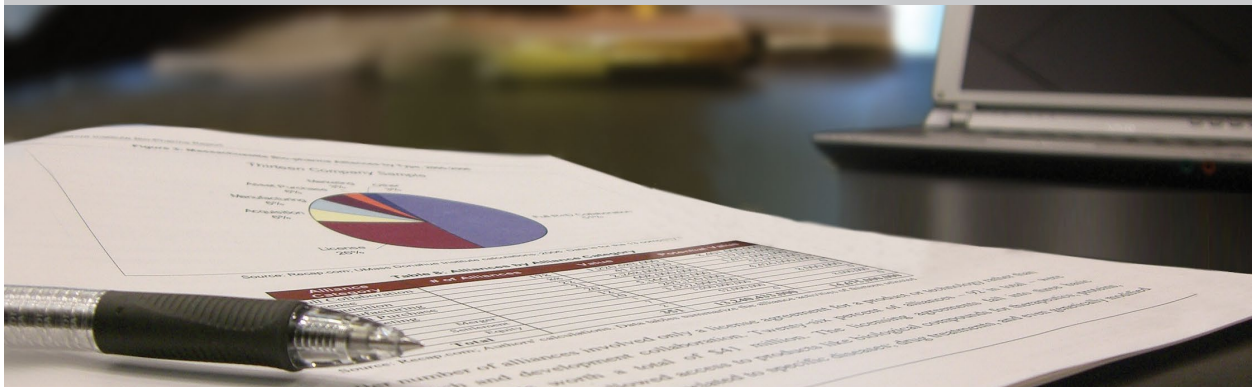


# An Analysis of Vacation Leases Brokered by the Nantucket Association of Real Estate Brokers (NAREB) 2019-2022

June 9, 2023



UMassAmherst

Donahue Institute  
Economic and  
Public Policy Research

# An Analysis of Vacation Leases Brokered by NAREB

Prepared by the UMass Donahue Institute's  
Economic & Public Policy Research Group

On Behalf of the Nantucket Association of Real Estate Brokers

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## Acknowledgments

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## Introduction

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Over the last several years, there has been increased discussion about the regulation of short-term vacation rentals nationwide. This is largely in response to the widespread housing shortage which has put additional pressure on how existing residences are used, particularly in communities where housing has multiple uses, such as for visitor accommodation alongside year-round resident usage. This conversation is evolving all over the country, in large cities and rural areas, but in Massachusetts the focus recently has been on the vacation hotspots of the state, especially the Cape and Islands. Nantucket has a long history as an attractive place for visitors. The short-term vacation rental market has helped facilitate Nantucket as a popular tourism destination and rented housing is a popular form of accommodation for visitors. At the same time there is a need for adequate year-round housing for people who want to live and work in the community.

Historically, local real estate brokers have connected visitors to vacation rentals, however since around 2010, digital, app-based platforms have also facilitated home and room rentals. Due to the online nature of platforms such as Airbnb and VRBO, it is relatively easy for data to be gathered on units listed on these platforms, either directly from the companies or through third-party services that scrape the listing websites. However, there is limited information on rentals through local real estate agencies despite these rentals existing on Nantucket for over 100 years, long before app-based rentals became a reality. These rental units have supplemented the lodging market on the island, offset some of the losses of rooms at hotels and inns, and, overall, supply most of the lodging space for visitors on the island.

In an effort to close this data gap and add information about brokered leases to the discussions on the island, the Nantucket Association of Real Estate Brokers (NAREB) commissioned the UMass Donahue Institute to study the broker-based part of the short-term vacation rental market. The following is an analysis of lease data provided by NAREB member offices. This dataset covers over 16,000 rental leases across the period from 2019 and 2022, spread across over 2,000 unique addresses on the island. This dataset was assembled through the cooperation of numerous local real estate brokers who entrusted UMDI with their data.

## Results<sup>1</sup>

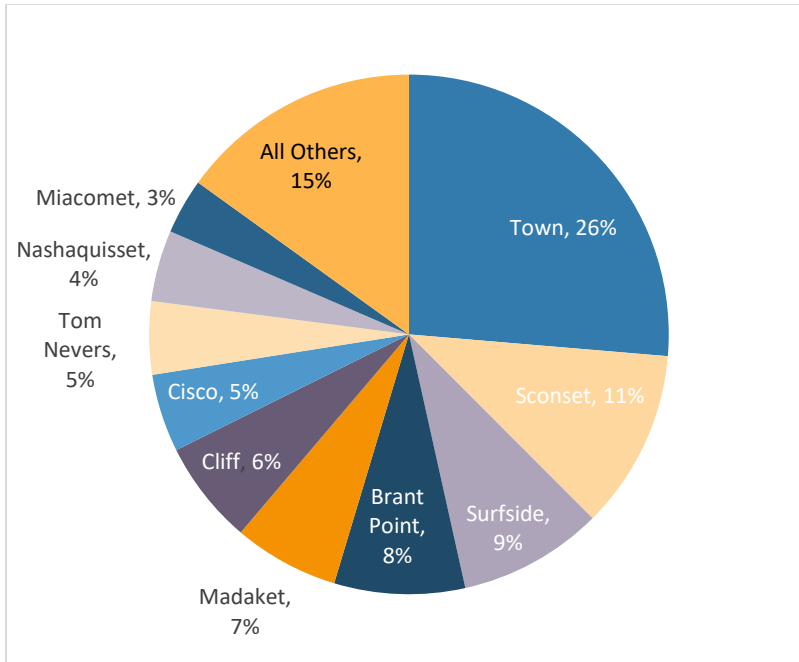
**Figure 1: Count of Leases by Area, 2019-2022**

Area	Number	Share
<b>Total</b>	<b>16,479</b>	<b>-</b>
Town	4,340	26%
Sconset	1,841	11%
Surfside	1,484	9%
Brant Point	1,340	8%
Madaket	1,081	7%
Cliff	1,063	6%
Cisco	800	5%
Tom Nevers	749	5%
Nashaquisset	730	4%
Miacomet	568	3%
Edge Of Town	376	2%
Naushop	335	2%
Wauwinet	244	1%
Polpis	219	1%
Dionis	202	1%
Quidnet	184	1%
Monomoy	159	1%
Beach Plum	144	1%
West of Town	140	1%
Madequecham	114	1%
Mid-Island	110	1%
Pocomo	72	0%
Squam	59	0%
Shimmo	49	0%
Shawkemo	45	0%
Quaise	15	0%
Middle Moors	12	0%
South of Town	4	0%

Rentals on Nantucket are naturally concentrated in the more developed sections of the island, namely Nantucket’s downtown (referred to as “Town” in **Figure 1** and **Figure 2**) and Sconset on the east side of the island. However, rentals can be found throughout the island wherever there are residential buildings.

