% between 2018 - 2022. In recent years, sales receipts have remained relatively constant but have experienced slight declines. From 2022 – 2023, gross sales decreased by 2% in Fayston, 3% in Waitsfield, and 9% in Warren.

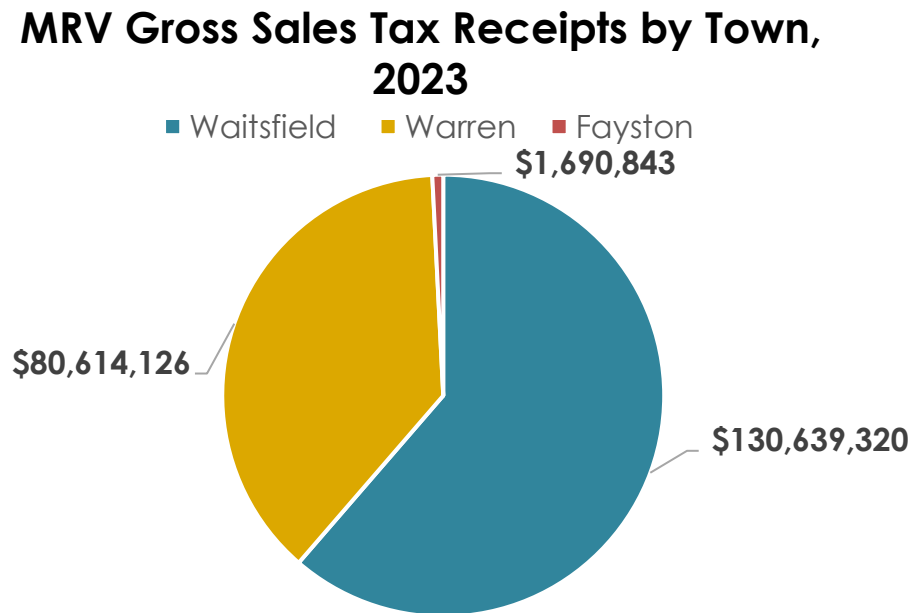


FIGURE 47. SOURCE: VT DEPT. OF TAXES

⁸ "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.

Figure 48 compares Gross Sales and Retail Tax Receipts and shows the MRV's trend since 2005. As noted in the prior data report (2023), Gross Sales steadily fell from 2005 to 2018, when the category began to experience its first upward trend in recent years. From 2018 to 2023, Gross Sales increased by 7%, which 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 6% across these 18 years. Since 2018, Retail Sales have increased by 1%. Between 2019 and 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 – 2023

■ Gross Sales ■ Retail

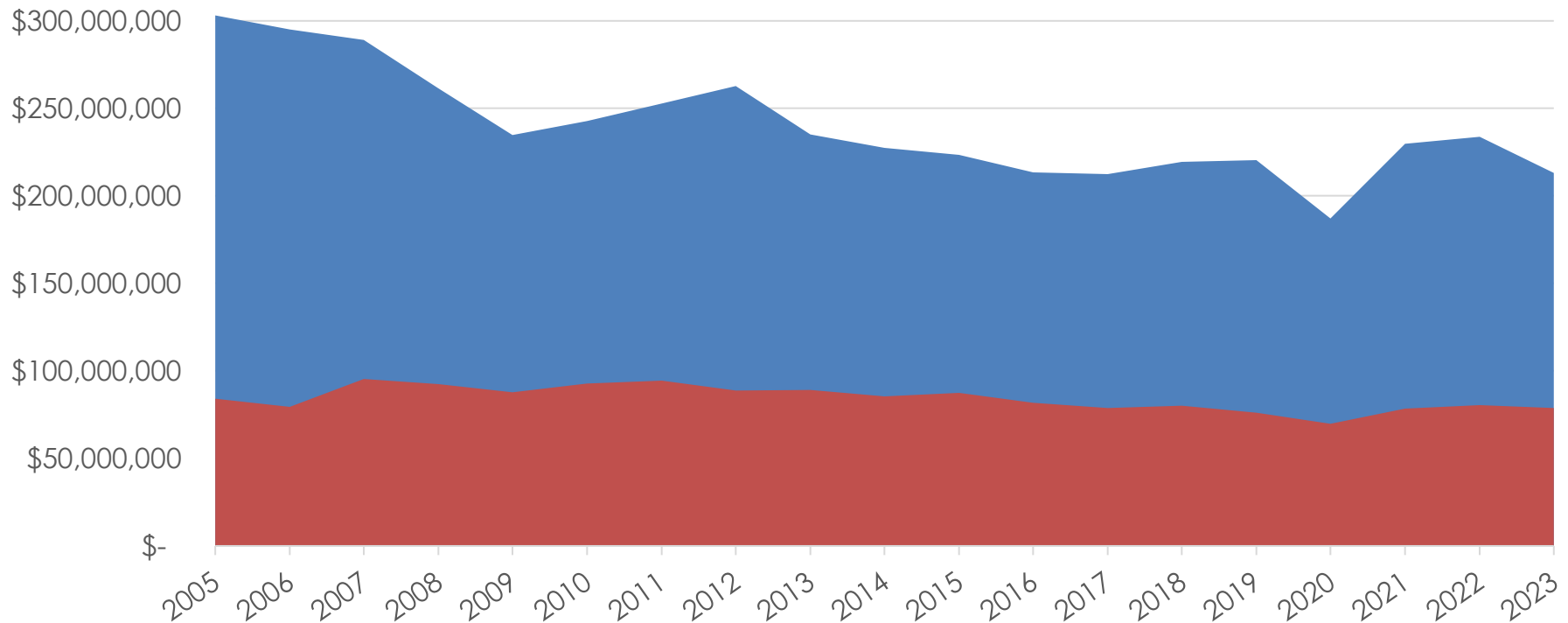


FIGURE 48. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

Figure 49 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 loss of 46% from 2005 to 2023. A majority of the decline in overall MRV Gross Sales (-30% since 2005, as seen in **Figure 48** on the prior page) can be attributed to Waitsfield. Fayston also contributed to the overall decline, experiencing an 83% decrease in gross sales since 2005. However, due to its lower volume of sales receipts, it had a lesser proportional influence. Warren is the only town in the MRV with a positive trend during this timeframe, showing an increase of 106% from 2005 to 2023 and 46% from 2017 to 2023.

Gross Sales Tax Receipts by Town, 2005 - 2023

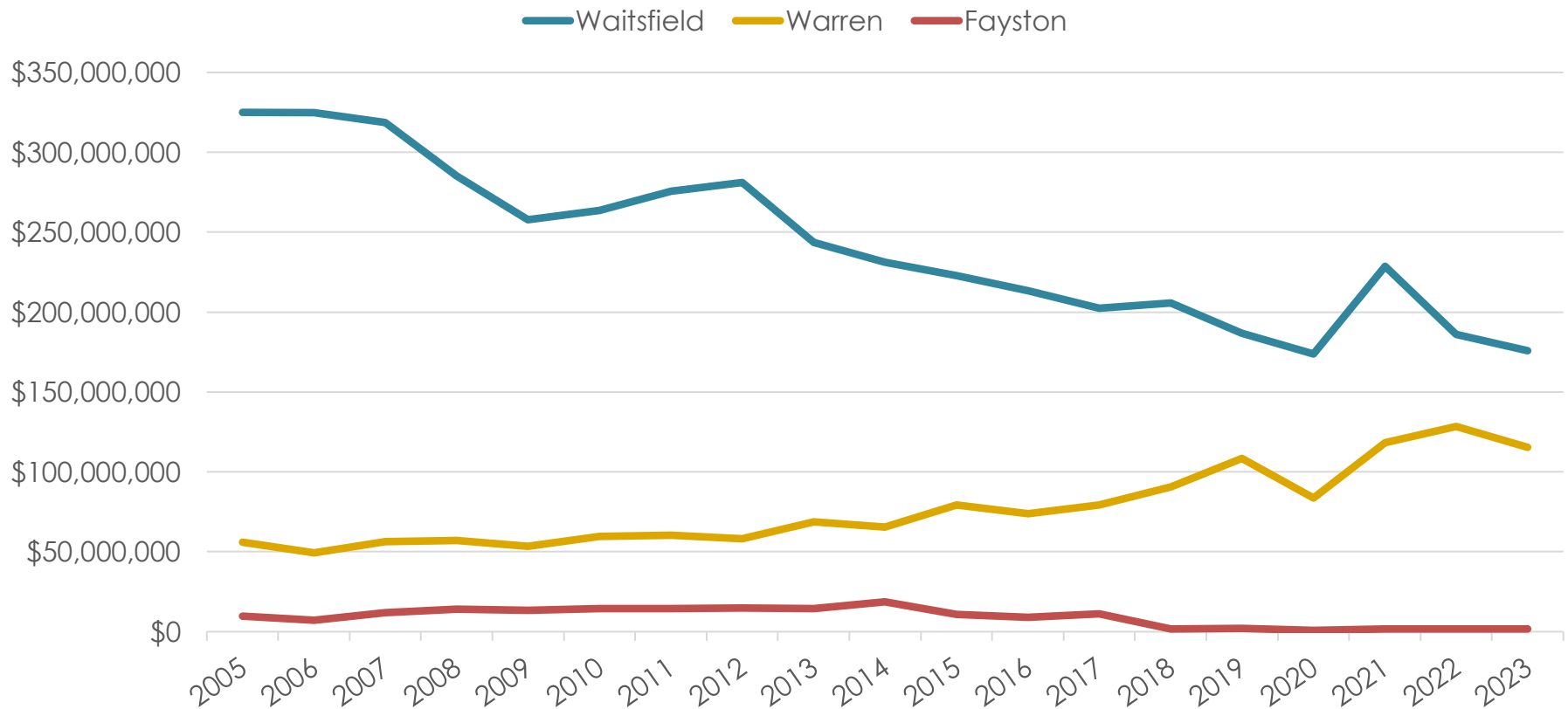


FIGURE 49. ADJUSTED FOR INFLATION. SOURCE: VT DEPT. OF TAXES

SKIER VISITS

The 2023-24 ski season experienced slightly above-average snowfall and above-average total skier visits. Sugarbush and Mad River Glen experienced increased total skier visits compared to the 2022-23 ski season (**Figure 50**). Sugarbush saw an increase of 5%, and Mad River Glen experienced a rise of 1%. Sugarbush has steadily increased its number of skier visits since a low point during the 2020-21 season, surpassing its previous 10-year peak from the 2018-19 season by 8,636 skier visits in 2023-24. Mad River Glen increased total skier visits by 39% since its low point in the 2021-22 season. Most of this growth occurred between the 2021-22 and 2022-23 seasons, with only a 1% increase from 2022-23 to 2023-24. Notably, the 2023-24 season marked the first year with above-average skier visits since 2019-20, prior to the COVID-19 pandemic.

Sugarbush Resort & Mad River Glen Skier Visits 2010/11 - 2023/24

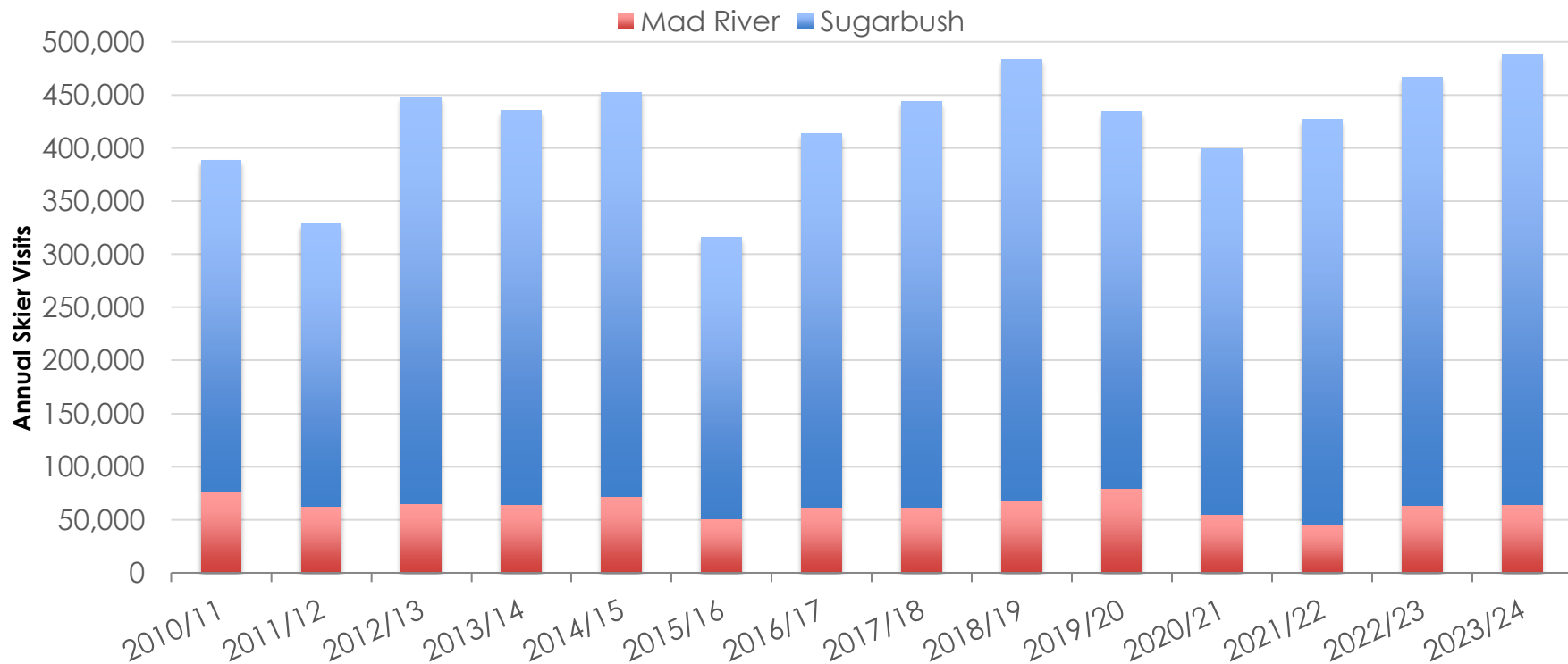


FIGURE 50. SOURCE: SUGARBUSH RESORT & MAD RIVER GLEN

Figure 51 shows seasonal and average snowfall depths collected at the summit of Mount Mansfield. The graph provides a visual benchmark comparing details across six recent winter seasons and the average snowfall of the last 69 years. Snowfall depth on Mount Mansfield was average to slightly below average through the majority of the 2023-24 season, with a brief period between mid-March and mid-April when the snowpack rose to above-average levels. **Figure 52** shows Sugarbush's reported natural snowfall over the last ten winter seasons.

