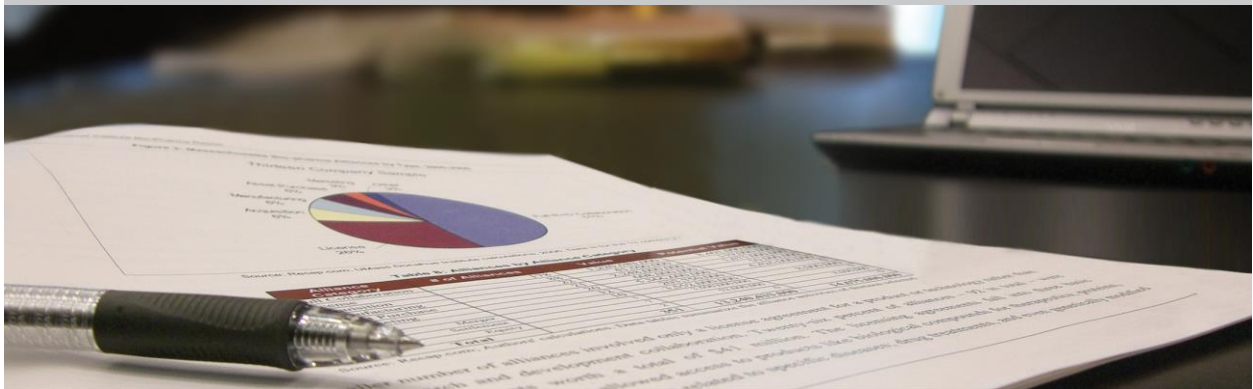


# Cape Cod Housing Needs

Analysis for the Cape Cod Commission

March 22, 2023



UMassAmherst

Donahue Institute  
Economic and  
Public Policy Research

# Cape Cod Housing Needs

Prepared by the UMass Donahue Institute's  
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## Executive Summary

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The UMass Donahue Institute (UMDI) conducted a housing needs assessment for the Cape Cod region on behalf of the Cape Cod Commission in the second half of 2022. The aim of the housing assessment was to better understand the current state of housing on the Cape and to understand how recent shifts in demographics may shape future housing needs. Over the past decade, the housing crisis has put pressure on year-round residents, workers, and businesses. This is a crisis of both affordability and availability with housing prices escalating as the supply of housing has not kept up with demand. These pressures have increased in recent years. Economic and cultural shifts brought on or exacerbated by the pandemic will likely have long-term consequences on how people work and live. While data to understand these shifts is still emerging and only in hindsight will the degree and nature of these shifts be fully understood. It is nevertheless essential for planners and policy makers to endeavor to understand current conditions and plan for the future. UMDI gathered and analyzed secondary data from public and proprietary data sources, fielded a survey of residents, conducted two focus groups, and produced population, employment, and housing projections to understand the current and future housing needs on the Cape. This housing assessment highlights the following key points:

- Cape Cod has a housing availability crisis and a housing cost crisis, which are both projected to continue if things do not change. Decisive action is needed now, as estimates on the trends project a perpetuation of these crises.
  - Projections estimate a housing unit shortfall of between 13,000 to nearly 22,000 by 2035.
  - Housing prices have increased steadily over the past decade, peaking in summer 2022 at \$700,000 for a typical single-family home. While prices may stabilize as interest rates rise, the high cost of housing puts homeownership out of reach for many Cape Cod families. For example, to purchase the typical home in 2022 a family would need over \$200,000 in annual income, double the median income for Barnstable County (Cape Cod). In addition, fewer homes were available to rent or buy in the past decade, as rental vacancy rates were low and inventory of homes for sale plummeted.
- The availability and cost crises are affecting nearly everyone in Barnstable County. The crisis is affecting owners as well as renters and cuts across income levels. However, renters and people at middle- and lower-income levels are experiencing the brunt. This is because economic inequality has been worsening, affecting quality of life on the Cape, including workers' ability to live near their jobs.
  - Housing stability is a pressing concern for renters. In UMDI's survey, over 60 percent of Cape renters indicated that they were worried that they may not have stable housing in the next twelve months. In addition, 46 percent of renters had moved in the past three years and a quarter had moved two or more times in the past three years. Furthermore, 42 percent of renters cited affordability as the reason for their move.
- Housing prices have far outpaced incomes on the Cape causing mismatch between housing market prices and what residents can pay, yielding housing affordability gaps projected to continue for decades, if housing of a wide variety of types and sizes at many price points is not increased.

- There is a shortage of naturally affordable housing, as shown by the high rates of cost burden on the Cape: as of 2020, 51 percent of renters and 37 percent of owners with mortgages were cost burdened, in other words they pay more than 30 percent of their income in housing expenses.
- UMDI's affordability gap analysis estimates that there is a shortage of nearly 27,000 owner-occupied housing units for current families on the Cape living at or below the region's median income.
- Focus groups with municipal stakeholders highlighted that existing federal and state affordable housing financing mechanisms, (e.g. low-income housing tax credits) for publicly subsidized affordable housing are insufficient in Barnstable County due in part to the high housing costs and area median incomes.
- In addition, the pandemic and ensuing changes in patterns of work that allowed more workers to live greater distances from their employers' offices, appear to have increased demand for housing on the Cape. Remote work has become more common for white collar workers and many workers chose to retire during the pandemic, all of which may have contributed to an increase in year-round residents on the Cape. It is unclear to what extent these changes will be part of a new and sustained trend.
  - The share of workers on Cape Cod working from home increased dramatically. As of 2021 over 20,000 people, 18 percent of workers on Cape Cod, were working from home, out of 111,000 workers in the region overall. Up from just under 8,000 workers, or 7.4 percent in 2019, the number of people working from home more than doubled in Barnstable County during the pandemic (in Massachusetts overall, it more than quadrupled). Some workers may now return to offices while others continue remote work or run home-based online businesses, potentially affecting the number of year-round residents on the Cape.
- Cape Cod has unique housing challenges due to its draw as a vacation destination. Second homes, short-term rentals, and seasonally-driven vacancies are all much more prevalent in the region than in the rest of the state, while multifamily housing is scarcer. The seasonal fluctuations of people and their economic activity also result in workforce and population profiles that differ from the rest of Massachusetts.
  - There is evidence that short-term rentals may be displacing year-round rentals and increasing pressures on renter households. UMDI analyzed 2021 Airbnb and VRBO vacation rental data and found that it would only take two months for the revenue from a 3-bedroom short-term rental to exceed the revenue from renting a full-time, 3-bedroom year-round rental at the average monthly rent for Barnstable County.

These pressing issues require action at the local and regional levels to set and meet appropriate housing construction targets in order to make more housing available for renters at a wide range of income levels, as well as bringing home ownership into reach for year-round residents on the Cape. The vitality of the communities on Cape Cod depends on making changes now in order to build a sustainable future that includes all residents.

## Introduction

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In June 2022, the Cape Cod Commission (the Commission) engaged the UMass Donahue Institute (UMDI) to complete an updated housing needs assessment to examine existing and future housing supply, demand, and challenges facing homeowners and renters across the region. Undertaken in collaboration and coordination with the Commission, and to provide baseline data for development of the regional housing strategy, this housing needs report comes out of the recognition that the region's housing market impacts future economic opportunity and long-term regional stability. Existing development regulations promote development patterns inconsistent with housing affordability and that strain environmental resources, infrastructure, and public services. The Commission has committed to working with policy makers, residents, and other stakeholders to develop approaches that will address the region's housing challenges, including by directing housing development into community activity centers to create compact, vibrant walkable areas in which Cape residents of all life stages and incomes can live and work. The Commission is beginning the process of developing a Regional Housing Plan to support coordinated efforts across the region to increase the affordability and types of housing available, while maintaining the character of Cape Cod.

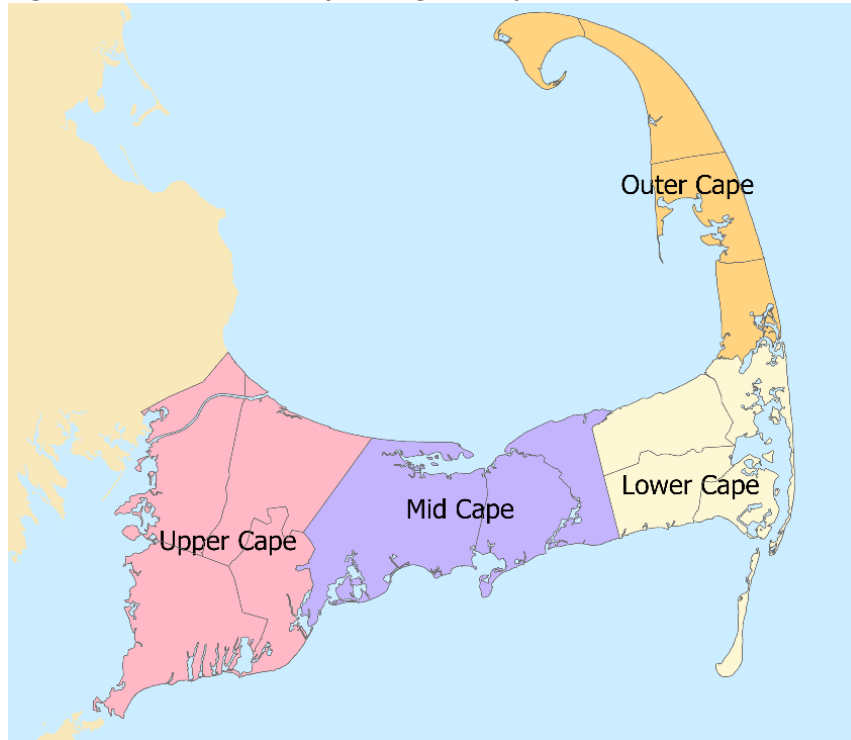
Attainable housing is a pressing issue in the region and is intimately linked with economic and community vitality. There was a surge in housing demand and housing costs during the COVID-19 pandemic. Pandemic-era changes in patterns of housing and commuting for workers and retirees have increased the crisis at a time of great economic inequality, with the potential to cause even more inequality. This is a historical moment, with issues of housing affordability affecting large swaths of people across the nation and the state, and even more so in places especially desirable to move to and spend time in, like Cape Cod. Housing prices recently skyrocketed, and both homebuyers and renters are impacted. Renters in particular struggle to find and afford housing. On top of these trends, interest rates have recently increased, which may cool prices but also put home purchases further out of reach for first time homebuyers. It is necessary for the region to come together to address these historic challenges.

Employment issues arise from high housing costs as well. A survey conducted by the Cape Cod Commission of business owners in November 2021 revealed that staff housing challenges were a part of the impacts on employers during the pandemic. Over a quarter of the responding businesses noted that they could not hire enough employees locally, and 12 percent were either entirely providing housing or subsidizing housing for their employees. Others noted the upward pressure on wages that housing costs are causing. It is a challenging situation for employers as well as residents on Cape Cod.

This report details challenges posed by the current housing situation and outlines future community needs. The findings particularly point to issues related to housing cost and availability, in particular for renters and other long-term residents of Cape Cod. The following report provides analysis in support of change.

## Geography of Cape Cod

**Figure 1 Barnstable County Subregion Map**



Source: MA GIS and U.S. Census

The Cape Cod region is synonymous with Barnstable County which contains 15 towns and can be divided into four main areas: the Upper, Mid, Lower and Outer Cape. The Upper Cape extends from the northern shore of the Cape Cod Canal to the western border of the town of Barnstable. Mid Cape extends east from that point to include the town of Dennis past which is the Lower Cape. North of the town of Orleans is the Outer Cape. **Table 1** below lists the towns that belong to each subregion. Throughout the report these subregions will be used to illustrate different patterns of housing activity in different areas of the county.

**Table 1 Barnstable County Towns by Subregion**

Upper Cape	Mid Cape	Lower Cape	Outer Cape
Bourne	Barnstable	Brewster	Eastham
Sandwich	Yarmouth	Harwich	Wellfleet
Falmouth	Dennis	Chatham	Truro
Mashpee		Orleans	Provincetown

## Approach and Methods

To assess current and future housing needs on Cape Cod, UMDI performed mixed-methods research that included: analyzing publicly available and proprietary secondary data, developing housing projections based on UMDI’s population projections for each region in the state, conducting a survey of residents, and holding two focus groups with business and municipal representatives. Collecting primary data was critical to this approach due to the unique challenges of the COVID-19 pandemic, which accelerated changes in the housing market, making it essential to gather insight from residents to provide information on the *current* housing conditions, to combine with data available on ongoing housing trends. Together, this information was synthesized into four major areas of analysis: 1. Housing availability, 2. Projections, 3. Housing cost and supply/demand, and 4. Unmet housing needs.

## Secondary Data

Secondary data was gathered from public and private sources, including the U.S. Census Bureau for Decennial Census data, American Community Survey Data (primarily 5-year ACS sets in order to be able to analyze at the town level), and commuting information based on administrative data gathered and linked by the Census Bureau and offered in their OnTheMap tool. Census data was supplemented with a plethora of other secondary data for analysis including data from:

- The Bureau of Labor Statistics;
- The U. S. Department of Housing and Urban Development, including Comprehensive Housing Affordability Strategy data;
- Massachusetts Department of Revenue Division of Local Services, some of which was a custom data pull to provide necessary detail;
- Cape Cod and Islands Association of REALTORS monthly and annual reports, which provided vital information on housing market trends;
- Massachusetts Office of Labor and Workforce Development, which provided employment data;
- Federal Housing Finance Agency modeled land price information shared by the United States Department of Agriculture.

The local Bureau of Labor Statistics Consumer Purchasing Index-Urban was used to adjust dollars in order to evaluate price trends.

The UMass Donahue Institute Population Estimates Program<sup>1</sup> provided their population and employment projections, which were produced for the Massachusetts Department of Transportation. Numerous additional public data sources were consulted throughout.

In addition to public data, analyses also drew on specific purchased proprietary data, most notably AirDNA for data on short-term rentals, and RS Means to model construction costs. We explored multiple alternatives to ACS data for municipal level rents and rental vacancy data; however, a scan of eleven possible proprietary and public sources for rental vacancy data returned no suitable alternatives due to the small and non-urban geography.<sup>2</sup> The affordability gap analysis drew on identical public sources and

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<sup>1</sup> The UMass Donahue Institute Population Estimates Program is Massachusetts' Federal-State Cooperative for Population Estimates (FSCPE) partner with the Census Bureau that works with the Bureau to produce the official population estimates for each municipality and county in Massachusetts and the state as a whole.

<sup>2</sup> The following eleven sources did not have the coverage needed for the region at the time the analysis was conducted: Axiometrics (only contained 7 cases on Cape Cod); REIS (does not include Cape Cod); Zillow (does not include Barnstable County prior to February 2022); Co\*Star and Apartments.com (only has buildings with more than five housing units); AirDNA (only has data from short-term rental listings); Warren Group (no rental vacancy data); CoreLogic Case-Schiller (no rental vacancy data); Cape Cod and Islands Association of REALTORS monthly and annual reports (no rental vacancy data); Census Housing Vacancy Survey/Current Population Survey (state level is the smallest level of geography); DOR Short-Term Rental Data (does not contain data on year-round rentals); Apartment List (does not include Cape Cod).

proprietary data as the same component conducted in the prior study<sup>3</sup> in order to ensure comparability of results for use in a long trend.

### ***Challenges with Using Census Data on Cape Cod***

Decennial and ACS Census data is based on residents, but Cape Cod, as a vacation destination for second homeowners and tourists, has additional use of its housing, municipal services, transportation, water and other infrastructure and amenities, such as stores and restaurants. Like other regions with seasonal activity, this means data on residents does not capture all that the region and its municipalities need to expect and plan for—they must account for use by people beyond the resident population. In addition, Census data reflects an earlier period due to lag and due to sampling requiring a 5-year data set to obtain town-level data. Lastly, in smaller geographies and with specific measures, such as number of rental units or seasonal vacancy in some towns, small sample sizes lead to large levels of variance in the estimates of certain phenomena, leading to wider ranges of possible values around the estimates. However, Census data remains the most comprehensive, complete and reliable source of data available in the region on many important social and economic issues related to housing, and provides information at the local and regional levels otherwise unavailable for this study. As noted, in addition to Census ACS data, many other sources have been brought in to complement and shed light on the actual situation and context of housing needs on the Cape.

### **Survey**

To gather data that was both recent and well-focused, the UMDI research team, in collaboration with the Cape Cod Commission, designed a survey questionnaire to understand the housing challenges facing residents of Cape Cod (see: **Appendix: Survey Questionnaire**). The survey used a random sampling design, which allows us to estimate the prevalence of certain housing related concerns, needs, and challenges facing residents. The margin of error for the survey is plus or minus 4.6 percent. Throughout the report we compare sub regions of the Cape and in some instances, we compare subpopulations (e.g. renters and owners), for these comparisons we conducted statistical significance tests, either chi-square test for categorical variables or means tests when comparing continuous measures. For all statistical significance testing where we compared subregions and other subgroups we used a 95 percent confidence interval, in other words a p-value of less than 0.05. Full methods are described in **Appendix: Survey Method**. Topics covered in the survey included:

- Housing tenure;
- Current housing characteristics;
- Housing stability and affordability;
- Factors that inform residents housing decisions;
- Satisfaction with current housing; and
- Employment status and demographics.

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<sup>3</sup> Regional Housing Market Analysis and 10-Year Forecast of Housing Supply and Demand, Barnstable County, Massachusetts, June 30<sup>th</sup> 2017, <https://www.capecodcommission.org/our-work/housing-market-analysis/>



## Focus Groups

During the two-day 2022 OneCape Summit the study team held two 90-minute focus groups. The first focus group included fourteen key informants, primarily private-sector employers. The second brought together ten municipal leaders from across the region. The questions focused on how the housing market has affected business and employers across the region. The focus groups were recorded and notes and audio recordings were reviewed and analyzed to identify key themes.

## Projections

To create a housing supply and demand projection, this report utilizes projections for population and employment created statewide for all the Massachusetts regions by UMDI on behalf of the Massachusetts Department of Transportation. The population and employment projections are taken directly from that project. The housing supply and demand projection was made based on the population projections data. The population, housing and employment projection models extend historical trends on a focused set of factors. The housing projections methods are described in **Appendix: Housing Unit Supply and Demand Projections**. Additional details on an alternative high-series projection, which depends on the increase in population that occurred in 2020, and assumes those trends would continue at the same rate into the future, can be found in **Appendix: High-Series Projections**. It contains data on the results of the high-series population projection effect on housing unit supply and demand projections.

## Report Contents and Structure

This assessment of housing needs on Cape Cod has four topics divided into four sections, as follows:

1. The crisis of housing availability on Cape Cod with an understanding of some of the relevant unique features of the region;
2. Projections of population and employment, to provide the data and context for demand for rental and owned housing, with contextual information about the population and economy;
3. Housing supply and demand for renters and owners, including:
  - a projection of housing supply and demand, modeling the ongoing housing availability crisis in the future, with detail on seasonal and year-round housing;
  - the housing cost crisis compared to incomes, with an exploration of housing cost burden for renters and owners as well as housing market trends; and
  - the affordability gaps and cost mismatch between available housing affordable at specific income levels and the amount of need for housing at those prices.
4. A concluding summary reflecting the effects of unmet housing needs on Cape Cod and identifying needed change.

## Cape Cod's Housing Availability Crisis

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The Cape Cod region of Massachusetts is physically, demographically and economically distinct from the rest of the Commonwealth. This section details the special qualities of Cape Cod relevant to its housing, drawing on socioeconomic and housing data from primary and secondary sources. Where available and appropriate selected detail by municipality and the subregion is provided in the section and in related Appendices. Cape Cod's draw based on its natural features and the region's standing as a vacation destination have contributed to its seasonally-influenced economy, local demographics, and the unique housing circumstances of the area. Recently, the effects of the pandemic have also exacerbated the inequality and housing pressures.

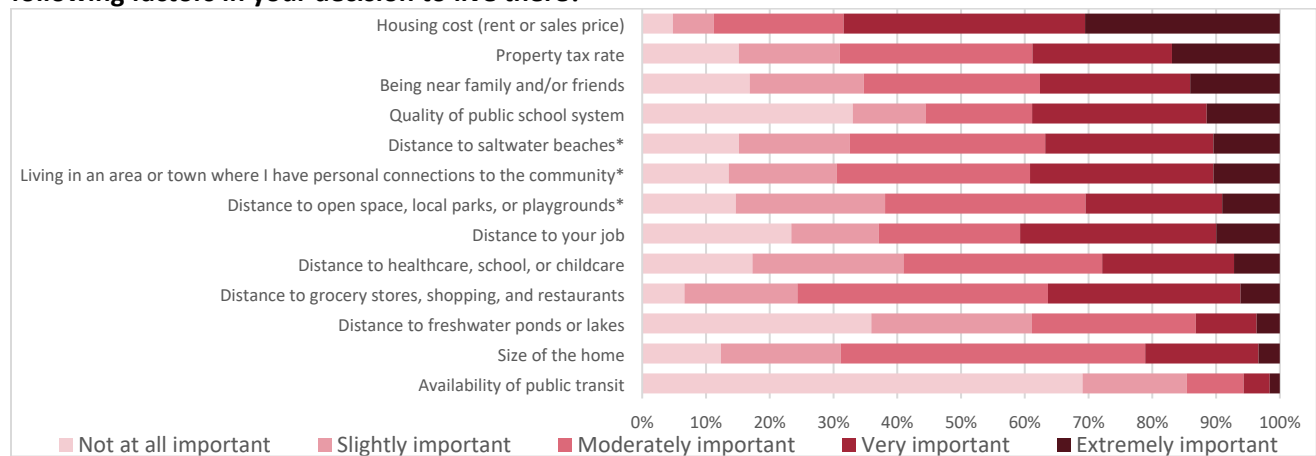
### Unique Qualities of Cape Cod

With beautiful ocean and bay beaches, ponds, and other special natural areas, Cape Cod has been a vacation destination since the 1930s. The natural beauty and unique coastal environment found across Barnstable County attract visitors and retirees from the northeast region of the United States and beyond. Alongside long-time residents and seasonal workers, vacation homes and short-term rentals are common, and the economic activity in the region is more heavily weighted toward tourist-serving and seasonal industries than Massachusetts is overall. This creates unusual dynamics in the housing market as well as demographics and patterns of residence in the region. New work and retirement patterns during the pandemic added to these phenomena, increasing inequality.

As a coastal vacation and retirement destination, the beaches of Cape Cod are highly relevant to resident and second home housing choices.

In the Cape Cod resident survey conducted in October 2022, housing cost was by far the most important factor when determining where to live, with 79 percent of residents indicating that the rent or sale price was "Extremely" or "Very" important. Of the other responses related to housing costs, property tax rate was also seen as an important factor, with nearly four-in-ten (39%) of respondents indicating that it was "Very" or "Extremely" important. Other factors of high importance were distance to your job (41%), being near family and friends (38%), quality of public schools (39%), distance to saltwater beaches (37%), and personal connections to the community (39%). Availability of public transportation was seen with the least importance, with only 6 percent of respondents viewing it as "Very" or "Extremely" important in their decision to live in their current residence.

**Figure 2 Please consider your current or most recent home on Cape Cod, how important were the following factors in your decision to live there?**



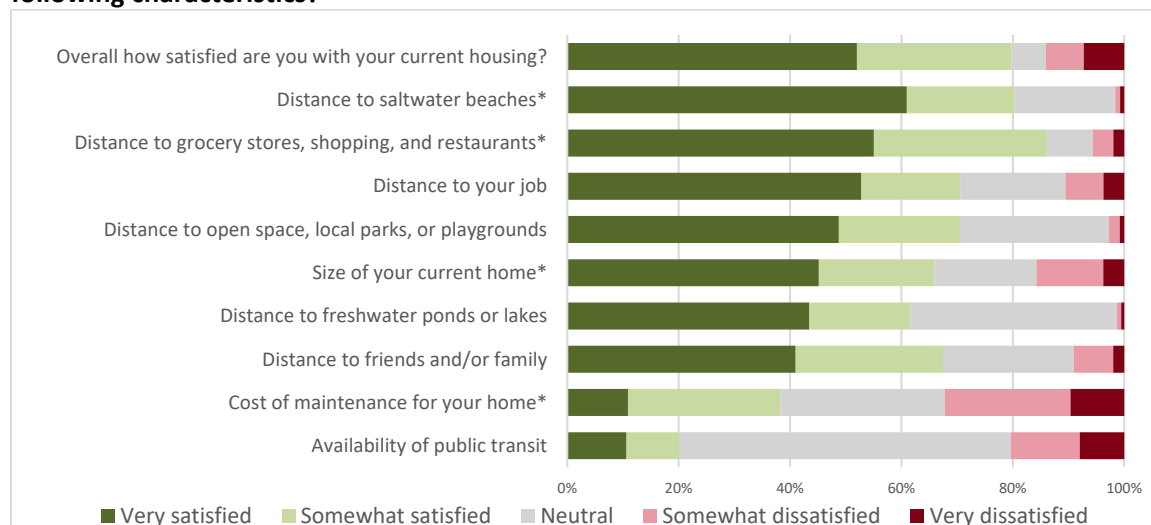
Source: Cape Cod Residents Survey 2022.

Note: Chi-squared tests were used to test for statistically significant differences across subregions of the Cape. “\*” indicates a statistically significant sub-regional differences at a p-value of 0.05 or lower (See Appendix: Survey Tables, Table 41).

### Satisfaction with Current Housing

Overall, respondents are satisfied with their current housing; only 14 percent of respondents indicated that they are “Somewhat” or “Very” dissatisfied. Housing related costs were again the biggest issue, with approximately one-third (33%) of respondents indicating they are “Somewhat” or “Very” dissatisfied with the cost of maintaining their home (see Appendix: Survey Tables, Table 45).

**Figure 3 Consider your current or most recent home on Cape Cod, how satisfied are you with the following characteristics?**



Source: Cape Cod Residents Survey 2022.

Note: Chi-squared tests were used to test for statistically significant differences across subregions of the Cape. “\*” indicates a statistically significant sub-regional differences at a p-value of 0.05 or lower (See Appendix: Survey Tables, Table 45).

Relative to the overall satisfaction with respondents' current housing, the most important characteristic was distance to grocery stores, shopping and restaurants, followed by distance to saltwater beaches. Respondents were particularly dissatisfied with the availability of public transit, followed by the cost of home maintenance. Of the respondents who are dissatisfied with the size of their current home, 95 percent preferred to live in a larger home (see Appendix: Survey Tables, **Table 50**).

## **Demographic Summary**

Demographically, while the region has similarities with Massachusetts as a whole, there are some key differences. The high share of the population that is retired is reflected in the relatively older population (see: **Figure 15**). In addition, the desirability of the region and the limited supply of housing and developable land has contributed to high and increasing property values. In turn, the high housing prices have made the Cape difficult to afford for many, likely contributing to the demographic profile of the area as a relatively older, highly educated, affluent, primarily white, non-Hispanic region, when compared to the Commonwealth as a whole. For more detailed demographics with tables and charts, see the **Demographics** section of the report and the **Appendix: Detail on Race and Ethnicity**.

## **Socioeconomics**

### **Increasing Inequality**

Economic inequality came out in focus groups as a factor contributing to the erosion of housing available for individuals and families that live and work on the Cape year-round. One employer and former elected official put it bluntly: "*[Cape Cod is] an area that has the most obvious and greatest gap of wealth and income, glaring, that basically depends on a low wage economy, which is hospitality.*" Intergenerational wealth and increasing concentration of wealth in the Boston metro area were perceived as driving up demand for second homes on the Cape. Focus group attendees related multiple stories of how the high cost of housing undermines business's ability to serve those visiting or living on the Cape. Businesses are closing on days they had previously been open due to staffing shortages and even efforts to pay service workers relatively high wages, e.g. \$30 per hour for food services, are not enough to retain staff because they cannot secure long-term and affordable housing. One employer summarized the conversation by saying: "*We're talking about an economy that is driven by extreme wealth and then we're wondering why people, regular people and especially people at the lower economic scale can't function in that economy.*"

Findings from the survey reinforce the housing pressures reflected in the secondary data and focus group data and illustrate how strongly these trends are currently impacting Cape Cod residents. Cost and affordability were repeatedly critical factors in housing choices and issues for resident respondents to the survey, particularly for renters, who reported pronounced widespread issues with affording and retaining their housing, causing serious issues for housing stability. These themes played out again and again over the survey responses and were a through thread even in questions related to general sentiment and preferences. Over 60 percent of renters responding to the survey are worried they might

not have stable housing in the next year, and nearly 80 percent of renters that moved did so because the housing they were in was no longer available to them. At the same time, 42 percent of renters responding to the survey said their housing is not affordable to them, with 28 percent of owners saying the same. However, it appears that affordability is a more critical issue for renters, as 40 percent of renters said they had trouble paying their housing costs in the past 12 months compared to only five percent of owners. The unique qualities of the Cape make it a very desirable place to live, work, and play particularly during the pandemic when remote work opportunities increased, and open space became more desirable. The challenge is that housing prices are now so high they may threaten the region's ability to retain a workforce and year-round residents.