<sup>1</sup> Some charts throughout this section may not sum to 100% due to rounding.

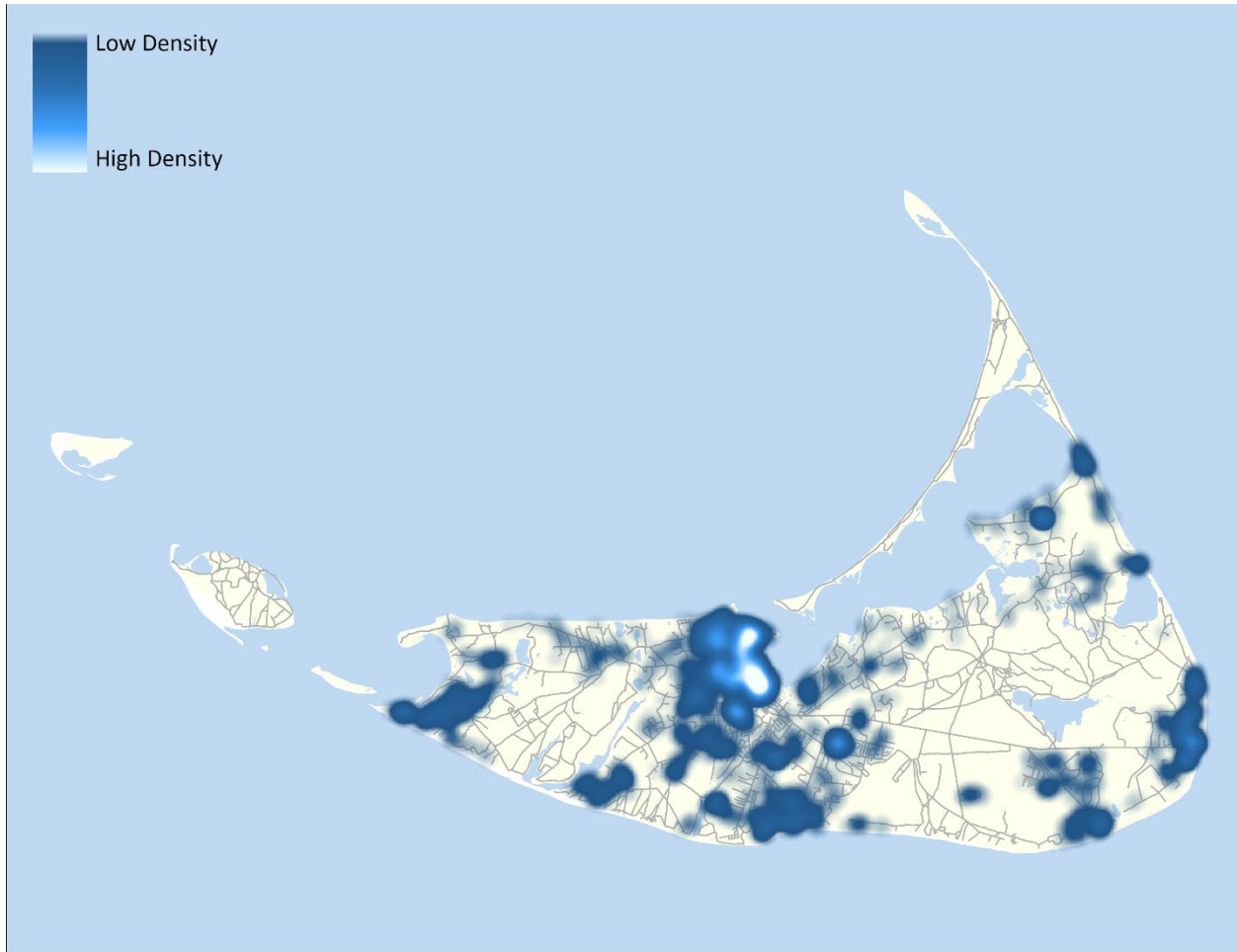
**Figure 2: Share of Leases by Area, 2019-2022**



**Figure 3** below expands on the location analysis by showing a heatmap of the properties listed in the NAREB data. The map reinforces the high prevalence of rentals in the core urban areas while adding greater detail on where else rental properties are concentrated.



**Figure 3: Heat Map of Properties Leasing through NAREB Offices, 2019-2022**



The NAREB dataset covers 2019 through 2022 allowing a look at leases before, during, and after the COVID-19 pandemic, which significantly impacted communities and prevented travel. As shown in **Figure 4**, 2020 did see a reduced number of leases compared to the prior year, followed by over 1,000 more leases in 2021 compared to 2019 before somewhat moderating the next year.<sup>2</sup>

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<sup>2</sup> In total, there are 2,053 individual properties in the NAREB data after cleaning. We believe this number is materially accurate though it may still double count a few properties. For example, a property may be listed as “15 ABC St – Cottage” or “15B ABC St.” We attempted to find and harmonize as many as possible, but some may still have slipped through. There are also 22 leases with a duration of zero, which are excluded from the duration analysis, but whose location information was used for the leases by area table and visuals, and which were included in the total counts of leases. For more information see the Methodology section at the end of this report.