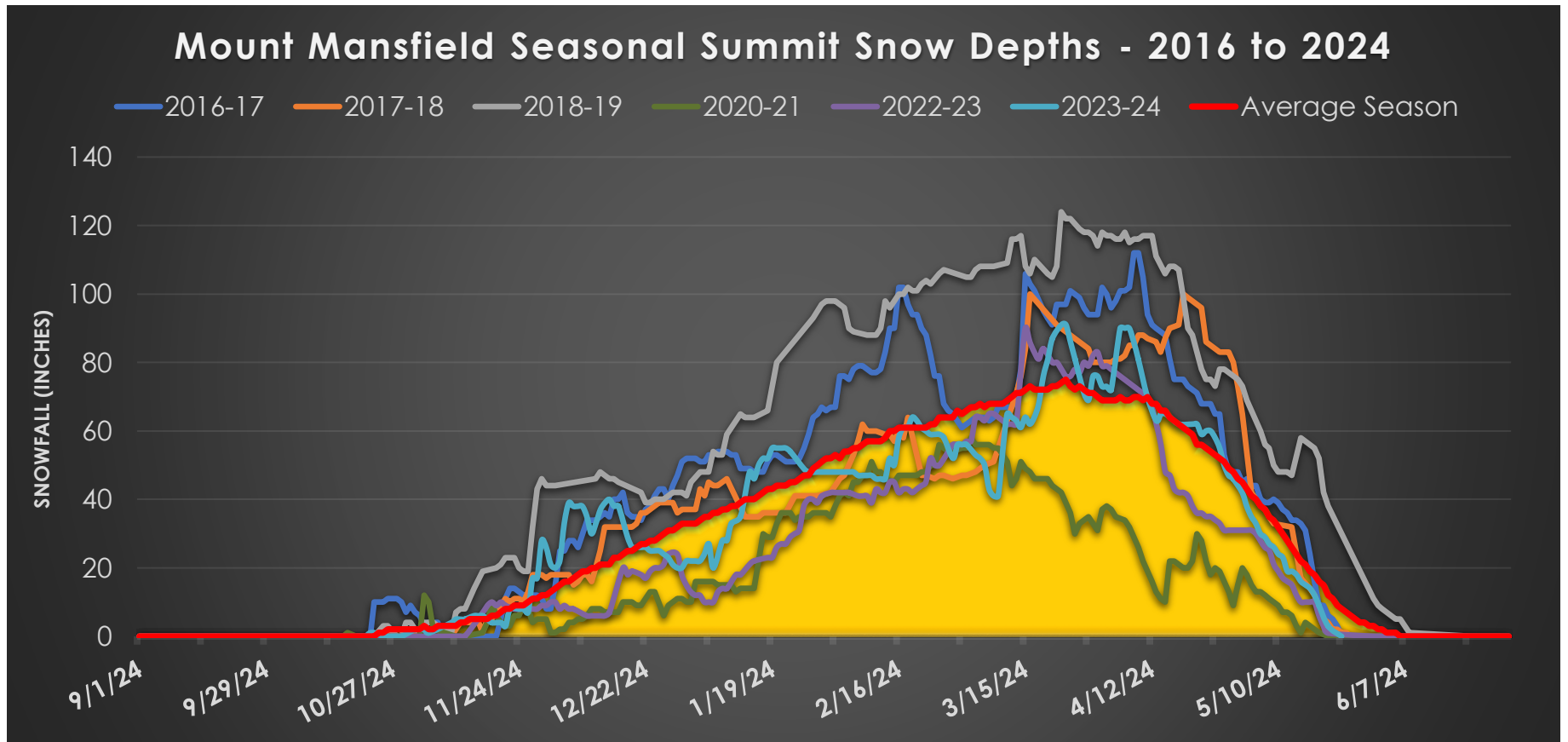


FIGURE 51. SOURCE: SKIVT-L, NATIONAL WEATHER SERVICE

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

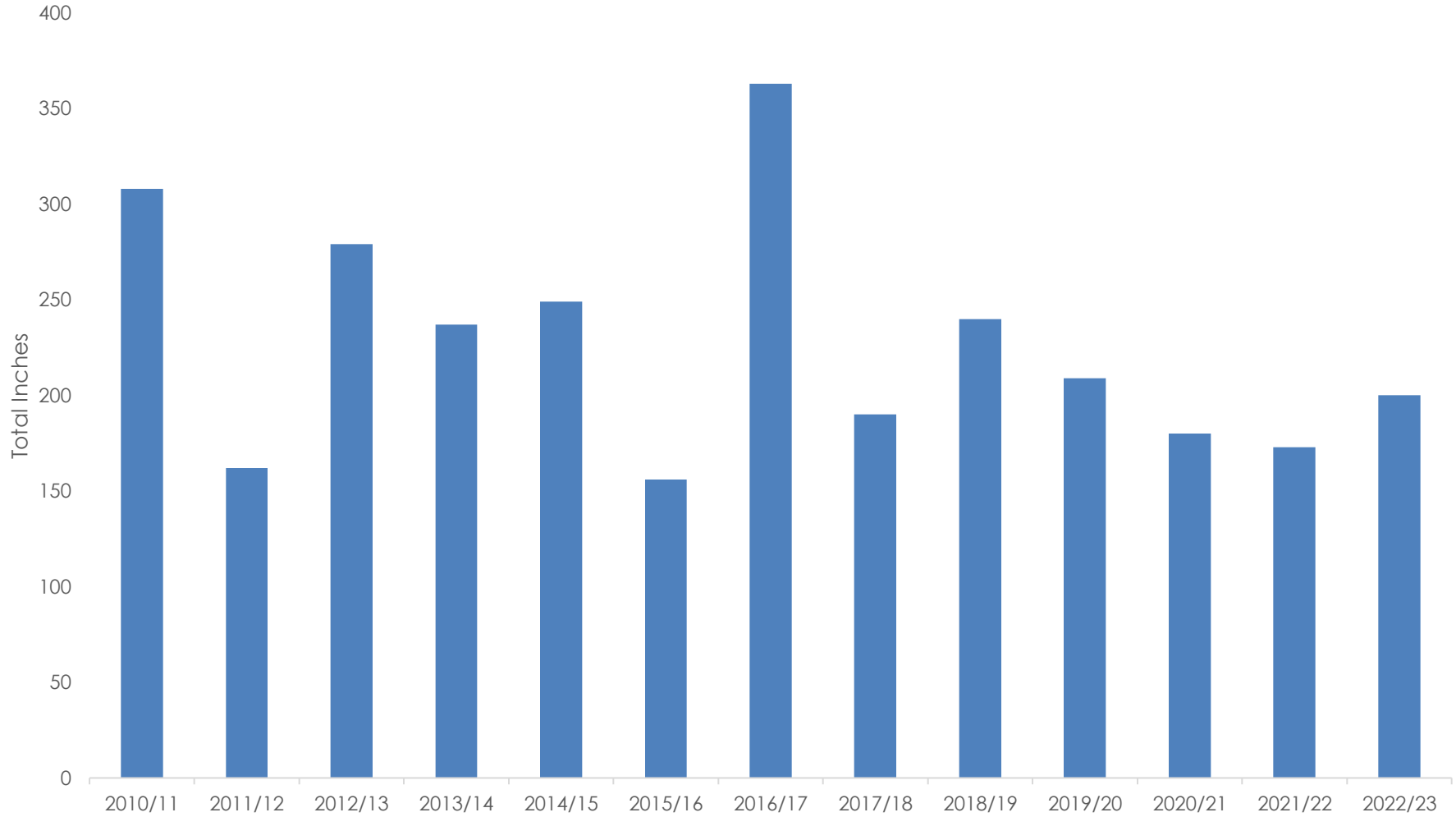


FIGURE 52. SOURCE: SUGARBUSH RESORT

Recreation Trail Use

In 2018, 2020 & 2023, the MRVPD partnered with the Central Vermont Regional Planning Commission (CVRPC) and the Mad River Valley Trails Collaborative to update trail user count data initially established as part of the 2016 MRV Moves Active Transportation Plan. The four sites profiled in 2016, along with five additional locations, were analyzed in 2020 during ~2-week periods from August 10 – October 16, as well as in 2023 from August 7 – October 3, using a consistent methodology to extrapolate average weekly data to annual average daily counts⁹. 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

⁹ All counts collected through the MRV Moves Study utilized the National Bike & Pedestrian Documentation Project Extrapolation Formula Workbook.

The 2023 trail user count data is illustrated in **Figure 53** below. Compared to 2020, Blueberry Lake Trails activity decreased by 67%, Revolution Trail activity decreased by 65%, Waitsfield West Sidewalk decreased by 32%, and the Hosford Heart of the Valley Wetlands Boardwalk increased by 14%, Chase Brook Town Forest decreased by 65%, and the Kingsbury Greenway decreased by 36%.

The 2023 trail use data was likely affected by heavy rains experienced in the Mad River Valley when trail counters were installed. To provide context, when trail counters were installed at the Blueberry Lake and Revolution trail systems, 64% of days received some rain, with 29% of days experiencing over a quarter-inch. In the two weeks that trail counters were installed at Hosford Heart of the Valley and Chase Brook Town Forest, 50% of days had rain, while 21% experienced over a quarter-inch. During the Waitsfield Village Sidewalk collection, 54% of days saw rain, with 31% receiving over a quarter-inch. The Warren Path and Kingsbury Greenway were the only locations where rain occurred on fewer than 50% of the days during the installation (14%). Throughout the 2023 collection period (8/8 – 10/2/2023), 42% of days saw some rain.

Average Daily MRV Trail User Count, 2016 - 2023

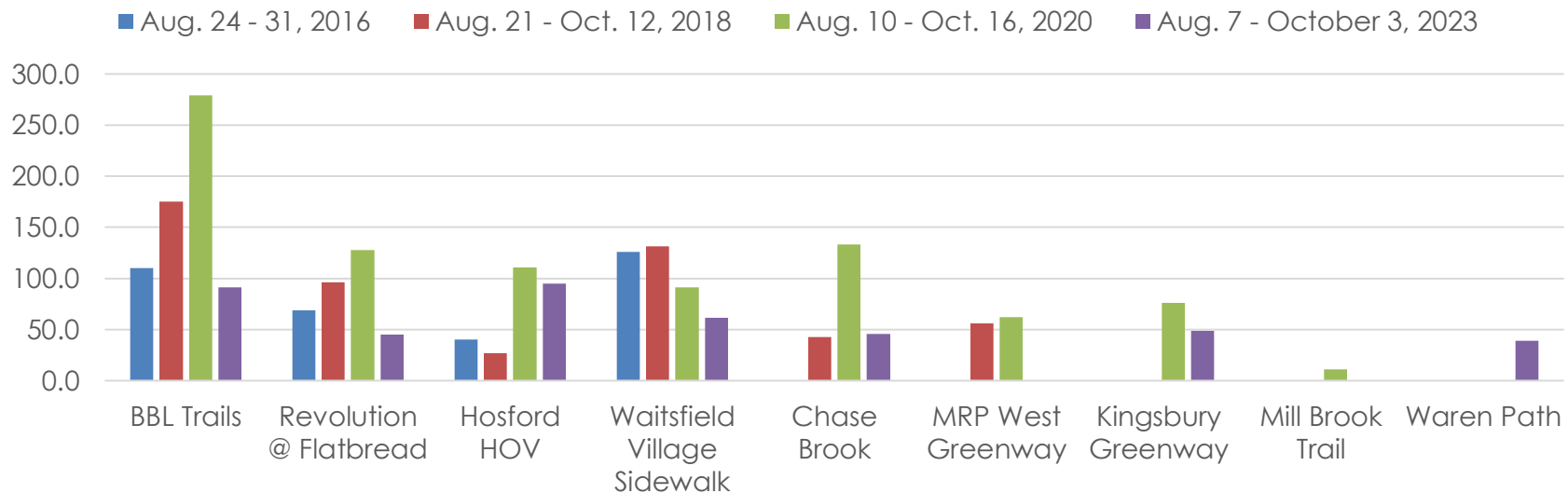


FIGURE 53. MRVPD, CVRPC, MRV TRAILS COLLABORATIVE



SECTION III: EMPLOYMENT

Includes Items #35 & 36 from the Memorandum of Understanding

Total employment¹⁰ data from the Vermont Department of Labor's Economic & Labor Market Information (VTLEMI) shows the number of employed MRV residents rose between 1990 and 2023, aside from a dip experienced around the time of the COVID-19 pandemic, as shown in **Figure 54**, below. This trend generally aligns with MRV population changes.

Total Employment Within MRV Towns, 1990 to 2023

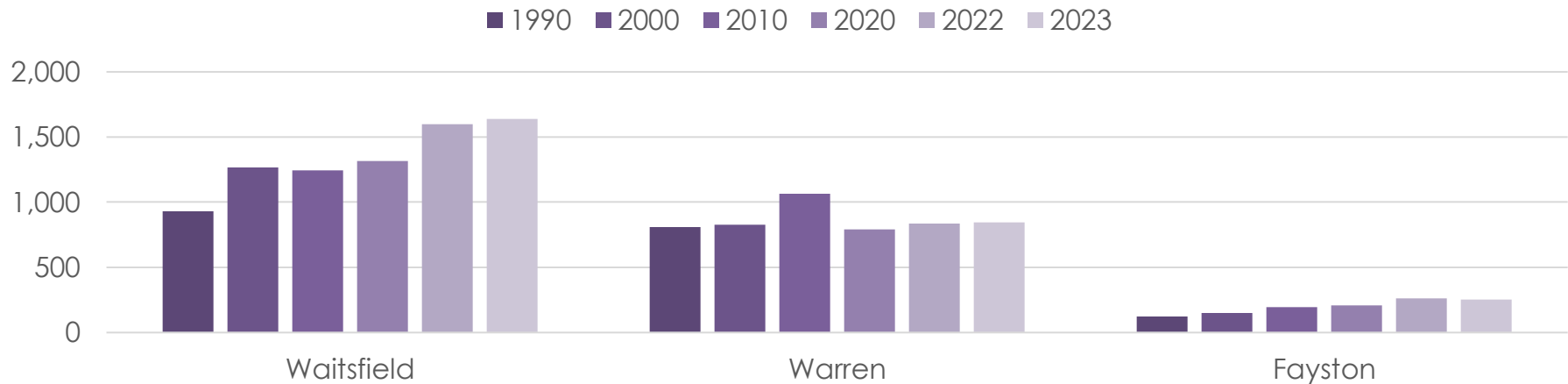


FIGURE 54. SOURCE: VERMONT ECONOMIC & LABOR MARKET INFORMATION (VTLEMI)

¹⁰ **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 55 shows Comparative Employment in MRV, Washington County, and Vermont indexed to 1990. MRV Total Employment experienced a slow increase between 1990 – 2004, after which it plateaued between 2004 - 2012. Total employment increased steadily from 2012 to 2020 but experienced a sharp drop in 2020, similar 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 the county and state.