### ***Housing Crisis' Effects on Attracting and Retaining Workers***

The shortage and high cost of housing has impacted employers' ability to attract and retain workers. Employers reported offering assistance in many forms: down-payment assistance, purchasing workforce housing, and providing emergency assistance to families experiencing homelessness. These efforts, while noteworthy, are inadequate to address the need. Furthermore, they are out of reach for most businesses, especially new businesses and small businesses. One employer stated:

*"...it really impacts our talent attraction and our growth.... I'm going to have to build or obtain housing, through various lease agreements. I have a whole housing committee. First thing I did, the first week I started was get a housing committee going with my ward and with my staff to solve this problem. Because it's going to affect our ability to grow, to bring in new projects to bring in blue economy jobs."*

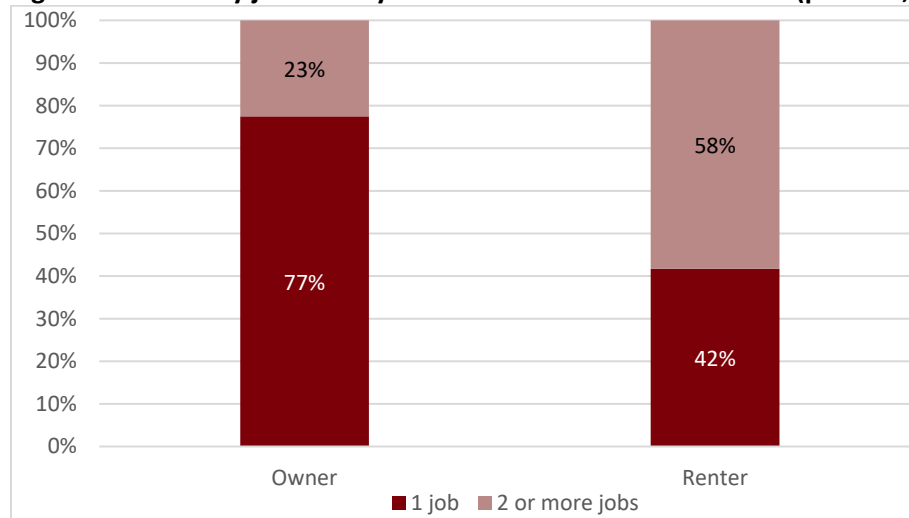
Towns on the Outer Cape reported offering other benefits to reduce overall costs for their employees, such as free or highly subsidized childcare.

### ***Seasonal and Year-Round Employment***

Many of Cape Cod's businesses that cater to tourists and part-time residents are open only during the summer season or are open for extended hours during the peak vacation season. The housing crisis has impacted both employers and seasonal employees. Survey, focus group, and Census data reveal that Cape Codders across the socioeconomic spectrum are impacted by the housing crisis; however, renters are more heavily impacted than owners, a theme evident throughout this analysis, including in the following data collected on seasonal and multi-job employment.

Survey results showed that on Cape Cod, renters are more likely to hold seasonal employment and more likely to work multiple jobs over the course of the year. Overall, of employed respondents 71 percent held a single job in the last 12 months, while 29 percent held 2 or more positions (see Appendix: Survey Tables, **Table 64**). However, over half of employed renters (58%) held two or more jobs in the past year (**Figure 4**).

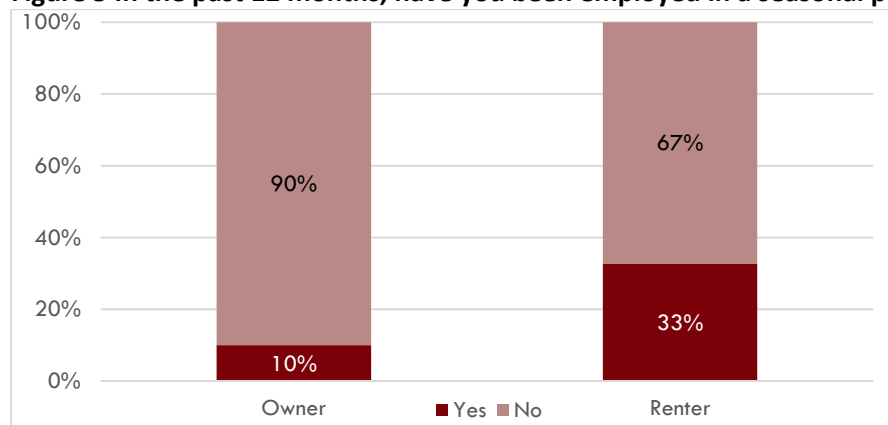
**Figure 4 How many jobs have you held over the last 12 months? (p=0.001, n=445)**



Source: Cape Cod Residents Survey 2022.

Overall, across all respondents, regardless of their homeownership or renter status, only 14 percent held a seasonal position in the past year (see Appendix: Survey Tables, **Table 63**), though employed renters were more likely than employed homeowners to have worked a seasonal position (33% vs. 10%) (**Figure 5**).

**Figure 5 In the past 12 months, have you been employed in a seasonal position? (p=0.008, n=445)**



Source: Cape Cod Residents Survey 2022.

The increased seasonal employment among renters likely necessitated holding multiple positions during the year. It also likely contributes to the increased uncertainty about future housing security expressed in the survey. Employers in focus groups expressed concern over the shortage of housing for seasonal employees and the difficulty in finding seasonal employees who can afford housing on the Cape during the peak season.

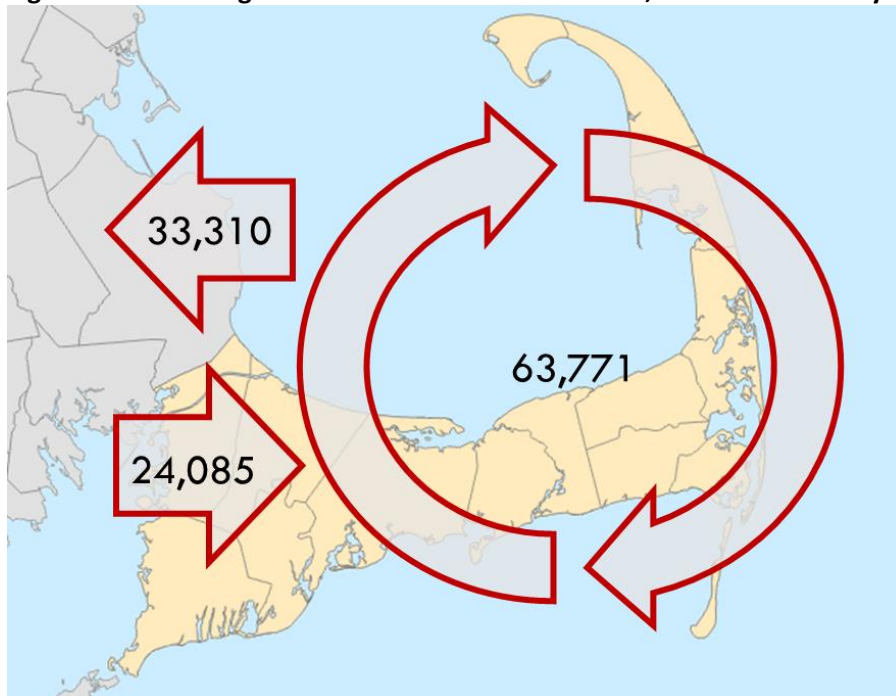
## Retirees

Cape Cod has a high proportion of retiree residents, with 30 percent of the county population 65 years of age or older, compared to only 17 percent statewide.

While six-in-ten survey respondents (61%) are employed full or part-time, approximately one-third (33%) are retired. The remaining respondents were students who are not working (<1%), unemployed and looking for work (1%), unemployed and not looking for work (1%), not able to work (3%), or preferred not to answer (2%) (see **Appendix: Survey Tables, Table 60**).

## Commuting

**Figure 6 Commuting: Inflow and Outflow of Workers, Barnstable County**



Source: U.S. Census Bureau, OnTheMap, All Jobs, 2019.

Note: In the OnTheMap data, the 2019 data was the most recent available at time of analysis in 2022.

OnTheMap uses job counts, not person counts, so two or more jobs in these values may be worked by the same person.

The majority of workers on Cape Cod also live on the Cape. In 2019, the most recent detailed administrative data available on workers and their work location, 73 percent of Barnstable County's nearly 88,000 jobs were held by residents. The largest share, over 63,700 workers, both worked and resided inside the county, while over 24,000 workers lived outside of Barnstable County but held jobs at Cape Cod firms. Meanwhile, 33,310 workers lived in the county and worked for employers off Cape, so most both lived and worked on-Cape (see **Appendix: Commuting Data Tables**,

Table 91). This data reflects pre-pandemic behavior, since the most recent available information linking workers to their places of residence is, as stated, from 2019.

It is likely that some of the workforce and residents have changed since that time for which administrative data is available (2019). The nature of commuting for some workers has undoubtedly changed since the pandemic began. Many workers, especially those in white-collar jobs, were newly able to telecommute in 2020. As offices and other workplaces reopen, and the data on commuting is collected, it remains to be seen to what extent the changes to commuting patterns are permanent. The link to housing does not just concern where people work, and where they choose to move as new residents, but also motivated an inflow of residents who previously lived off-Cape and began occupying their second homes during the pandemic as their new primary residences. These newly-year-round residents may also have increased the number of workers living on Cape Cod who are working for employers headquartered elsewhere.

Data from the ACS about workers' travel is available and shows a marked increase from 2019 to 2021 in working from home, while bridge traffic shows a drop and then a recovery which may relate to workers but also includes recreational and household trips.

Working from home is tracked in the means of transportation to work data in the ACS as shown in **Table 2**. The most recent available data, 2021, shows a large increase in the share of workers on Cape Cod working from home. It is a smaller increase than in the state overall, but 18 percent of workers on Cape Cod, over 20,000 people, worked from home as of 2021, out of 111,000 workers in the region overall. This is increase of over 12,000 workers, up from just under 8,000 workers (7.4%) in 2019. Since 2022, some employers have required workers to return to the office. As a result the amount and share of workers working at home may decline, though it is unlikely the share of remote workers will return all the way down to pre-pandemic levels. In UMDI's survey of year-round residents, 17 percent of employed respondents reported working remotely most of the time and an additional 18 percent reported working in a hybrid situation, suggesting that at least in the short-term remote and hybrid work remain common (**Table 61**).

**Table 2 Means of Transportation to Work**

Means of Transportation to Work	Barnstable			Massachusetts		
	2019	2021	Percent Change	2019	2021	Percent Change
<b>Workers 16 Years and Over:</b>	<b>106,845</b>	<b>110,944</b>	<b>4%</b>	<b>3,637,191</b>	<b>3,525,906</b>	<b>-3%</b>
Car, Truck, Van or Motorcycle	93,504	86,379	-8%	2,798,852	2,320,981	-17%
Worked At Home	7,952	20,241	155%	197,999	835,999	322%
Bicycle, Walked and Other Means	3,267	3,906	20%	249,270	198,344	-20%
Public Transportation (Incl. Taxicab)	2,122	418	-80%	391,070	170,582	-56%
<b>Worked At Home, Change</b>	<b>12,289</b>			<b>638,000</b>		
<b>Worked at Home, Share Increase</b>	<b>11%</b>			<b>18%</b>		

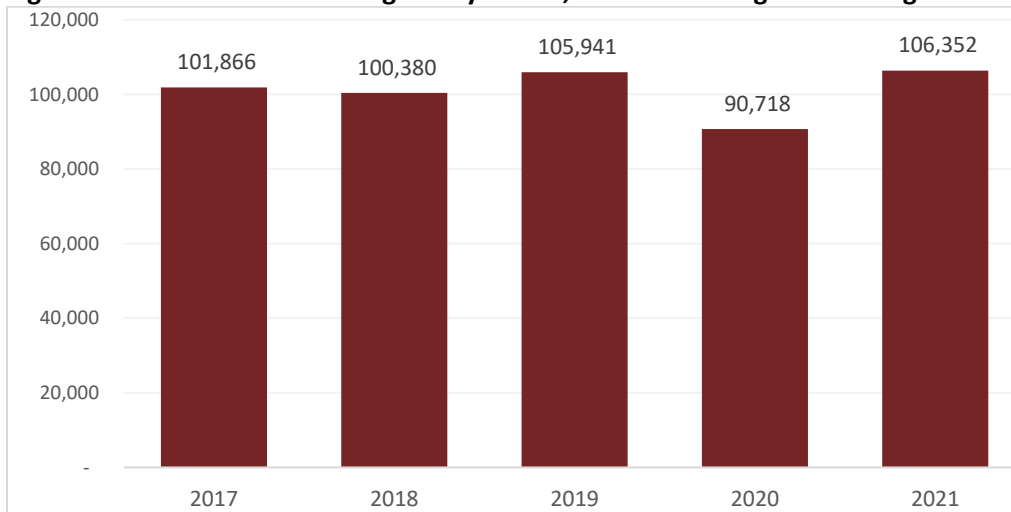
Source: U.S. Census ACS 1-YR, 2019 and 2021

Note: the 2020 1-YR ACS is an experimental product and data on this measure was not made public, so that year is not included.



A modulation to the initial change in commuting and travel patterns is supported by analysis of all MassDOT-measured bridge traffic across the Sagamore and Bourne bridges. Annual average daily traffic reflects trips for all purposes across the bridges. This data shows a 14% drop in 2020, followed by a recovery to a similar level of annual average daily bridge activity in 2021 to the 2019 volume. Because these trips include travelers/tourists, domestic trips, commercial activity and commuters all together, a precise understanding of commuting changes is not possible from this data but the overall trend implies that 2021 may have picked up close to where 2019 left off for workers and others' travels.

**Figure 7 Trend in Annual Average Daily Traffic, Bourne and Sagamore Bridges**



Source: MassDOT, Annual Average Daily Traffic, Sagamore + Bourne, 2017-2021.

The ongoing or changing nature of the trends will be more clear when 2022 data becomes available on Annual Average Daily Traffic in the MassDOT Transportation Data Management System and especially the 2022 ACS Mode of Transit to Work. For additional data on commuting and working from home on the Cape comparing pre-pandemic to more recent residents, also see **Figure 10 Work Location of Pre- and Post-Pandemic Arrivals**, in the following section on pandemic effects.

## Pandemic Effects

Numerous stakeholders observed changes during the pandemic, including people moving into their second homes and making it their primary homes, increased inequality, and more people present who are working remotely. Only the information gathered recently can capture this period, so survey and focus group data were analyzed to understand some of the new phenomena related to housing transpiring on Cape Cod during the pandemic.

In focus groups with employers and municipal leaders, there was unanimous agreement that the region is experiencing a housing crisis and that the pandemic accelerated pre-existing trends. One employer stated:

*“At our health center, there are individuals that before the pandemic were just scraping by, to make it paycheck to paycheck quite frankly. And now the whole bottom has fallen out from a housing standpoint, three of our employees alone have gone homeless in some form or fashion. And of course we have resources and we’ll help those individuals but that doesn’t take care of everyone in the economy and we see the same thing in our patient base as well.”*

### **Arrivals Since the Pandemic Began**

Due to increases in the availability of remote or hybrid work opportunities and early retirement, there has been an increase in individuals moving to the Cape to live year-round. Some are converting their second homes to primary homes, others are purchasing new homes. In addition, the increased demand for housing has led to long-term rentals leaving the market because owners see an opportunity to increase the return on their property by selling it or converting it to a short-term rental.

In 2021 UMDI conducted a survey of new homeowners (those who had purchased a home on the Cape between April 2020 and May 2021) for the Cape for the Commission.<sup>4</sup> The survey study found that most “new” homeowners (52%) had previously owned property on the Cape or a member of their immediate family had. Forty-eight percent had never owned property on the Cape. The mean age of new homeowners was 59 and their household size was 2.3 people. Just over one-third of new homeowners indicated that the pandemic had influenced their decision to purchase a home on the Cape, of those most indicated that they had previously considered purchasing a home on the Cape, but that the pandemic had influenced their decision to buy that year. A smaller share indicated that had not considered purchasing a home (or an additional home) on the Cape until the pandemic. Of employed survey respondents, 60 percent anticipated that they would be working in remote- or hybrid-situations for at least the next six months. Ninety percent of respondents indicated that they had used or were planning to use the home as their primary residence or would convert it to their primary residence in the next 20 years. However, in the next year only 40 percent planned to use their home as their primary residence or convert it to their primary residence, this was down from 53 percent who reported using or converting their homes to their primary residence in the prior year. This high rate of interest in living full-time on the Cape suggests that the majority of new homeowners will be using public services year-round and contributing to the community as residents at some point in the next two decades.

The 2022 resident survey offers insight as well. Changes in the makeup of residents transpired during the pandemic as well. Survey respondents were analyzed in two groups to create a profile of new arrivals and potential differences in their demographic characteristics. The two groups were defined as pre-pandemic (those who have lived on Cape Cod full-time since before 2020) and post-pandemic (those who began living on Cape Cod full-time in 2020 or later). As a result, the term ‘post-pandemic’ is used to indicate people who moved to Cape Cod after the pandemic began. This allows for a profile of new arrivals and their potential differences in demographic characteristics. The post-pandemic group contains both residents who are new to the Cape entirely, and those who formerly lived on-Cape part-time but converted to full-time during the pandemic. These two sub-groups were combined due to low

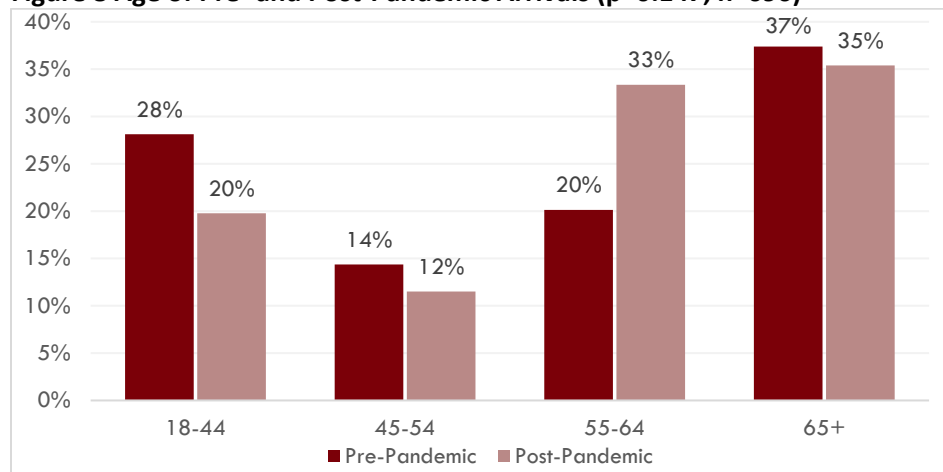
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<sup>4</sup> Cape Cod New Homeowners Survey – 2021: <https://www.capecodcommission.org/our-work/new-homeowner-survey/>

counts in our sample compared to the pre-pandemic population, of 635 pre-pandemic and 72 post-pandemic arrivals.

There were no significant differences between those who moved pre- and post-pandemic when we compared age and employment status. Forty-two percent of post-pandemic arrivals are retired, compared to 31 percent of pre-pandemic arrivals. The percentage of both cohorts who are over 65 is similar (37% pre vs. 35%), and a higher percentage of post-pandemic arrivals are in the 55-64 age range (20% pre vs. 33%) (**Figure 8**).

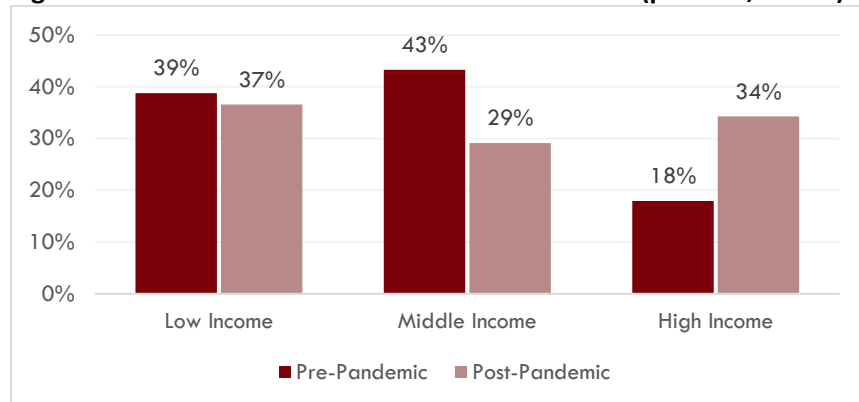
**Figure 8 Age of Pre- and Post-Pandemic Arrivals (p=0.147, n=696)**



Source: Cape Cod Residents Survey 2022.

The average monthly housing cost for respondents who moved in 2020 or later and purchased a home with a mortgage, was nearly 20 percent more per month than those who purchased a home with a mortgage prior to the pandemic, though the difference was not statistically significant. The post-pandemic group reported significantly higher income, with 34 percent falling in the “high income” bracket (\$150,000 per year income or higher) compared to only 18 percent of respondents who lived full-time on the Cape pre-pandemic (p=0.011; see **Table 78**). This difference is further reflected in the greater proportion of post-pandemic arrivals who find their housing affordable (62% pre vs. 77% post), despite new arrivals facing similar or housing costs (p=0.034).

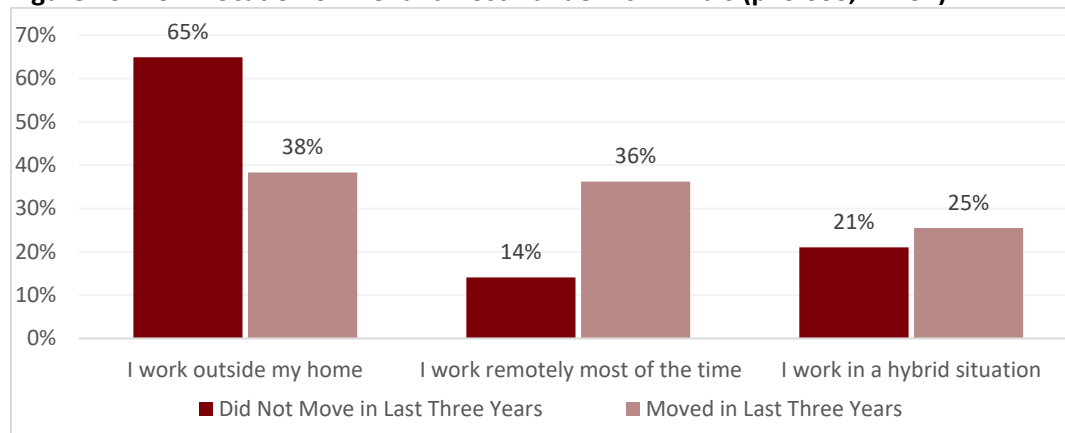
**Figure 9 Income of Pre- and Post-Pandemic Arrivals (p=0.011, n=659)**



Source: Cape Cod Residents Survey 2022.

The post-pandemic cohort is more highly educated than the pre-pandemic cohort, with 72 percent holding a bachelor's degree or higher compared to 42 percent (p=0.000). Survey results also support the idea that the influx of residents was driven in part by remote workers, as 36 percent of respondents who moved on Cape in 2020 or later worked remotely, compared to 14 percent of those who moved on Cape pre-2020 (p=0.000; see Appendix: Survey Tables, **Table 61**).

**Figure 10 Work Location of Pre- and Post-Pandemic Arrivals (p=0.000, n=432)**



Source: Cape Cod Residents Survey 2022.

### **Remote vs. In-Person Work**

For all the survey respondents, the new prevalence of remote work due to the pandemic, particularly for white collar workers, may have changed their site of work, potentially changing their relationship to being on the Cape. Analysis of all the respondents who indicated they are currently employed shows 65 percent of those employed respondents still mostly work outside of their home at their place of employment. Eighteen percent of those respondents are on a hybrid schedule, and 17 percent are fully remote most of the time (see Appendix: Survey Tables, **Table 61**). Eighty-three percent of all employed respondents said they work at a business located on Cape Cod, with Barnstable (20%) and Falmouth

(17%) being the most common primary work locations, and 17 percent work for a business located off Cape (see Appendix: Survey Tables, **Table 62**).<sup>5</sup>

## Specialized Cape Cod Housing Uses

This section provides some information on certain key housing circumstances on Cape Cod which differ in intensity from other parts of the state. This section starts with an examination of second homes obtained in a 2021 study of the region,<sup>6</sup> followed by information on other important uses of housing which are also uniquely common or sparse on Cape Cod. These housing uses include second homes and short-term rentals, which are much more common on the Cape than in the rest of Massachusetts, as well as multifamily housing, which is much less common. Each of these aspects of housing use have become important factors in the housing market in Barnstable County.

### *Second Homes*

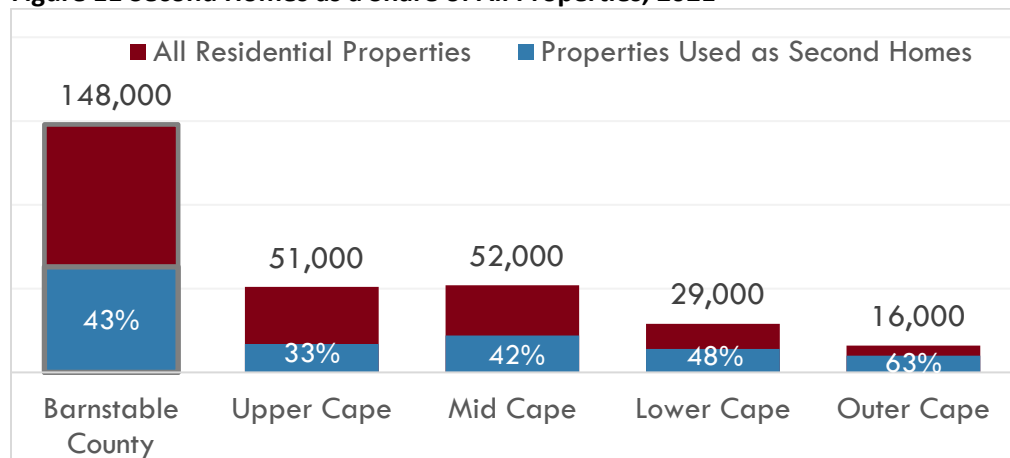
Information from the 2021 Cape Cod Second Homeowners Survey as well as stakeholders and focus group participants indicates that second homes are unusually common on Cape Cod. Home Mortgage Disclosure Act (HMDA) data on all mortgages analyzed by the Cape Cod Commission shows the share of home loans for residences designated as the principal residence of the borrower has ranged in recent years between about half and two-thirds of home purchase loans, while second homes have represented nearly a third—down in proportion from the late 2010s but still a sizable share. In addition, mortgage holders of second homes tend to be older on Cape Cod, which could increase the population without increasing the birth rate, but if the trend holds, could represent a steady influx of residents not modeled in UMDI’s MassDOT residential population projections. If more people convert their second homes to primary residences and a smaller share of home purchases are for second homes the year-round population would increase. Local leaders report that many people moved into their second homes during the pandemic and declared their intent to make that residence their primary dwelling. Analysis by the Cape Cod Commission of U.S. Postal Service data on moves shows a net loss of Cape Codders notifying the post office of their change of address in 2018. However, these losses slowed to nearly zero in 2019, and a few thousand net movers to Cape Cod addresses from outside the region declared the change permanent in 2020. While some of these movers may be renters or people buying homes, others may have been those transitioning into their second homes and making them primary. Below, data gathered on the share of second homes from a property record analysis for a study conducted by UMDI in 2021 illustrates what an unusually large share of residential properties that second homes represent on Cape Cod.

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<sup>5</sup> This population differs from those measured by the OnTheMap data shown in the commuter section because the survey included self-employed people.

<sup>6</sup> Cape Cod Second Homeowners Survey - 2021: <https://www.capecodcommission.org/our-work/second-homeowner-survey/>

**Figure 11 Second Homes as a Share of All Properties, 2021**



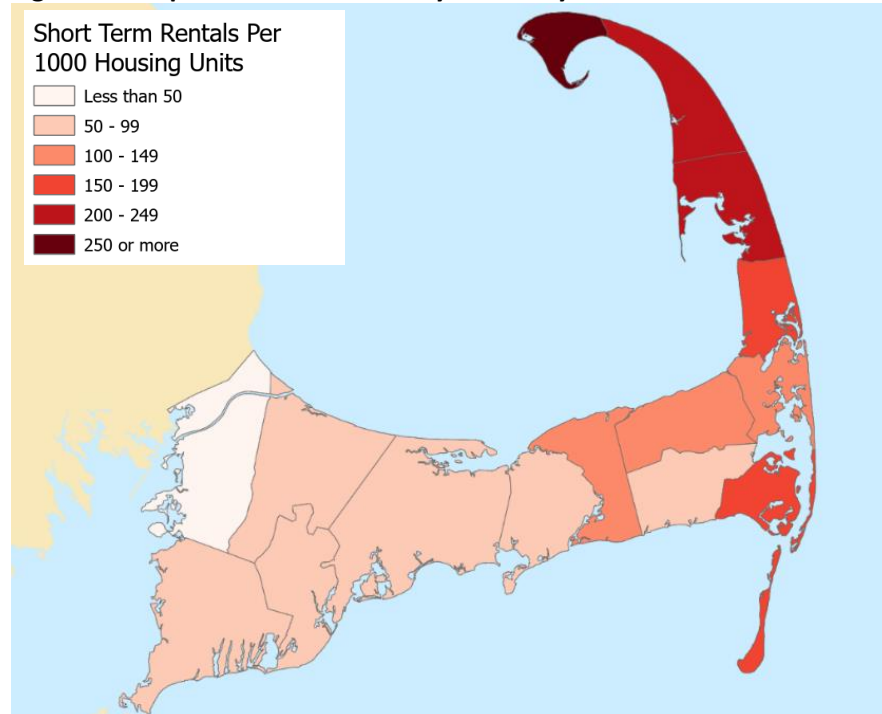
Source: Residential Property Records compiled by the Cape Cod Commission in fall 2021.  
 Note: Any individual property record may contain multiple housing units.