Figure 4: Count of Leases by Year, 2019-2020

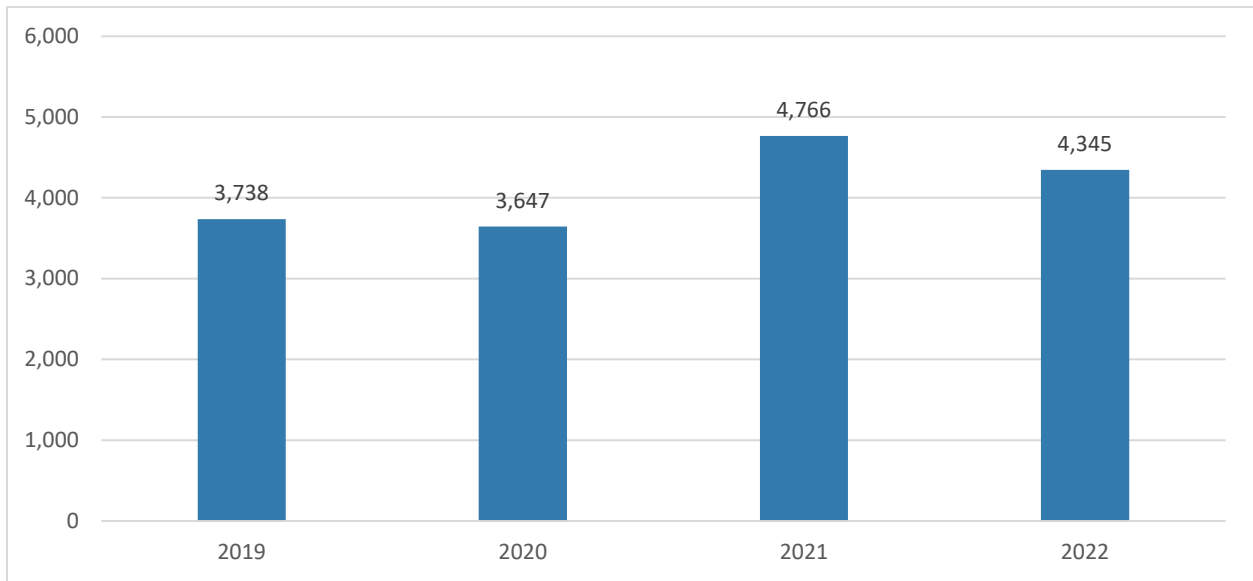


Figure 5: Count of Leases by Month, Total, 2019-2022

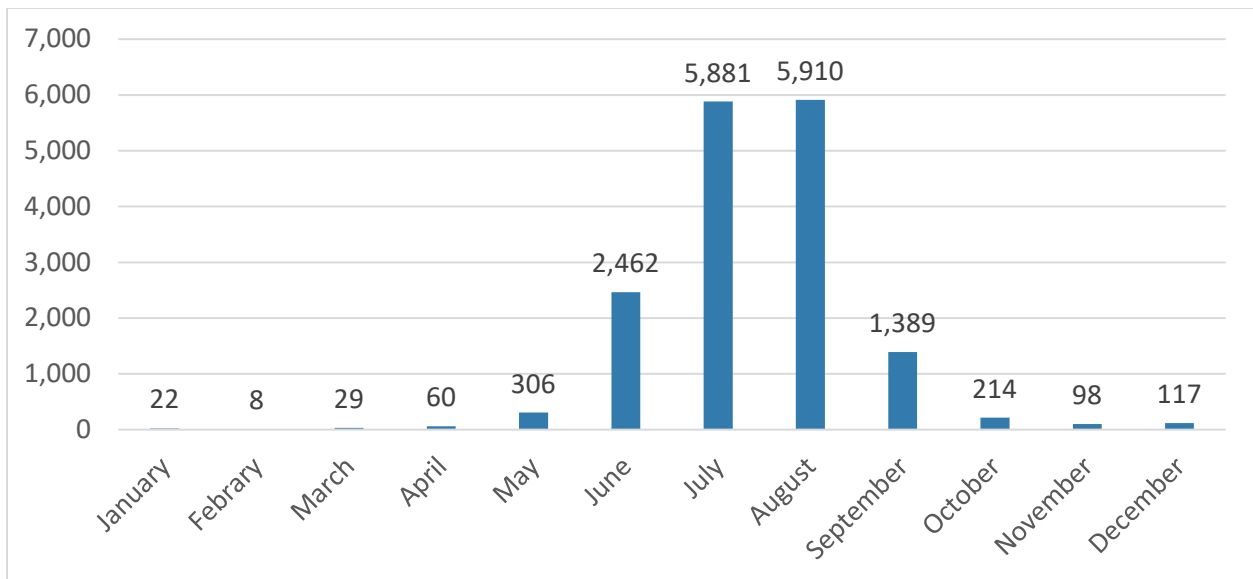
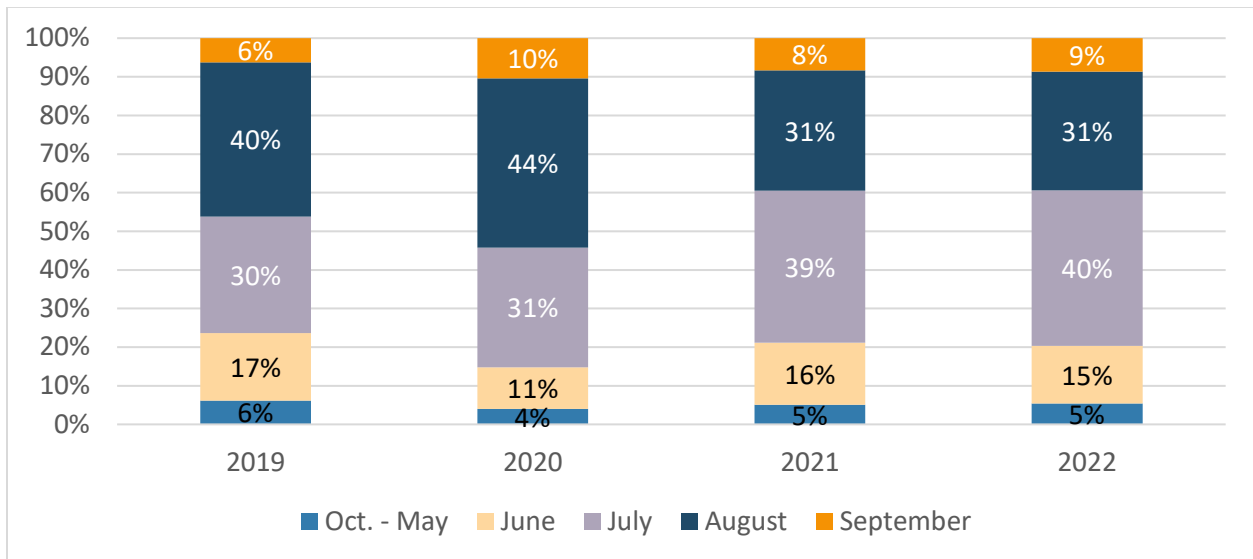
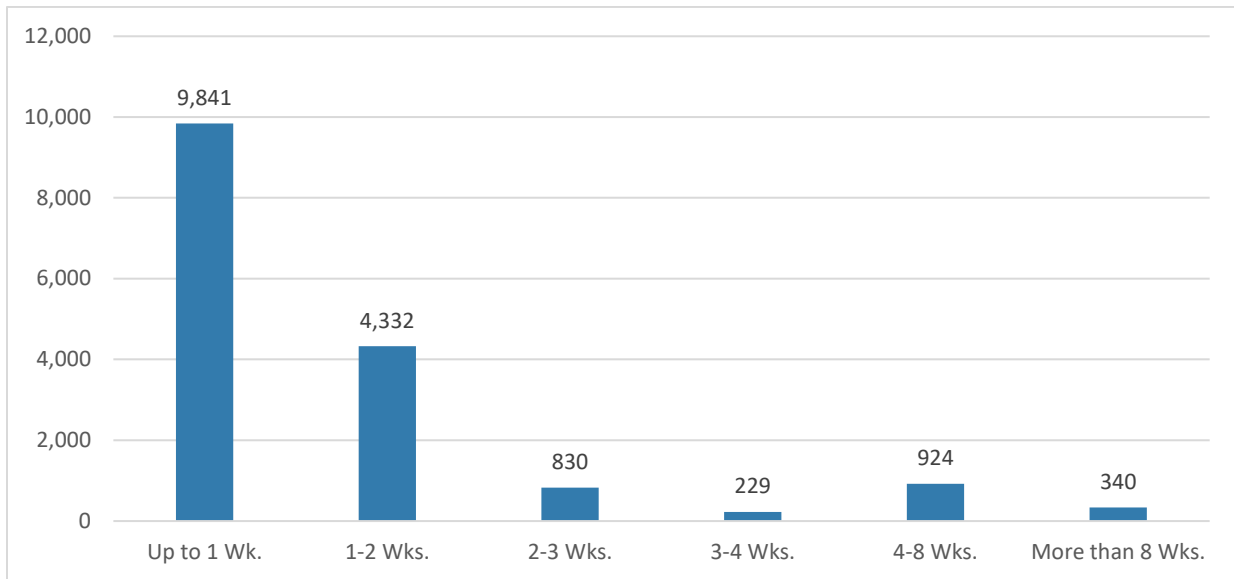