Comparative Employment by Region, Indexed, 1990 - 2023

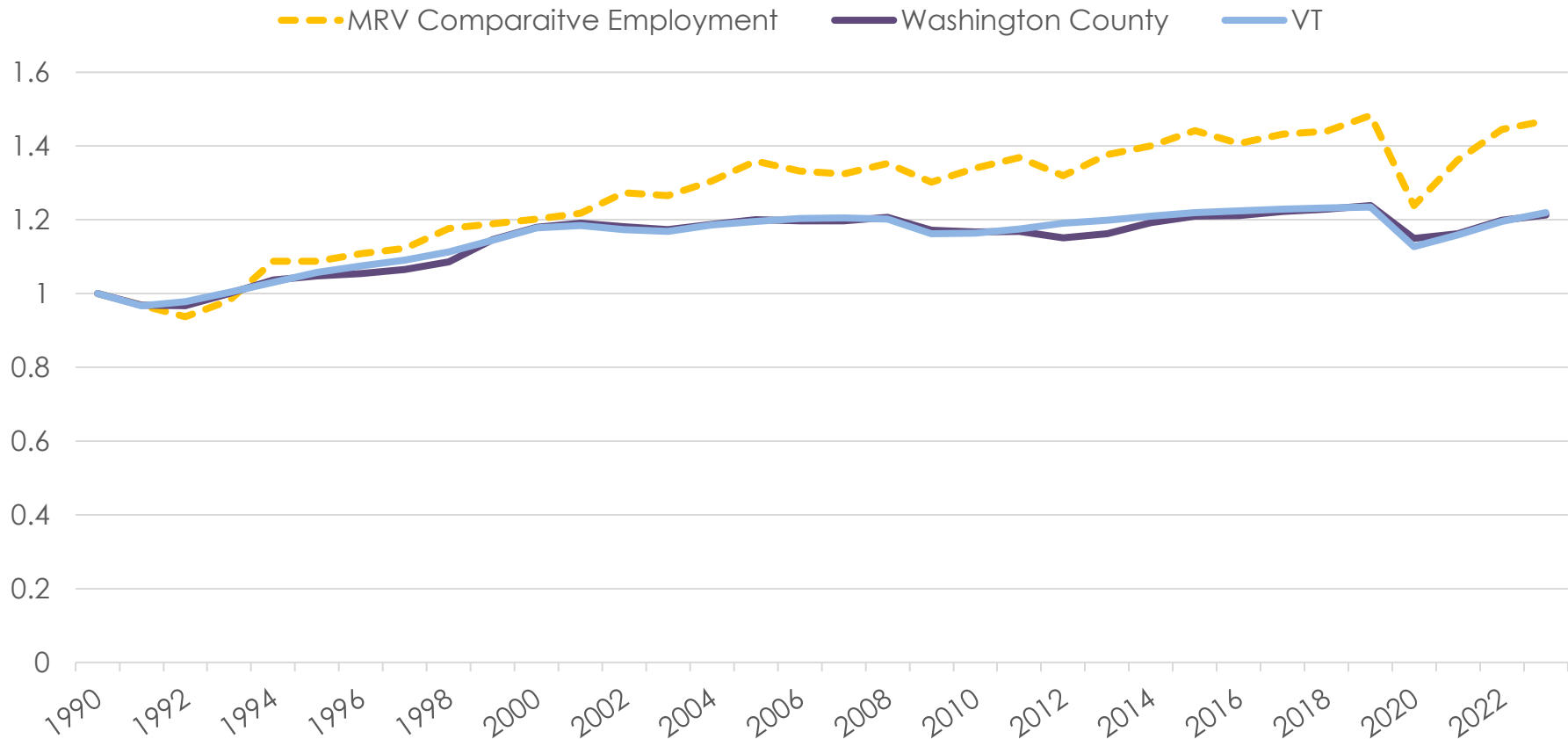


FIGURE 55. SOURCE: VERMONT ECONOMIC & LABOR MARKET INFORMATION (VTLEMI)

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 industry¹¹ 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** include professional services, technical services, administrative services, and other support services
- **Educational services** include non-government schools and 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

¹¹ 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 56 shows the Number of MRV Businesses by Industry between 2008 - 2023. 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 2018 - 2023 were Public Administration (+25%), Education & Health Services (+16%), Professional & Business Services (+31%), and Information (+9%). From 2018 - 2023, the total number of businesses within the MRV grew by 6.4%.

From 2008 - 2023, the sectors with the most dramatic fluctuations were the Professional Business Services sector (+88%) and Retail Trade (-28%).

Number of MRV Businesses by Industry, 2008 - 2023

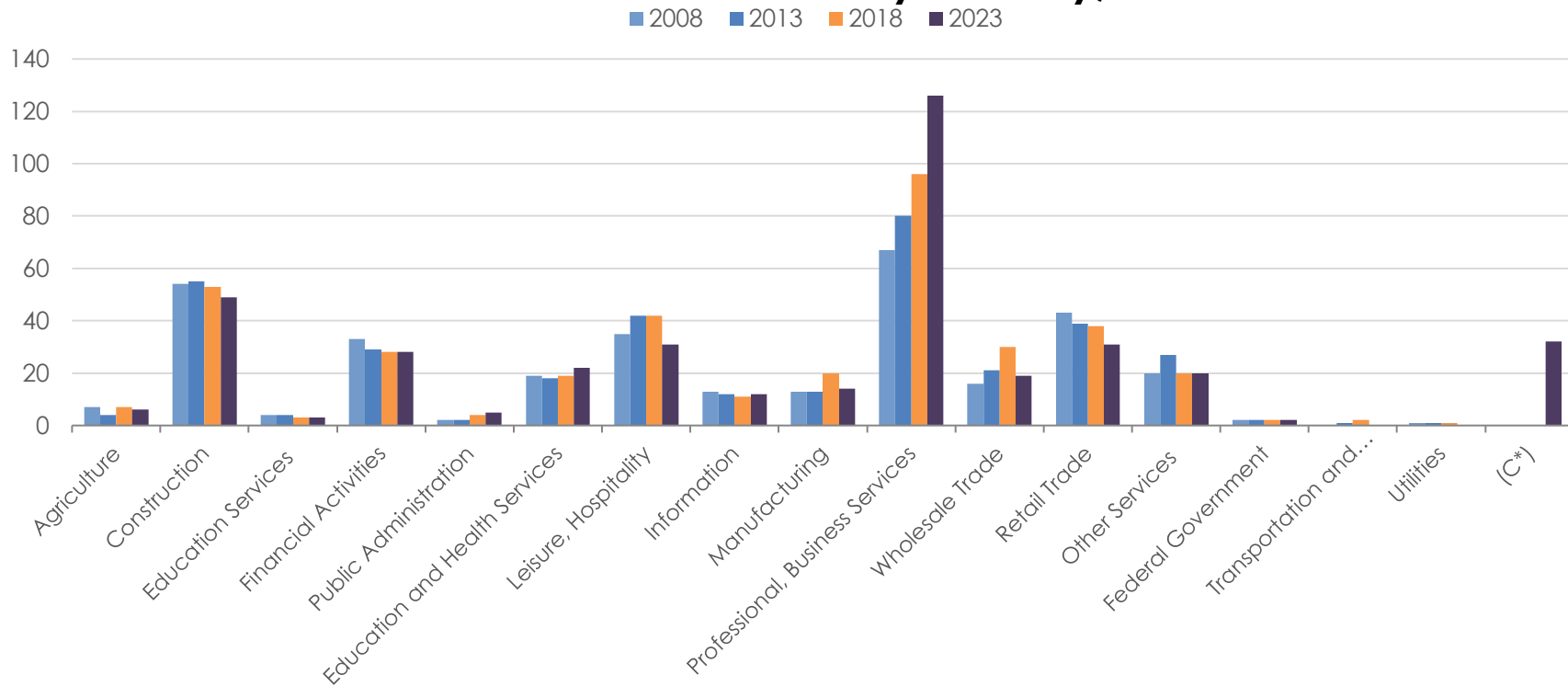


FIGURE 56. SOURCE: VTLM

The MRV attracts businesses from many major sectors; however, **Figure 57** shows that the dominant employers in the MRV are within the Leisure & Hospitality, Professional Business Services, Retail Trade, and Construction 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 - 2023 and a 1.5% increase in just the last year.

Number of Jobs by Industry, 2008 - 2023

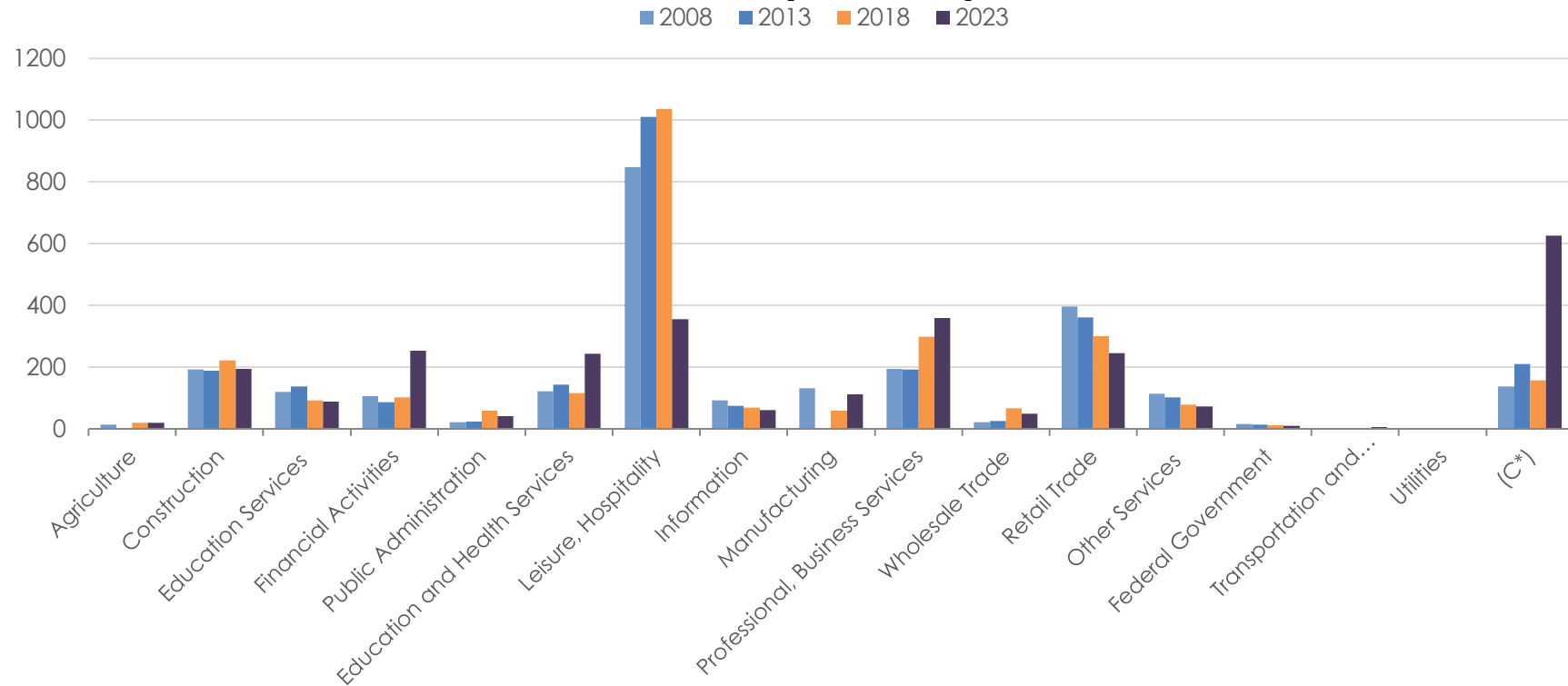


FIGURE 57. SOURCE: VTLM

Similar to covered employment, the sectors of Retail Trade, Construction, Leisure & Hospitality, and Professional Business Services earn the most total annual wages in the Mad River Valley. Despite generating more total annual wages on average, Leisure & Hospitality saw decreases in total annual wages from 2008 – 2023 (-45%). Industries that experienced an increase from 2008 – 2023 were Agriculture (+22%), Financial Activities (+186%), Public Administration (+215%), Education & Health Services (+112%) Manufacturing (+26%), Construction (+19%), Wholesale Trade (+198%) and Professional Business Services (+126%). This represents a 41% increase from 2008 - 2023 across all categories. From 2022 - 2023, there was strong growth across all industries, which resulted in a 6% increase in total annual wages in the MRV.

MRV Total Annual Wages by Industry, 2008 - 2023

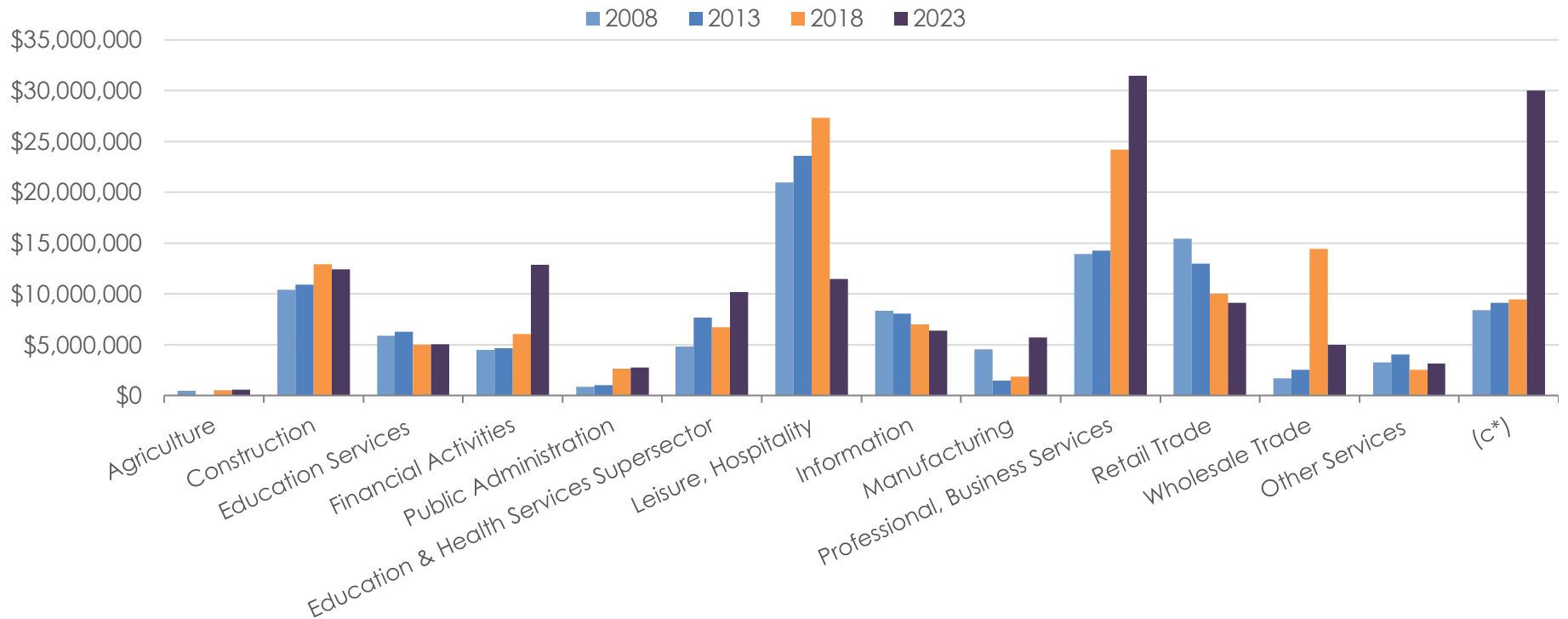


FIGURE 58. ADJUSTED FOR INFLATION. SOURCE: VTLM

Figure 59 shows Waitsfield's average annual wage by industry¹² from 2019 - 2023. The dotted lines represent the 2023 Washington County Housing Wage for one-bedroom (maroon) and three-bedroom (orange) housing units. From 2022 – 2023, Washington County's 1-bedroom housing wage increased by 10%, and the 3-bedroom housing wage increased by 9%. 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 59** 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 – 2023, the largest increases in average annual wage were seen in Public Administration (+75%), Manufacturing (+56%), Leisure & Hospitality (+18%), and Retail Trade (+11%). The greatest decreases occurred in Education & Health Services (-19%), and Financial Activities (-15%).