This figure shows the percentage of second homes in each Cape Cod subregion based on property records. Second homes are an especially large proportion of homes in the region and a majority on the Outer Cape. These second homes can remain unoccupied for large portions of the year. However, as noted above, stakeholders report that many people moved into their second homes during the pandemic and planned to remain there as their primary residence.

### **Short-Term Rentals**

Short-term rental housing is a longstanding part of the housing picture on Cape Cod. Renting summer homes and apartments to visitors for short periods of time for their Cape vacations is a livelihood for many Cape Cod residents, and for others, these arrangements are part of how they can afford their mortgages to live on Cape Cod year-round, with short periods of time away. This has been a part of life and an aspect of the housing market in Barnstable County since long before Airbnb and other online listings existed, though over the years it has increased. There is overlap across many of the housing uses: sometimes the units used for short-term rentals are second homes, sometimes housing which is used for year-round housing most of the time is rented out when the resident is elsewhere, for short or long stretches, or they can be short-term rentals of housing which is not utilized for any other purpose, which may or may not be seasonally vacant. Short-term rentals are one of several reasons for seasonal vacancies (another of which is any second homes not put into use in short-term rental arrangements). However, a sizeable share of the seasonally vacant housing on Cape Cod, particularly on the Outer Cape, does stand vacant in the off season because it is used exclusively for short-term rental housing.

**Figure 12 Map of Barnstable County Towns by Short-Term Rental Density**



Source: Massachusetts Department of Revenue, Public Registry of Lodging Operators, and U.S. Census Bureau, ACS 5-YR, 2016-2020.

Short-term rental data was obtained from the Massachusetts Department of Revenue (DOR).<sup>7</sup> The DOR maintains a registry of short-term rentals that contains the location of all registered short-term rental properties active in the region. For tax purposes, short-term rentals are rentals for less than 31 days. All short-term rental properties are required to be registered, though those that are rented out for 14 days or fewer seek a tax exemption from DOR. In addition to the location of registered short-term rentals, the dataset also provides information on the taxes generated. Proprietary data was obtained from AirDNA to get further insight into the intensity, prevalence, and daily rental rates of short-term rentals on Cape Cod. The AirDNA dataset contains property-level information on rental frequency and rates of short-term rentals listed on Airbnb and VRBO. While this is only a portion of the whole market, analysis of the dynamics and incentives for this subset of short-term rental listings is relevant and timely in understanding incentives for property owners.

**Figure 12**, above, maps the density of short-term rentals (STRs) compared to overall housing stock. Lower Cape, and especially Outer Cape, have the greatest density of short-term rentals as a share of their housing. Provincetown stands out as having the highest density, with 287 short-term rentals for every 1,000 housing units. This suggests that over one in four housing units in Provincetown are being used for short-term rentals either through an online listing or app, word of mouth, or through a real estate agency. Not all short-term rental activity removes the unit from other use, however. As a

<sup>7</sup> The Massachusetts Department of Revenue collects data on all lodging operators in the state subject to the room occupancy excise tax. This applies to room rentals of 90 days or less in hotels, motels, bed and breakfast establishments, and lodging houses. Beginning July 1, 2019, the room occupancy excise also applies to short-term rentals of property for 31 days or less.

percentage of total housing stock, as much as 29 percent of housing units in Provincetown are used as short-term rentals, although some of these registered STRs are rooms, not full housing units. Density falls gradually from Provincetown toward the mainland, to 190 units per thousand in Eastham, and 172 STRs per thousand housing units in Chatham, still quite high. The rest of the Cape has lower density than the Outer and Lower regions, with Bourne having the lowest density of STRs in the whole region with 30 per 1,000 housing units--around three percent of total housing stock.

**Table 3 Lodging Operator Registrations by Type, August 2022**

Geography	Bed and Breakfast	Hotel and Motel	Lodging House	Short-Term Rental (STR)	Housing Units	STR as Share of Housing
<b>Upper Cape</b>	<b>33</b>	<b>94</b>	<b>44</b>	<b>2,638</b>	<b>53,713</b>	<b>5%</b>
Bourne	9	11	8	352	11,590	3%
Falmouth	11	49	25	1,205	21,988	5%
Mashpee	6	15	6	568	10,239	6%
Sandwich	7	19	5	513	9,896	5%
<b>Mid Cape</b>	<b>35</b>	<b>190</b>	<b>54</b>	<b>4,281</b>	<b>59,499</b>	<b>7%</b>
Barnstable	12	52	17	1,311	26,666	5%
Dennis	9	55	22	1,890	15,831	12%
Yarmouth	14	83	15	1,080	17,002	6%
<b>Lower Cape</b>	<b>29</b>	<b>79</b>	<b>49</b>	<b>3,867</b>	<b>31,988</b>	<b>12%</b>
Brewster	8	14	15	974	8,291	12%
Chatham	6	26	14	1,290	7,513	17%
Harwich	8	26	16	890	10,502	8%
Orleans	7	13	4	713	5,682	13%
<b>Outer Cape</b>	<b>29</b>	<b>152</b>	<b>51</b>	<b>4,281</b>	<b>18,864</b>	<b>23%</b>
Eastham	7	22	14	1,186	6,236	19%
Provincetown	12	92	13	1,321	4,597	29%
Truro	3	28	10	785	3,386	23%
Wellfleet	7	10	14	989	4,645	21%
<b>Barnstable County</b>	<b>126</b>	<b>515</b>	<b>198</b>	<b>15,067</b>	<b>164,064</b>	<b>9%</b>

Source: Massachusetts Department of Revenue, Public Registry of Lodging Operators and U.S. Census Bureau, ACS 5-YR, 2016-2020.

With the new regulation and taxation of short-term rentals starting in 2019, municipalities now receive tax revenue from registered short-term rentals which are in use for more than 14 days in a year.

**Table 4**, following, shows the FY2022 revenue from the room occupancy excise tax<sup>8</sup> in Barnstable County towns distinguished by lodging type between traditional-style lodging (hotels, motels, lodging houses and bed and breakfasts) and short-term rentals. Short-term rentals and traditional lodging are nearly equal shares of occupancy tax revenues county-wide, but this varies by town with short-term rentals generating as high as 86 percent of total occupancy tax revenue in Wellfleet, 77 percent in Orleans and Mashpee, with high percentages in Eastham, Dennis, and Truro as well.

<sup>8</sup> Overall, room occupancy taxes vary between towns and is between 4 and 6 percent. Additionally, a 2.75 percent tax is added as part of the Cape Cod & Island Water Protection Fund. Finally, towns can elect to add a community impact fee, at the time of this report, Falmouth was the only town in DOR records to charge this fee adding an additional 3 percent. This impact fee is intended for Professionally-Managed Units: one of two or more short-term rental units that are located in the same city or town, with the same operator and which are not owner-occupied directly or as part of a duplex or three family home.



**Table 4 Barnstable County Towns by Short-Term Rental Tax Revenue, FY2022**

Geography	Short-Term Rental Tax Revenue	Traditional Lodging Tax Revenue	Total	Share of Rooms Tax from STRs
<b>Upper Cape</b>	<b>\$2,920,694</b>	<b>\$3,085,060</b>	<b>\$6,005,754</b>	<b>49%</b>
Bourne	\$456,884	\$406,838	\$863,722	53%
Falmouth	\$1,232,443	\$2,104,414	\$3,336,857	37%
Mashpee	\$752,055	\$221,732	\$973,787	77%
Sandwich	\$479,312	\$352,075	\$831,387	58%
<b>Mid Cape</b>	<b>\$6,113,988</b>	<b>\$8,372,082</b>	<b>\$14,486,070</b>	<b>42%</b>
Barnstable	\$1,837,112	\$3,575,802	\$5,412,913	34%
Dennis	\$2,665,355	\$915,070	\$3,580,424	74%
Yarmouth	\$1,611,522	\$3,881,211	\$5,492,732	29%
<b>Lower Cape</b>	<b>\$5,189,655</b>	<b>\$5,426,193</b>	<b>\$10,615,848</b>	<b>49%</b>
Brewster	\$1,313,149	\$1,708,254	\$3,021,403	43%
Chatham	\$1,784,374	\$2,293,987	\$4,078,361	44%
Harwich	\$758,431	\$1,031,800	\$1,790,230	42%
Orleans	\$1,333,701	\$392,152	\$1,725,854	77%
<b>Outer Cape</b>	<b>\$5,548,067</b>	<b>\$3,972,398</b>	<b>\$9,520,465</b>	<b>58%</b>
Eastham	\$1,171,458	\$426,620	\$1,598,078	73%
Provincetown	\$2,472,576	\$2,936,524	\$5,409,100	46%
Truro	\$889,550	\$442,768	\$1,332,318	67%
Wellfleet	\$1,014,484	\$166,486	\$1,180,970	86%
<b>Barnstable County</b>	<b>\$19,772,404</b>	<b>\$20,855,732</b>	<b>\$40,628,136</b>	<b>49%</b>

Source: Massachusetts Department of Revenue, Public Registry of Lodging Operators,

Note: All dollars adjusted for inflation to October 2022 dollars.

**Table 5 Number of Barnstable County STRs by Bedrooms, 2021**

Number of Bedrooms	Number of STR units	Share of STRs
Studio	212	4%
1 Bedroom	676	14%
2 Bedroom	1,215	25%
3 Bedroom	1,486	31%
4 Bedroom	875	18%
5+ Bedrooms	380	8%
<b>Total</b>	<b>4,844</b>	<b>100%</b>

In some cases, short-term rentals can make more money than year-round rentals, dependent of course on factors like rates, days booked, and expenses. An analysis of AirDNA data reveals that the median average daily rate for a 3-bedroom short-term rental on Airbnb or VRBO is over \$400, as shown in **Table 6**. In the AirDNA data, a 3-bedroom unit was the most common size of short-term rental across all of Cape Cod, so rates for letting a 3-bedroom short-term rental were the focus of this analysis (See **Table 5**).

Source: AirDNA, 2021. Note: Universe only includes properties with at least one reservation. Hotels have been excluded and only entire home or apartment rentals are included.

**Table 6 Median Average Daily Rate for Barnstable County STRs**

Rental Size	2019	2020	2021	2022 (YTD)
Studio	\$198	\$197	\$200	\$206
1 Bedroom	\$222	\$231	\$243	\$246
2 Bedroom	\$287	\$289	\$305	\$313
3 Bedroom	\$377	\$389	\$403	\$414
4 Bedroom	\$517	\$501	\$533	\$540
5+ Bedroom	\$784	\$785	\$781	\$824
<b>All Units</b>	<b>\$354</b>	<b>\$364</b>	<b>\$368</b>	<b>\$382</b>

Source: AirDNA.

Note: All dollars adjusted for inflation to November 2022 dollars. Universe only includes properties with at least one reservation. Hotels have been excluded and only entire home or apartment rentals are included.

Higher seasonal rental prices can motivate individuals to rent out their homes seasonally rather than to choose to be landlords for full-time year-round rentals. This analysis of 2021 average daily rates found that it would only take two months for the revenue from a 3-bedroom short-term rental to exceed the revenue from renting a full-time, 3-bedroom year-round rental at the average monthly rent for Barnstable County (see **Table 7**).

**Table 7 Short-Term vs. Year-Round Rental Revenue**

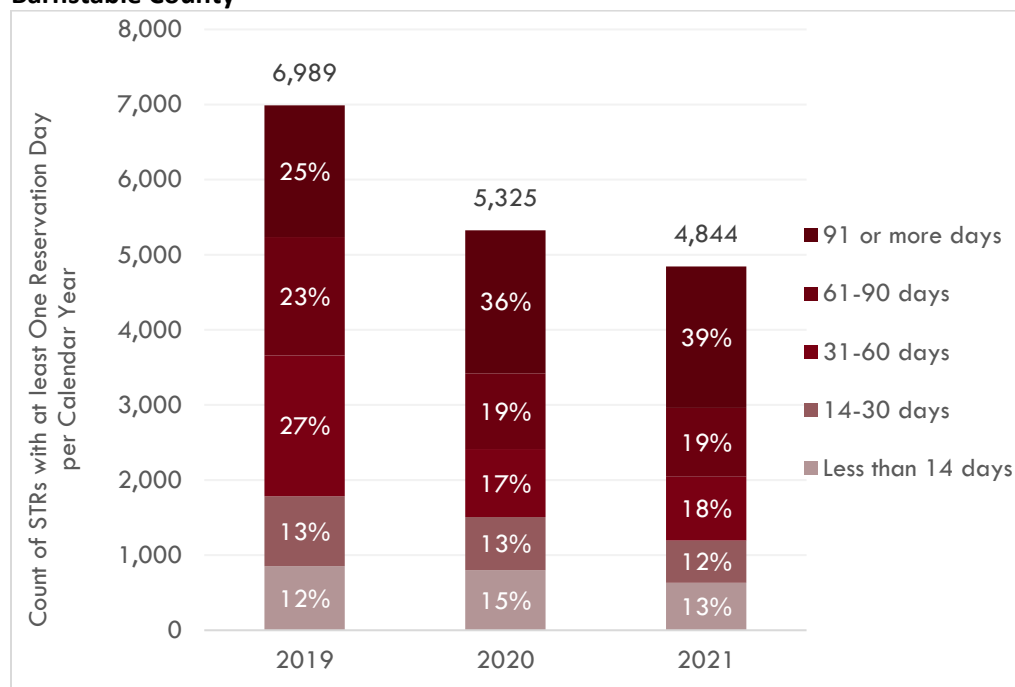
3 Bedroom	Rate (Daily)	Rate (Monthly)	Rental Period	Revenue	Difference
Short-Term	\$403	\$12,083	<b>2 months (60 days)</b>	\$24,166	<b>\$1,094</b>
Year-Round	\$64	\$1,923	<b>12 months (full year)</b>	\$23,072	

Source: AirDNA 2021, U.S. Census Bureau, ACS 1-YR, 2021

Note: All dollars adjusted for inflation to November 2022 dollars

The revenue comparison shown in **Table 7** between a short-term rental booked for most of a summer and year-round scenario on Cape Cod illustrates that there can be monetary incentive for property owners toward converting year-round housing to short-term rentals. The calculations rely on the median gross rent for a three-bedroom rental housing unit from the ACS and the median daily rate in the AirDNA data, converted to a monthly basis for a three bedroom rented via the online and app-based services of Airbnb and VRBO.

**Figure 13 Number of Short-Term Rentals Listed on Airbnb or VRBO, with at least One Reservation, Barnstable County**

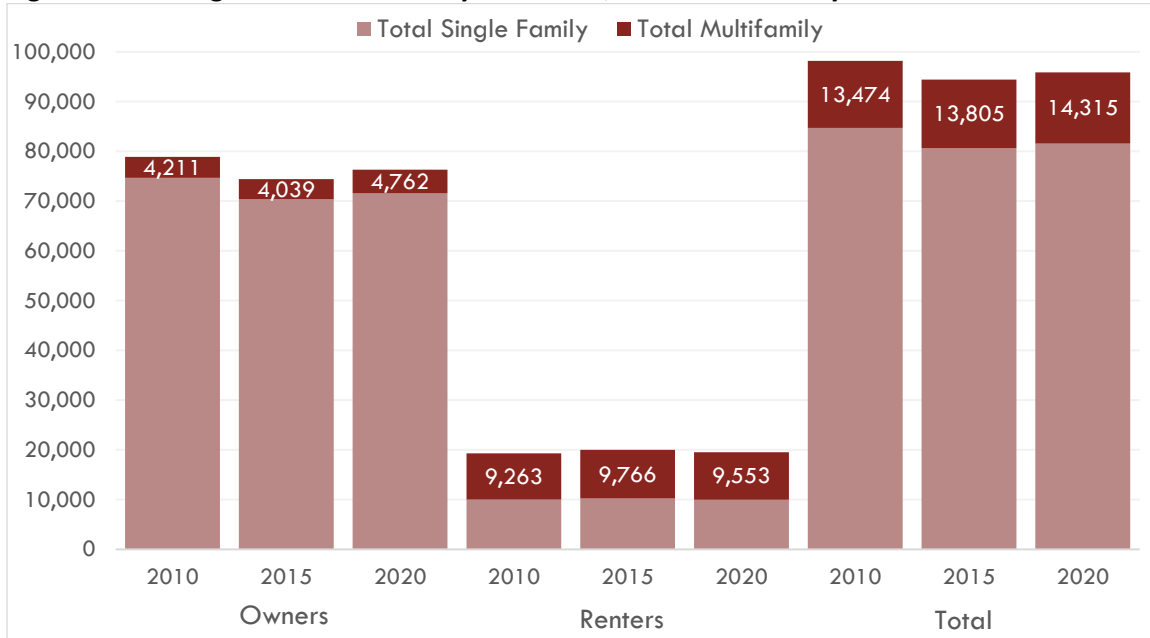


Source: AirDNA.

While the number of short-term rentals listed on Airbnb or VRBO shrank during the pandemic, the in-service short-term rental stock still available for booking showed increasing utilization as the percentage of units that were reserved for over 90 days grew from 25 percent to 40 percent. This concentration could indicate professionalization, in that it is possible that marginally attached owners were deterred during the pandemic by risks and increased costs and more of the professional owners were able to weather the economic downturn, increased health risks and increased cleaning costs of operating during the pandemic. It may also simply track with smaller short-term rental operators opting to remove their listings. Increased housing costs for residents may have played a role as well: the October 2022 survey showed that many long-term rental operators ceased renting their property because they decided to sell their home or began living in the property themselves, and short-term operators may have made a similar decision (see **Figure 34**).

## Multifamily Housing

Figure 14 Housing Units in Multifamily Structures, Barnstable County



Source: U.S. Census Bureau, ACS 5-YR, 2016-2020. Note: The data on single family values includes mobile homes, RVs and boats.

The vast majority of housing units in Barnstable County are single family, detached units. Since 2010, the share of units in multifamily properties has been about 15 percent of all units though they are nearly half of units occupied by renters. This is far less common than what is usual across the state. Statewide, 41 percent of Massachusetts housing units are in multifamily housing, and about 85 percent of renter units are in multifamily buildings. This dearth of multifamily housing is a part of the challenge in the region for obtaining year-round rental housing.

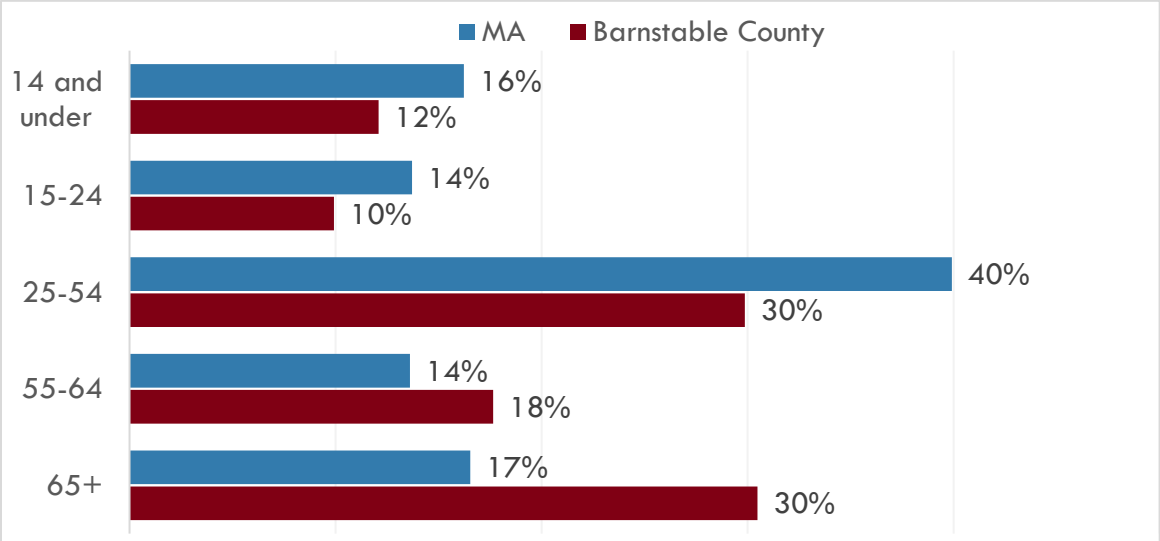
While in general, rural and suburban areas tend to have more single family homes than dense urban areas do, with space at a premium on Cape Cod, the share of properties devoted to single family housing will likely continue to be an issue for addressing the need for housing.

# Demographics, Population Projections, and Employment Projections

## Demographics

The resident population of Cape Cod reflects its status as a destination for retirees. The older profile of the population, and the relatively low levels of racial and ethnic diversity, differ from the Commonwealth as a whole. Recent population growth on the Cape has been driven by domestic migration, which has countered natural decreases in the population due to deaths exceeding births. This is notable because on the whole Massachusetts has a history of losing population due to domestic out-migration and relied on international migration to offset those losses. Notably, the latest figures from the U.S. Census Bureau show that the Massachusetts population decreased by 0.1 percent over the year, from 6,989,690 on July 1, 2021 to 6,981,974 as of July 1, 2022. Population change specific to the Cape is not yet available for this time period. UMDI standard projections undertaken for MassDOT suggest decline in the population on the Cape over the next 30 years as the Baby Boomer generation ages and the less-populous next generation become the new retirees. For the Cape to continue to show growth in its population, it will require a continued pattern of net migration to the Cape that outpaces natural losses. A separate high-series population projection suggests that population on the Cape would continue to grow through 2030 at a slow pace and then decline a small amount through 2035. For more information on that estimate and changes in age see **Appendix: High-Series Projections** .

Figure 15 Age



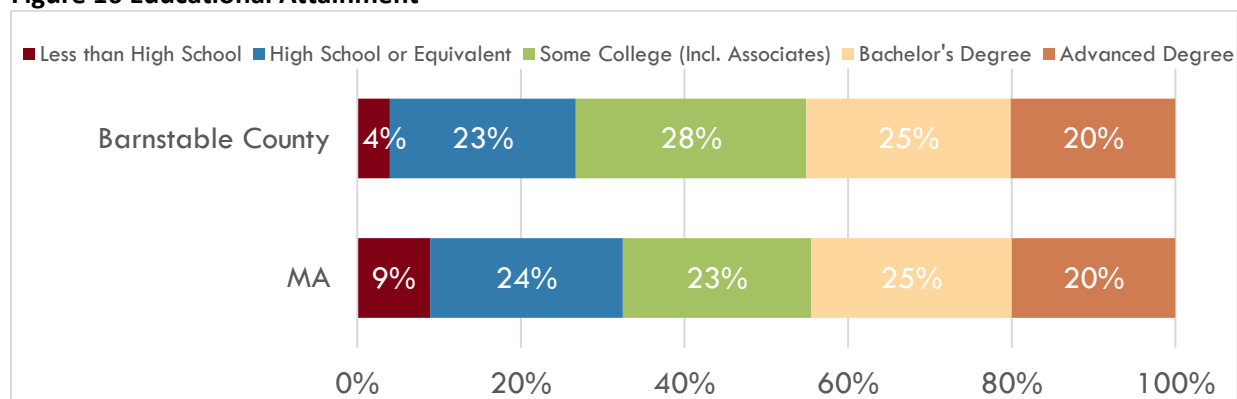
Source: U.S. Census, ACS 5-YR, 2016-2020.

Barnstable County has an older population compared to the state. This elevated share of people over 55 affects trends in Cape Cod’s population. The higher share of residents who are no longer of child-bearing

age depresses the region’s birth rate. At the same time the higher share of older residents increased mortality rates, thus depressing the net natural increase of the population over time.

The older age profile of the region is due in part to the fact that retirees and those nearing retirement move to the area. Mortgage data<sup>9</sup> shows that homeowners newly moving to the region have mostly of an older set: in 2021, 48 percent of home buyers moving into the region are over 45, which is greater than the proportion in all other Massachusetts counties. This trend among homebuyers may, however, be improving: in 2018 just over half of the new mortgages for primary residences on Cape Cod were taken out by people over 45, which had dropped two percentage points to 48 percent of the new home purchasers being over 45 by 2021. See **Appendix: HMDA Mortgage Data** for more information).

**Figure 16 Educational Attainment**

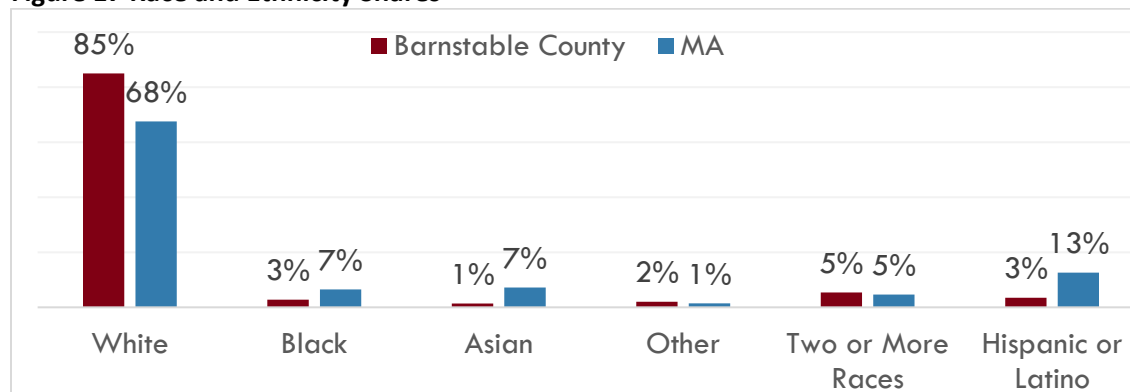


Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.

Barnstable County is more educated compared to the state as a whole, in that more residents have gone on to higher education and attended some form of college (including associate degrees) as shown in **Figure 16**. The region’s residents have the same proportion of Bachelor’s and graduate degrees as the rest of the state, which are found in higher than average proportions compared to the nation. However, Cape Cod’s post-secondary educational attainment rate is still notable as regions with more people over age 65, like Cape Cod, tend to have lower levels of education. This suggests, consistent with stakeholder accounts, that rather than it just being from the resident population over 65 simply retiring in place, some people have moved to the Cape for their retirement years as well. More of these retirees may potentially have higher than average wealth, income, and educational attainment resources than is typically common for this age group.

<sup>9</sup> Home Mortgage Disclosure Act (HMDA) data, 2009 to 2021 compiled by the Cape Cod Commission, 2022.

**Figure 17 Race and Ethnicity Shares**

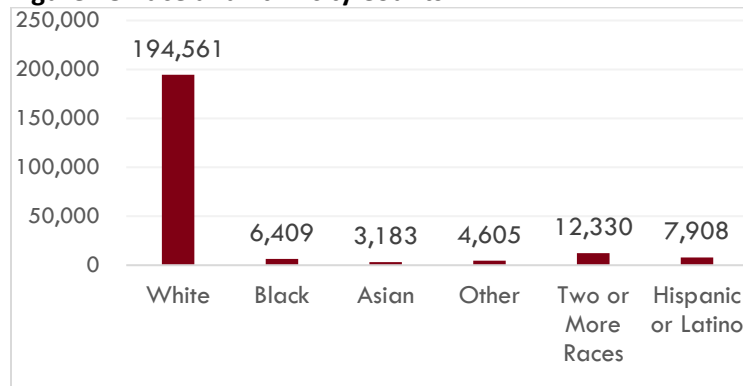


Source: U.S. Census Bureau, Decennial Census, PL-94, 2020.

Note: All race groups exclude Hispanic people, Hispanic/Latino may be of any race. "Other" includes American Indian.

Compared to the state as whole, Barnstable County has a much higher share of the population who identify as white and a substantially lower share who identify as Hispanic or Latino. Barnstable County also has less representation of Asian and Black residents than in the state as a whole (Figure 17). However, Barnstable County has a higher representation of the American Indian and Alaskan Native population than the state average. This is due to the presence of members of the Wampanoag Tribe of Aquinnah and Mashpee Wampanoag Tribes. See **Appendix: Detail on Race and Ethnicity** for a table and graph of detailed race groups.

**Figure 18 Race and Ethnicity Counts**



Source: U.S. Census Bureau, Decennial Census, PL-94, 2020.

Note: All race groups exclude Hispanic people, but Hispanic/Latino may be of any race. "Other" includes American Indian.

**Table 8 Count Details**

Race Groups within "Other"	Barnstable County
American Indian and Alaska Native (AI/AN)	1,092
Native Hawaiian and Pacific Islander (NH/PI)	65
Some Other Race	3,448
<b>Total</b>	<b>4,605</b>

Source: U.S. Census Bureau, Decennial Census, PL-94, 2020.