Figure 6: Leases by Month as a Share of Total by Year, 2019-2022



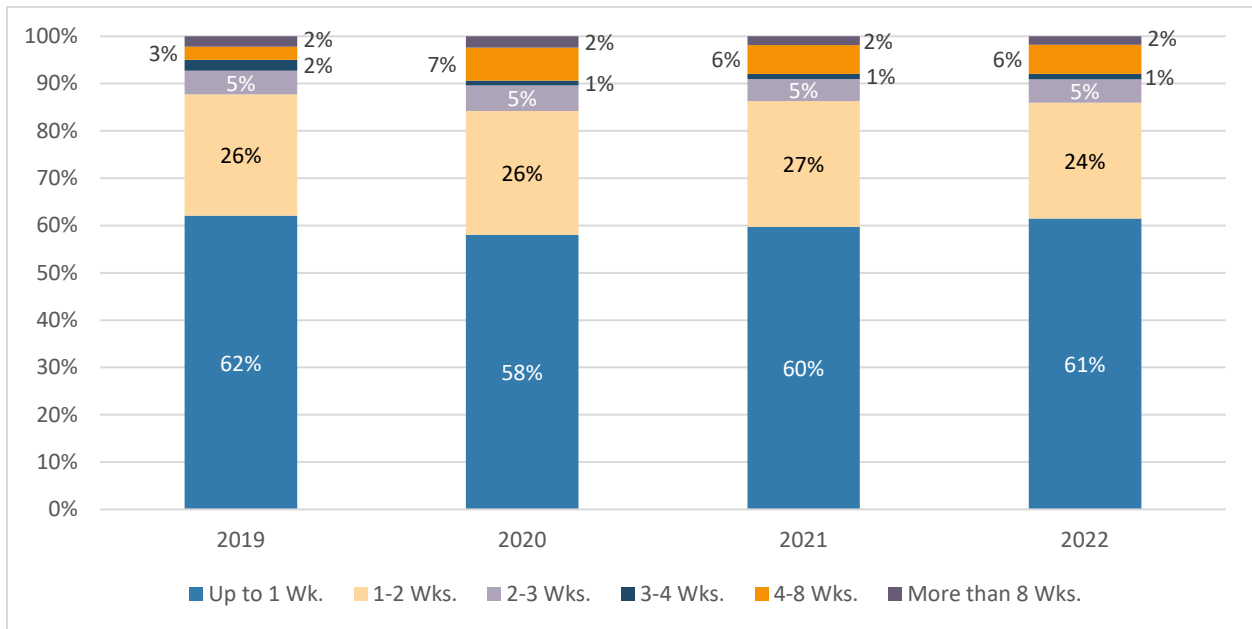
Given the nature of Nantucket’s tourism, leases are naturally most common during the summer months of June through September. Leases occurring in all other times of year (October – May) have consistently accounted for six percent or less of lease volume. Between 2020 and 2021, the data suggests that the most popular month for rentals moved from August to July.