From 2019 – 2023, 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 57**, we are able to visually observe how the cost of living corresponds to the average annual wage in the MRV.



Image 6. Kasara Gage

¹² The annual average wage is calculated by dividing an industry's total annual wages by its average number of employees over the year. This figure reflects the combined earnings of all workers, including salaried, hourly, and commission-based employees, regardless of whether they worked full-time, part-time, or overtime.

Waitsfield Average Annual Wage by Industry and 2023 Washington Co. Housing Wage, 2019 - 2023

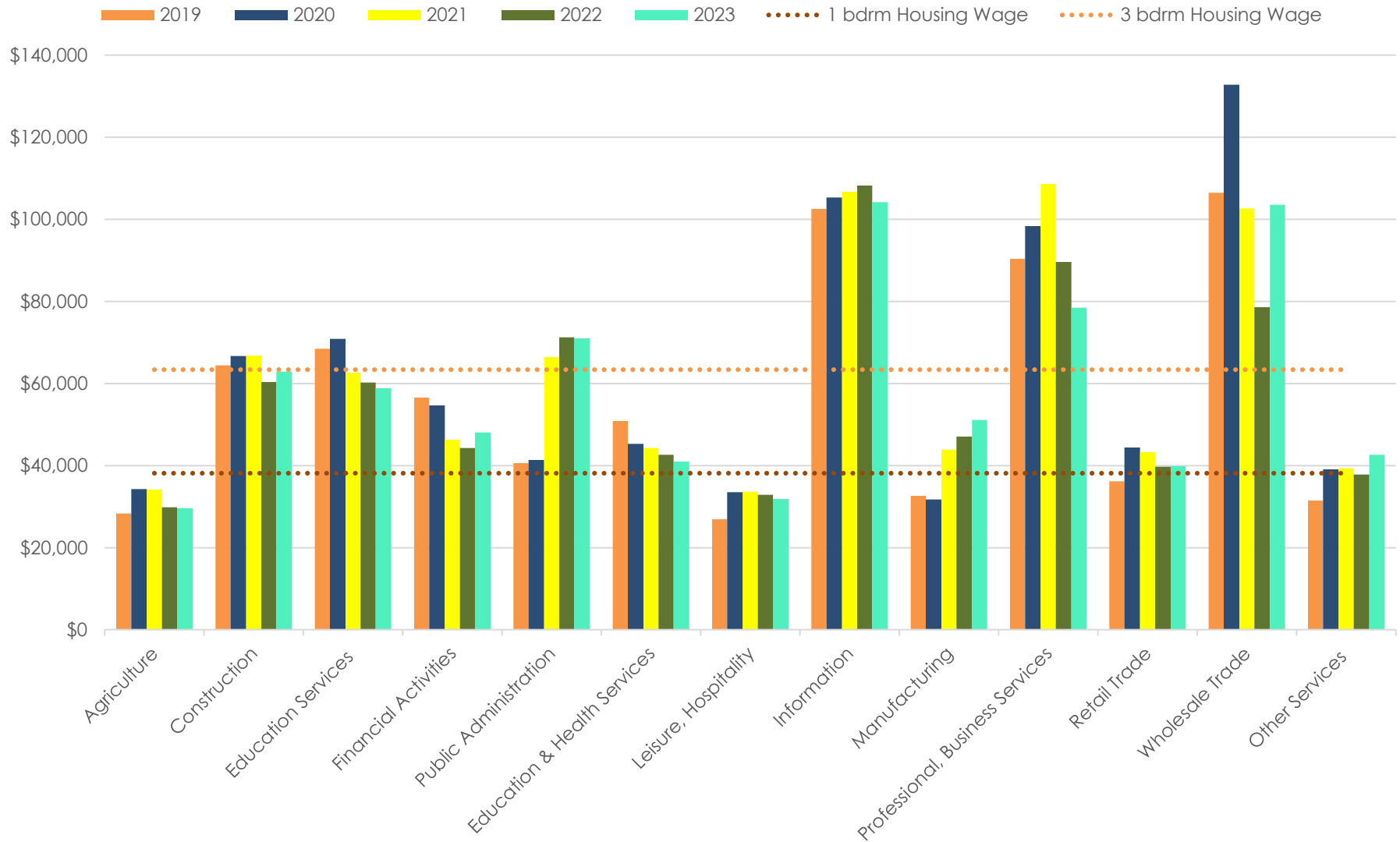


FIGURE 59. ADJUSTED FOR INFLATION. SOURCE: VTLM; VHFA

Figure 60 shows the Monthly Average Covered Employment by Town. Monthly totals were averaged between 2000 – 2023 in an effort to understand how the MRV tourism economy and distinctive seasons influence regional employment trends. **Figure 60** shows that winter months typically experience a surge in employment opportunities, likely 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 has experienced a decline in employment during the summer months, Waitsfield has experienced an increase.

Monthly Average Covered Employment by MRV Town, 2000 - 2023

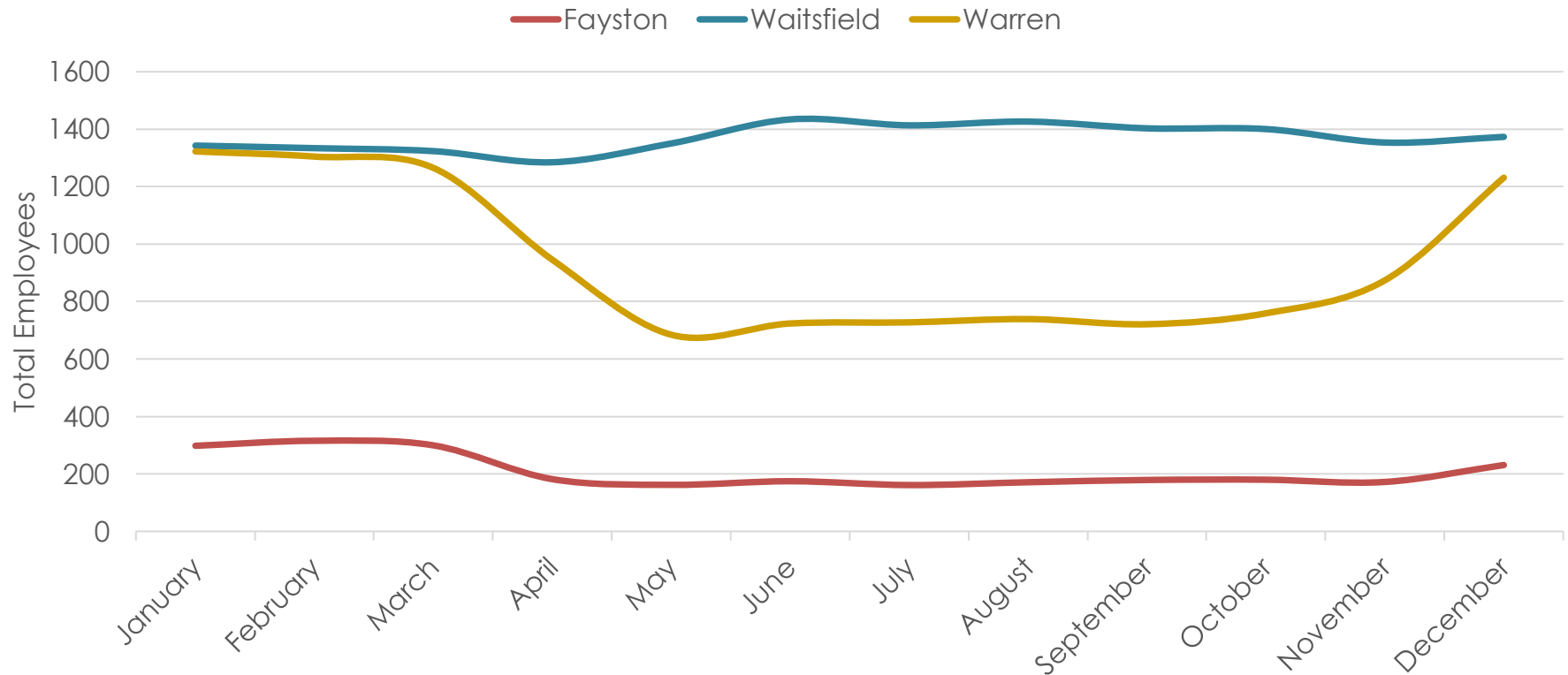


FIGURE 60. SOURCE: VTLM

Building on this analysis, **Figure 61** depicts seasonal fluctuations in employment among the MRV's seven largest employment sectors: construction, waste management, retail trade, education and health services, leisure and hospitality, information, and trade transportation and utilities. This graph shows that most of the MRV's seasonal employment fluctuation comes from the leisure and hospitality sector.

Monthly Average Covered Employment by MRV Town

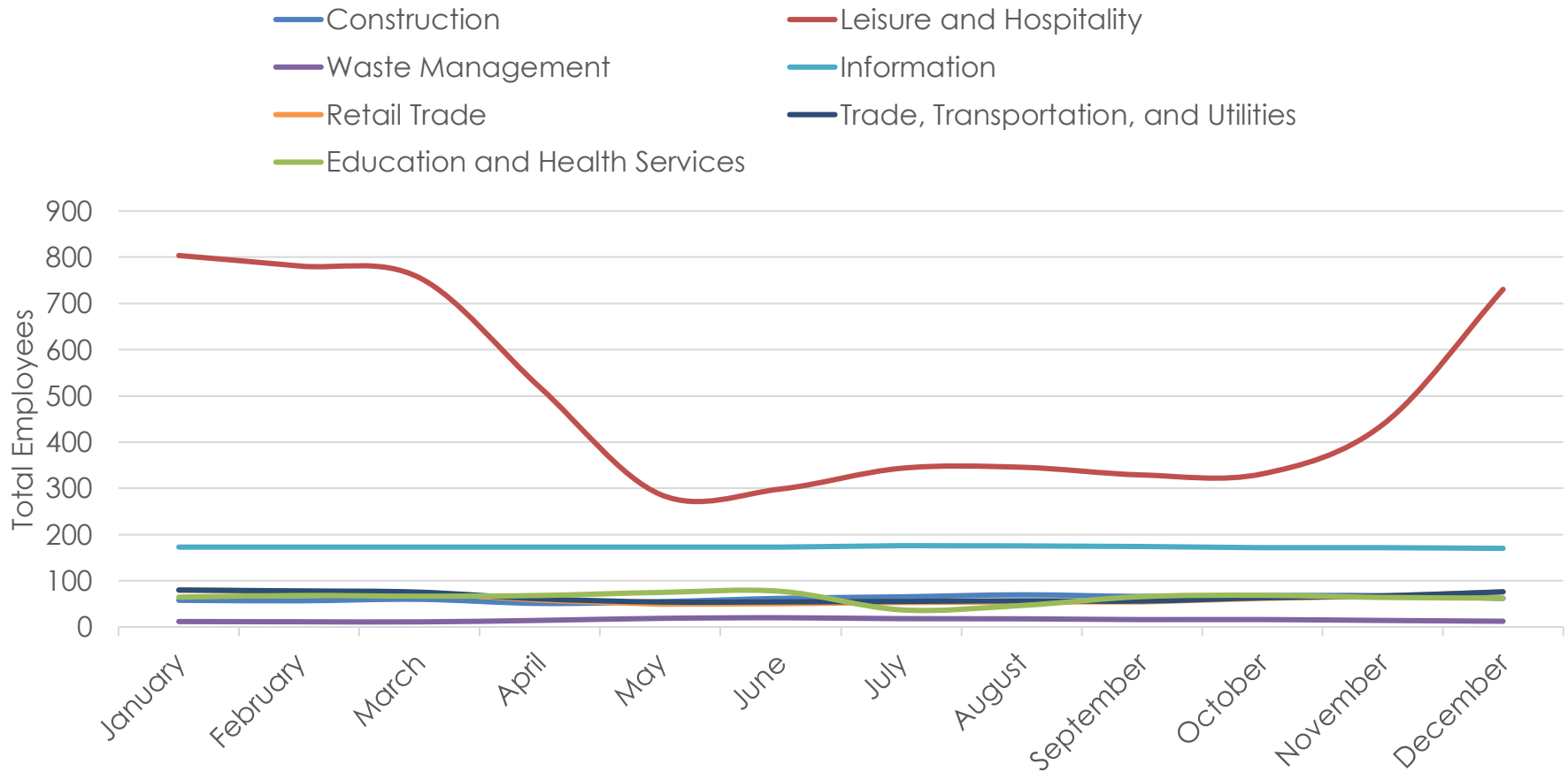


FIGURE 61. SOURCE: VTLM

Figure 62 shows that unemployment rates in the observed regions consistently decreased between 2010 - 2019, except Fayston (which was steady, increased, and decreased). All regions experienced increased 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 returned to the prior lows seen in 2019.

The MRV followed trends similar to those of Washington County and Vermont as a whole.