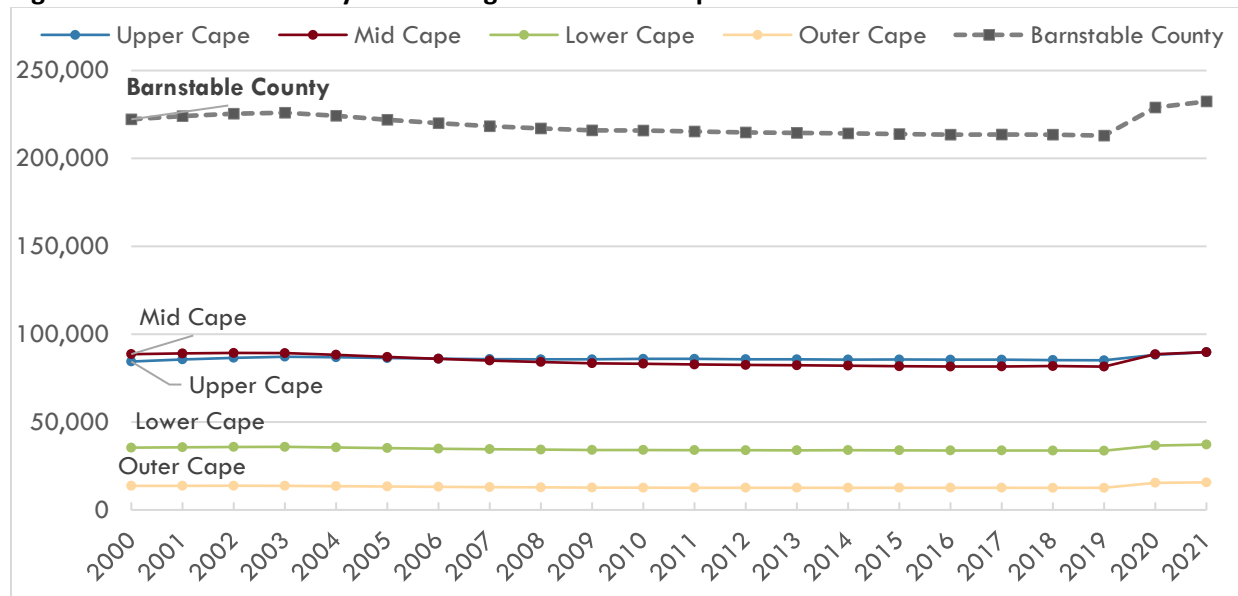
Note: All race groups exclude Hispanic people.

**Table 8** provides the detail for the category of "Other." This group includes over 1,000 American Indian or Alaskan Native people and 65 Native Hawaiian and Pacific Islanders. Finally, the "Other" category contains nearly 3,500 people whose race is defined as Some Other Race in Census tables. This group includes all other people who are not a member of the previously defined race groups.

## Population Trends

The region has been experiencing a remarkable moment with regard to the trajectory of its population growth, which will have implications for the future of the housing market. Historically, the region’s population has grown at a slower rate than the state, with little change in the population for much of the early 2000s and a trend of gentle decline through much of the past two decades. While the pandemic reversed this trend, it is uncertain where population growth trends will settle in the coming decades.

**Figure 19 Barnstable County and Subregion Historical Population**

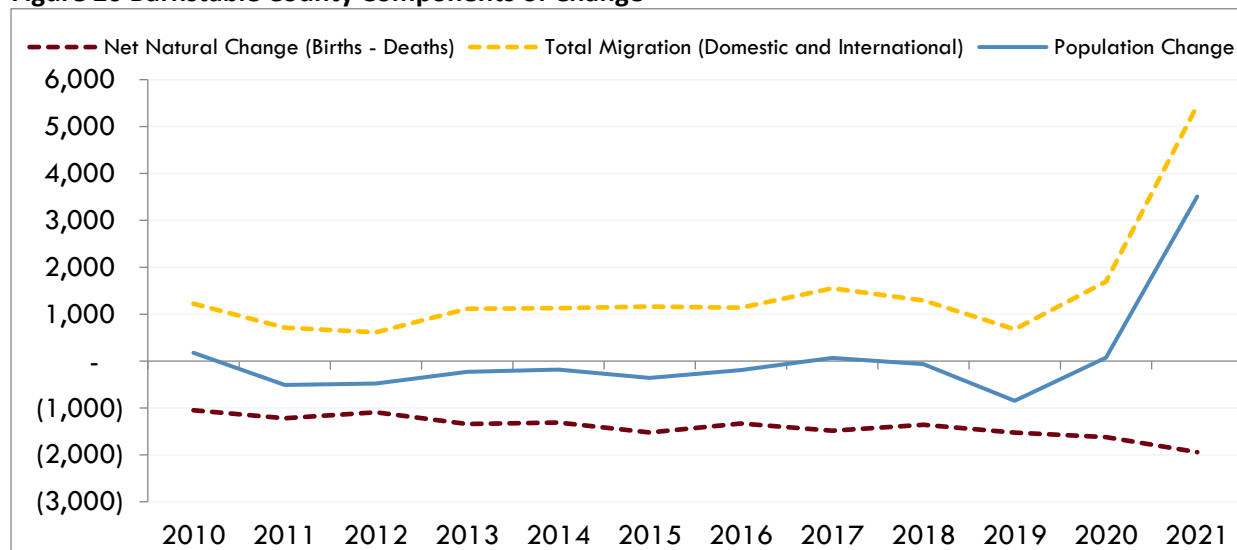


Source: U.S. Census Bureau, Population Estimates, 2000-2010 Inter Censal Estimates, 2010-2019 Post Censal Estimates, 2020 PL-94, 2021 Post Censal Estimates.

The pre-2020 U.S. Census Bureau population estimate trends suggested a relatively flat population, with a slight decline in population between 2003 and 2019. A large increase in population appeared in the 2020 Census and there was continued growth, albeit less dramatic, from 2020 to 2021. This shift may reflect changes in migration due to the pandemic, for example, the growth in remote work and temporary reductions in shared indoor activities made less populous regions of the state, like Barnstable County, a more attractive location for a wider range of workers than before. Additionally, a hot housing market may have encouraged second homeowners to sell homes to new year-round residents. Key stakeholders also report that some second homeowners on Cape Cod converted their second homes to primary residences during the pandemic. In addition to workers having new flexibility to work remotely from their Cape Cod locations, some second homeowners have retired to their second homes, which became their primary residences.



**Figure 20 Barnstable County Components of Change**



Source: U.S. Census Bureau, Population Estimates Components of Change.

Residential population change is a function of two factors, natural change and migration (**Figure 20**). This figure illustrates these components of change in the residential population in each year, in other words, *not* residential population totals, but the net change in the population. It highlights a long period where the population was stable, followed by an increase in 2020 and 2021. Births and deaths are the two contributors to natural change (red dashed line) and domestic and international migration contribute to migration (yellow dashed line). Specifically, Department of Public Health records of births and deaths data are used to calculate for net natural change. The UMass Donahue Institute (UMDI) Population Estimates Program then compares that data to the change found in the U.S. Census Population estimates data, with the difference applied as migration in and out of a given region. This projection relies on Census data that is collected in April. While it is a useful tool for projecting the region’s year-round population, it does not capture or attempt to project the large population of seasonal residents and tourists who would be counted elsewhere in April.

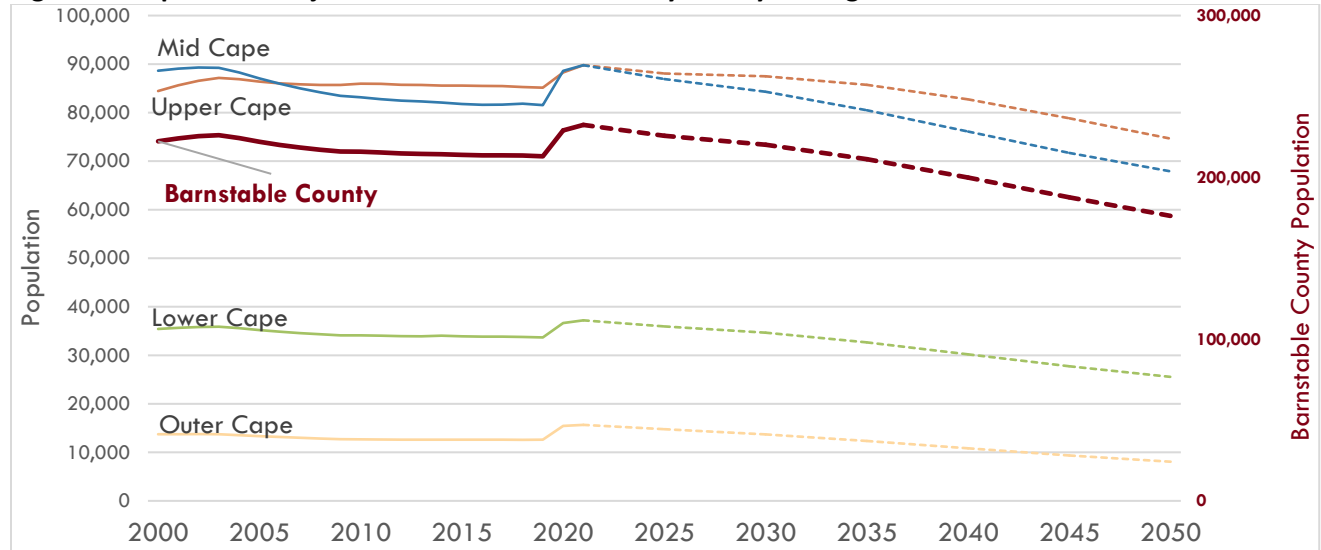
Barnstable County’s in-migration increased dramatically in 2020, while the net natural change has been slowly decreasing since 2010. The steady decrease in the net natural change is a direct result of the population experiencing more deaths than births. This natural decline increased during the pandemic, in part due to deaths from COVID-19. However, shifts in migration patterns still allowed 2020 and 2021 to show net gains in population. Markedly increased in-migration to the region, driven by domestic migration, during the pandemic drove a large population increase in the most recent data despite the decline in net natural change and a dramatic decline in international migration throughout the nation. If these trends persist in the coming years, they will represent a large departure from the recent demographic trends on Cape Cod that form the basis of the population projection model. However, it may be several years before anything can confidently be stated about the sustainability of these trends. See **Appendix: High-Series Projections** for an examination of the high-series estimate which assumes recent trends leading up to and through 2020 will persist.

The following sections focus on projections of population and employment. As background for the population projections, first the historical population trends and then the components of population change in the region are explored. The heavier representation of residents over age 55 in Barnstable County contributes to declines in the net natural population change (births and deaths). Because of this, the region depends on robust and sustained domestic and international in-migration of residents to overcome the downward trend caused by more deaths and fewer births. While the pandemic saw a surge of in-migration, further growth depends on ongoing trends.

## Population Projections

The UMass Donahue Institute Population Estimates Program creates modeled projections of population for Massachusetts counties and extended this model down to cities and towns to model change between Decennial Censuses. The model used assumes historical trends will continue and is produced for every region of the state for MassDOT for planning purposes. Using this method in all areas of the state allows direct comparisons to be made between the projected trends in different regions but does not account for unique characteristics of every region, including not accounting for non-residential use of infrastructure and housing. The model projects that the Cape Cod Region will largely return to its pre-pandemic rates of growth in the coming decades, based on natural change due mainly to generational trends.

**Figure 21 Population Projections for Barnstable County and by Subregion**

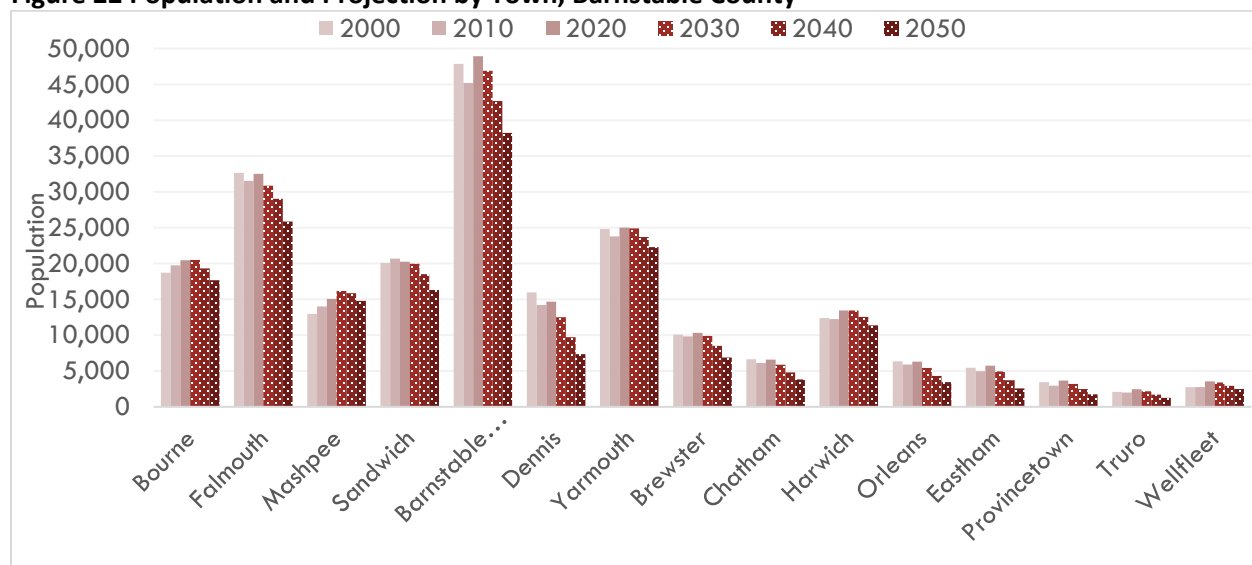


Source: UMDI V2022 Long-Term Population Estimates for Massachusetts Municipalities and Regional Planning Areas, UMass Donahue Institute Population Estimates Program, December 15, 2022, 2030-2050; U.S. Census Bureau, Decennial Census 2000, 2010, and 2020, UMass Donahue Institute Population Estimates Program population estimates for all years between historical census years, and 2021.

**Figure 21** shows the established trend data by subregion as a solid line, and projections as dotted lines. To establish a baseline from historical trends and project the region’s population into the future, the 2020 population is used as the base and the rates are from the trends up through 2019. This means that

while population increases in 2020 are taken into account, the trends from 2020 (and beyond, for which comparable data are not yet available) are not part of the model. These projections utilize a simplified model which do not consider all of the phenomena happening. Because births, deaths, and migration drive the model, the age distribution in the area is an important factor. While Cape Cod has served as a retirement destination for many in the past years, the number of individuals, both regionally and nationally, approaching the age of retirement is expected to decline in the coming decades as the last of the Baby Boomer generation moves past that age range and the less populous Gen X generation moves into it. In other words, as the number of new retirees begins to decline, Cape Cod would have to attract a larger and larger share of total retirees in order to replace natural losses in the coming decades or attract more people in lower age ranges. Each town looks a little different for that reason, with the Mid Cape subregion predicted to experience a sharper decline than other regions, reflecting a larger dip between 2000 and 2010 in the historical data. Note, demographic projections can be more likely to be inaccurate in small geographies, such as many smaller communities on Cape Cod, because the base populations of these places are small enough that even small numerical changes in population levels can look like large changes in overall trends when put in terms of percent growth. As a result, uncontrolled projections for a group of small communities such as Barnstable County might otherwise look markedly different from the overall county-based projection, which is more stable and a more reliable projection. They can also total more or less than the whole. Therefore as a best practice, small-area projections are constrained so that they conform better to the counties they are within. Their individualized shares of the population are still respected, so the projection does still handle them individually, but not out of proportion to the whole. In other words, the projections for individual communities are used to apportion the projected population of Barnstable County overall. While keeping their individual proportions, communities are also controlled so that together, they are reasonably in keeping with to the more stable county-wide projection.

**Figure 22 Population and Projection by Town, Barnstable County**

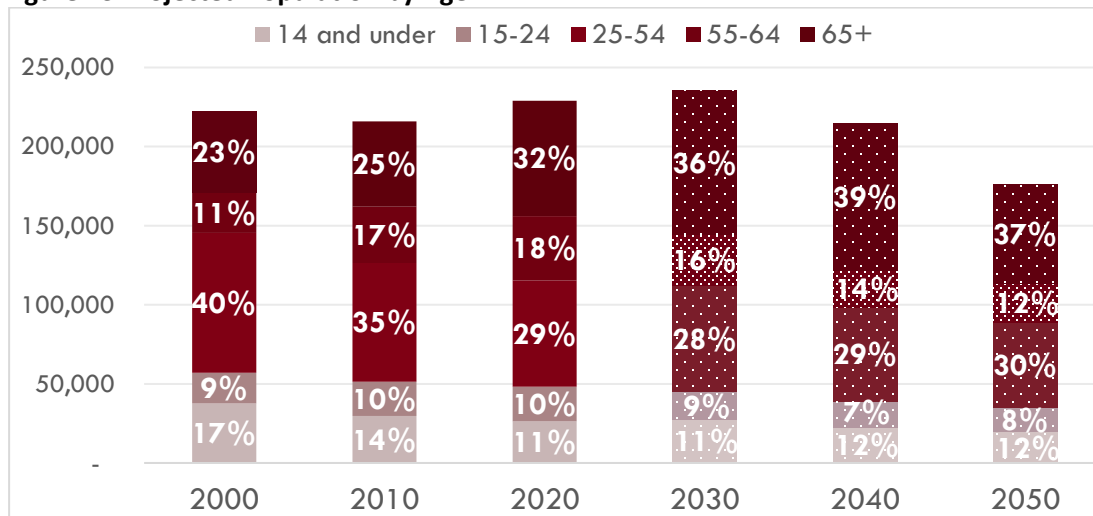


Source: UMDI V2022 Long-Term Population Estimates for Massachusetts Municipalities and Regional Planning Areas, UMass Donahue Institute Population Estimates Program, December 15, 2022, 2030-2050; U.S. Census Bureau, Decennial Census 2000, 2010, and 2020, UMass Donahue Institute Population Estimates Program population estimates for all years between historical census years, and 2021.

The individual town actual historical and projected data is shown in **Figure 22**. The first three bars with the solid colors denote measured historical data and the following three dotted bars denote projections: 2000, 2010, and 2020 are population estimates based on Decennial Census data; the following decades (2030, 2040, and 2050) represent population projections.

The initial local historical trends are mixed: the population in 2000, 2010 and 2020 show variation in the direction and amount of population decline or growth by town, some of which remained relatively flat, some of which increased slightly, and some of which decreased in population. Overall, from 2010 to 2019 Cape Cod experienced a slight decline or no change in the population year over year. However, 2020 erased much of that decline. With the pandemic causing rapid shifts in population trends from immigration, there was actually a net gain in population in 2020 and 2021. The projections model, however, depends on historical trends and therefore the model shows a continued decline in population in most Barnstable County towns as shown in **Figure 22**. Although the pandemic caused many people to choose to live on Cape Cod in April 2020, when the Decennial Census was conducted, the recent pivot from population decline to population growth could potentially last beyond this time if domestic immigration, such as from remote workers and retirees, continues at the rate it did during the peak of the pandemic. As an alternative, see the **Appendix: High-Series Projections** for an examination of the high-series population and housing estimates, which assume population trends shortly before and during 2020, will persist, and therefore projects population rising through 2030 and then declining through 2035 based on the projected age distribution.

**Figure 23 Projected Population by Age**



Source: UMDI V2022 Long-Term Population Estimates for Massachusetts Municipalities and Regional Planning Areas, UMass Donahue Institute Population Estimates Program, December 15, 2022, 2030-2050; U.S. Census Bureau, Decennial Census 2000, 2010, and 2020.

As stated previously, the age profile of the area is a key factor in the projection model, because it relates to both fertility and mortality. **Figure 23** shows that over time there is a steep increase in the projected shares of Cape Cod residents who are 65 and older. This represents the continued aging of the oldest

generations, with comparatively fewer births of younger generations balancing them. This trend is not unique to Cape Cod, but common throughout the Northeast.

## **Employment Trends and Projections**

The employment projections are based on the population projections and, therefore, project a decline over time in employment of about 10 percent by 2050. The decline depends primarily on fewer available workers from the aging population's generational shift from Baby Boomers to the less-populous Generation X, and industry mix. Only two industry sectors, Information, which includes industries like telecommunications, publishing, and broadcasting, and education & health services, show projected increases in employment from 2020 to 2050. The long-term employment projections from the Bureau of Labor Statistics, which are leveraged for the employment projection, do include some assumptions about how employment by industry might shift in the coming decades. For instance, the model projects an increase in per-capita demand for health services due to increased health needs related to the pandemic, as well as overall aging of the population. At the same time, the potential for impacts from other phenomena that are not included in the model should also be considered when consulting this projection. For example, it is difficult at this time to predict how a major increase in remote work might affect households' long-term migration patterns, but it is possible that trends like this could have an impact on employment levels in a region like Cape Cod.

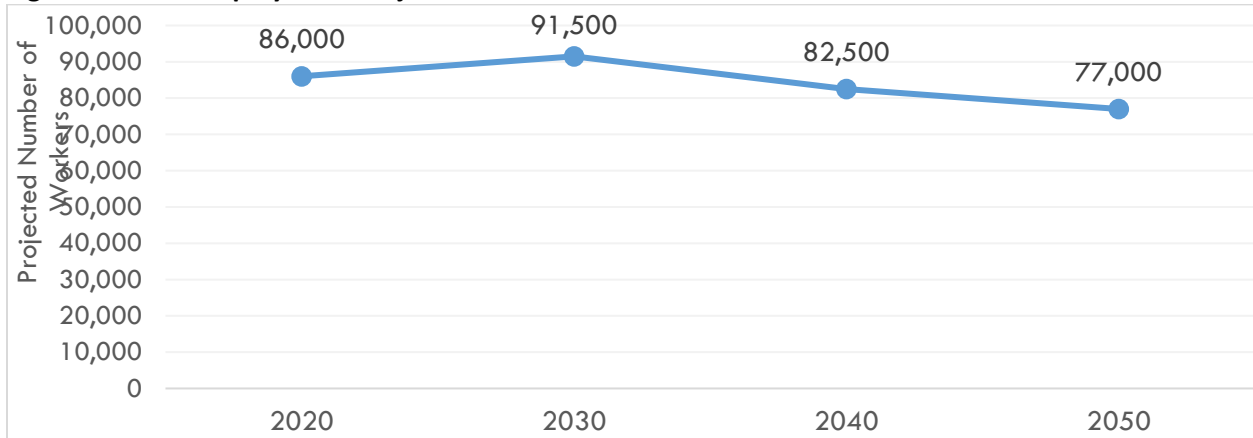
### ***Employment Projections Method***

Employment projections were created by taking Bureau of Labor Statistics statewide employment projections for Massachusetts, out to 2030, and extending those trends forward to 2050. The jobs from the statewide projection were then distributed down to the regional level by place of residence using the American Community Survey's Public Use Microdata Sample (PUMS) and an iterative reweighting model developed by Dr. Alan Clayton-Matthews at Northeastern University.

The U.S. Census Bureau's LODES origin-destination data was then used to develop coefficients that could be used to translate from employment by place of residence to employment by place of work. Finally, these datasets were adjusted for differences in accounting and concepts of employment between the different datasets used in this analysis. It is important to note that many of the data sources leveraged in this report, including the PUMS and LODES data, are lagged in their publications, and have not published new data past 2019. Therefore, shifts over the last few years, including some of those related to the COVID-19 pandemic, have not all been captured.

## Employment Projection

**Figure 24 Total Employment Projection**



Source: UMDI V2022 Long-Term Employment Estimates for Massachusetts Municipalities and Regional Planning Areas, December 15, 2022, 2030-2050; Massachusetts Department of Labor and Workforce Development, ES-202, 2020.

Note: Data is approximate. Numbers are rounded to the nearest five hundred, and represent the number of employed people.

Employment often is affected by population trends. UMDI’s employment projections, undertaken with MassDOT population projections, depend on and were conducted alongside the model for projected population growth and loss. This employment projection suggests that if the population continues to age in place as modeled, employment will also decline, taking effect starting in 2030.

Projected employment in 2030 is somewhat higher than employment in 2020. This can be attributed primarily to the unusually high level of unemployment that the region and the nation experienced in 2020 as a result of the COVID-19 pandemic. According to ES-202 payroll employment data from the Massachusetts Department of Labor, recent employment levels in 2019 (97,700) reached higher than projected employment in 2030, and even more recently the same data set showed 2021 employment levels recovering from 2020 to very close to the 2030 projection (91,400).

Post-pandemic, employers report finding it difficult to get the help they need for a variety of reasons. This may be exacerbated by the demographic pressures that are reducing the pool of available labor. If factors not incorporated into the projection increase the working-age population, the employment trends would instead rise overall.

**Table 9 Projected Employment Change, Barnstable County**

<b>Industry</b>	<b>2020</b>	<b>2030</b>	<b>2040</b>	<b>2050</b>	<b>Percent change 2020 to 2050</b>
Leisure and Hospitality / Retail Trade	28,500	31,500	26,500	23,500	-18%
Education and Health Services	20,500	22,000	21,500	22,000	7%
Professional and Business Services	9,500	9,500	9,000	9,000	-7%
Construction	7,000	7,500	6,500	5,500	-23%
Government	5,000	5,000	4,500	4,000	-26%
Trade, Transportation, Utilities	4,500	4,500	4,000	3,500	-13%
Financial Activities	3,500	3,500	3,000	3,000	-19%
Agriculture / Forestry / Mining and Logging / Other Services	3,500	4,000	3,500	3,000	-14%
Manufacturing	2,000	2,000	2,000	1,500	-24%
Information	1,500	1,500	2,000	2,000	53%
<b>Total</b>	<b>86,000</b>	<b>91,500</b>	<b>82,500</b>	<b>77,000</b>	<b>-10%</b>

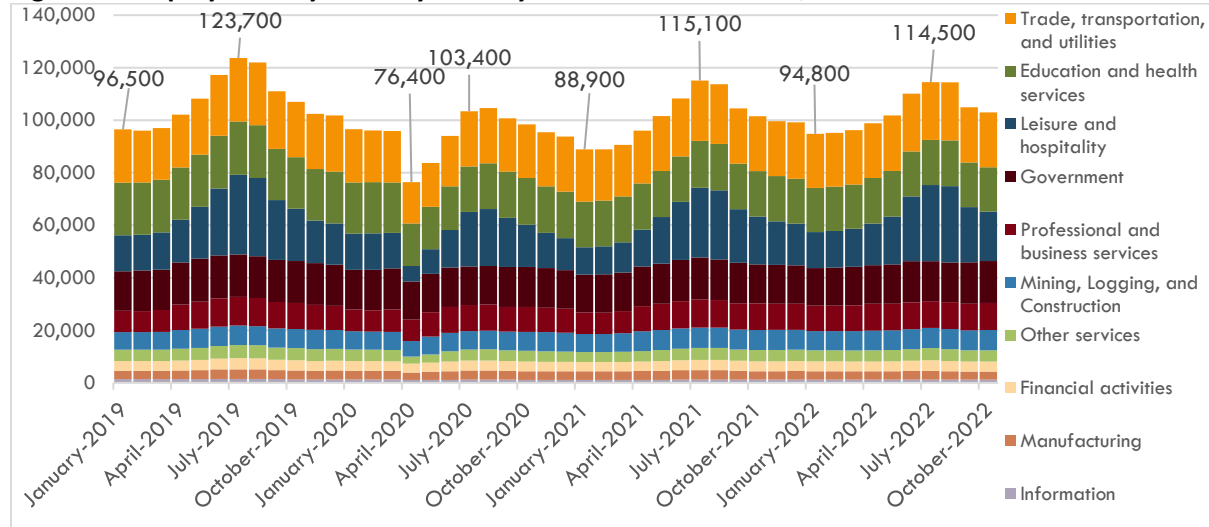
Source: UMDI V2022 Long-Term Employment Estimates for Massachusetts Municipalities and Regional Planning Areas, December 15, 2022, 2030-2050; Massachusetts Department of Labor and Workforce Development, ES-202, 2020.

Note: Data is approximate. Numbers have been rounded to the nearest 500.

While some of the data sources which inform the projections, such as the BLS's 2030 employment projections, were released after 2020, other data sources, such as the LODES commuting data, have not been updated to include data from 2020 or beyond. As a result, the employment projections are partially based on pre-pandemic trends, but with some more recent data informing the proportions and projection. Many of the largest industries in the region are projected to decline after the first decade. As noted above, the employment projection leverages the population projections. Only two industry sectors, the information sector and education & health services sector, show projected increases in employment from 2020 to 2050.

## Employment Trends

**Figure 25 Employment by Industry January 2019 to October 2022, Barnstable NECTA**



Source: Massachusetts Executive office of Labor and Workforce Development, Current Employment Statistics

Note: The Barnstable New England City and Town Area (NECTA) encompasses Barnstable County plus the towns of Marion and Wareham, just off Cape in Plymouth County.