**Figure 7: Count of Leases by Duration, Total, 2019-2022**



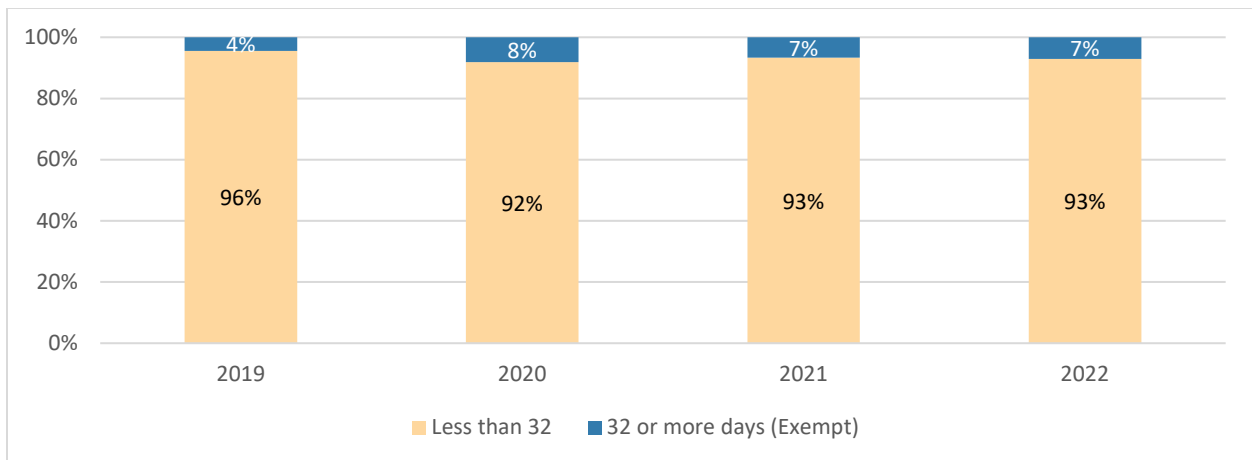
Leases of seven days or less (Up to 1 Week) are by far the most common. There are half as many one-to-two-week leases. Leases of four to eight weeks are the third most common duration and of those, rental periods of around one month are the most frequent.

**Figure 8: Leases by Duration as a Share of Total by Year, 2019-2022**



Duration of stay has changed little across the period, but between 2019 and 2020, the share of leases lasting for 4-8 weeks more than doubled, and this has persisted over the next two years. This suggests that longer stays occurring during the height of the pandemic have persisted for the time being.

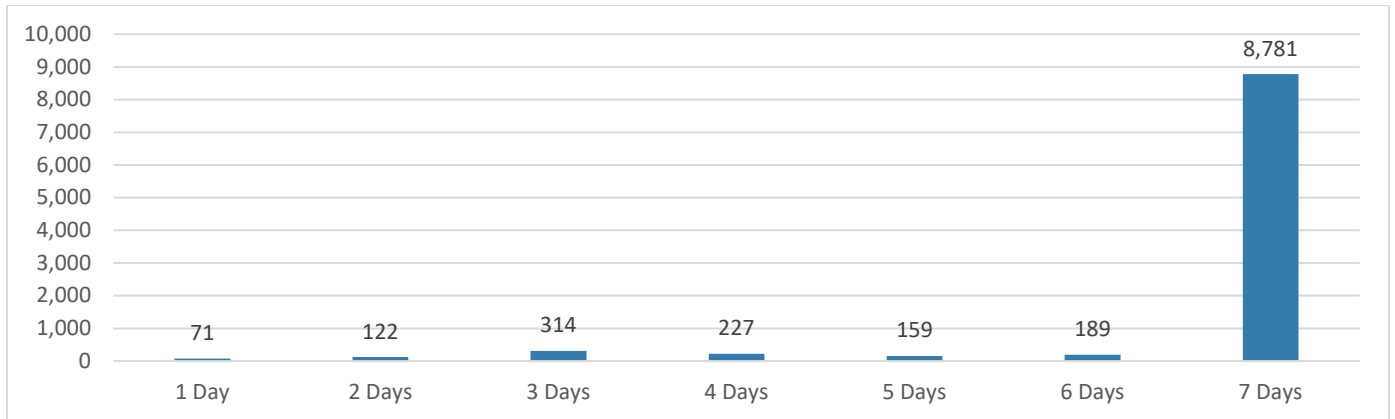
**Figure 9: Share of Leases Classified as Short Term by Year, 2019-2022**



After typical vacation periods of one week, two weeks, one month and so on, another rental period relevant to the policy discussion is centered around 32 days. Any rental of 32 days or more is no longer classed as a short-term vacation rental. The lease data shows that more than 90 percent of leases in

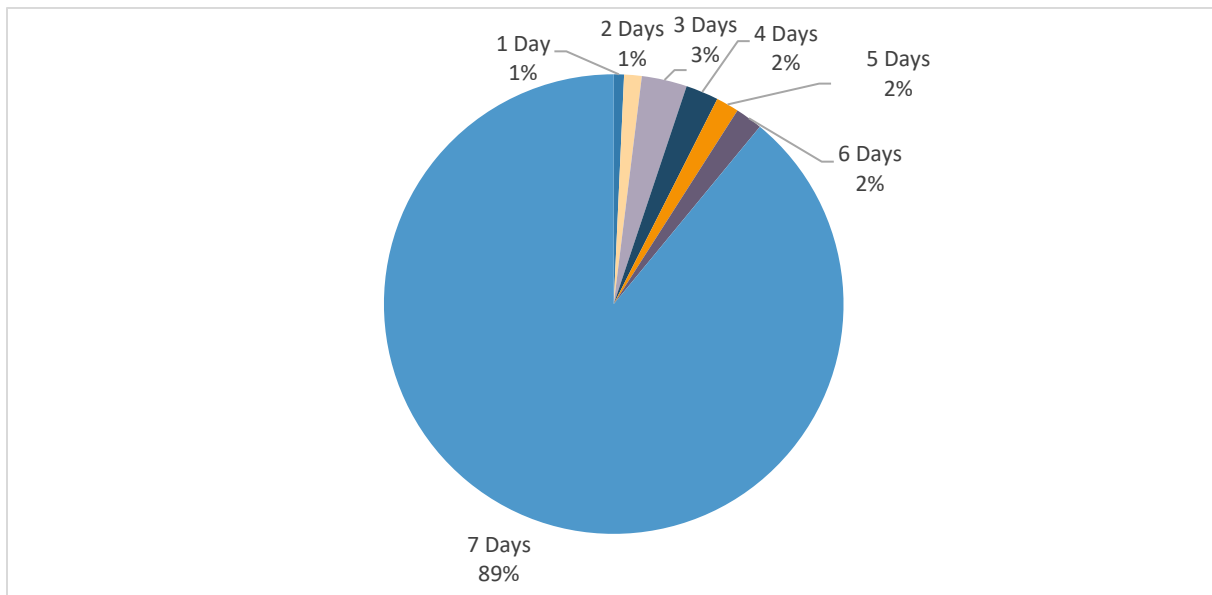
each year are less than 32 days in length and thus would be counted as short term for any tax and regulatory purposes.