Annual Unemployment Rate by Region, 2010 - 2023

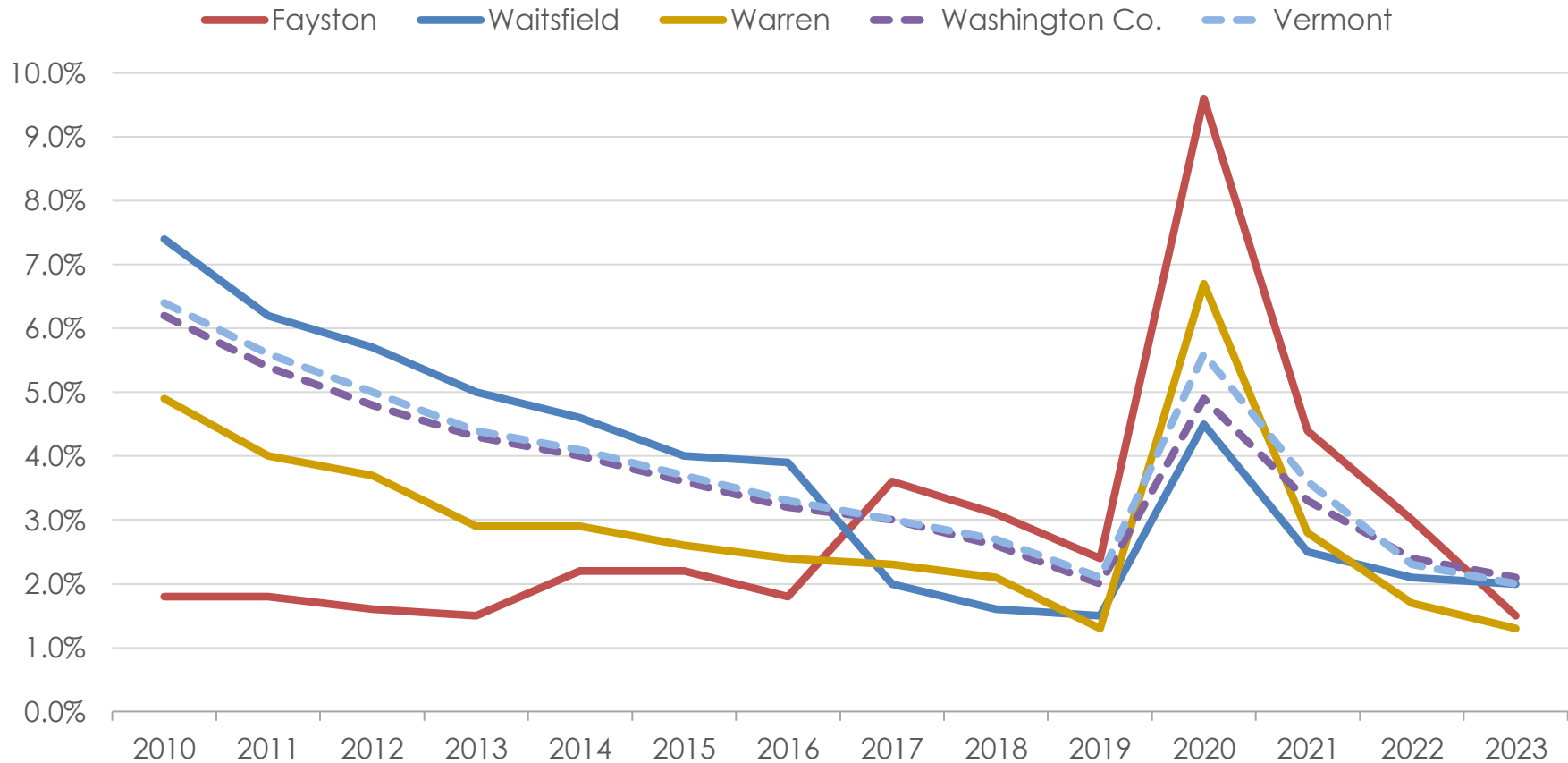



FIGURE 62. SOURCE: VT DEPT. OF LABOR, VT ECONOMIC & LABOR MARKET INFORMATION

WORKER FLOW




By estimating 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 63**, showing inflow/outflow counts for all jobs in the MRV towns in 2022. 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. Of the Mad River Valley’s estimated 3,191 employees, according to the 2022 US Census Bureau estimates, only 35% of MRV residents also worked in one of the three towns during 2022, which is the most recent available data from the US Census Bureau’s longitudinal employer-household dynamics mapping and reporting application, On The Map.

Selection Areas

 Selection Area

Inflow/Outflow

-  Employed and Live in Selection Area
 -  Employed in Selection Area, Live Outside
 -  Live in Selection Area, Employed Outside
- Note: Overlay arrows do not indicate directionality of worker flow between home and employment locations.

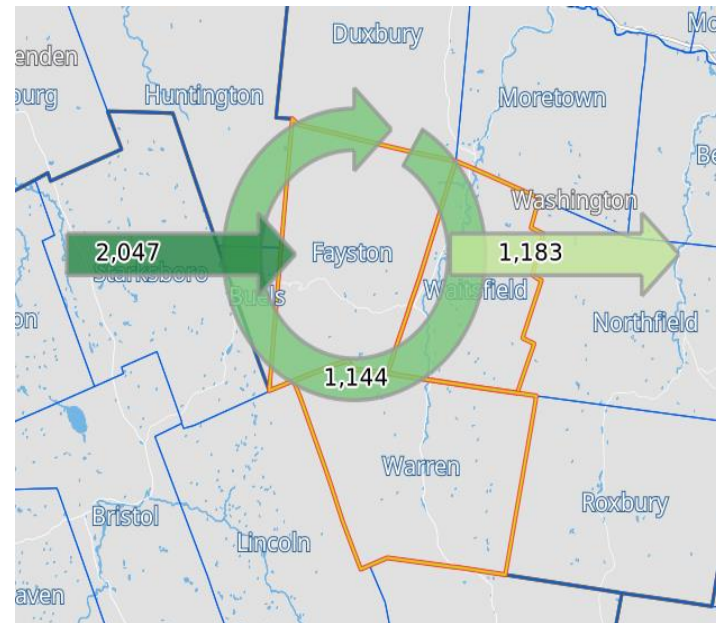


FIGURE 63. SOURCE: U.S. CENSUS BUREAU, ON THE MAP

Figure 64 shows MRV commuting patterns from 2013 to 2022. The number of employees in the MRV remained relatively stable (2,200 - 2,500) from 2013 to 2019 but experienced a decline in 2020 (-26%), likely resulting from the COVID-19 pandemic. Looking at **Figure 64**, 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. From 2020 to 2022, total employment in the MRV increased by 67%; however, the proportion of MRV resident employees vs. non-resident employees remained virtually unchanged, with most of the MRV's employees continuing to commute in from outside 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 - 2022

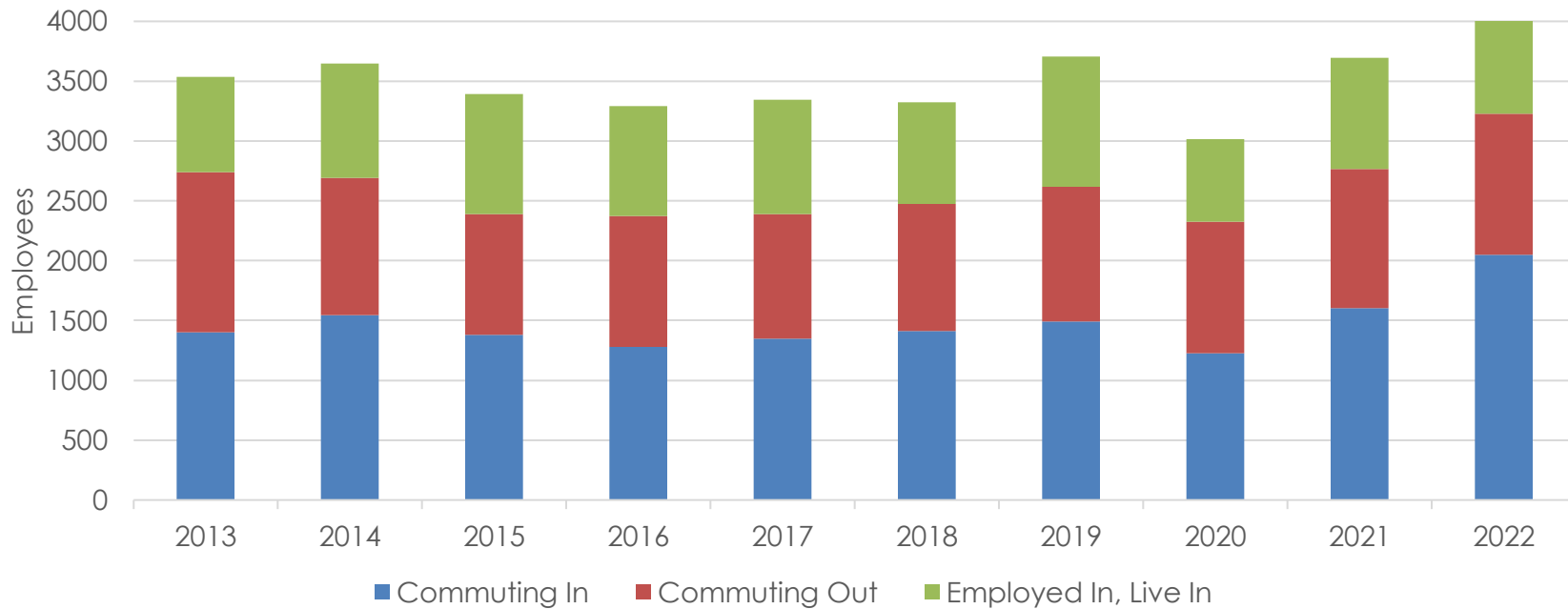


FIGURE 64. SOURCE: U.S. CENSUS BUREAU, ON THE MAP



SECTION IV: TRAFFIC & TRANSIT

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

ANNUAL TRAFFIC SUMMARY

One aspect of the Memorandum of Understand (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 65** shows the Average Annual Daily Traffic (AADT)¹³ for the south leg of the VT 100/VT 17 intersection from 1997 to 2023. The west and north legs are missing counts from 2016 – 2023, while the south leg has a gap from 2019 - 2023. 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 - 2023

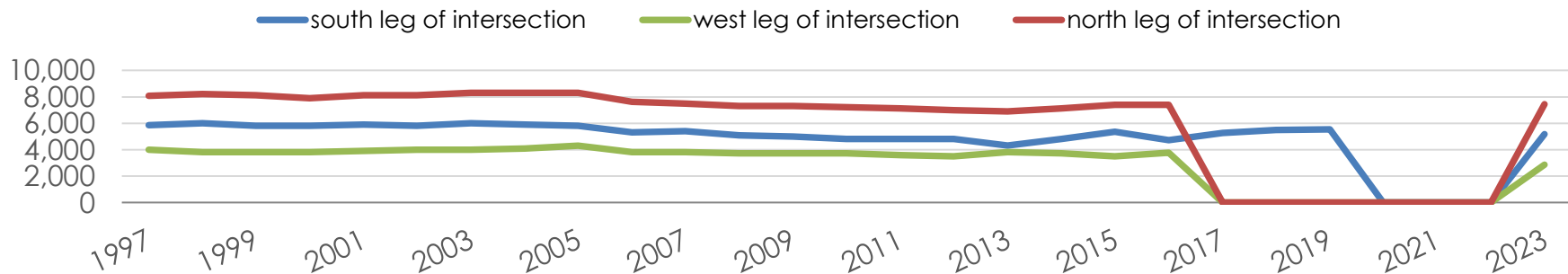


FIGURE 65. SOURCE: VTRANS

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 1997-2023, Sugarbush Access Road's AADT has dropped by 11%. From 1997 – 2021, the VT 17 traffic counter experience growth of 23%.

Average Annual Traffic Counts - Sugarbush Access Road, VT 17, 1997 - 2023

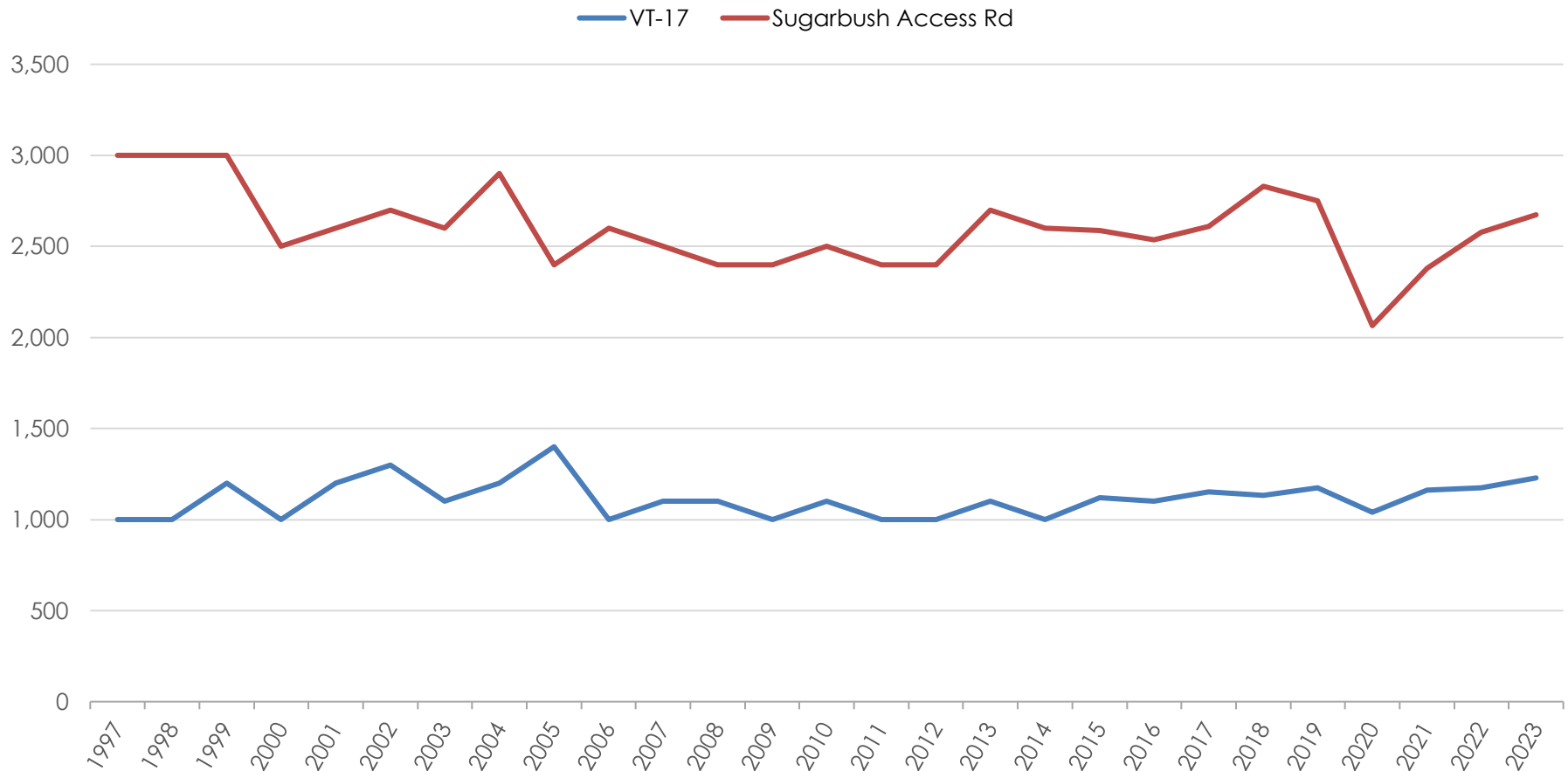


FIGURE 66. SOURCE: VTRANS

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 67 shows Mad Bus ridership from the Fiscal Year 2003 to 2024. Green Mountain Transit operated the following four free-of-charge MRV Bus Routes during the 2023 - 2024 ski season: Valley Floor Shuttle, Mount Ellen, Mountain Condos, and Access Road. By averaging the total annual ridership for the twenty two-season period, we find the average annual ridership to be 50,832. 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 021 and 2024, bus ridership rebounded (+237%) to pre-pandemic levels. From 2023 – 2024, total ridership rose an additional 1%.