**Figure 25** shows the historical monthly employment trends by industry for the Barnstable County region back to the start of 2019. Leisure and Hospitality in particular saw a major contraction in employment at the start of the pandemic, with employment falling 56 percent between March and April of 2020. The industry grew in employment until August of that year but peaked at 70 percent of its August 2019 employment. Total employment across all industries between August 2019 and August 2020 was down 14 percent. Employment recovered through 2021 but by August 2022, total employment was still only at 94 percent of its August 2019 value.

In the future the numbers of workers may decline but it is reasonable to expect there will still be high demand for housing for them, because the trend in housing unit growth at price points within what workers are able to reasonably afford has fallen behind what is needed. The long-term projections, despite predicted population declines, do not necessarily signify a critical easing of housing problems for workers, because current workforce housing is so tight. Housing constraints in both price and availability currently present great difficulties for new workers to come to work in certain jobs available on the Cape, and it has been a challenge for some current workers to remain living near their work. This pressure may currently be so intense that even a decline in industry employment may not ease it entirely.

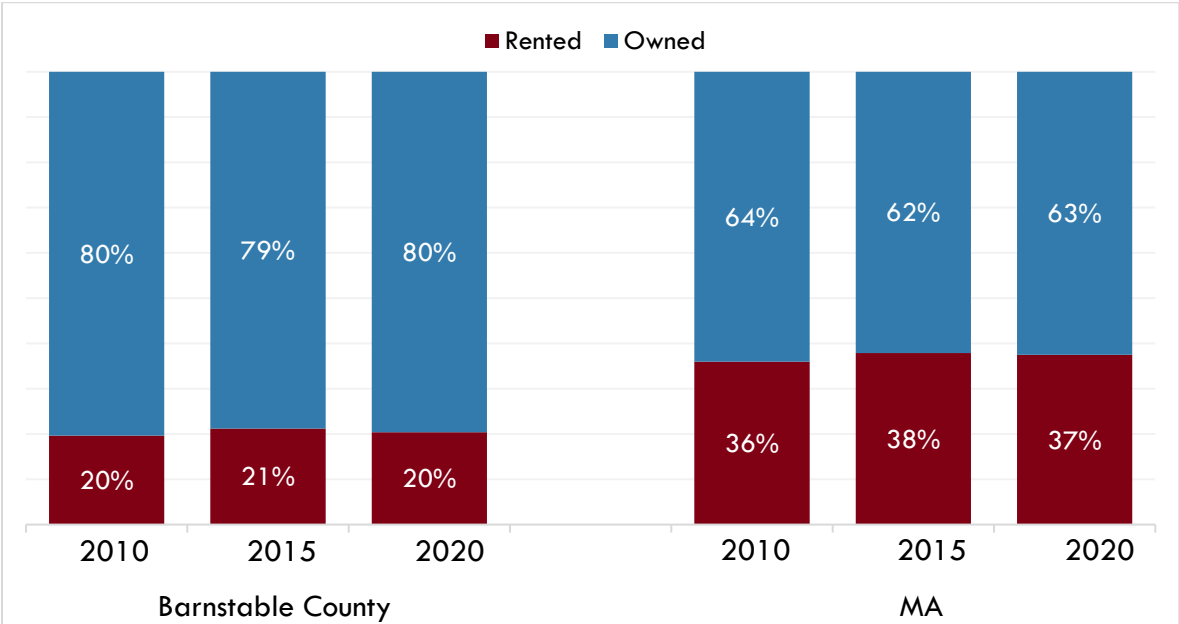


# Supply and Demand for Renters and Owners

## Housing Trends Overall

Both the rental and ownership markets on Cape Cod are hot, with housing prices rising rapidly in recent years. The housing market is also intense. The supply of housing has not kept up with demand, creating the conditions for both a crisis of housing cost and housing availability. This section on supply and demand for housing in Barnstable County covers the available information on the proportions of owned and rented homes, rental vacancies, historical trends in housing by vacancy compared to changes in the total population, and survey analysis on length of residency, housing instability among renters vs. owners, and reported information about why housing is becoming unavailable, particularly for renters.

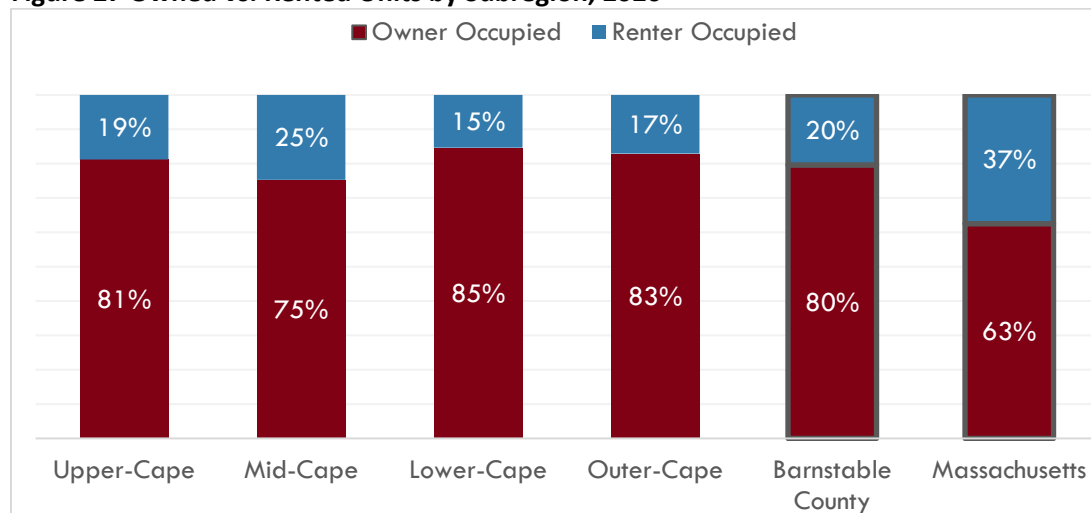
Figure 26 Owned vs. Rented Share of Occupied Housing Units



Source: U.S. Census ACS 5-YR, 2010, 2015 and 2020.  
Note: The data universe for this data is occupied housing units.

Barnstable County has a higher percentage of owner-occupied houses compared to the state as a whole. This is to be expected in low-density areas like some parts of Cape Cod and means that there is a smaller share of rental housing in this high-cost home market. Some areas have especially low numbers of rental housing units, particularly on the Outer Cape as shown in **Figure 27**.

**Figure 27 Owned vs. Rented Units by Subregion, 2020**



Source: U.S. Census ACS 5-YR, 2020.

Note: The data universe for this data is occupied housing units.

For this reason, rent data can be hard to come by. While the estimates of rent prices are high quality for the region overall, at the municipal level in the places on Cape Cod with very few residents who rent, the estimates have high variance. As with rent prices, rental vacancy data has the same challenge but more intensely, with even county-level data having high levels of uncertainty due to small sample sizes.

## Rental Vacancies

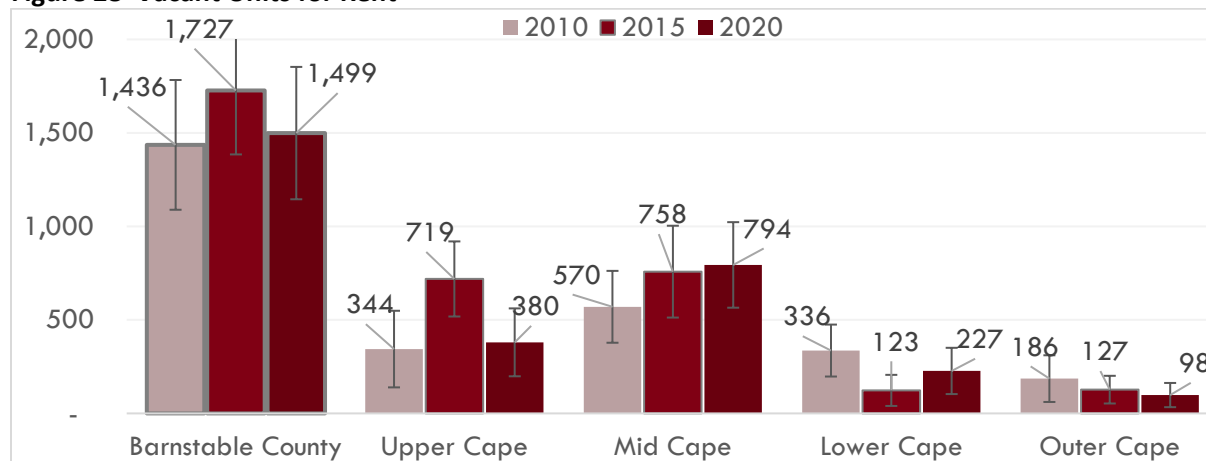
Rental vacancy rates are one indication of housing market conditions: higher vacancy rates indicate a softer housing market, and declining vacancy rates indicate that there is more pressure on the local housing market. On the Cape, stakeholders report extremely low or declining vacancy rates, as an indication of the housing availability crisis that has intensified since the pandemic. One municipal housing coordinator in the focus groups noted:

*"I definitely have seen an increase [in calls for housing assistance], probably an increase of about 15 to 20 calls per month where I used to get about 15 calls a month, now I'm getting about 30 or more for assistance. Specifically, I'm really seeing a lot of folks who have long-term rentals, renting homes and now their home's being sold, and there's absolutely no place for them to move into. That's been something that up ticked since the pandemic."*

However, obtaining precise measurement of rental vacancy can be difficult at the local level because rental housing is a small share of all housing and the absolute number of rental housing units in Barnstable County is low. Due to the small universe of rental housing units on the Cape, it is difficult to estimate the vacancy rate. ACS data provides vacancy rate measures, but the estimates of vacancy rate have very high variance because of the sample sizes. In other words, there are so few rentals that could become vacant, the data on the number of rental vacancies in Barnstable County could be anywhere in a very large range around the estimated amount in each year. Often from one year to the next, the

amount of uncertainty from the estimate is larger than the possible variation from one year to the next, making a judgement about if it is increasing or decreasing unclear. Therefore, analyzing trends is difficult. In addition, there is very little proprietary data available about rental vacancies in Barnstable County for the same reason of very small sample sizes. An alternative source was sought across eleven other proprietary (for-purchase) and public data sets,<sup>10</sup> however the most informative and comprehensive data found remains the ACS data from the Census Bureau.

**Figure 28 Vacant Units for Rent**



Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.

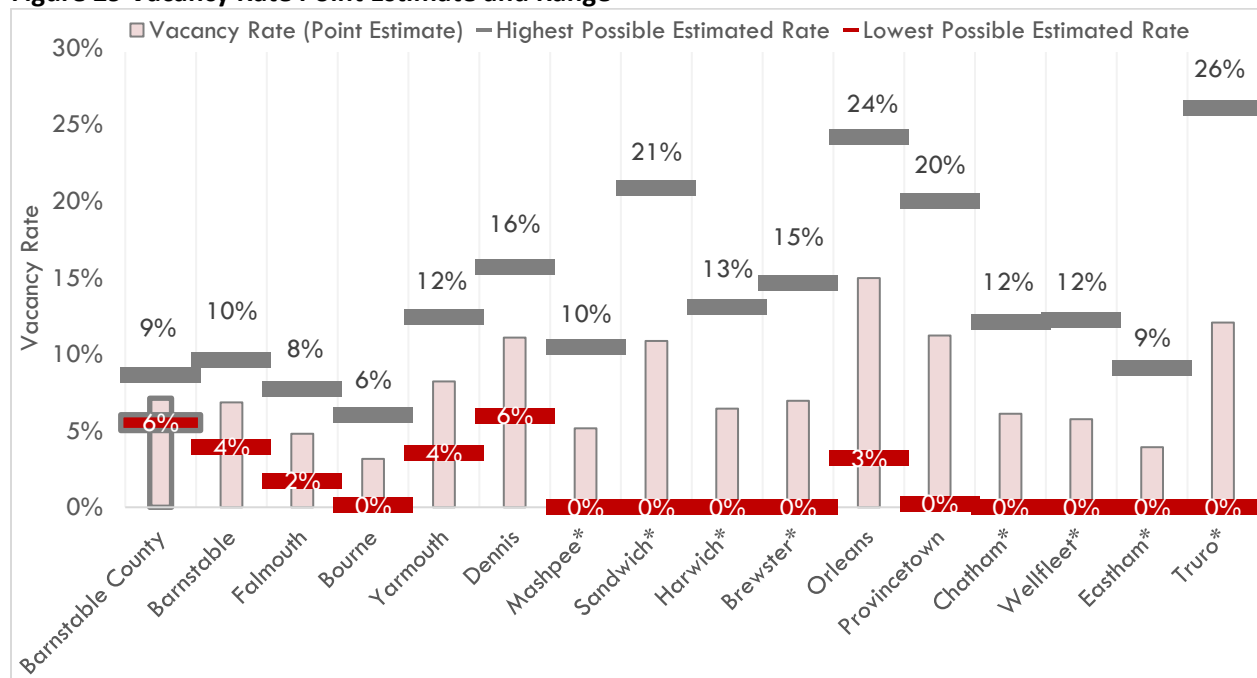
Unfortunately, this same lack of representation also means there is limited available data. Data on rental vacancy represents a very small number of units, causing instability in the estimates of sample data, requiring caution in interpretation. The I-shaped lines at the top of the bars, which represent the range around the estimate, pictured above. The ranges are often overlapping from one time period to the next. Where these bars overlap, the number of residential rental housing vacancies cannot be assumed to be different. This view over time of the county and subregional rates does not show an obvious, clear trend due to the high levels of variation around these estimates. However, there are clearly consistently more total vacant residential rental units on the Mid Cape and Upper Cape than on the Lower Cape and Outer Cape subregions, driven in part by the total number of housing units and rental housing. Despite variance in the estimates it is evident that these low rental vacancies are no doubt making finding housing difficult and are likely to continue to drive up rent prices.

Out of more than 60,000 vacant units across Barnstable County recorded in the Census data only about 2.5 percent are denoted as “Vacant for Rent”, meaning they are currently unoccupied and a new tenant

<sup>10</sup> The following eleven sources did not have the coverage needed for the region at the time the analysis was conducted: Axiometrics (only contained 7 cases on Cape Cod); REIS (does not include Cape Cod); Zillow (does not include Barnstable County prior to February 2022); Co\*Star and Apartments.com (only has buildings with more than five housing units); AirDNA (only has data from short-term rental listings); Warren Group (no rental vacancy data); CoreLogic Case-Schiller (no rental vacancy data); Cape Cod and Islands Association of REALTORS monthly and annual reports (no rental vacancy data); Census Housing Vacancy Survey/Current Population Survey (state level is the smallest level of geography); DOR Short-Term Rental Data (does not contain data on year-round rentals); Apartment List (does not include Cape Cod).

is being sought. But this data is only a broad understanding, founded on a small basis when examined at the town level, because only some rental units are vacant, of an already limited number of rental units. In practice, this means that the estimates include multiple towns which may functionally have no vacant units whatsoever, with only Barnstable, Falmouth, Yarmouth, Dennis, and Orleans having rental vacancy rate estimates whose possible range ends above zero. As shown in **Figure 28**, there is considerable variance around this measure, as shown with the black bars showing the margin of error around the estimated count, and it is therefore difficult to draw conclusions to compare between years about the trend or direction of change in these units, because they overlap across the years. In general, the county has a low share of vacant units available for rent, especially when compared to the state. This low share is likely due to the huge amount of seasonally vacant units in the region utilizing housing that might otherwise be put on the market.

**Figure 29 Vacancy Rate Point Estimate and Range**



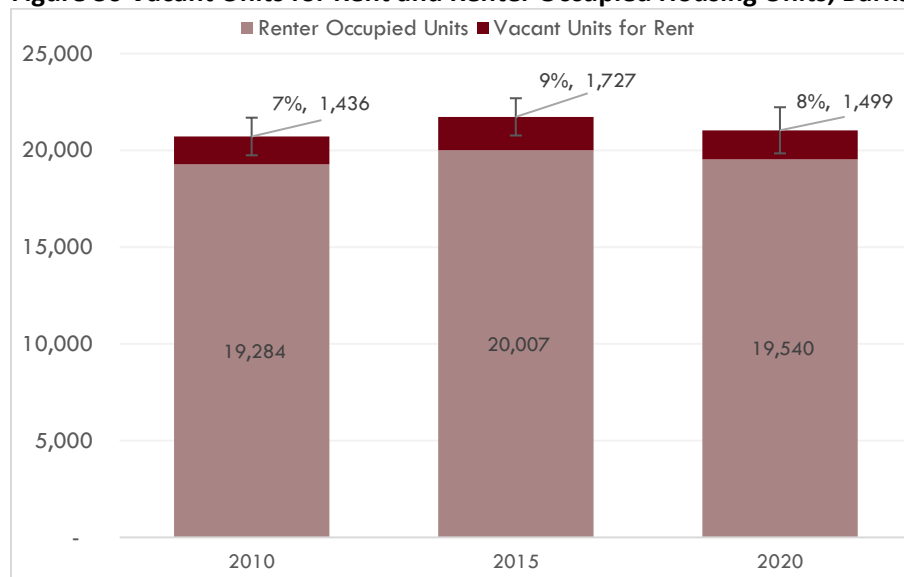
Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.

Note: \* indicates location where subtraction of the margin of error actually makes the number of vacant units on the low end negative, result is rounded to zero.

As shown in **Figure 29**, the vacancy rate by town can vary substantially and, in many places, may actually be zero based on the variance (also called margin of error) around the vacancy estimate. Towns on the Lower and Outer Cape in Wellfleet, Chatham and Eastham in particular have very small numbers of units that are vacant for rent and this leads to huge amounts of variance around the vacancy estimate. In these towns the vacancy rate could be zero or it could be as high as 26 percent in Truro. Towns on the Upper and Mid Cape, such as Mashpee, which is estimated to have over 1,000 occupied rental units, can also have high variance on their rate estimate simply because there is a proportionally small share of rental housing stock in the town, and of that stock, at most 10 percent is actually vacant for rent.

The vast majority of all vacant housing in Barnstable County, 90 percent, is seasonal. It is possible that some portion of that housing is rented outside of the summer season to local tenants, but Census Bureau data lacks that type of detail. The ACS also measures vacant units that are rented, but not yet occupied, such as a unit where a lease has been signed but the tenant has not yet moved in. However, there are very few of these units: in the 2020 5-year ACS data, the most recent data available, there were an estimated 234 rented but not yet occupied units county-wide with variance around the estimate of +/- 145. Vacant but not yet rented units are few enough that they were excluded from this analysis.

**Figure 30 Vacant Units for Rent and Renter Occupied Housing Units, Barnstable County**



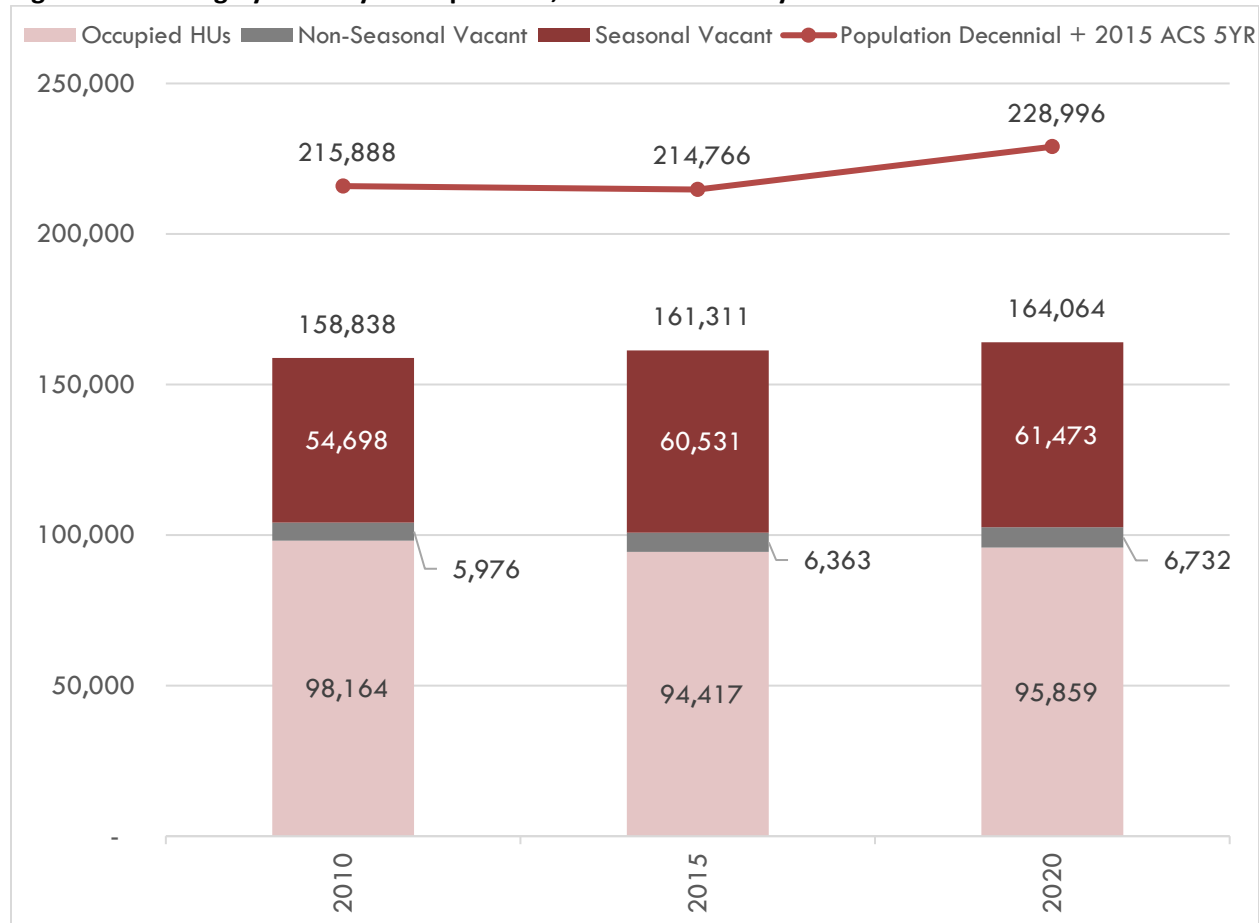
Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.

Looking at the universe of all renter occupied housing compared to the stock of available rental units in the ACS across the county as a whole, the vacant and available rental units are less than 10 percent of total renter units, and may be lower than that estimate. Again, there is considerable variance around the vacant for rent measure, as depicted with the black variance I-shaped ranges marked at the top of the dark red bars: in 2020 the real value is estimated to be between 6 and 9 percent of total renter units. This variance is because it is such a small share and amount of the housing. Despite the lack of precise estimates, it remains clear that rental vacancies this low make finding housing difficult and also keep upward pressure on rental housing prices.

## Seasonal Vacancy Impact on Housing Availability

An unusually large share of Cape Cod housing is seasonally vacant, which overall has not decreased as the population has increased. In some areas of the region, particularly on the Outer Cape, seasonally vacant housing predominates. These circumstances are both unusual and highly impactful on the region.

**Figure 31 Housing by Vacancy vs. Population, Barnstable County**



Source: U.S. Census Bureau, ACS 5-YR, 2010, 2015 and 2020, Total Housing Units.  
 Note: Population count is from the 2010 and 2020 Decennial Census and the ACS 5-YR for 2015.

As is the case throughout much of the Commonwealth, construction of new housing has been unable to keep up with demand. However, on the Cape, resident homeowners and year-round renters in the market for housing are also competing with second homeowners and investors who are converting year-round housing into seasonal housing or purchasing new construction for those purposes. Housing which is seasonally vacant is generally growing as a share of all housing on Cape Cod. From 2010 to 2020, the number of seasonally vacant units increased 12 percent while the number of all units increased only three percent. Furthermore, this shift has happened alongside slight positive residential population growth in most regions of Barnstable County. The 2020 Decennial Census showed a population increase of six percent from 2010 to 2020 on the Cape, double the rate of increase in all housing units, and occupied housing units decreased by 2 percent. Seasonal rentals are a critical livelihood for many Cape Cod residents, and for some, it helps them afford their own mortgages. However, the increasing trend has also put pressure on the existing housing stock to support increased demand for vacation rentals while also having to house local residents who make the local economy and community function. Cape Cod is unusual for its high proportion of seasonally vacant units. Most parts of Massachusetts have very

little of the housing stock standing empty for just part of the year, but the beaches and summer draw of Cape Cod mean that housing that is available seasonally is much more common. Units which are vacant for seasonal use are labeled in the figure above as ‘Seasonal Vacant’. Despite modest recent increases in the residential population, the prevalence of seasonally vacant housing persists, and based on the past trend, are projected to become a larger share of the total housing units over time.

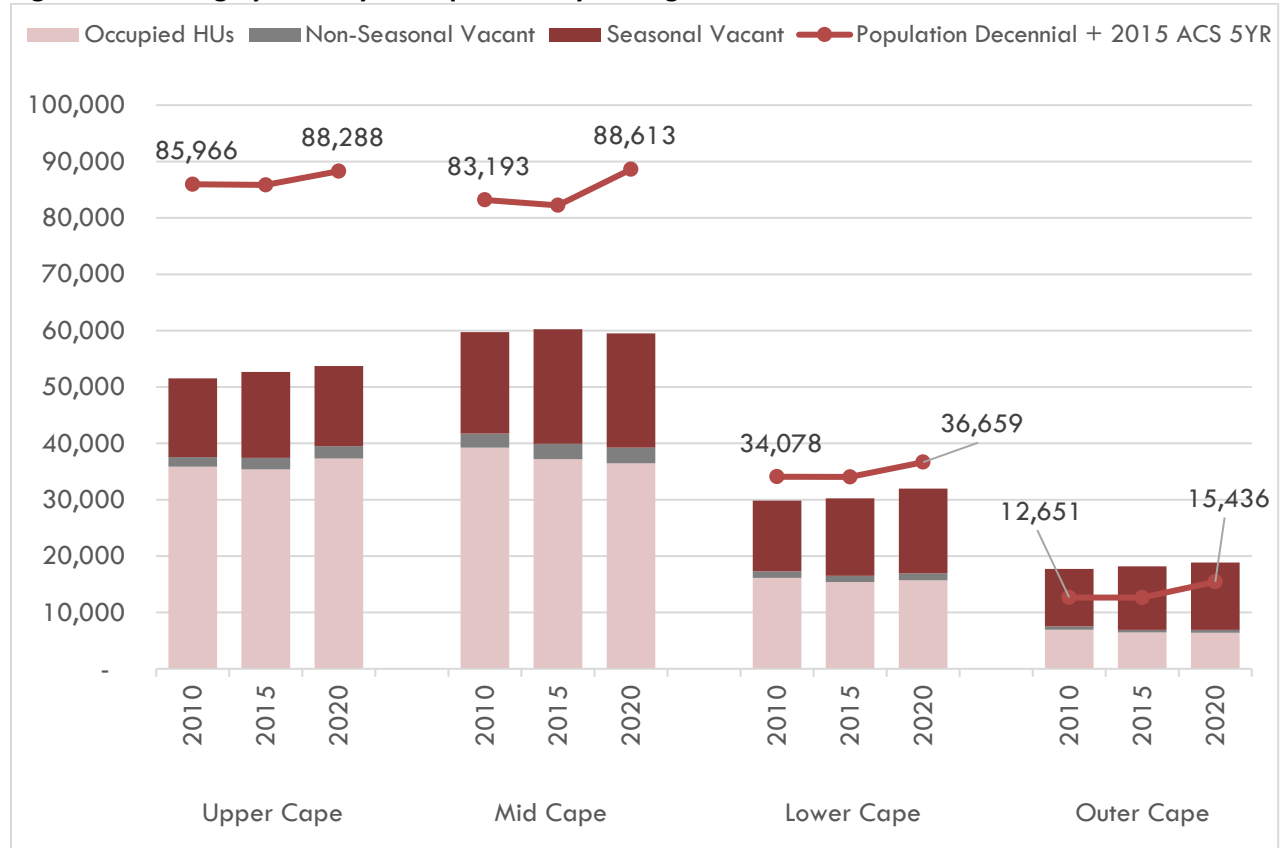
The proportion of housing which is seasonally vacant<sup>11</sup>, a large amount of which is seasonally vacant because it is either a second home or used exclusively for short-term rentals, is already a very large share of the housing units on Cape Cod. This is evident in the measured 2020 data in the seasonal vs. year-round housing projection section, see **Figure 37** for more on the projected increase in share. In some parts of Cape Cod, particularly the Lower and Outer Cape, more than half the housing is seasonal. Large proportions of these are rented out on a short-term basis to vacationers, or are second homes, or both. Further growth in the share of housing which is seasonal would further add to the pressure on year-round residents to find and afford housing.

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<sup>11</sup> The Census Bureau defines vacant as “A housing unit is vacant if no one is living in it at the time of interview. Units occupied at the time of interview entirely by persons who are staying two months or less and who have a more permanent residence elsewhere are considered to be temporarily occupied, and are classified as ‘vacant.’ A seasonally vacant unit is defined as “... [vacant] units used or intended for use only in certain seasons or for weekends or other occasional use throughout the year. Seasonal units include those used for summer or winter sports or recreation, such as beach cottages and hunting cabins. Seasonal units also may include quarters for such workers as herders and loggers. Interval ownership units, sometimes called shared-ownership or time-sharing condominiums, also are included here.”