**Figure 10: Count of Leases by Duration, Leases Up to One Week, 2019-2022**



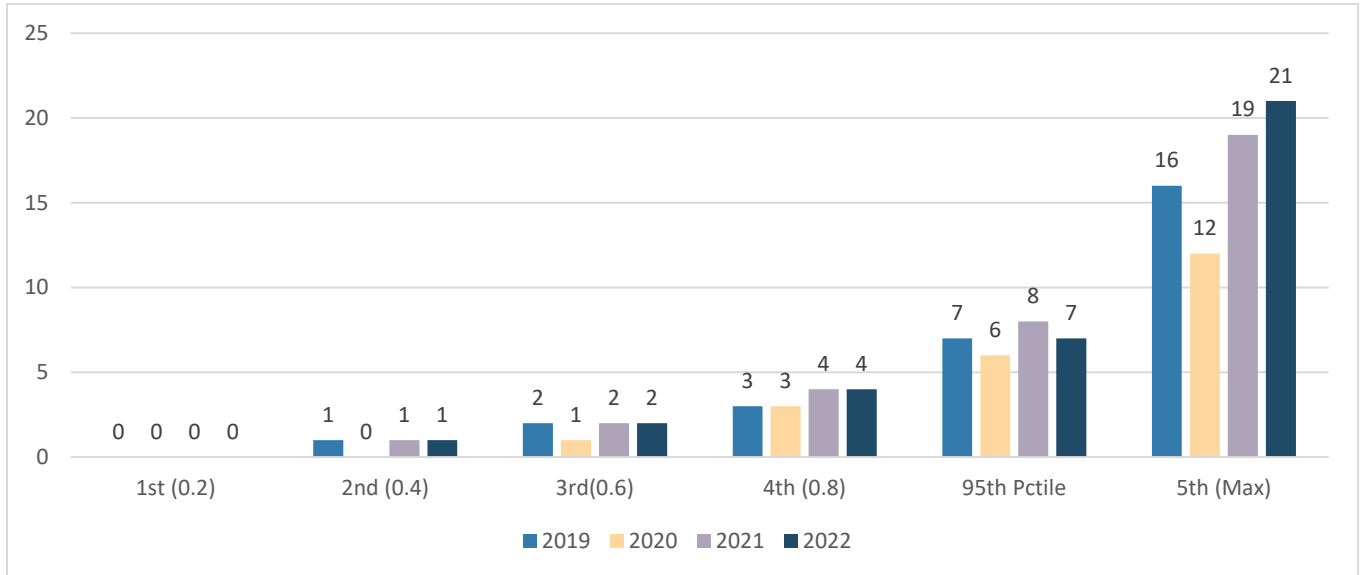
Focusing on the up-to-one-week duration category, 89 percent are of exactly seven days with three days being the second most popular length of stay. Out of all leases, week-long stays are 53 percent of the total. Shorter leases are slightly more likely to be in the peak months of July and August, with 72 percent of shorter leases (of a week or less duration) falling in those months across the whole period, compared to 70 percent of longer leases (greater than a week duration). However, in both 2019 and 2022, the share of shorter leases in those peak months was the same as the share of longer duration leases.

**Figure 11: Leases by Duration as a Share of Leases Up to One Week, 2019-2022**



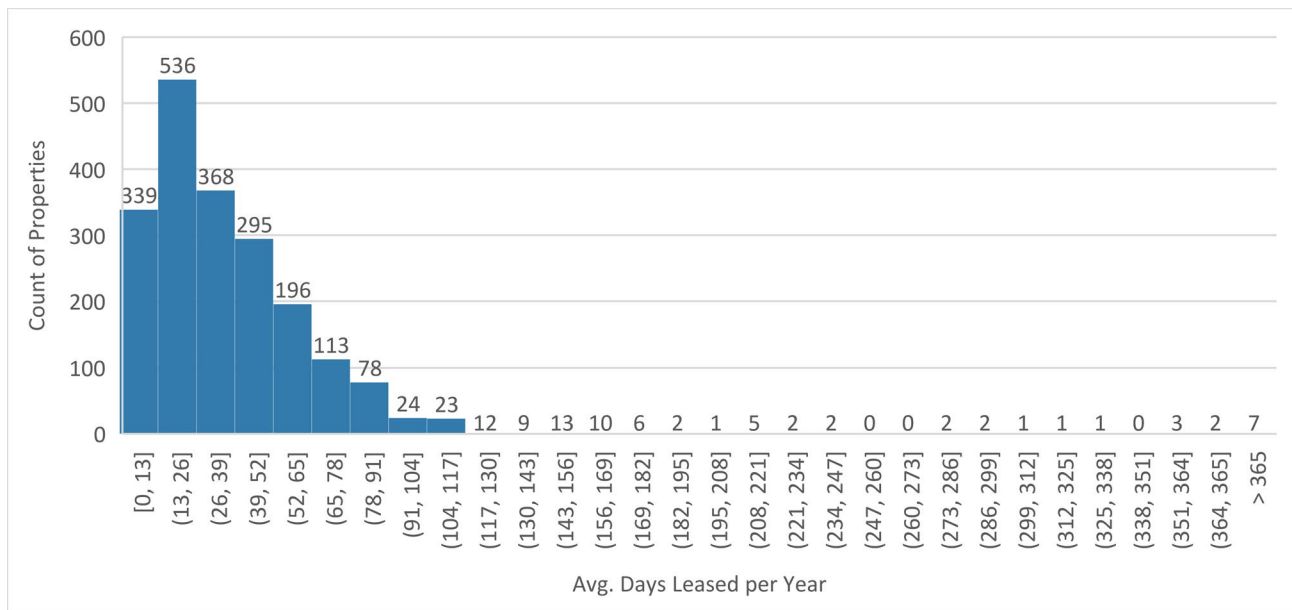
One way to evaluate intensity of leasing is to measure how many times properties were leased. The median property was leased five times over the four years of 2019 through 2022. In other words, half of properties were leased fewer than twice per year. There were only seven properties that had 40 or more leases, i.e., rented 10 or more times per year on average. The most individual rentals any property had in a single year was 21.

**Figure 12: Total Number of Leases, All Properties, Upper Bound of Quintiles, 2019-2022**



**Figure 12** above breaks down all properties in the NAREB database into quintiles based on the number of leases per year. For example, 80 percent of properties (the 4<sup>th</sup> quintile) in 2022 had 4 leases or fewer, up from 3 leases in 2019. In general, the upper bound of each quintile is somewhat higher in 2021 and 2022 compared to 2019 and 2020. This shows an increase in the number of leases per property per year, which is consistent with the findings in **Figure 4**, which shows the total number of leases increasing. Of note in the above figure is that very high-intensity renting is rare. In all years, 95 percent of properties were rented eight or fewer times.