MRV Bus Ridership, 2003 - 2024

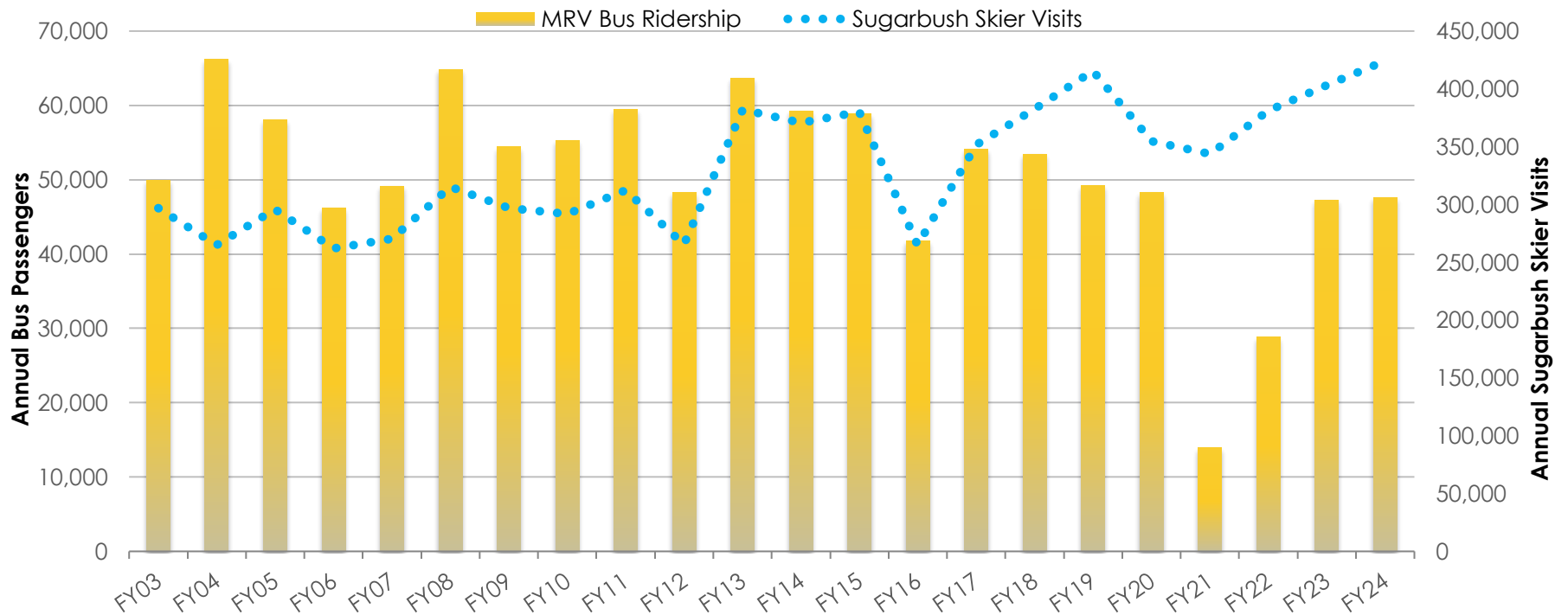


FIGURE 67. SOURCE: GREEN MOUNTAIN TRANSIT (GMT)



SECTION V: TOWN INFRASTRUCTURE

Includes Items #27 & 35 from the Memorandum of Understanding

EMERGENCY SERVICES

Figure 68 shows the number of combined MRV Ambulance and MRV Fire department calls from 2010 to 2023. 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 34% and 59%, respectively. This represents a 41% increase in total MRV emergency service calls, which amounts to an additional 251 calls.

Number of Calls to MRV Ambulance & Fire Departments, 2010 - 2023

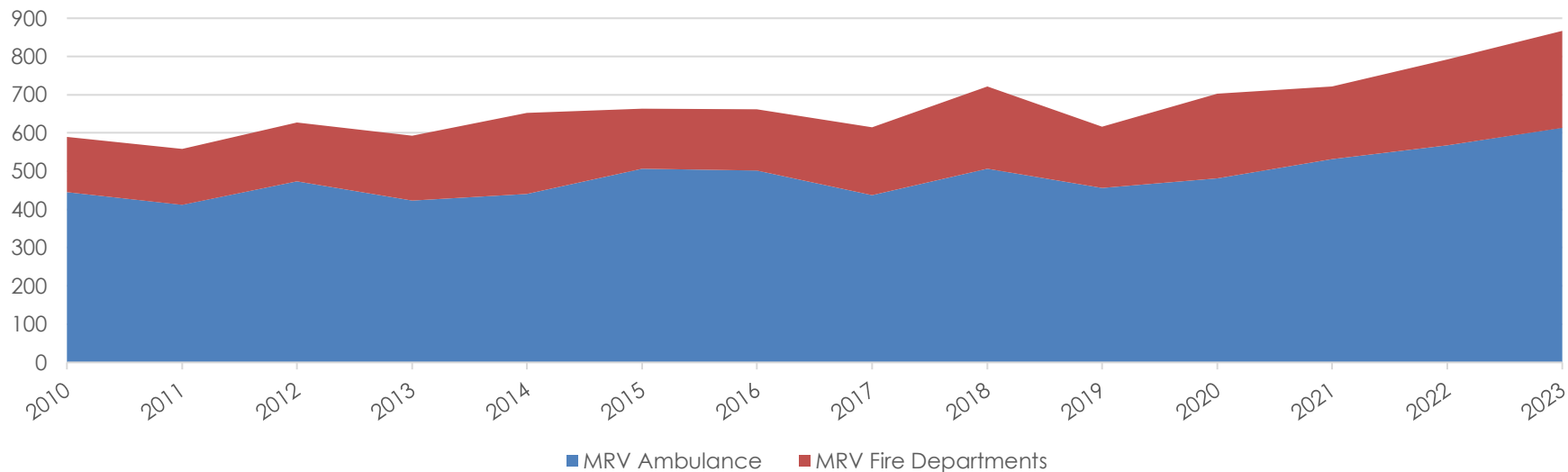


FIGURE 68. SOURCE: ANNUAL MRV TOWN REPORTS, WAITSFIELD-FAYSTON, WARREN FIRE DEPARTMENTS

CRIME

Figure 69 shows MRV crime data between 2007 and 2023. 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, 2007 - 2023

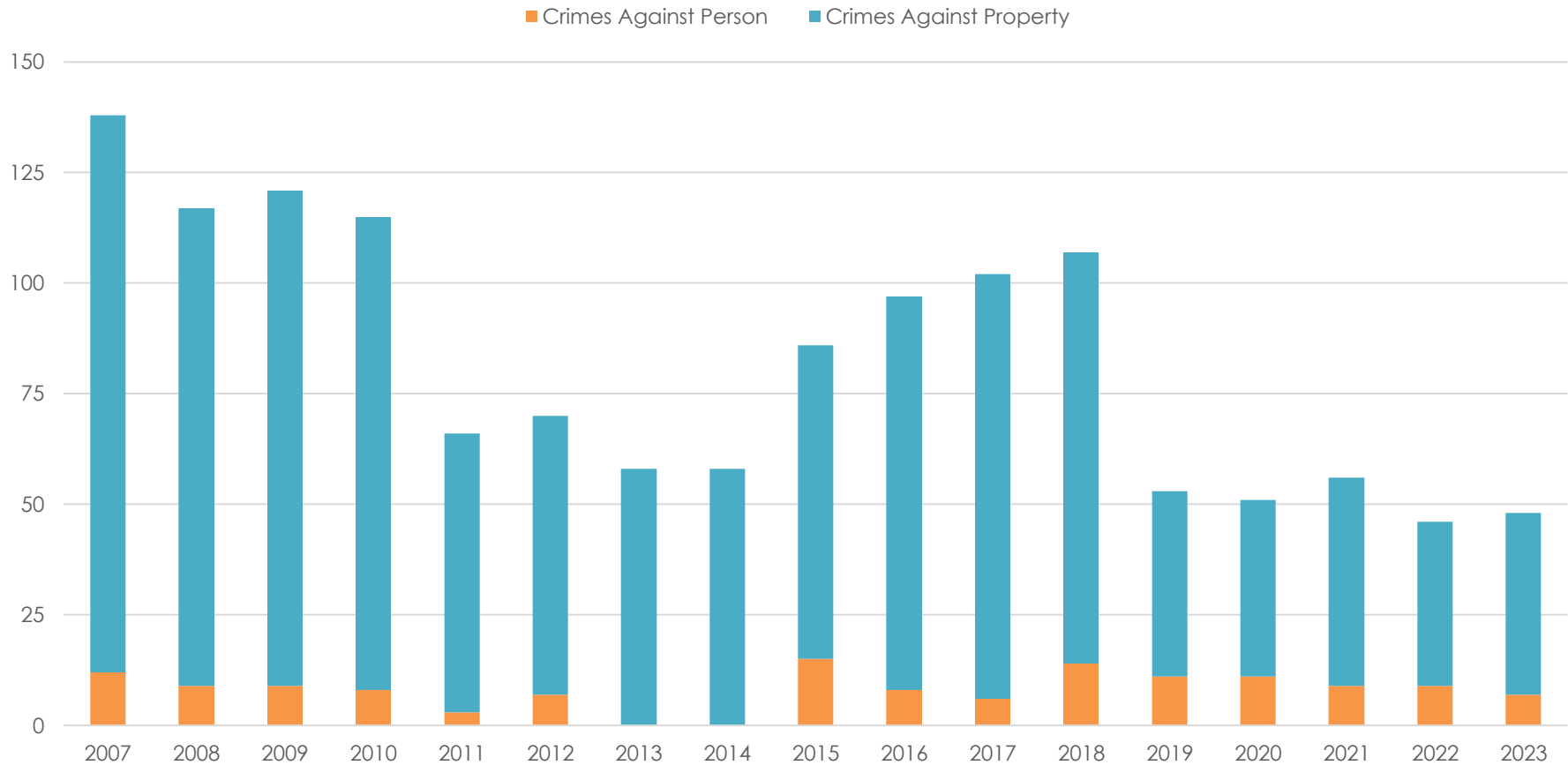


FIGURE 69. SOURCE: VT DEPT OF PUBLIC SAFETY, VERMONT CRIME INFORMATION CENTER, VT STATE POLICE

Figure 70 and **Table 1** show the Grand Lists and 2023 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, and continued to drop from 2022 - 2023, triggering the need for town-wide reappraisals.

MRV Grand Lists, 2009 - 2023

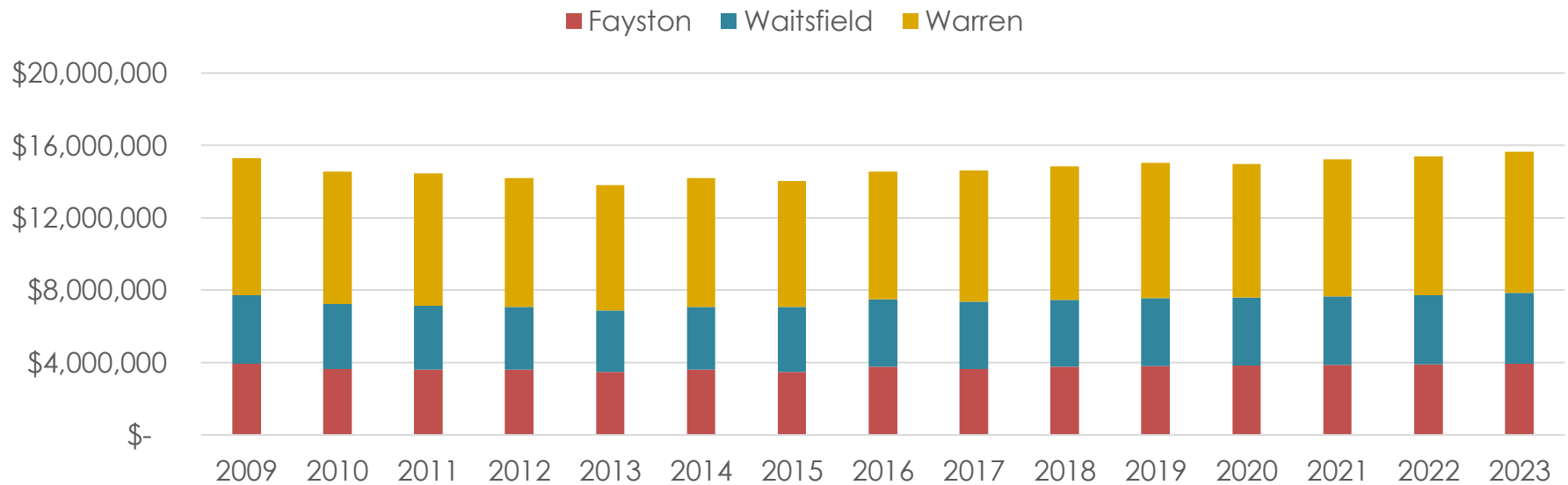


FIGURE 70. SOURCE: TOWNS OF FAYSTON, WAITSFIELD, & WARREN

2023 Tax Rates				
2022 Tax Rates	Homestead Education Tax Rate	Municipal Tax Rate	Non-Residential Tax Rate	CLA
Fayston	1.7932	0.3202	1.7205	70.01%
Waitsfield	1.7109	0.5325	1.6463	66.85%
Warren	1.9736	0.393	1.8935	61.30%

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 set a bold goal of meeting 90% of its energy needs from renewable resources by 2050, aiming to reduce dependence on fossil fuels, lower costs, and provide environmental benefits. Vermont's 2021 Climate Action Plan (CAP), required by the Global Warming Solutions Act (GWSA) of 2020, outlined strategies to reduce greenhouse gas (GHG) emissions, particularly in the transportation and thermal sectors, which currently account for nearly 75% of Vermont's GHG emissions.

However, the Energy Action Network's [2024 Annual Progress Report](#) reveals that climate disruption is already causing significant harm in Vermont. Extreme weather events, such as the flooding in 2023 and 2024, continue to devastate the state, with Vermont experiencing the 7th highest number of federally declared climate disasters between 2011 and 2023. As Vermont warms, more frequent and severe weather events highlight the urgent need for resilience strategies alongside mitigation efforts.

The CAP's focus on reducing emissions through renewable energy and energy-efficient technologies, like heat pumps and weatherization, aligns with the findings that delaying climate action only increases costs. Proactively investing in energy solutions now will help Vermont avoid the mounting financial and societal toll of climate disruption while supporting local economies and public health by transitioning away from volatile fossil fuel markets.