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**Figure 32 Housing by Vacancy vs. Population by Subregion**



Source: U.S. Census Bureau, ACS 5-YR, 2010, 2015 and 2020, Total Housing Units.  
 Note: Population count is from the 2010 and 2020 Decennial Census and the ACS 5-YR for 2015.

The share of housing that is seasonally vacant varies by subregion with more than half of the housing in the Outer Cape vacant for seasonal use compared to less than a third in the Upper Cape. The reason places like the Outer Cape have so many houses relative to the resident population is because they have a large proportion of housing units that are residentially vacant. In other words, they are empty but livable. The Census defines many types of vacancy, such as a vacant unit that is awaiting a buyer or renter. However, on the Cape, the vast majority of these residentially vacant units are vacant for “Seasonal, Recreational, or Occasional Use”. This means they have an owner, are occupied occasionally, usually in the summer season, and are otherwise empty. We have classified all other types of vacancy reported by the Census as “Non-Seasonal Vacants.” Over the last decade, the residential population grew faster in the Mid Cape than it did in the Lower and Outer Cape. Seasonal units are typically owned by people who are residents of other communities and are not counted as part of the resident population in the town where they own the seasonal home. A high share of seasonal units in a location means a smaller share of vacant units for purchase and rent by people intending to become full-time residents.



## Tenure, Instability, Housing Becoming Unavailable

The impact of the extremely tight and high-cost housing market on the Cape came through in the 2022 resident survey; both homeowners and renters expressed concern about the cost of housing on the Cape, but renters were especially concerned about cost and housing instability. On average, survey respondents have lived on the Cape for over two decades; the mean number of years living on the Cape full- or part-time was 28 years, with just over half of residents having lived on the Cape part-time before becoming a full-time resident (see Appendix: Survey Tables, **Table 20**). On average, respondents have lived in their current homes for 14 years. The majority of respondents are homeowners, 77 percent, while 12 percent are renters and 11 percent are living with friends or family or preferred not to respond (see Appendix: Survey Tables, **Table 25**). Most residents, whether owners or renters, live in single family homes (83%). Only seven percent live in multifamily buildings (including rentals and condominiums) (see Appendix: Survey Tables, **Table 24**).<sup>12</sup>

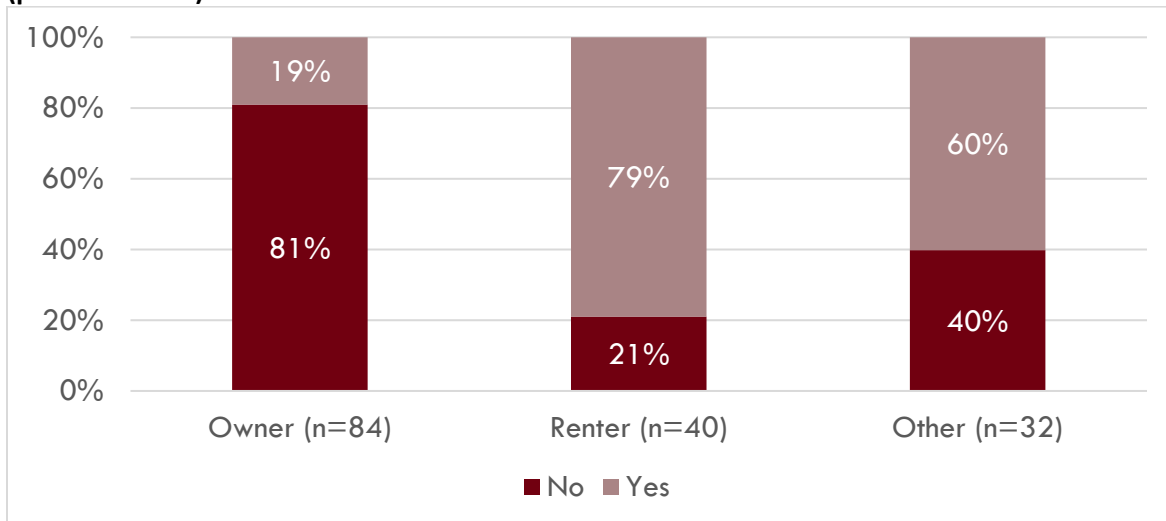
A key finding of the survey is that while both renters and homeowners face affordability challenges, renters are particularly challenged and face greater housing instability.<sup>13</sup> Part of the value of renting is the flexibility that it offers, with a household being able to relocate for a variety of reasons, but that flexibility also means renters may be forced to move due to circumstances beyond their control. Nearly eight in ten renters (79%) responded that they had moved out of a home that was no longer available to them, compared to just under 20 percent of owners (see **Figure 33** and Appendix: Survey Tables, **Table 31**). Respondents who reported moving because their housing was no longer available were given a follow up question on the survey about the cause. Over 40 percent of respondents, both owner and renter, indicated that the home they were living in was sold or was going to be sold. Other common responses included that the unit they rented was being converted into a short-term rental, their landlord or the landlord's family was moving into the unit, or the lease was being terminated for unknown reasons. A wide variety of responses were captured in the 'other' category, including respondents whose employment provided their housing and who had to move when laid off, displacement due to seasonal renters in the summer, and owners who were unable or unwilling to continue renting to the respondents (see **Figure 34** and Appendix: Survey Tables, **Table 32**). Most responses were related to renter issues, as they made up the bulk of respondents who lost access to their housing. These responses highlight the pressure placed on renters by the tight housing market and the growth in seasonal housing.

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<sup>12</sup> This was an item where respondents selected all that applied, so totals do not add up to 100 percent.

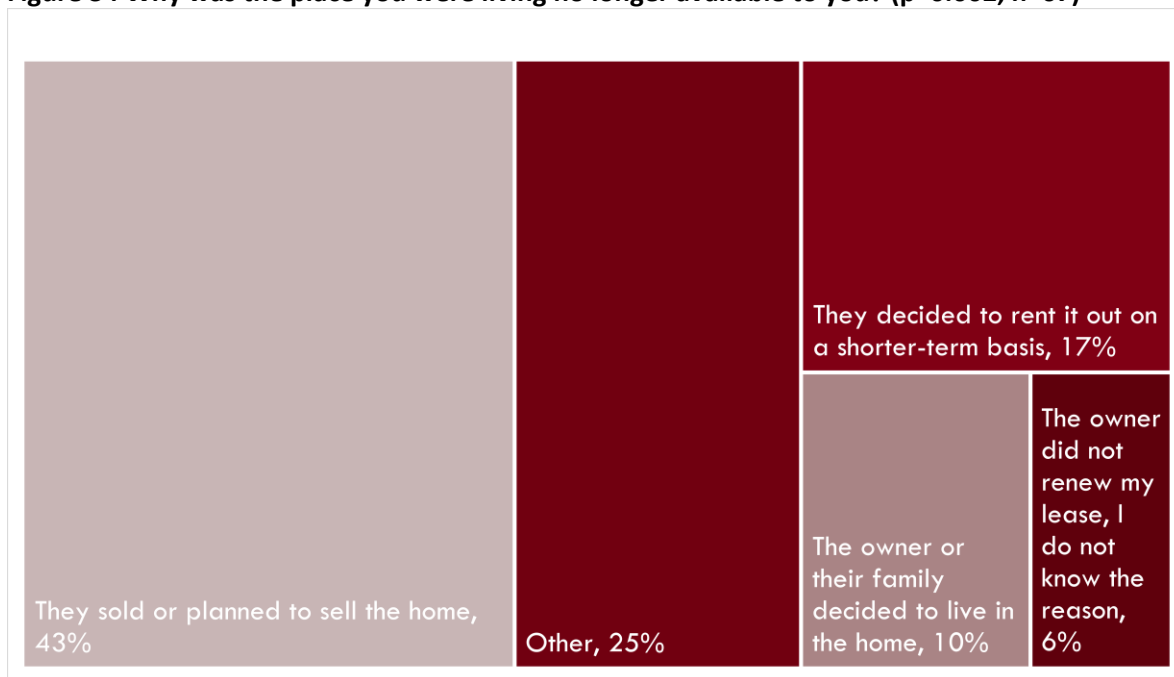
<sup>13</sup> For this analysis all respondents who responded that they "live in a home that I own" were categorized as owners, and all respondents who selected "I live in a home where I pay rent" as renters, while all other respondents were categorized as "other." Therefore, the category "other" includes people who live with family or friends or who may live in their vehicles, in RVs, or on campgrounds, where the respondent owns the structure but is renting the land.

**Figure 33** Were any of these moves because the place you were living was no longer available to you? (p=0.000 n=156)



Source: Cape Cod Residents Survey 2022.

**Figure 34** Why was the place you were living no longer available to you? (p=0.002, n=67)



Source: Cape Cod Residents Survey 2022.

## Projection of Housing Unit Demand and Supply

Housing projections were created for this analysis in order to help support planning for future housing needs, based on a straight-line model. They project a perpetuation of the current cost and availability crises on the Cape, should trends continue. These results are calculated through a projection of estimated future demand and a projection of estimated future supply. Both are modeled and rely on selected available data. The demand projection is based on the population projections shown in the population projections section, combined with prior trends in household formation rates. The supply projection is based on prior trends in the number of housing units. A projection of year-round housing vs. seasonally vacant housing was also produced, based on the historical trends in the proportions of seasonally vacant housing in each area of the Cape.

### *Housing Projections Methods Summary*

#### **Housing unit demand projections:**

Demand is defined as housing units needed, which is modeled in this projection as equal to the number of households plus the number of vacant housing units. The projection is based on population trends and the population projection. Using current household formation patterns and vacancy rates, the model projects the number of housing units that would be needed to house this future population, in the absence of a major shift in any of those trends. Historical household formation rates are taken into account. Note, there are other potential demand factors that this approach does not utilize, they include:

- local land-use restrictions and financial factors affecting development of individual housing units; and
- changes in desirability of certain communities, which itself is a function of many socioeconomic factors including: employment opportunity, local amenities, public safety, the quality of transportation infrastructure, as well as many other things which could have meaningful effects.

#### **Housing unit supply projections:**

To project the total housing units that would be available on Cape Cod going forward, UMDI used a linear model constructed based on the trends in 15 years of data consisting of three sets of non-overlapping 5-year ACS data, which was then projected forward to 2050. One difference with housing supply projections is that 2020 data was available in the Census PL-94 dataset, which is the final year in the 15 year trend (unfortunately, the detail needed for the demand projections is not available in this dataset<sup>14</sup>). Note that the assumption of a linear rate of change in housing supply over this period is a limitation of this model, which does not account for changes based on political, economic, or environmental factors over the next 28 years.

Both year-round occupied housing units and seasonally vacant units were projected by municipality, keeping the distinction between the two use purposes. Occupied housing unit projections were limited

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<sup>14</sup> Due to delays, in part related to the COVID-19 pandemic, full 2020 Census data is not yet available. A more limited set of 2020 demographic data is available through the Census PL-94 data, which was used for redistricting of political boundaries.

to a change of one percent a year, but seasonal units were not. This constraint was added to ensure that small towns did not unreasonably reflect exaggerated trends due to their small size. The method allowed for the possibility that in certain communities year-round occupied housing could potentially be converted into seasonal housing at an annual rate greater than one percent.

For further methodological details on the housing unit demand and housing unit supply projections, please refer to **Appendix: Housing Unit Supply and Demand Projections**.

The housing projections consist of both a projection of estimated future demand, based on the population projection and household formation rates, and a projection of estimated future supply, which is based on trends in the number of housing units, constrained to a one percent change per year<sup>15</sup>. These are simple linear models. The town projections are also constrained to be in keeping total for the region, and the region in keeping the projection totals for the state, so that each subpart adds up to the overall total, preventing unintuitive results. The housing projections show an expected housing deficit or gap between the need (demand) for housing and the number of housing units if the current rates of housing production continue as they are, through 2040, and most of the region shows an expected continued deficit or gap through 2050. It should be noted that these housing projections make heavy use of the population projections. If, in the long run, population trends on Cape Cod diverge from their recent trend (for example, as a result of changes in migration patterns during and after the COVID-19 pandemic), that will, in turn, lead to a divergence in the region's housing needs. For example, if the increasing availability of remote work were to lead to a larger number of workers moving to Cape Cod in the long term, that would lead to an increase in the level of housing demand. In the absence of any change in the projected production of new housing, this would further exacerbate the gap between housing demand and housing supply on Cape Cod. This possibility is estimated in **Appendix: High-Series Projections**.

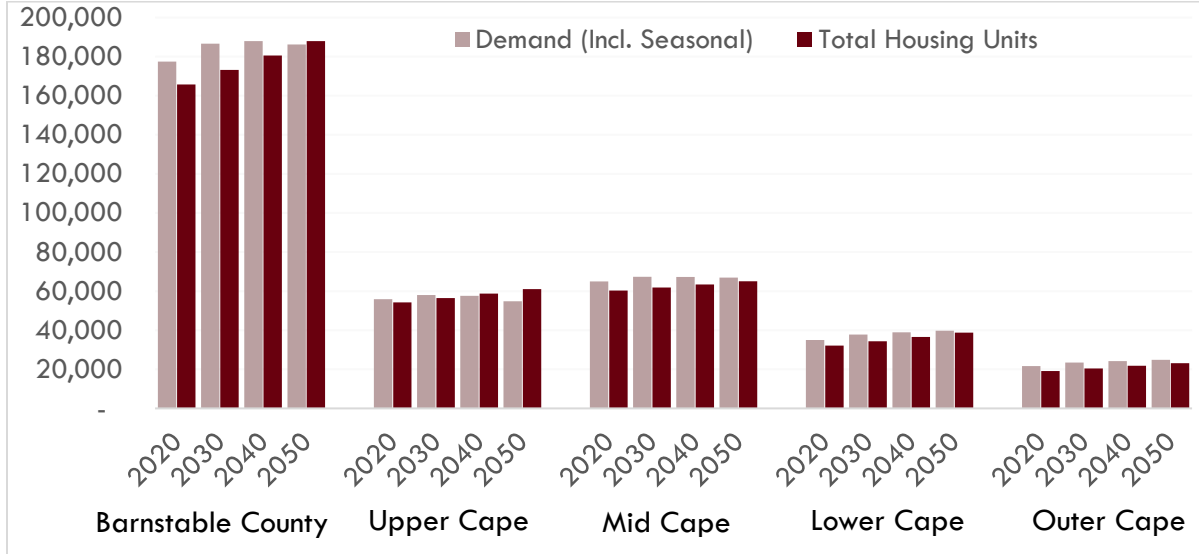
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<sup>15</sup> UMDI analyzed shifts in housing unit counts between 5-year ACS surveys for all municipalities on Cape Cod. In the cases of both 2009-2014 and 2014-2019, one third of municipalities saw a shift in housing that exceeded one percent. Only one municipality in each time period saw their annualized housing unit growth exceed two percent. No community experienced an annualized housing stock growth over one percent in two consecutive periods. So while more rapid changes in housing growth have been observed, for this longer-term projection, the projected rate of growth was limited in keeping with broad trends.

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## Housing Projections

**Figure 35 Projected Housing Unit Demand and Projected Supply**

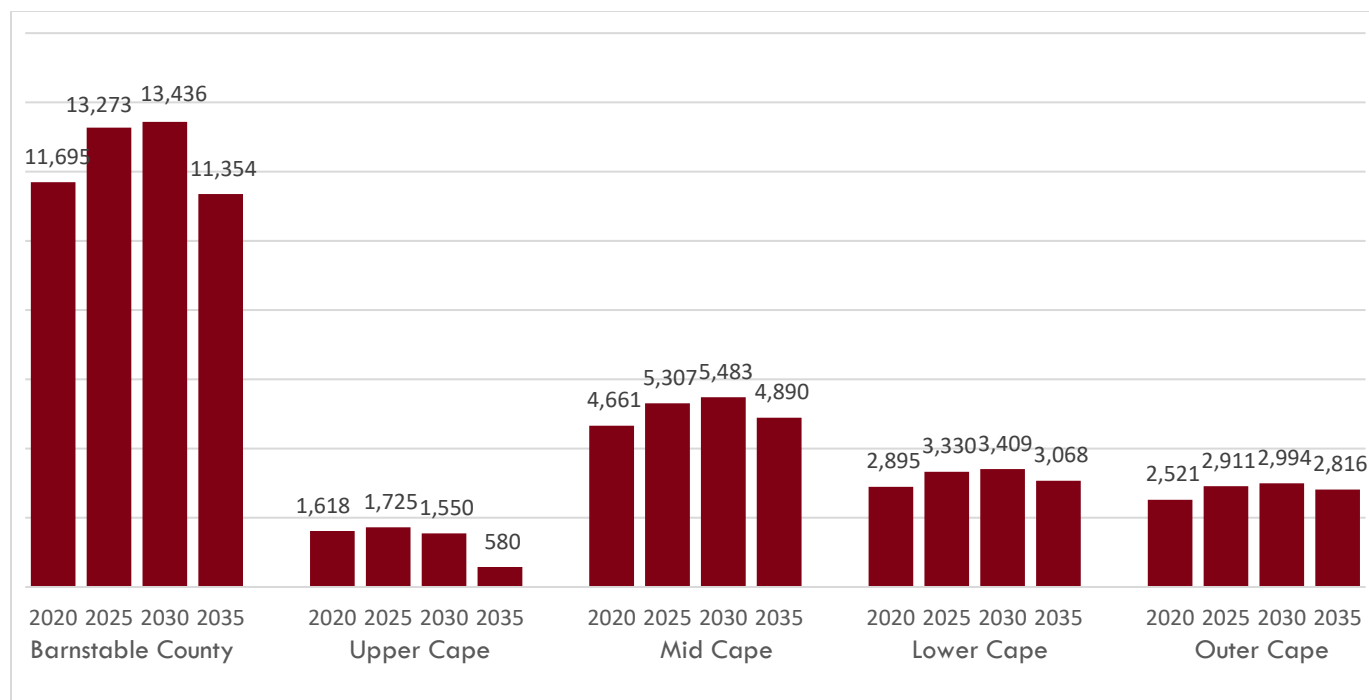


Source: UMDI Cape Cod Housing Projections, 2022.

The demand for housing is projected to exceed the supply of housing units for at least the next few decades, which, if it transpires in reality, creates serious pressures on residents in need of housing, as well as increasing upward pressure on housing prices. While the overall number of housing units is projected to eventually exceed demand in 2050, many housing units are also expected to be used seasonally rather than as year-round housing, as shown in the next figure. In addition, the housing unit demand projection is based on the population projection, which reflects 2020 population levels but depends on trends extending only through 2019. As previously described, the model does not account for pandemic trends in increased year-round use of second homes and other migration trends. For a model which takes increases in 2020 into account, see **Appendix: High-Series Projections**. If this level of influx into the region from the pandemic becomes the usual level of influx into the region in the future, the demand would further outstrip current and projected new supply from such strong in-migration. This is estimated in the high-series projections appendix.

Regionally, in these projections, which do not account for post-2019 demand trends, demand is projected to outstrip supply in the Mid, Lower and Outer-Cape through 2050, with only the Upper Cape potentially having enough housing.

**Figure 36 Housing Need Gap, 2020 to 2035**



Source: UMDI Cape Cod Housing Projections, 2022.

Note: This figure relies on the Standard Population Projection. For the high-series estimate, see **Appendix: High-Series Projections**

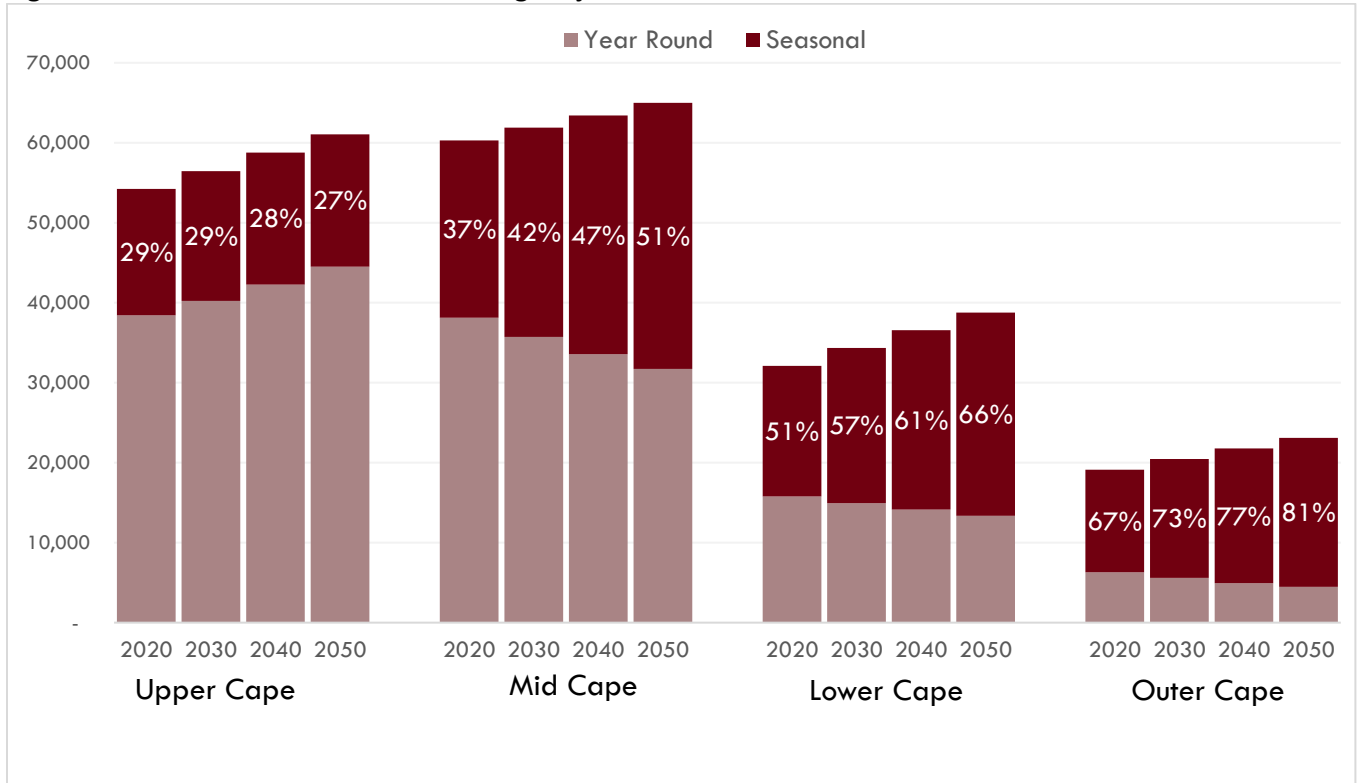
**Figure 36** above shows the gap between supply and demand estimated out to 2035, based on the population projection in figure 21. The gap is substantial for all subregions and expected to grow out to 2030 before declining to 2035.

Projections of expected changes in the proportion of seasonal housing is shown in the following section. If the need for year-round housing remains steady and the share of housing which is seasonal proceeds along these projected trends, these decreases in the share of year-round housing will exacerbate the projected deficit of year-round housing available to residents. If the model accurately predicts the future reality, the supply of housing would need to increase even more quickly than it has to ensure that year-round housing does not fall even further behind the demand.

### ***Year-Round and Seasonal Housing Projections***

Given historical trends, the amount of seasonal housing is expected to grow as a share of total housing, becoming as much as 80 percent of housing stock in the Outer Cape in 2050. Some towns on Cape Cod are already close to this proportion. The focus groups conducted for this project, and the open-ended comments from the survey conducted of residents in late September and early October 2022 provided anecdotal evidence that some renters have been losing their current year-round housing to conversion of year-round rentals to short-term rentals.

**Figure 37 Year-Round vs. Seasonal Housing Projections**



Source: UMDI Cape Cod Housing Projections, 2022.

This seasonal vs. year-round housing projection illustrates this projected trend, starting with the measured data shown in the 2020 bars in **Figure 37**. Beyond 2020, this figure shows the projections of year-round and seasonal housing counts out to 2050. Like all the projections, this is a straight line projection extending out the measured trend linearly. In some parts of Cape Cod, particularly the Lower and Outer Cape, more than half the housing is seasonal. Large proportions of these are rented out on a short-term basis to vacationers, or are second homes, or both. The projection in **Figure 37** illustrates an expected growth in seasonal housing, which will add to the pressure on year-round residents to find and afford housing if trends continue as projected.

Furthermore, Census data estimates show that in some towns the proportions are dramatic, and the available municipal data suggests that proportions are increasing. For example in Truro in 2020, over 70 percent of housing is vacant for seasonal use, the highest share of any town in Barnstable. If recent trends continue, the projection model estimates that virtually all housing units in Truro will be used as seasonal units by 2050. Wellfleet, Eastham, Chatham, Provincetown and Dennis all have large shares of their housing standing vacant seasonally. (See **Table 10**, following, for each towns' recent measured share of housing stock that was identified by Census as seasonally vacant in the 2016-2020 ACS dataset.)

While seasonal housing has been part of life on Cape Cod for decades, the growth of seasonally vacant housing as a share of the housing stock applies greater pressure to prices and limits the availability of housing for rent to year-round residents. Additionally, it may drive up housing prices for those looking to purchase homes for year-round residential purposes. On the Upper Cape, where seasonal housing has historically been a smaller share of housing stock, most of the new housing developed in the coming decades is projected to be occupied by year-round residents, leading to a small decline in the share of seasonal units.

**Table 10 Towns by Share of Housing Stock Measured as Vacant for Seasonal Use, 2020**

<b>Geography</b>	<b>Vacant for Seasonal</b>	<b>Total Housing</b>	<b>Share</b>
Truro	2,649	3,386	78%
Wellfleet	2,974	4,645	64%
Eastham	3,707	6,236	59%
Chatham	4,285	7,513	57%
Provincetown	2,618	4,597	57%
Dennis	8,383	15,831	53%
Orleans	2,608	5,682	46%
Harwich	4,639	10,502	44%
Brewster	3,518	8,291	42%
Yarmouth	5,820	17,002	34%
Mashpee	3,338	10,239	33%
Falmouth	6,945	21,988	32%
Barnstable	6,053	26,666	23%
Bourne	2,568	11,590	22%
Sandwich	1,368	9,896	14%
Barnstable County	61,473	164,064	37%
Massachusetts	123,556	2,913,009	4%

Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.



# Cape Cod's Housing Costs vs. Incomes Crisis

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## Income Trends and Cost Trends

Housing needs for the region and in each part of Cape Cod are a function of how much housing is available, what the prices are, and what people can afford to pay for housing. Patterns in residents' income and housing market trends and prices are described in this section to ground planning for the future housing needs on Cape Cod in reality and data. This section details some of the important trends in income and rent and home purchase costs that are putting housing out of reach for far too many of Cape Cod's residents.

### *Housing Market Pressures*

There are several upward pressures in the Cape Cod housing market affecting prices and affordability. The population recently increased during the pandemic, and the supply of homes for sale and for rent has not kept up. In addition, seasonal vacancy has been increasing and both home prices and rents are already out of reach for more than half of renters and for potential buyers at the median income. Together, these factors have contributed to the current intensity of the housing cost crisis.

After a period of relatively flat population change, the residential population has increased recently, which increases the demand/need for year-round housing units, but at the same time, seasonally vacant housing has also increased rising 12 percent in the period 2010 to 2020 across the county while the number of occupied housing units has fallen 2 percent. While many seasonally vacant properties are free-standing single family homes, the large proportion of year-round resident homeowners compared to year-round resident renters on Cape Cod indicates that there is already a low proportion of rental housing stock, and analysis shows that the median price of the rental housing stock on Cape Cod is higher than rental housing across the state, and increasing.

The region and localities have shown marked increases in the median income, with gains which outpace the change in the state overall. However, this in and of itself does not remediate the strong housing cost burden in the region and may even be due to increased housing prices allowing higher-income residents to stay or move on Cape, with middle- and lower-income households potentially leaving. Otherwise, it may simply be that while incomes are rising, housing costs are also rising at the same time, at their own independently increasing rate.

It is critical to understand in places where displacement may be happening, changes in median income of residents can be due to phenomena changing the income of long-term residents, or the change in the median income can come from people at specific income levels moving into or out of the region.

While incomes have increased, housing prices have increased even faster. The housing market has been skyrocketing recently with diminishing stock for sale and rapidly rising prices. This affects people purchasing homes and also affects renters. As detailed in a prior section, several uses of housing are

uniquely under- or over-represented in the region: seasonal housing, which includes second homes and short-term rentals, is more prevalent on the Cape than in the state as a whole. At the same time, multifamily housing (such as apartment buildings or two- or three-family houses) is much less common on the Cape. These factors increase pressure on the year-round housing market stock for residents.