**Figure 13: Count of Properties by Avg. Days Rented per Year, 2019-2022**



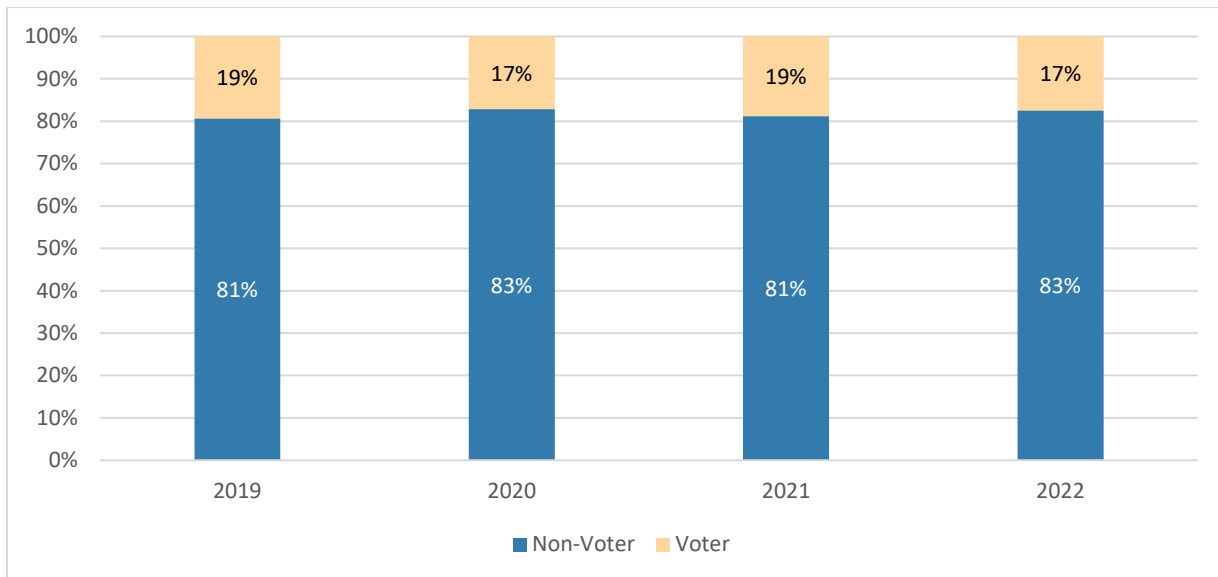
An alternative way to evaluate intensity of leasing is to measure how many days over the course of a year the property was under lease. Looking at the averages of days rented per year, the median property was leased for 31 days and the 75<sup>th</sup> percentile was 52 days. In other words, three of four properties were under contract for 52 days or less over the course of the year, and half were under lease for a month or less. These measures are for total days under contract not the duration of each contract period, which was addressed previously. **Figure 13** above shows a very long tail, reflecting several multi-month and, in a couple of cases, multi-year contracts that were in the data. These properties are clear outliers in the data. Overall, 90 percent of properties are rented for 77 or fewer days per year.



## NAREB data compared to other datasets

AirDNA, a service which compiles a dataset of all Airbnb and VRBO rentals, identified 1,160 whole-home app-based rentals with at least one reservation on the island of Nantucket in 2022. In comparison, there are 1,320 unique addresses in the NAREB database in that same year. These units resemble NAREB leases in that they are primarily rented in the summer season though they are likely rented more often. In 2022, the median unit in AirDNA was rented for 66 days out of the year, compared to 35 days for the median unit in 2022 in the NAREB dataset.

**Figure 14: Share of Addresses with and without a Registered Voter**



A comparison was also made with the Nantucket voter registry. Just under 20 percent of unique addresses in the NAREB dataset had a registered voter at that address, as show in **Figure 14**.

Looking at owner place of residence another way, the NAREB data was crossed with the residential assessor data for Nantucket. A match was found in the assessor data for 89 percent of addresses.<sup>3</sup> Comparing the two datasets reveals that around nine percent of all NAREB properties have a matched owner with a Massachusetts address. Additionally, only four percent have a Nantucket owner address. There is a significant gap between the share of properties with a registered voter (17% – 19%) and properties where the owner’s address is in Nantucket (only 4%). The source of that gap is unknown, but it is too large to be accounted for by differences in the share of properties that could be matched across datasets nor is there any indication that unmatched properties are similar in a way that would result in a

<sup>3</sup> Due to inconsistencies between how information on properties was input into the assessor’s records versus the real estate databases that compose the NAREB dataset, not all properties could be matched to the assessor’s records. All properties in NAREB likely have a matching assessor’s record, but in some cases, the leased unit may be part of a larger property and under a slightly different address than the one in NAREB. For more information see the Methodology section at the end of this report.

systematically different share of resident owners. The assessor records suggest that the share of owner-occupied units is toward the lower end of these values. Matching the NAREB properties to the assessor records revealed that six percent, or 114 properties, of the matched addresses in the NAREB dataset had claimed a residential exemption.

Finally, a comparison between the NAREB dataset and the Massachusetts Department of Revenue's Public Registry of Lodging Operators was made. There 76 percent of all unique addresses in NAREB were matched to the public registry which includes short-term vacation rental properties. These properties must be registered by their owners if they rent for less than 32 days a year. The registry contains an "Owner Occupied" field, which suggests that only three percent of the matched NAREB properties were owner occupied, similar to the four percent of addresses where the owner has a Nantucket address. Of the NAREB addresses, 14 percent were flagged as being rented for 14 days or less per year. This status means that a property may be eligible for an exemption on tax for that rental unit. Even if a property is exempt on that standard, it must still be registered with the Department of Revenue and that status must be renewed each year. Finally, the registry contains a field that flags if a short-term vacation rental is one of multiple STRs in town with the same owner. This flag appears for 15 percent of matched NAREB properties. This field is intended to help with the administration of the three percent community impact fee levied in some towns. Nantucket does not currently implement this fee.