Photo 8. Joshua Schwartz

Figure 71 details the breakdown between residential, commercial & industrial electrical consumption by town. In 2023, residential use accounted for 53% of the MRV's total usage. Of the three towns, Warren's usage was the highest, representing 55% of the MRV's total energy consumption.

Between 2018 – 2022, total MRV electrical energy usage increased by 19%. Subsequently, total energy usage in the MRV decreased by 1% from 2022 – 2023. Additionally, in 2023 MRV customers saved a total of \$180,188 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. This is slightly less than the savings recorded in 2022 (\$211,163), but still a noteworthy data point that potentially contributed the 1% decrease in total MRV energy use from 2022 – 2023.

MRV Electrical Usage, 2023

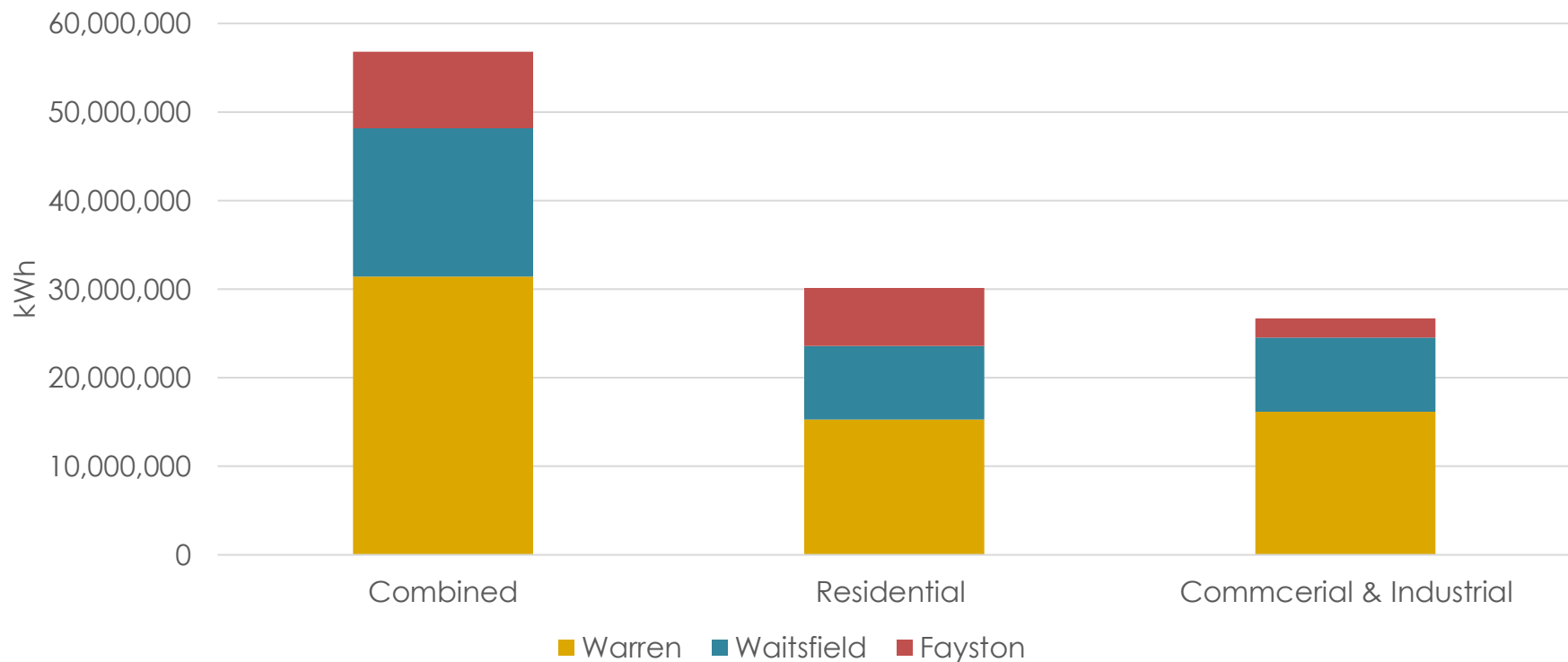


FIGURE 71. SOURCE: EFFICIENCY VERMONT, VT ENERGY INVESTMENT CORPORATION (VEIC)

Sugarbush Resort's monthly peak energy demand for the 2023-2024 season (**Figure 72**) began higher than years past, but lowered as the season progressed. Despite a strong start with snowfall from November to early-December, energy usage remained high in December and January due to a four or five week stretch of below average snowfall from mid-December to late-January.

Sugarbush Monthly Peak Demand, 2017/18 – 2023/24

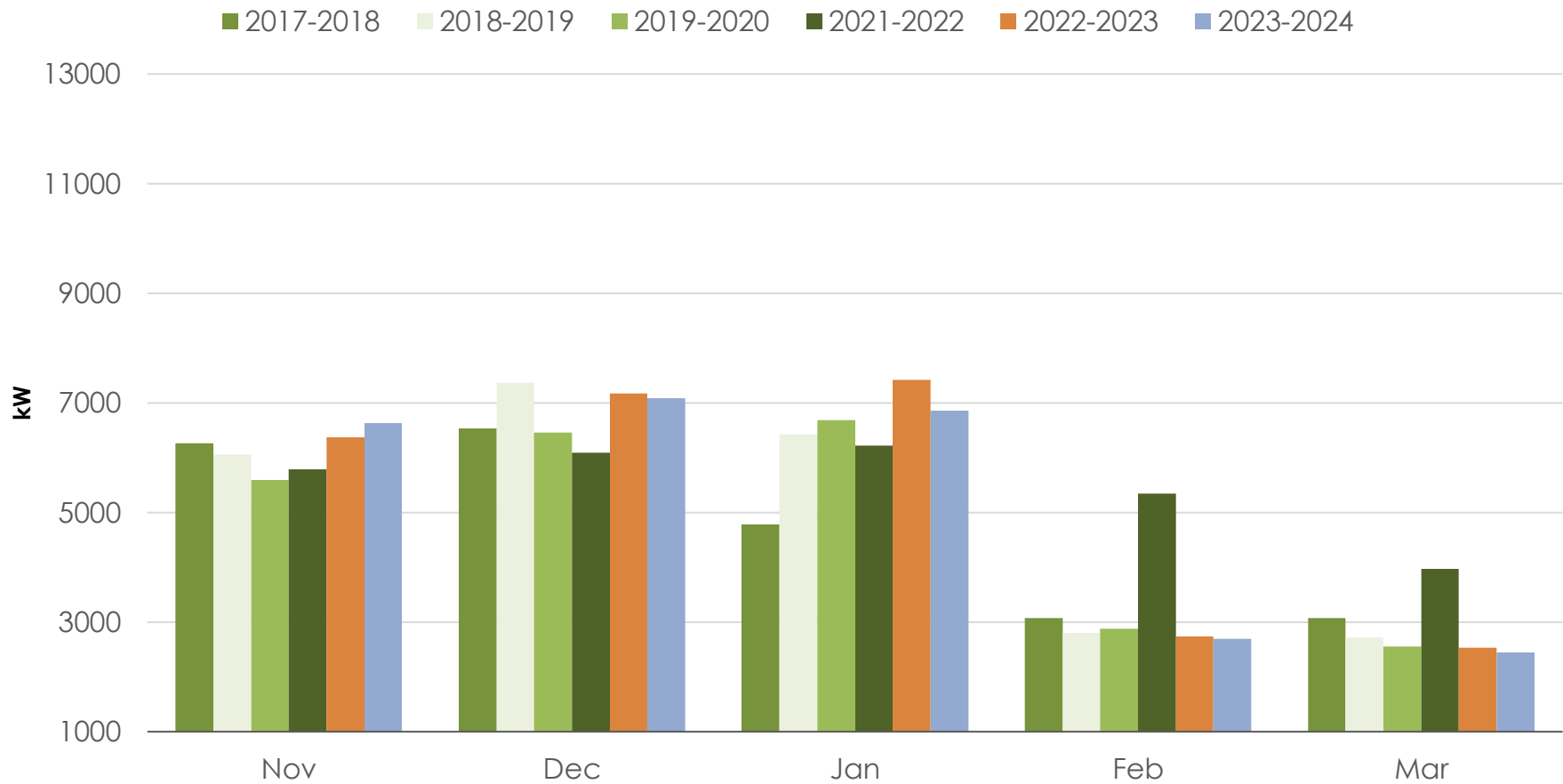


FIGURE 72. SOURCE: SUGARBUSH RESORT

Figure 73 shows that Sugarbush's Annual Energy Usage has decreased by 37% since 2002. Additionally, Sugarbush's energy usage has remained below average (2002 – 2022 ≈ 13,150,091 kWh) since 2014, however, did experience a 5% increase from 2022 – 2023.

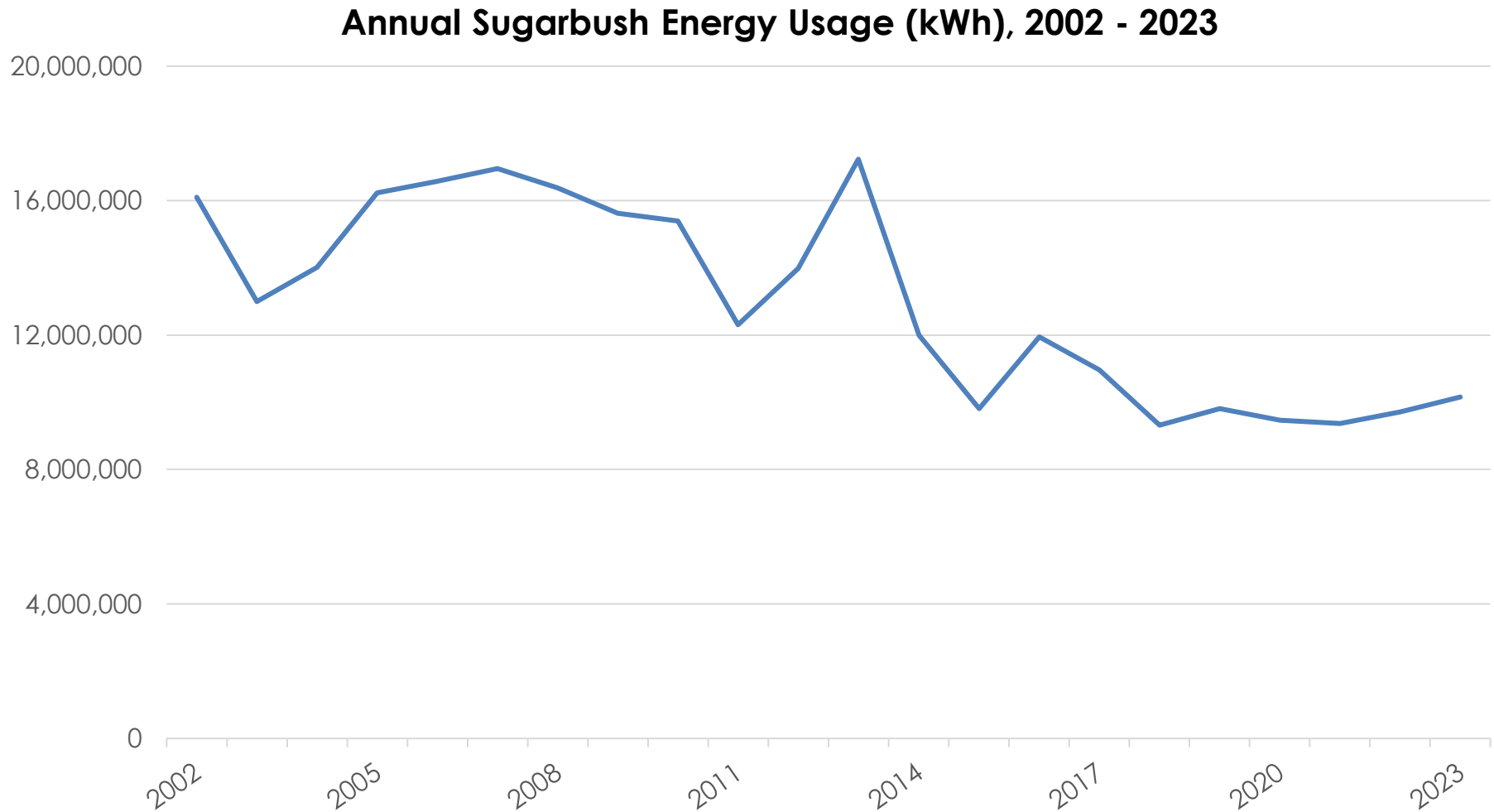


FIGURE 73. SOURCE: SUGARBUSH RESORT

WATER QUALITY

Since 1985, Friends of the Mad River¹⁴ (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 74**. It appears that *E. coli* counts remained relatively low during the summer of 2020. **Figure 74**¹⁵ also shows that *E. coli* counts generally increase from upstream to downstream areas.



Image 9. Kasara Gage

¹⁴ 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.

¹⁵ Mad river upstream to downstream areas shown left to right.

Mad River E. coli Monitoring, 2015-2020

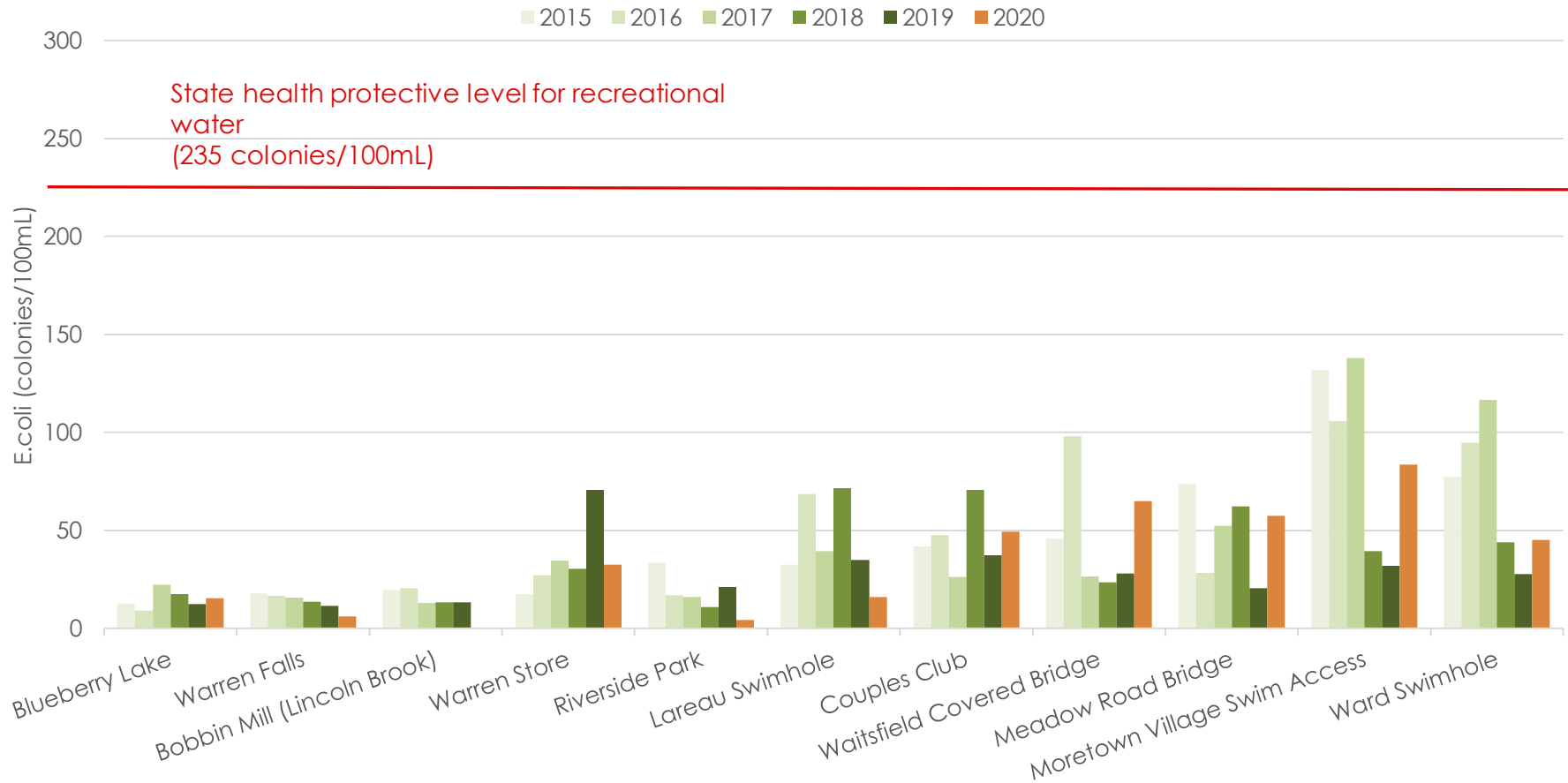


FIGURE 74. FRIENDS OF THE MAD RIVER

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 75**.