### ***Additional Local-Level Market Pressures***

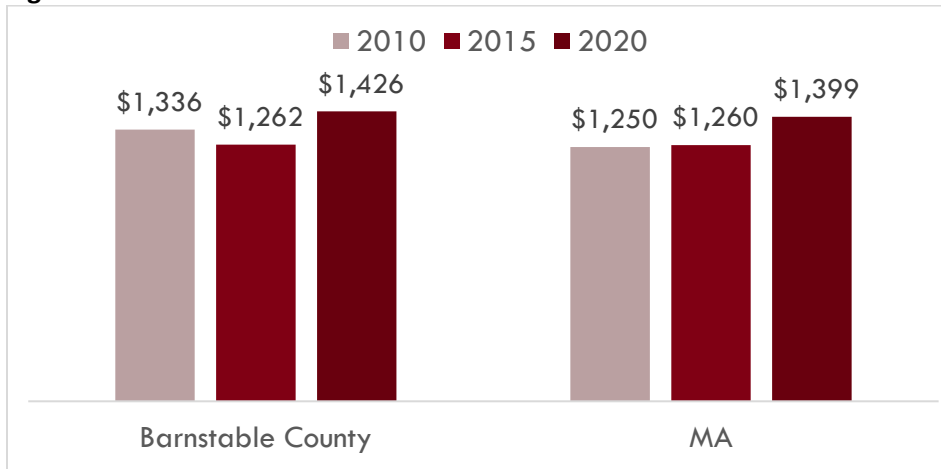
Responses to the housing crisis are also influenced by local public policy. Focus group participants noted that due to environmental constraints, new construction may face additional design or permitting requirements that can increase project costs and the time needed to build. They also identified that zoning restrictions further hem in potential to develop new housing, especially multifamily housing. Another frequently cited challenge to addressing the housing crisis was the lack of political will to increase housing development on the Cape. The focus group attendees discussed instances where regulations meant to defend the environment or promote historic preservation had been “weaponized” to shut down proposed developments. As one municipal leader put it: “[...] *the process is utilized as a weapon for opposition. They make it about process challenges or issues or misunderstandings as opposed to the merits of a project [housing development] or the demerits.*” Furthermore, the traditional forms of participatory governance, such as Town Meeting and other forms of neighborhood or town-level meetings, often lead to older, more affluent, homeowners having a larger voice in decisions about land use. This in turn can curb the development of new housing, and especially multi-family housing.<sup>16</sup> One employer remarked: *“I mean, we have an inherent bias against, you know, apartments in this community... every time a decent size complex gets proposed in any town on the Cape... everybody turns into a historic preservationist!”* In response to these challenges, there were calls to promote regional collaboration. Municipal leaders cited the successful Lower Cape Housing Institute as an example of regional collaboration.

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<sup>16</sup> Einstein, K. L., Glick, D. M., & Palmer, M. (2020). Neighborhood Defenders: Participatory Politics and America’s Housing Crisis. *Political Science Quarterly (Wiley-Blackwell)*, 135(2), 281–312. <https://doi.org/10.1002/polq.13035>

## Rent Prices over Time

Figure 38 Median Gross Rent



Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.

Note: All dollars adjusted for inflation to 2021 dollars. Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and heating fuel, if paid for by the renter.

Rents have been increasing across the state, but even more dramatically in Barnstable County than in Massachusetts overall. In addition, Barnstable County has a higher median gross rent than the state median. Similar to the median income graph, the dip from 2010 to 2015 is negated by the larger jump from 2015 to 2020.

The survey of residents conducted in late September through early October of 2022 for this project reflects rents that are concordant with the ACS estimates, with respondent Cape Cod year-round renters reporting an average monthly rent cost of \$1,635 +/-222 (95 percent confidence interval). See the **Survey** section and **Appendix: Survey Tables** more information from and analysis on the survey.

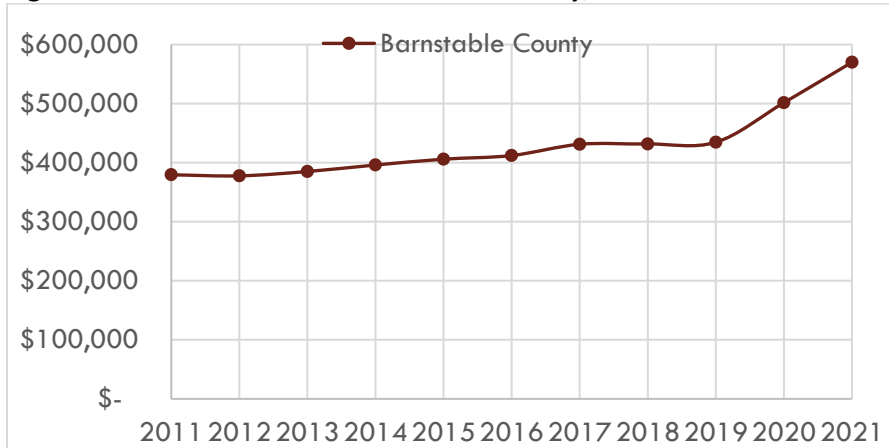
Consulting data from Co\*Star for a recent but less comprehensive look at rental data showed average rents for Barnstable County in line with ACS in 2020 of \$1,402 for 2020 and the most recent data was reported at \$1,516 (YTD 2022)<sup>17</sup> which is comparable with the survey results.

<sup>17</sup>Co\*Star/Apartments.com market asking rent data from Housing Market Overview and Economic and Fiscal Benefits of Housing Development in Barnstable County, MA, The Concord Group on behalf of Housing Assistance Corporation, October, 2022, p.93.

### Home Purchase Prices over Time

A recent rapid increase in home purchase prices is expected to level off somewhat in the face of increased interest rates. However, this is not expected to provide meaningful price relief to prospective buyers. Both single family and condominium prices increased starting near the beginning of the pandemic, rapidly, and especially strongly in the single family home market.

**Figure 39 Median Sale Price- Barnstable County, All Homes**

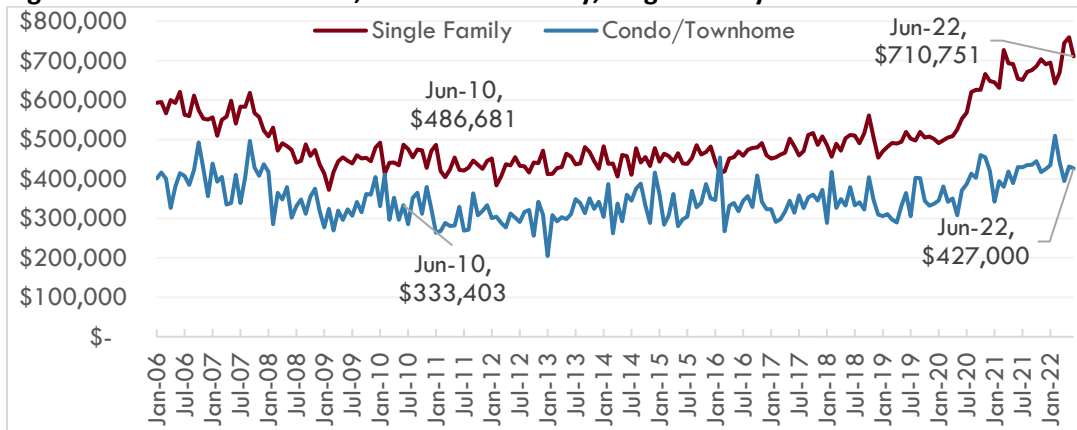


Source: Cape and Islands Association of REALTORS, Annual Data Reports, 2011–2021.

Note: All dollars adjusted for inflation to 2021 dollars. Data include all home sales including both single family and condominiums.

The median sales price of homes in Barnstable County has steadily increased since 2011 with a larger jump in prices starting in 2019 and continuing steeply through 2021. Recent demand for houses has outpaced production and other sources of supply (owners selling their homes) which has caused upward pressure on prices. In addition, increases in mortgage lending rates have recently added additional costs to home-buying. Due to increasing interest rates and other future market dynamics, prices may level off, or even drop to some limited extent, but likely not at the same fast pace at which they rose.

**Figure 40 Median Sales Price, Barnstable County, Single Family vs. Condominium**



Source: Cape and Islands Association of REALTORS, Monthly Data Reports, January 2006–June 2022.

The median sales price for both single family homes and condominiums decreased in mid-2008 and early 2009 following the 2008 recession. However, since then they have been steadily growing with a growth spike starting in the summer of 2020.

**Table 11 Median Sales Price, Single Family Homes, vs. All Massachusetts Counties**

County	December 2016 YTD	June 2022 YTD	Percent Change	SF Share of June 2022 YTD Home Sales
Nantucket	\$1,650,489	\$3,182,500	93%	91%
Barnstable	\$458,264	\$689,000	50%	77%
Essex	\$491,766	\$690,000	40%	65%
Berkshire	\$233,589	\$317,000	36%	88%
Worcester	\$313,501	\$420,000	34%	80%
Plymouth	\$416,341	\$550,000	32%	82%
Hampden	\$221,295	\$289,000	31%	85%
Dukes	\$1,075,738	\$1,400,000	30%	93%
Suffolk	\$569,834	\$740,000	30%	18%
Bristol	\$350,383	\$455,000	30%	82%
Franklin	\$245,268	\$315,500	29%	92%
Norfolk	\$559,384	\$716,000	28%	67%
Middlesex	\$608,560	\$775,000	27%	63%
Hampshire	\$320,324	\$402,250	26%	81%
Greater Boston	\$663,884	\$829,000	25%	50%

Source: MA REALTOR Association, County & Board Reports.

Note: Adjusted for inflation to June 2022 dollars; June 2022 YTD data only is the first 6 months of 2022, December 2016 YTD is a full year. Greater Boston is the Greater Boston Association of REALTORS footprint.

Barnstable County had the second-highest percent change in median sales prices of single family homes out of all the counties in Massachusetts. Every county's median home price increased by roughly 25 percent or more, with the smallest change occurring in the Greater Boston region. This is likely because it was already so expensive to live in Boston that many people in the market for a home have had to seek housing elsewhere or delay purchase in hopes of saving more or prices falling somewhat relative to wages. Single family homes accounted for 77 percent of home sales in Barnstable County in June 2022 YTD.

**Table 12 Median Sale Price, Condominiums, vs. All Massachusetts Counties**

County	December 2016 YTD	June 2022 YTD	Percent Change	Condo Share of June 2022 YTD Home Sales
Nantucket	\$514,510	\$1,545,000	200%	9%
Dukes	\$322,721	\$890,000	176%	7%
Plymouth	\$313,501	\$448,000	43%	18%
Franklin	\$164,742	\$232,500	41%	8%
Berkshire	\$209,000	\$293,100	40%	12%
Worcester	\$236,662	\$330,000	39%	20%
Bristol	\$229,900	\$306,500	33%	18%
Norfolk	\$399,560	\$526,995	32%	33%
Essex	\$318,418	\$415,000	30%	35%
Barnstable	\$325,795	\$420,000	29%	23%
Hampshire	\$237,892	\$285,000	20%	19%
Middlesex	\$504,060	\$600,000	19%	37%
Hampden	\$165,909	\$194,000	17%	15%
Greater Boston	\$596,406	\$680,000	14%	50%
Suffolk	\$659,458	\$700,000	6%	82%

Source: MA REALTOR Association, County & Board Reports.

Note: Adjusted for inflation to June 2022 dollars; June 2022 YTD data only is the first 6 months of 2022, December 2016 YTD is a full year. Greater Boston is the Greater Boston Association of REALTORS footprint.

Although the price change for condominiums is not nearly as intense as the increase in single family home prices, a 29 percent increase from December of 2016 to June of 2022 is still a remarkably large change. Just under a quarter of home sales in June 2022 YTD were condominiums. Condos are a smaller share of the market overall but still a substantial portion of the housing market in the area, particularly in places like Provincetown. Overall, price increases make affordable housing even harder to find. The price of a condominium now is closer to what a single family home would have been in 2016 in Barnstable County.

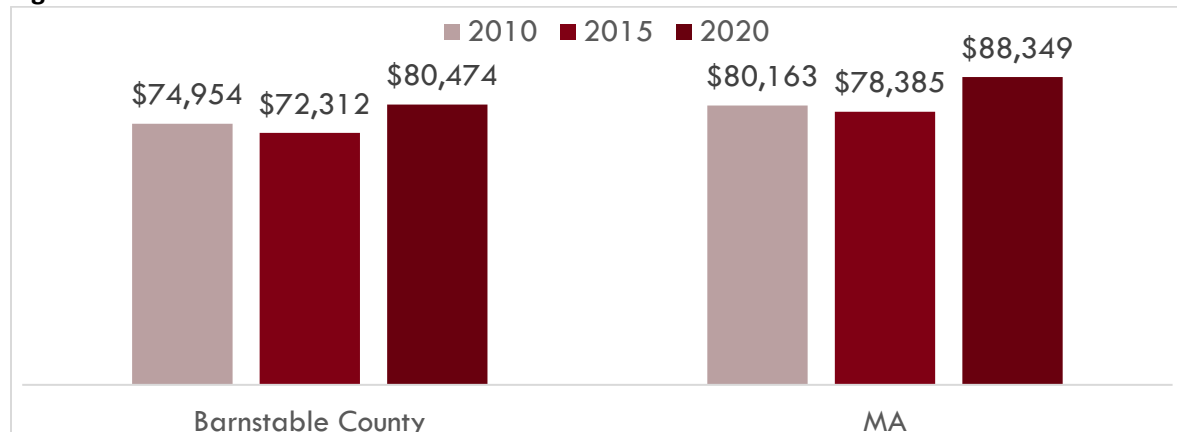
### ***Housing Costs vs. Income over Time***

While the housing crisis has been making headlines nationally, it is experienced locally, and housing prices and incomes vary widely from region to region. The Cape Cod region has been experiencing unique pressures due to the Cape's status as a vacation and retirement destination, which leads to second home and seasonal uses of housing competing with year-round uses. In other words, those working on the Cape year-round and seeking to purchase a home are potentially competing with retirees and those seeking second homes who are earning or earned higher incomes in other regions.

On the Cape, wages rose 9 percent from 2019 to 2021 while median single family home prices rose 35 percent. Wages have not kept up with housing prices. For those who own their homes this can be a boon as they see their home equity increase, but for those looking to become homeowners rising house prices keep them out of one of the primary means of building wealth in the U.S.

For renters, rising rents and decreasing vacancy rates mean that they have fewer choices and must use more of their income to cover rent. Even as interest rates increase and housing prices potentially stabilize, the cost burden on renters and new homeowners is likely to remain high. Higher interest rates may result in reduced growth in prices and housing stock remaining on the market for longer, but they also lead to higher financing costs for homeowners. The housing cost crisis described in this section is likely to continue into the future even as the housing market cools.

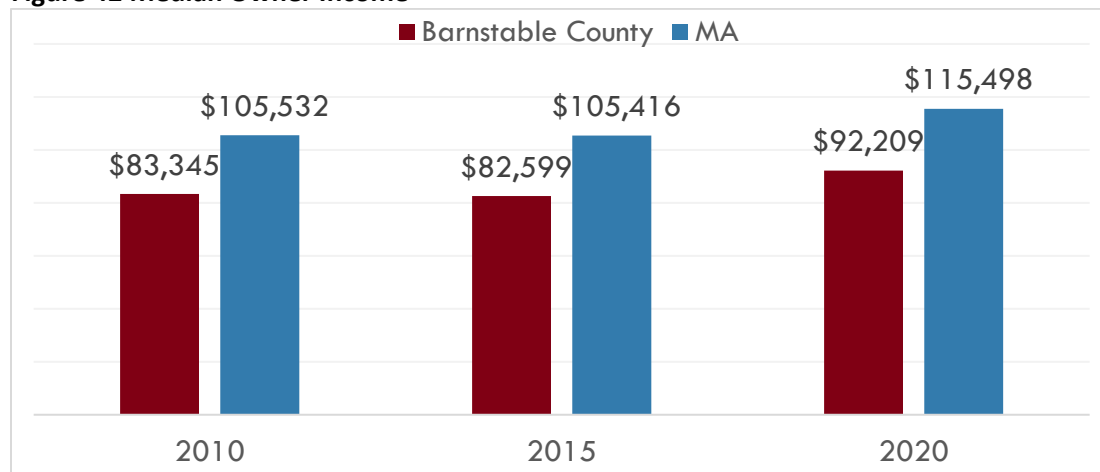
**Figure 41 Median Household Income**



Source: U.S. Census Bureau, ACS 5-YR, 2016-2020.  
 Note: All dollars adjusted for inflation to 2021 dollars.

Barnstable County is close to the median income in comparison to other Massachusetts counties, but is slightly lower than the state as a whole. After a dip in income from 2010 to 2015, the 2020 median income for both Barnstable County and the state have surpassed their 2010 value and have shown economic growth. The state median income is consistently higher than the Cape Cod region, potentially reflecting industry mix and additional economic opportunities accessible outside of Barnstable County.

**Figure 42 Median Owner Income**

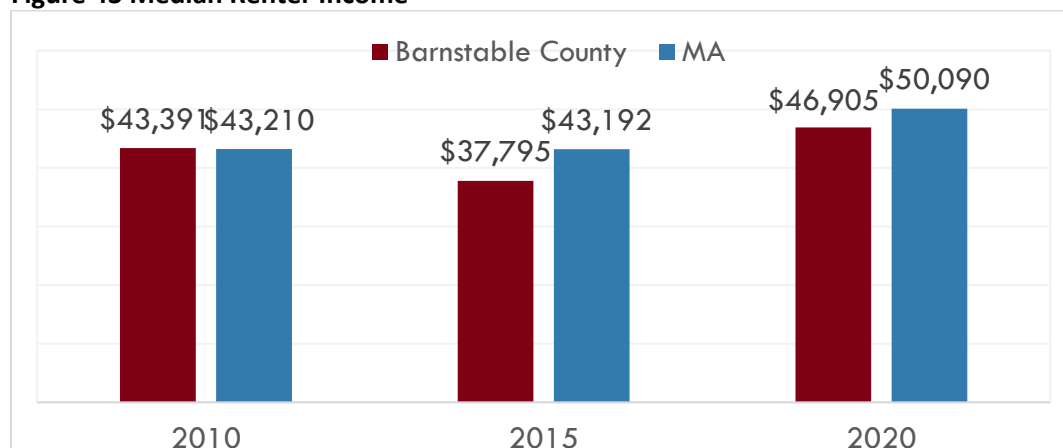


Source: U.S. Census Bureau, ACS 5-YR, 2010, 2015 and 2020.

Note: All dollars adjusted for inflation to 2021 dollars.

Homeowner incomes in Barnstable County, shown in red above are lower than those across the state as a whole (shown in blue). However, both owner and renter incomes are rising over time. This increase may reflect income gains but is also likely to be due to rising costs to purchase a home, which can increasingly mean that higher-income people are able to become resident owners while more people with lower incomes are not.

**Figure 43 Median Renter Income**



Source: U.S. Census Bureau, ACS 5-YR 2010, 2015 and 2020.

Note: All dollars adjusted for inflation to 2021 dollars.

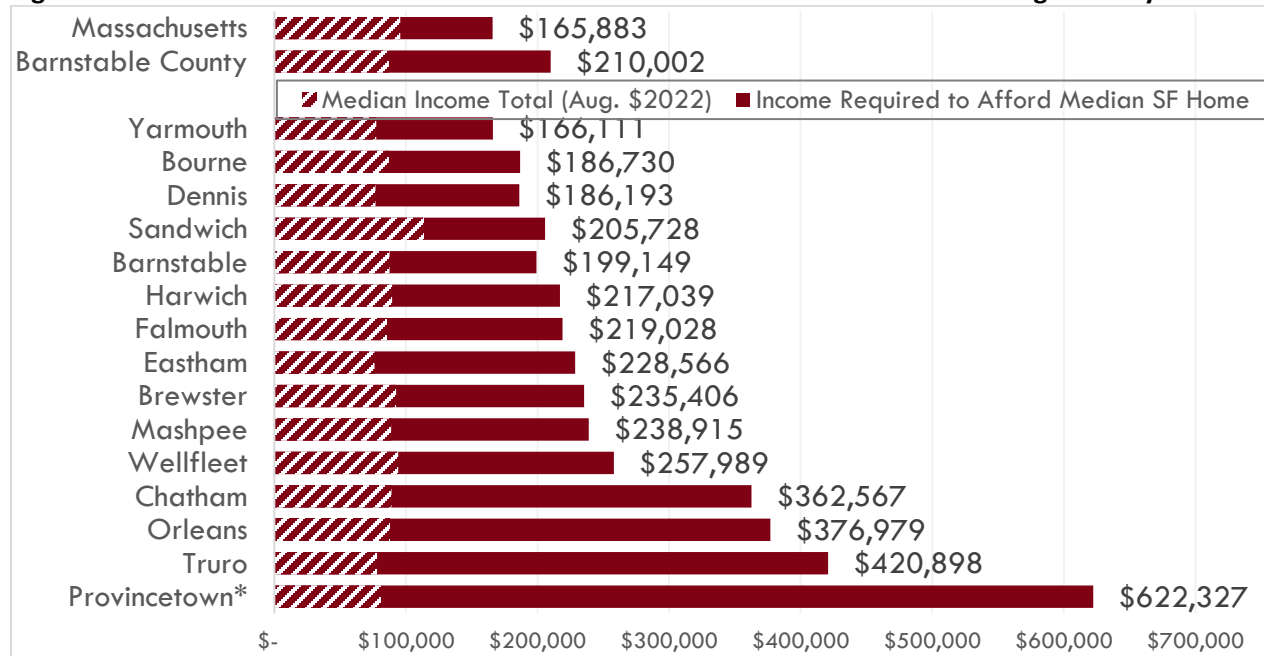
Median household incomes in Barnstable County are lower than the state for both renter and owner households in the 2020 data. However the owner and renter pictures are very different. The renter income is almost half of the homeowner's income, and this inequality mixed with the shortage of rented homes creates a burden for residents of Cape Cod seeking housing they can afford. It is also worth noting that Cape Cod owner incomes have grown faster than owners overall across the state in the same period in real terms (11 percent vs. 9 percent).

### ***Median Income vs. Median Purchase Prices***

House prices are out of reach for people in the middle: median-earning households cannot afford to buy the median priced single family home in any town in Barnstable County. In order to afford the typical single family home for sale on the Cape in 2022, a household would need to earn over \$200,000, more than double the median household income of Cape Cod residents.



**Figure 44 Median Incomes vs. Median Priced Homes: Income Needed to Afford a Single Family Home<sup>18</sup>**

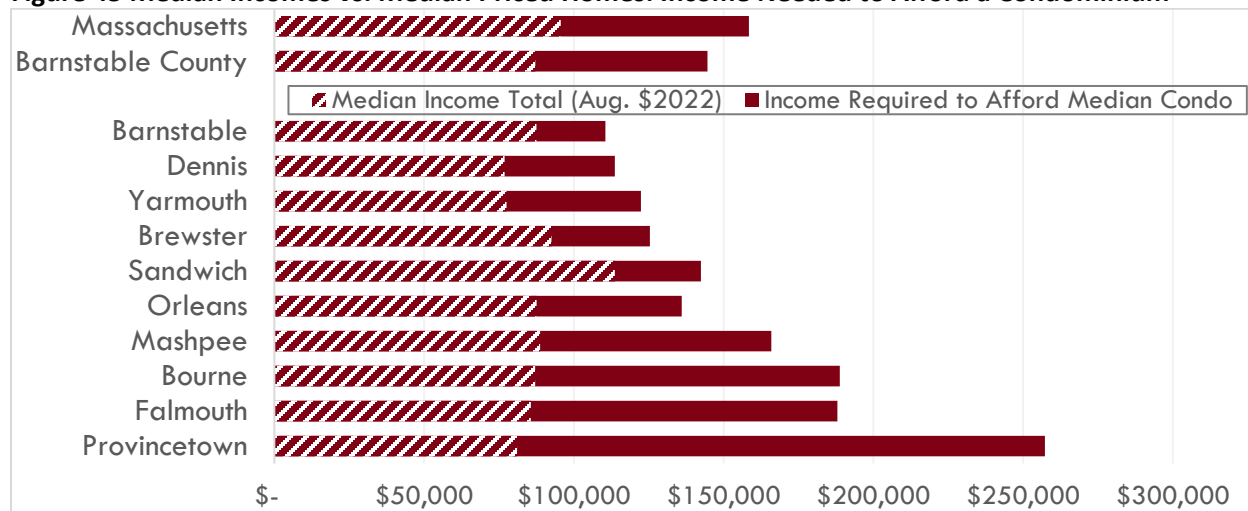


Source: U.S. Census Bureau, ACS 5-YR, 2016-2020, MA Association of REALTORS, Cape Cod and Islands Association of REALTORS, Aug 2022 YTD. Note: Provincetown home sales are predominantly condominiums and are therefore excluded from this figure. Sorted by median sale price, increasing from top to bottom.

**Figure 44** shows the median household incomes of Cape Cod municipalities compared to the income required to afford the Aug 2022 year to date median single family home in each town in Barnstable County, excluding Provincetown where condominiums are the most common type of home sold. This analysis is based on data from the Cape and Islands REALTORS Association. It clearly shows that there is a gap between the median buyer in each community and the median home.

<sup>18</sup> To estimate the income needed to afford a median priced home, assumptions include a 5 percent down payment requiring private mortgage insurance, typical home insurance rates for the state, and an interest rate equal to the national average for late September 2022 (6.7 percent). Considering all these costs, the amount of income needed to keep those costs at or below 30 percent of income is calculated, in keeping with HUD’s definition of cost burden. Provincetown does not appear on the above graphic because most homes in Provincetown are condominiums, with 71 closed condo sales in Aug 2022 YTD and 19 single family sales.

**Figure 45 Median Incomes vs. Median Priced Homes: Income Needed to Afford a Condominium**



Source: U.S. Census Bureau, ACS 5-YR, 2016-2020, MA Association of REALTORS, Cape Cod and Islands Association of REALTORS, Aug 2022 YTD. Note: Sorted by median sale price, increasing from top to bottom. Towns with fewer than 20 Condo sales in the period were excluded from this analysis.

Middle-priced condominiums are also out of reach for median-income households across Cape Cod. However, looking at the median price for condominiums in **Figure 45**, the gap between incomes and the median home is smaller. While still out of reach, the median condominium price makes it closer to a starter home for some households. However, they are a smaller share of the housing stock and home sales in every town in the region except Provincetown. In the August 2022 year-to-date data, there were 2,143 single family home sales in the region, compared to 595 condominium sales. Provincetown has the highest median condominium price in the period (\$815,000 in Aug 2022 YTD). Unlike the single family analysis, this data includes estimated condominium fees in the income requirement, though that is a small portion of the monthly housing cost, less than ten percent.

It should also be noted that the median incomes displayed in both comparisons are for all households. The median owner household has considerably more income than the median renter household (the median renter household has 51 percent of the income of the median owner household). This analysis understates the gap experienced by renters and overstates the gap experienced by owners, though both types of households are worth understanding. Renters may want to enter home homeownership while existing owners may want to grow into a larger home, or downsize to something smaller and a high-priced market can inhibit those choices. Owners are further aided by having equity in their homes which they can leverage in future home purchases. Meanwhile, workers in certain industries have considerably less purchasing power. For example, the Leisure, Hospitality and Retail Trades have median salaries between \$48,000 and \$53,000, which is well below the median household income of \$80,474. Workers in these industries are more likely to be stuck in the rental market.

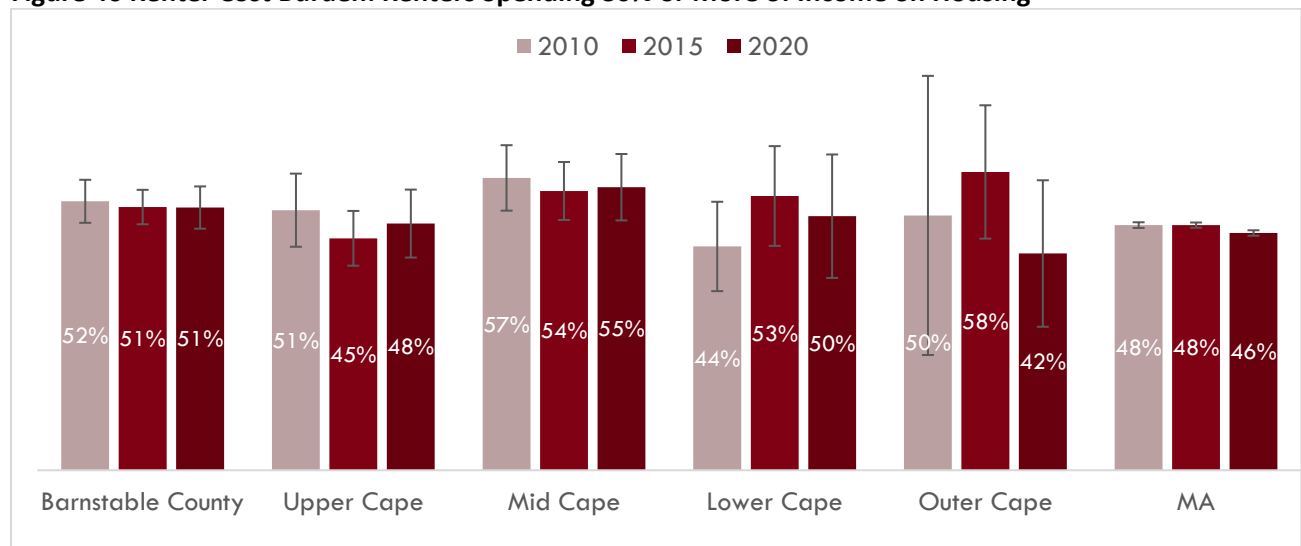
## Housing Cost Burden

Housing cost burden is defined by the Department of Housing and Urban Development (HUD) as a household contributing 30 percent of its income or more for its housing costs. It is an outcome of the relationship between housing costs and incomes and can be driven by increases in housing costs, decreases in incomes relative to rent and home purchase prices, or due to changes in both income and housing costs. Housing cost burden for renters is very high. More than half of resident renters are housing cost burdened on Cape Cod, which is more common than in the state overall, and more prevalent than for owners. Yet a third of owners are also housing cost burdened, showing that many resident homeowners are also seriously stretched.