The share of properties with a registered voter is not a perfect proxy for an owner-occupied unit; they could be the home of a renter. However, in order for these properties to appear in both the NAREB data and the voter registry, they would need to be used as both long-term and short-term rentals over the course of the same year. Other datasets provide closer estimates of what are likely owner-occupied units, i.e., the property is the owner's primary residence. While the voter registry shows that 17 to 19 percent of properties are listed as the place of residence of a registered voter, the other datasets examined in this analysis suggest that the number of owner-occupied units is in the low single digits: the DOR registry's "owner occupied" field at three percent, the properties claiming the residential exemption in the assessor data at six percent, and the share of properties where the owner has a Nantucket address at four percent. The issue of owner occupancy has room for further investigation to better understand to what extent homes are actually used as both long-term and short-term rentals and how the various property and voting databases align their definitions of who counts as a resident of Nantucket.

## Conclusion

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Combined with data on app-based rentals, the NAREB database completes the picture of short-term vacation rentals on Nantucket, giving residents and local stakeholders a look at the short-term vacation rental market as it is understood by local real estate agencies. This report provides a foundation for future examinations of the industry as the relationship between Nantucket's residents and visitors continues to evolve.

## Methodology

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The UMass Donahue Institute has collected and analyzed the data on behalf of NAREB to better understand the short-term vacation rental market on the island. The data presented above is presented to inform those interested in this topic and is not meant as an endorsement of NAREB's views regarding short-term vacation rentals. Short-term vacation rentals have been a part of Nantucket life for generations. To that end, any information to understand their demand and use is important to the understanding of Nantucket as a whole. The following will detail how this analysis was performed and will explain its limitations.

### Assembling the NAREB Dataset

The NAREB dataset is a combination of lease data from over a dozen local real estate offices who individually supplied their data directly to UMDI. This represents participation by 99.6% of all NAREB member offices. Each data submission contained lease-level information for the period of 2019 through 2022. Each broker's dataset was slightly different but generally information was available on the arrival and departure date for the lease holder, property address, area of the island, number of bedrooms, and short-term rental certificate number. These individual datasets were unified into one large file.

Whenever data on addresses is input manually by many different people there are going to be issues with data quality and consistency. A given property's official "address" may be understood differently by the owner of that property, the real estate broker renting it, and the town. Cleaning was done to make addresses more consistent, particularly with suffixes, e.g., Rd as opposed to Rd. or Road and St as opposed to St. or Street. Work was also done to unify "area", for example "Siasconset" was merged into "Sconset" based on guidance from NAREB. The duration in days of each lease was calculated by subtracting the start date from the end date of each lease. Addresses were subdivided into street name and number only columns to allow future matching. Some addresses had an unusual unit name, such as "1 Main Street, Cottage."<sup>4</sup> These were cleaned up to consistently be hyphenated, e.g., "1 Main Street – Cottage". In the end a heavily cleaned NAREB dataset was created that was used to produce the bulk of visuals in this report. Additional work was done to compare the NAREB data to other local datasets.

### Comparing to the Voter Registry

An initial match of NAREB addresses to the voter registry resulted in only 314 of the over 2,000 unique addresses in the database matching. This is for two reasons. First, a short-term leased unit is less likely to be owned by a full-time resident of the island. Vacation homes are common on the island and such units are practical to lease for at least part of the year and are less likely to be occupied by a long-term resident who could register to vote on the island. Additionally, people fill out their address on voter registration differently than in other places. A full-time occupant of the first of two houses on a single property may register themselves as living in Unit A, but the NAREB database might show Unit B as the one with the lease. Ideally that whole property would be flagged as containing a registered voter, but

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<sup>4</sup> Any examples of addresses used are for illustrative purposes only and are not meant to represent real places on the island.

because of the difference in the two-unit addresses, the match cannot be made easily. To account for this, matching was also done between only the street number and street name, with any sub-unit information removed in the two datasets. Finally, an additional 56 addresses in the NAREB database were compared manually to the voter registry, with no additional matches found. The final tally was 432 of the 2,053 unique addresses in the NAREB database having at least one match to the voter database. The matching voter record could be anyone with a relation to the property who is a resident. If a property had multiple registered voters associated with it such as an owner and their family, only the first matching voter was used to flag that property as containing a registered voter.

### **Comparing to the Property Records**

A similar process to the voter registry comparison was done with the residential property records for Nantucket, but with the expectation that nearly all properties in NAREB should have a match in the assessor's database. A simple match between the full NAREB address and the assessor's addresses confirmed this expectation, yielding 1,835 matches out of over 2,000 addresses in NAREB. To get more matches, additional cleaning needed to be done to meet the property record standard. For example, avenue had been abbreviated "Ave" in our NAREB cleaning, while the assessor uses "AV". Additionally, the assessor's records refer to addresses like "4.5 Main Street" as "-4 Main Street". In some places streets had an additional space in the records that they did not have in the NAREB database. One unique issue we encountered is that the area of Sconset has street names found in other parts of the island, but with "SIAS" appended to the street name in the records, which required more cleaning. In cases where street names with many leases had failed to match, internet research, including Nantucket's property record map and Google's Streetview were used to further refine the matches. Through this cleaning process an additional 145 addresses in the NAREB database were matched to records, leaving only 218 non-matched, 11 percent of the NAREB total. Intense manual cleaning of those remaining 218 would need to be done, likely using on-the-ground knowledge of what property record best fits a given NAREB property.

### **Comparing to the Department of Revenue's Public Registry of Lodging Operators**

The process was repeated to match the NAREB database to the Department of Revenue's Public Registry of Lodging Operators. This registry is a statewide database of all accommodation operators, including hotels and bed and breakfasts as well as short-term rentals in homes. Short-term rental owners must self-identify and register with DOR to be in compliance with state law. The NAREB dataset prepared for matching to the assessor's records was reused. UMDI had previously compared the DOR list to the local property records and that work produced a crosswalk of local property records to the registry list based on address name. Matching based on that prior work, with additional cleaning, resulted in 1,555 of the NAREB unique addresses matched to the DOR list.

Throughout all this work, assumptions about properties were avoided. Say for example there was a NAREB property referred to as number 7 Main Street, but the property records for that road only go as high as number 5. It is likely that 7 Main Street is a secondary unit on the 5 Main Street parcel, but even if the record showed two building on that property, it would be inconclusive evidence for the relationship. Those kinds of assumptions were avoided. The NAREB database could only be fully merged with the property records with substantial local input, likely from the owners themselves.