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, 2024

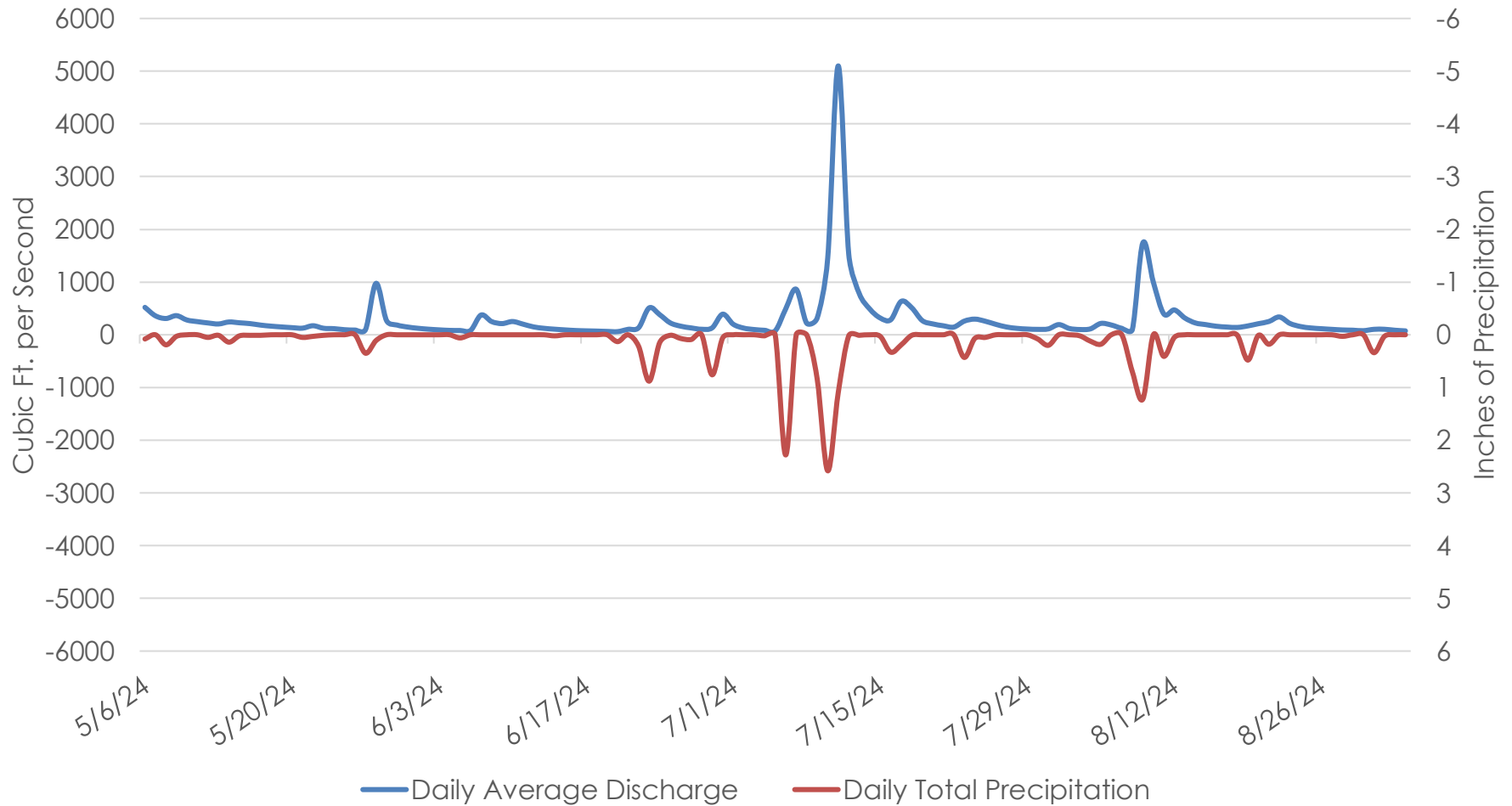


FIGURE 75. SOURCE: FRIENDS OF THE MAD RIVER & U.S. GEOLOGIC SURVEY

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

Vermont ranks third among the lower 48 states in forested land, with 4.6 million acres of forest. However, the state is losing forest cover for the first time in over a century due to parcelization, subdivision, and subsequent land development. Breaking up forestland into smaller parcels typically results in an increase in the number of parcels with housing and infrastructure such as roads and utilities. This type of fragmentation can have adverse effects on plant and animal species, wildlife habitat, water quality, and recreational access. As a result, it is important to understand how parcelization has changed in the Mad River Valley over time and how we can work to support our natural communities and habitat. We can understand these trends by examining the Vermont Natural Resource Council's (VNRC) [Parcelization Database](#).

When analyzing changes in parcel size across the Mad River Valley, it becomes evident that much of the parcelization has occurred on parcels between 50 and 200 acres in size. From 2004 to 2020, parcels sized 50 to 100 acres experienced a 17% reduction in total acreage, while parcels between 100 and 200 acres saw an 18% decline. Although less pronounced, parcels between 0 and 2 acres and those between 10 and 25 acres also saw a 2% decrease in total acreage. Understanding these trends is crucial for addressing the long-term impacts of fragmentation on our region's natural resources and habitat.

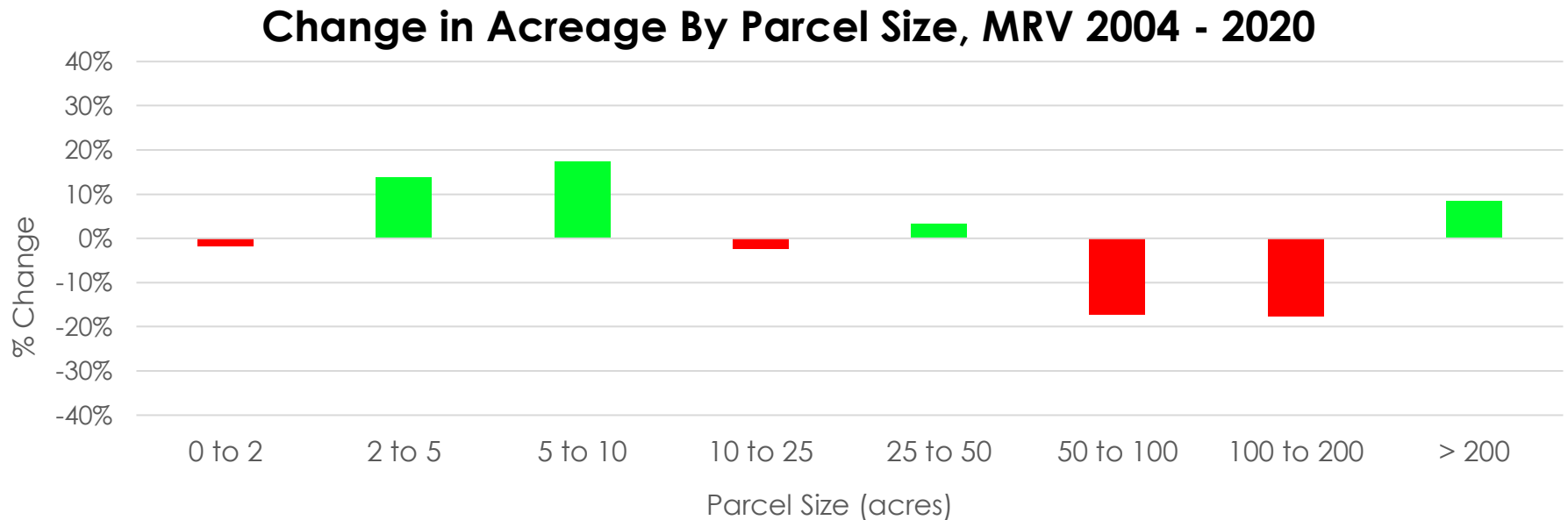


FIGURE 76. SOURCE: VERMONT NATURAL RESOURCE COUNCIL

In addition to parcel size trends, VNRC's parcelization database tracks changes in acreage by parcel type. The database uses classifications from the State of Vermont's tax codes to track acreage change by parcel type, which includes Residential, Farm, Woodland (primarily undeveloped land, though may include parcels with seasonal camps), and Other (such as electric utilities, other utilities, and open but undeveloped land). By examining **Figure 77**, we learn that a significant portion of parcelization in the Mad River Valley has occurred within woodland parcels. From 2004 to 2020, woodland parcels saw a 25% decrease in total acreage. Combining this data with the trends seen in **Figure 76** regarding the change in acreage by parcel size suggests that larger woodland parcels have experienced notable parcelization since 2004 in the Mad River Valley. Understanding these shifts is key to addressing their impact on the region's forest cover and natural habitats.

Change in Acreage By Parcel Type, MRV 2004 - 2020

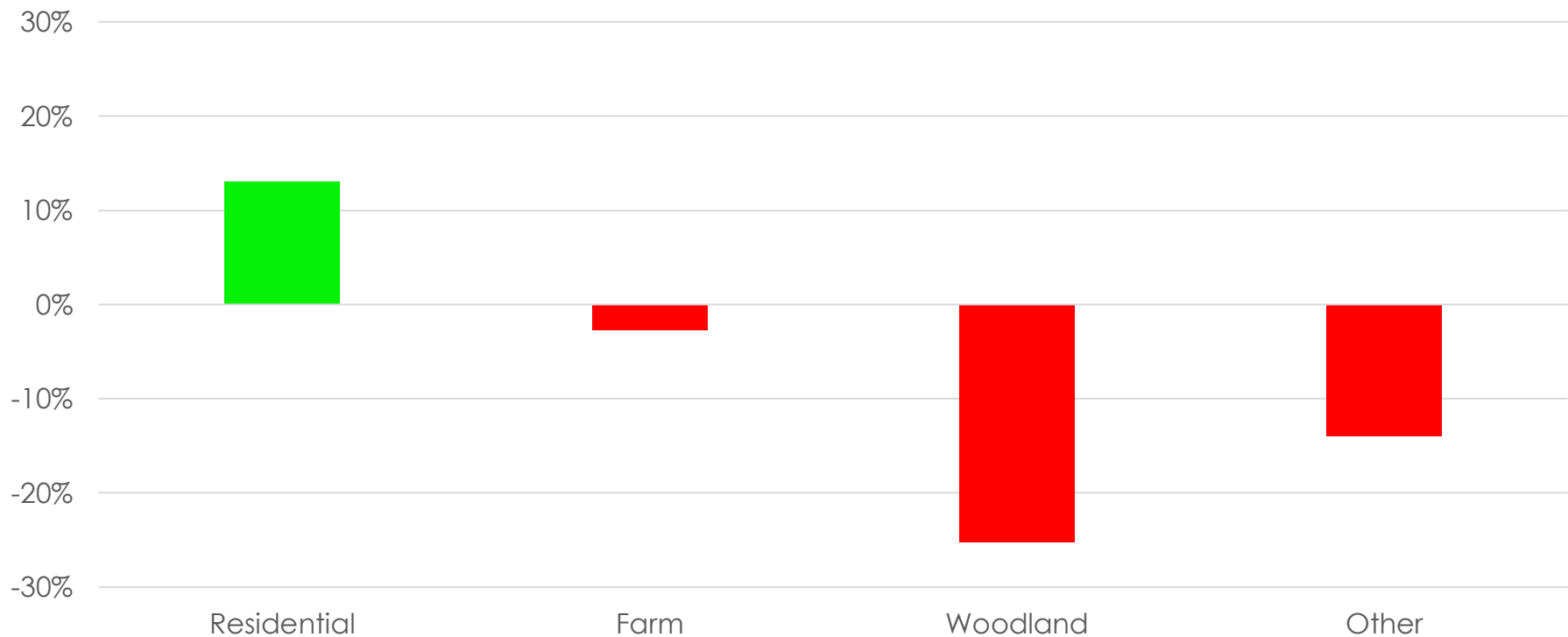


FIGURE 77. SOURCE: VERMONT NATURAL RESOURCE COUNCIL

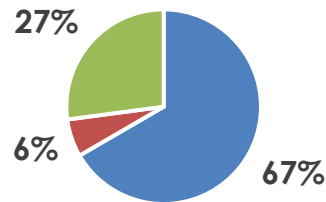
As seen in **Table 2**, the MRV consists of 65,646 total acres, 27% of which is classified as conserved by the Vermont Protected Lands Database (last updated June 2021¹⁶). Since 2019, the MRV increased the number of conserved acres by 1,600. **Figure 78** shows the breakdown of land conservation by type.

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	613	798	1,331	2,741	17%
Warren	25,685	7,864	244	1,092	9,201	36%
Total	65,646	12,185	1,147	4,957	18,289	27%

TABLE 2. SOURCE: VCGI, VERMONT PROTECTED LANDS DATABASE

MRV Land Conservation by Type, 2023

■ State/Federal ■ Municipally Conserved/Open Space ■ Privately-owned Conserved



¹⁶ While the Vermont Protected Lands Database was last updated in June 2021, additional data obtained directly from Vermont Land Trust and the Green Mountain National Forest extends this analysis through October 2023.

FIGURE 78. SOURCE: VCGI, VERMONT PROTECTED LANDS DATABASE