### *Housing Cost Burden Trends for Renters and Owners*

A large proportion of Cape Cod residents are housing cost burdened: for both owners and renters, there is more housing cost burden in Barnstable County than in Massachusetts overall, despite high housing costs statewide. The majority of renters in Barnstable County are housing cost burdened, higher than renters in the state overall. Despite owners having much higher median incomes than resident renters on Cape Cod, more than a third of owners are also housing cost burdened.

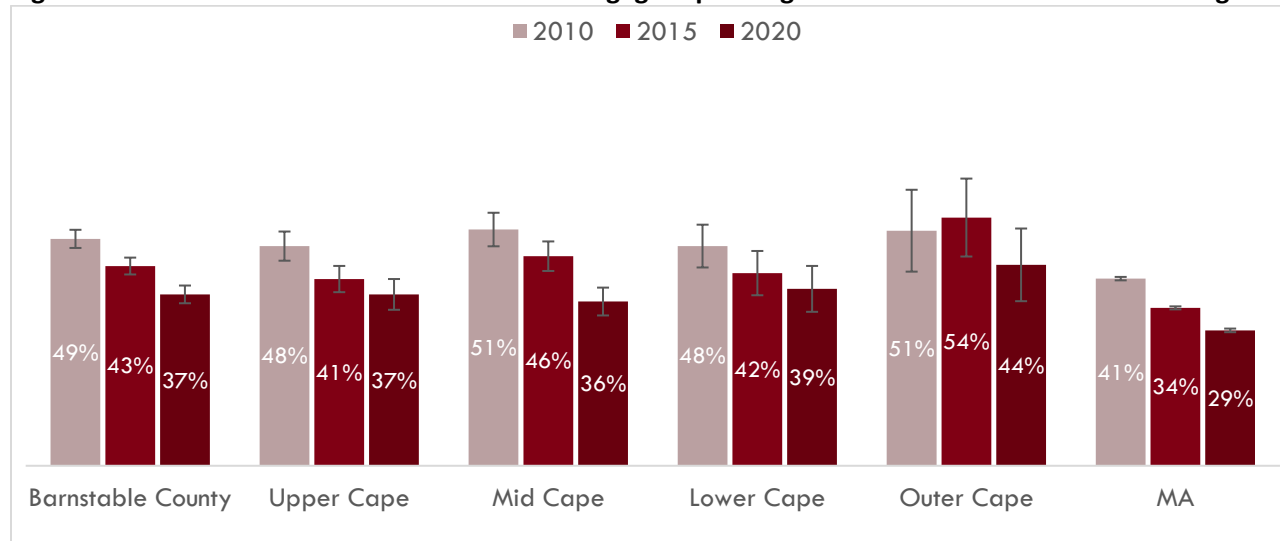
**Figure 46 Renter Cost Burden: Renters Spending 30% or More of Income on Housing**



Source: U.S. Census Bureau, ACS 5-YR, 2010, 2015 and 2020.

Note: Black bars indicate the range of possible values based on the margin of error for each year and region of the measure.

**Figure 47 Owner Cost Burden: Owners with Mortgages Spending 30% or More of Income on Housing**

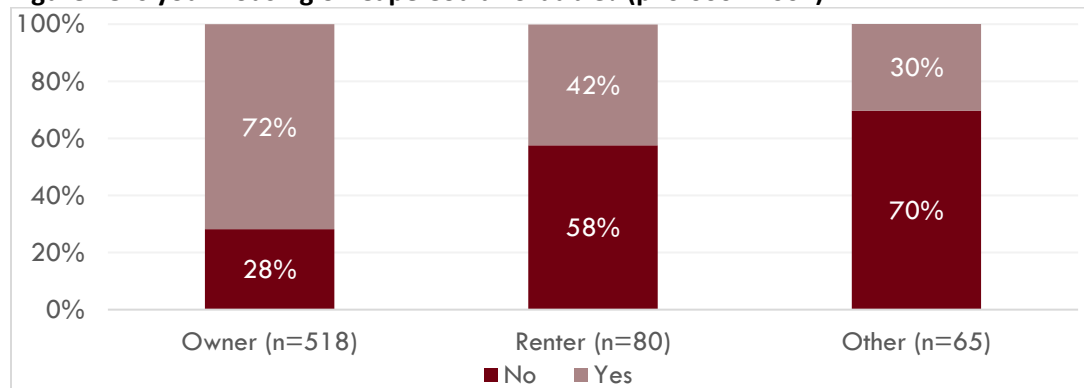


Source: U.S. Census Bureau, ACS 5-YR, 2010, 2015 and 2020.

Note: Black bars indicate the range of possible values based on the margin of error for each year and region of the measure.

Over time, the picture has improved somewhat for owners: in 2010, nearly half of owners were housing cost burdened. This change could be indicative of wealthier people moving on Cape rather than an improvement in the fortunes of the owners that were cost burdened in 2010. Unfortunately, the trend is not the same for renters: more than 50 percent of Cape Cod renters have been cost burdened for the entire last decade. Note the black bars, which are tall when there is high variance in the data. As mentioned previously, this comes from small sample sizes and causes high margins of error around the estimate, most notably in the Outer Cape where there are very few rental housing units. Even at this subregional level, the need for more attainable housing remains clearly present in each area, despite the variability in the data on the Outer Cape. The sustained cost burden issue for renters is especially critical considering that even though the median renter income has been rising, widespread cost burden has continued.

**Figure 48 Is your housing on Cape Cod affordable? (p=0.000 n=664)**



Source: Cape Cod Residents Survey 2022. The full question read: "Is your housing on Cape Cod affordable (in other words, housing costs including rent or mortgage, utilities, taxes, HOA or condo fees, and insurance are less than 30% of your income) given your income and/or resources?"

The recent survey data also shows that cost burden has continued to be an important issue which is more common for renters than owners, with 58 percent of renters reporting that housing costs exceed 30 percent of income, in contrast with only 28 percent of owners (see **Figure 48** and Appendix: Survey Tables, **Table 33**). There is a similar gap when asking if respondents had experienced trouble paying their housing costs in the past 12 months. Only five percent of owners had trouble making mortgage payments, while 40 percent of renters had issues paying their rent (see **Figure 56** and Appendix: Survey Tables, **Table 57**).

### **Subsidized Housing**

In addition to people at the median income, people with lower incomes are struggling pronouncedly to find and afford their housing. Throughout this report, market-rate housing is called affordable when the owner offers it at a price the renter or buyer can pay that is less than 30 percent of their income. Experts sometimes also call this ‘naturally’ occurring affordable housing (NOAH). Affordable is not used as a substitute term for subsidized housing here. In addition to lacking enough naturally affordable housing to meet needs across the income spectrum, housing subsidies are falling short in the region to meet additional need. In addition to minimal stock, HUD funding mechanisms for subsidized affordable housing are insufficient in Barnstable County due to the high housing costs and area median incomes, an issue identified to UMDI by stakeholders and focus group participants. Stakeholders from more costly towns said the area median income means that housing at 120 percent or even 150 percent of area median income is out of reach for many local workers and families.

In addition, focus group participants who had been involved in the development of affordable housing noted that there is a subsidy gap: those at 80 to 100 percent of HUD Area Median Income exceed the threshold for funding but nonetheless struggle to find affordable housing. A focus group participant described a recent project illustrating the challenge of having enough housing of the right sizes:

*“But there's three, three bedroom apartments. Because of the pro forma, all of those three bedroom apartments are at 30 percent of [HUD] area median income. Where are our affordable apartments for 80 percent of area median income, or even if you want to go up to the 100 percent? Every single one of the one bedroom apartments, none of them are at 30 percent of the area median income. So there's no subsidy associated with those and that doesn't match what our actual need is. So the DHCD funding formulas for what works for our developers, even when we get to the point to build, it's not actually matching our need.”*

For those that do qualify, long waitlists are common. For example, the detailed current waitlist for the Village at Nauset Green in Eastham is an example of this. The development has a waitlist of 247 households, for 125 1-bedroom units, 104 2-bedrooms, and 18 3-bedrooms. The property manager also shared that this past year only 2 or 3 units turned over.

The [Provincetown Housing Authority](#) website estimates their waitlist time is 7 to 10 years. Also in Provincetown, [Province Landing](#) currently has no vacancies and are only taking applications to be on waitlists for 2 and 3 bedroom units. In addition, [Community Housing Resource](#), which has communities

in Provincetown, Wellfleet, and Truro has a waitlist of over 300 households, 80 percent of which are single-person households.

A more comprehensive view of all subsidized housing can be challenging to assemble, but the total subsidized housing inventory published by the Massachusetts Department of Housing and Community Development (DHCD) is available to help identify the number of subsidized housing units by town. However, additional assistance is available which goes to the household, not the housing unit, in the form of a voucher or rental aid, so it is not a complete view of all housing subsidy, it simply allows tracking of how much of the housing stock in a particular place is housing which is designated as subsidized. As of 2020, across Cape Cod, each subregion's share of subsidized housing units was just above 6 percent, except for the Outer Cape, where the share was just above 5 percent of the total number of housing units.

**Table 13 Barnstable County Subsidized Housing Inventory (SHI) December, 2020**

<b>Geography</b>	<b>2010 Census Year-Round Housing Units</b>	<b>Total Development Units</b>	<b>SHI Units</b>	<b>Share of Housing Units that are SHI</b>
Bourne	8,584	1,129	591	6.9%
Falmouth	14,870	1,380	1,070	7.2%
Mashpee	6,473	369	343	5.3%
Sandwich	8,183	461	314	3.8%
Barnstable	20,550	1,818	1,487	7.2%
Dennis	7,653	422	390	5.1%
Yarmouth	12,037	786	599	5.0%
Brewster	4,803	368	268	5.6%
Chatham	3,460	182	176	5.1%
Harwich	6,121	333	333	5.4%
Orleans	3,290	326	296	9.0%
Eastham	2,632	128	119	4.5%
Provincetown	2,122	254	206	9.7%
Truro	1,090	25	25	2.3%
Wellfleet	1,550	38	38	2.5%
Upper Cape	38,110	3,339	2,318	6.1%
Mid Cape	40,240	3,026	2,476	6.2%
Lower Cape	17,674	1,209	1,073	6.1%
Outer Cape	7,394	445	388	5.2%
<b>Barnstable County</b>	<b>103,418</b>	<b>8,019</b>	<b>6,255</b>	<b>6.0%</b>

Source: U.S. Census Bureau and MA Department of Housing and Community Development (DHCD), December 20, 2020

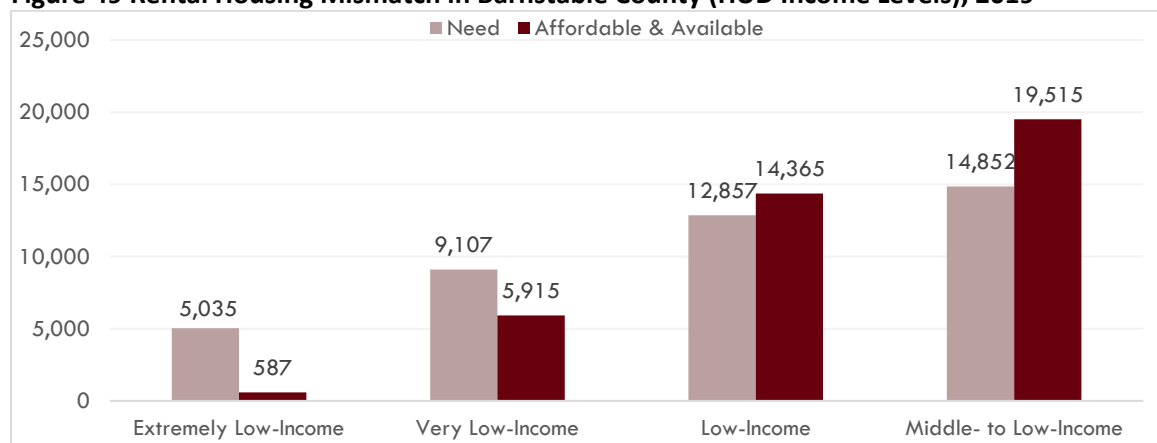
Note: Development units are units in Chapter 40B housing developments, the share is based on SHI units as a share of total Census Housing Units. The 2020 Census PL94 data does not include data on vacant "seasonal, occasional, or recreational use" units used by DHCD to determine Census "year-round housing units" for the SHI. The SHI will therefore continue to reflect the 2010 Census Year-Round Housing unit figures until such data is released, currently scheduled for May of 2023.

## Available Housing by Income: Cost Mismatch

Cost burden is a pressing issue in the region because there is a marked cost mismatch on Cape Cod between residents' income levels and housing that would be affordable to them. Residents need

naturally affordable housing in addition to the need for subsidized housing. While the median income is often not enough to afford housing, the need for naturally affordable housing at and below the median income on Cape Cod is particularly pronounced. There is an especially large deficit of housing on Cape Cod for people in households of four or more making under \$50,000 a year. To examine cost mismatch for households at and below the HUD Median Area Income, which is \$100,000 for a family of four or more, there is a dataset produced by HUD based on American Community Survey Data called the Comprehensive Housing Affordability Strategy data (CHAS).<sup>19</sup> The CHAS data contains an estimate of the number of households at different income levels at and below the HUD Area Median Income, and the number of rental units affordable to those households. **Figure 49** shows a comparison between the number of affordable housing units needed at different income levels (labelled “Need”), and the amount actually available (“Affordable and Available”). As stated at the beginning of the Housing Cost Burden section, affordable is defined as a housing unit that requires less than 30 percent of a household’s income. The income categories created by HUD take household size into account, so for that reason, they differ from the median incomes as measured by Census for the region. The categories are: Extremely Low-Income (under \$30,000 for a household of four or more), Very Low-Income (under \$50,000 for a household of four or more), Low-Income (under \$81,000 for a household of four or more), and Middle- to Low-Income (under \$100,000 for a family of four or more). As an example, in **Figure 49** households in the Extremely Low-Income category need 5,035 affordable units, but only 587 are available. This means there is a deficit of 4,448 units in the region for this group. These households are mostly in units that cost more than 30 percent of household income.

**Figure 49 Rental Housing Mismatch in Barnstable County (HUD Income Levels), 2019**



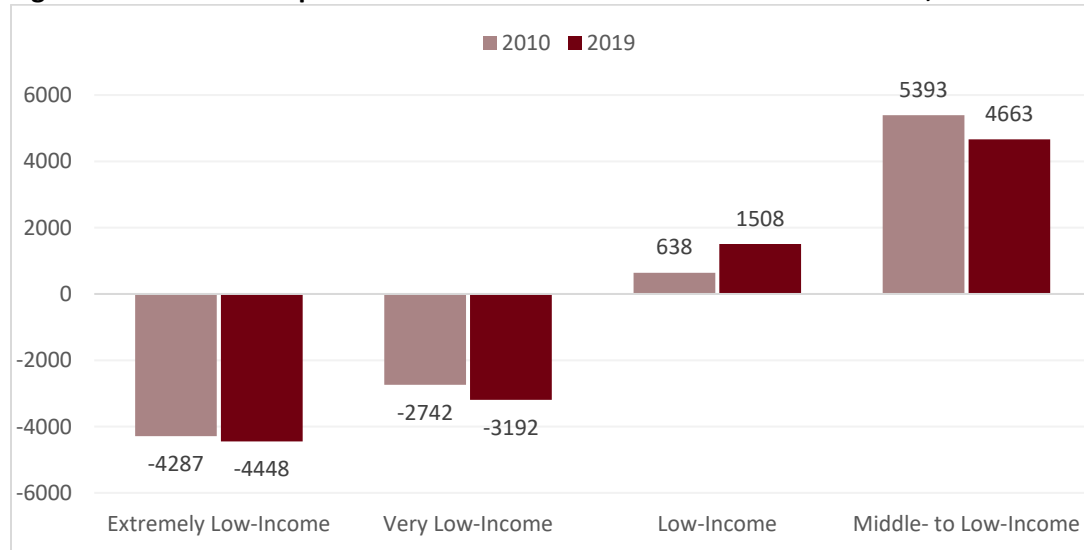
Source: CHAS 2019 based on ACS 5-YR, 2015-2019.

In addition to the obvious deficit of housing for many households on the lower end of the income spectrum, the households on the higher end of the income spectrum may be in units that are affordable to people at lower income levels, so there may be additional housing needed even in categories with a

<sup>19</sup> This dataset includes detailed re-tabulations of underlying ACS housing data to allow for close investigation of housing related issues with a focus on low income households. The disadvantage of CHAS data is that it is limited to households at and below the HUD Median Area Income and that it has a 3-year lag. The latest available data is a 5-year set ending in 2019. However, it provides useful information on local cost mismatch.

seeming ‘surplus’ by this comparison. Without adequate housing for all groups, higher income residents may price out lower income residents or at least push them into having to rent housing that costs more than 30 percent of their income. The data does not look at higher income people, nor anyone above those making more than the HUD Area Median Income of over \$100,000 in a household of four or more people. Regardless, the data illuminates the large disparity for very low income people between what they can afford and what is actually available in their communities.

**Figure 50 Mismatch: Gap Trend between Need vs. Affordable and Available, 2010 and 2019**



Source: CHAS 2019 and 2010 based on ACS 5-YR, 2015-2019 and 2006-2010, respectively.

**Figure 50** above shows there is a gap of over 1,400 units for people below the HUD median income, and perhaps more if the housing available at these prices is absorbed by other households who make more. It also compares how the gap has changed since 2010. Since that time, the gap between needed number of units and the available units affordable at each income level has grown for extremely and very low income households, based on the HUD Median Area Incomes of that time. This suggests that relative to HUD income thresholds, housing has increased in price and incomes have lagged behind these increases to the point that there are fewer affordable and available units for those two groups, and that the situation has been worsening. Housing affordable to the Low-Income group grew slightly, while the number of units affordable to Middle- to Low-Income has seen a decline in relationship to the need at that income level. In addition, it is likely these conditions have worsened since 2019, increasing the gaps and potentially creating some where there weren't prior. Again, 'surplus' can be occupied by others of higher income, either long-term year-round residents, or housing put to other use, such as a second home or seasonal rental, so these estimates of need are most likely conservative compared to the reality.



## Affordability Gap

The analysis of the affordability gap for Barnstable County and its towns confirms the presence of a housing cost crisis. This shortage of affordable market-rate housing crosses many income levels but is particularly pronounced for those on the lower end of the income spectrum. This analysis is conducted by comparing the difference between supply and demand for housing that is ‘naturally’ affordable to its residents, in other words, housing that costs 30 percent or less of the household’s income, at each income level. The difference between estimated projected demand and estimated projected supply is referred to as the affordability gap. It takes all the housing stock as a single pie and subdivides it across the different income levels according to affordability, which allows assessment of where the gaps are likely to be largest. For owners across Barnstable County, there is an estimated shortage of around 16,000 units or more for households making 50 percent of the county median income (\$46,104, as measured by the Census Bureau) or less. The affordability gap is 1,000 units or more for those at and or just below the median income for the region (Those making 81 to 100 percent of the median income of \$92,209). However, people of higher incomes can also purchase and occupy housing which is more affordable to them, which puts additional pressure on each subsequent income category. For households with income over the regional median, there appears to be small surplus of owner housing. However, the highest income group in this analysis is a large swath of incomes, and those at the highest end can take up housing at any price, which can increase the gaps for any households at lower income levels. Stakeholders report there is need at and above 120 percent of HUD Area Median Income in many places, which is likely eating into what looks on paper like a surplus. For owners at or below the median income in Barnstable County, there is a cumulative shortage of nearly 27,000 affordable homeowner housing units.

Renters have an affordability gap as well, with shortages for households earning at or below 80 percent of median income. For renters at or below 80 percent of median income in Barnstable County there is a shortage of just over 3,000 units, but there is more housing affordable to renter households at or above 81 percent of median income. Renters at 80 percent or below are likely only able to find housing that is unaffordable to them. There is also a shortage of housing affordable to renter households earning 120 percent of median income. They are likely accessing housing that would better fit the budgets of lower income households which potentially applies pressure to lower income renters. Despite more housing being built, the number of housing units estimated to increase in the next decade only preserves these gaps, which are expected to remain with a shortage of near 16,000 units or more on the low end of the income spectrum for owners and a persistent shortage of at least 2,000 or more renter units for those making 50 percent of median income. The projection for the 80 percent of median income group (one category below the median) shows a small surplus of housing in 2030 of just over 300 units, however, it is reasonable to expect households at or above median income to compete for those units as well, closing this so-called surplus due to affordable housing gaps for these relatively higher-income groups.

Overall, these projections of affordable housing gaps are consistent with the 2017 Cape Cod Housing Report’s affordability gap analysis (see **Appendix: Affordability Gap Methodological Detail**) and they reveal how a lack of affordable housing in any part of the income spectrum puts pressure on housing that is affordable for everyone.

In addition to the projected dynamics of supply and demand patterns causing affordability gaps, on Cape Cod there is also an important, deleterious effect on affordability beyond residential use, stemming from the phenomenon of year-round housing being converted to seasonal use, for example to be rented short-term over the high season. Since the affordability gap method is a continuation of the 2017 work, it does not take into account the historical trend and projected growth in seasonal housing, which means that future affordability gaps are likely understated. In addition to the projected affordability gaps from basic supply and demand dynamics among residents, year-round housing units will continue to turn into seasonal units.

## Results

**Figure 51 Barnstable County Affordability Gap**

<b>Barnstable County-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income (County Average)	\$46,104	\$73,767	\$92,209	\$110,650	
Affordable Price (County Average)	\$139,477	\$236,495	\$301,174	\$365,853	
Estimated Unit Demand	17,148	13,881	9,799	7,349	33,479
Estimated Unit Supply	1,102	4,124	8,770	13,792	53,868
Affordability Gap in Units (supply minus demand)	-16,045	-9,758	-1,029	6,443	20,389
<b>Cumulative Demand</b>	<b>17,148</b>	<b>31,029</b>	<b>40,828</b>	<b>48,177</b>	<b>81,656</b>
<b>Cumulative Supply</b>	<b>1,102</b>	<b>5,226</b>	<b>13,996</b>	<b>27,787</b>	<b>81,656</b>
<b>Cumulative Gap</b>	<b>-16,045</b>	<b>-25,803</b>	<b>-26,832</b>	<b>-20,389</b>	
<b>Barnstable County-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income (County Average)	\$23,452	\$37,524	\$46,905	\$56,286	
Affordable Rent (County Average)	\$586	\$938	\$1,173	\$1,407	
Estimated Unit Demand	5,061	3,226	1,675	1,836	9,109
Estimated Unit Supply	3,085	2,111	5,710	4,395	5,606
Affordability Gap in Units (supply minus demand)	-1,977	-1,115	4,035	2,559	-3,503
<b>Cumulative Demand</b>	<b>5,061</b>	<b>8,287</b>	<b>9,962</b>	<b>11,797</b>	<b>20,906</b>
<b>Cumulative Supply</b>	<b>3,085</b>	<b>5,196</b>	<b>10,905</b>	<b>15,300</b>	<b>20,906</b>
<b>Cumulative Gap</b>	<b>-1,977</b>	<b>-3,092</b>	<b>943</b>	<b>3,503</b>	

Source: UMDI Calculations.

Where the affordability gap is positive, it means it is expected that at the price range affordable to renters/owners in that income bracket, there will be housing units at that price. Where it is negative they do not have affordable housing and must occupy a housing unit that costs more than 30 percent of their monthly income and is unaffordable by HUD's definition of cost burden. However, if there is a gap at the price affordable to a higher income bracket, it is likely those households will seek out and be able to attain any lower-priced housing units, so positive values do not mean a surplus, and if there are affordability gaps above, that gap will likely soak up lower-priced housing units for the full amount of units in that gap until the gap is filled. Furthermore, the affordability gap calculations for 2020 find shortages of affordable housing for owners making at or below the median household income across the county. The story for renters is more varied, with those making 80 percent or less of median income

experiencing shortages as well as shortages for renters making more than 120 percent of the median income, which predicts higher-income renters soaking up many of the otherwise available units that would be affordable to renters at the median and at 120 percent of the median.

**Figure 52 Barnstable County Affordability Gap for Owners and Renters, 2030**

<b>Barnstable County-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$64,048	\$102,476	\$128,095	\$153,714	
Affordable Price	\$202,407	\$337,184	\$427,036	\$516,887	
Estimated Unit Demand	16,655	13,482	9,517	7,138	32,516
Estimated Unit Supply	952	3,085	6,138	11,142	57,992
Affordability Gap in Units (supply minus demand)	-15,703	-10,398	-3,379	4,004	25,476
<b>Cumulative Demand</b>	<b>16,655</b>	<b>30,137</b>	<b>39,654</b>	<b>46,792</b>	<b>79,308</b>
<b>Cumulative Supply</b>	<b>952</b>	<b>4,036</b>	<b>10,174</b>	<b>21,316</b>	<b>79,308</b>
<b>Cumulative Gap</b>	<b>-15,703</b>	<b>-26,101</b>	<b>-29,480</b>	<b>-25,476</b>	
<b>Barnstable County-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$32,580	\$52,128	\$65,159	\$78,191	
Affordable Rent	\$814	\$1,303	\$1,629	\$1,955	
Estimated Unit Demand	4,916	3,133	1,626	1,783	8,847
Estimated Unit Supply	2,996	3,456	4,140	4,268	5,445
Affordability Gap in Units (supply minus demand)	-1,920	323	2,513	2,486	-3,402
<b>Cumulative Demand</b>	<b>4,916</b>	<b>8,049</b>	<b>9,675</b>	<b>11,458</b>	<b>20,305</b>
<b>Cumulative Supply</b>	<b>2,996</b>	<b>6,452</b>	<b>10,592</b>	<b>14,860</b>	<b>20,305</b>
<b>Cumulative Gap</b>	<b>-1,920</b>	<b>-1,597</b>	<b>916</b>	<b>3,402</b>	

Source: UMDI Calculations.

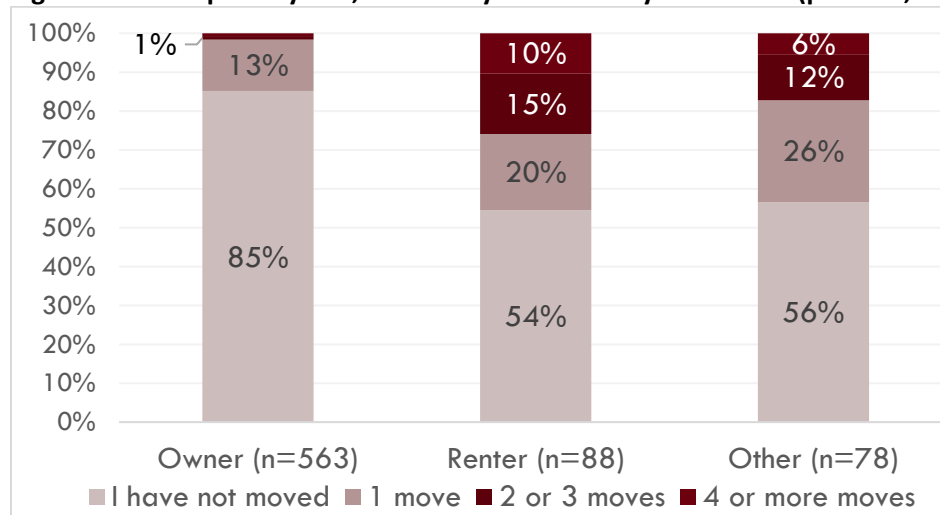
Projecting forward to 2030, we see a similar trend, with a shortage of housing for low-income owners and renters earning 50 percent of median income. The gap for owners earning 81 to 100 percent of median income grows in the projection as the supply of units at that affordability point is expected to decline. Despite projected growth in the number of housing units through construction, the relationships from the 2020 estimates are generally preserved into the future and gaps persist. Again, in this projected future, among renters, need for housing from higher-income renters will likely be soaking up many of the otherwise available units that would be affordable to renters below the median level of income in the area.

## Housing Instability

Housing prices out of reach for a lot of people can cause housing instability and homelessness, as can a lack of housing availability. Several items on the 2022 resident survey were included to help elicit an understanding of how frequently people on the Cape are experiencing housing instability, such as having to move due to costs, or due to the housing becoming unavailable to the resident. The vast majority of

homeowners experienced stable housing over the past three years, with 84 percent reporting that they had not moved in that timespan. In contrast, only 54 percent of renters had not moved in the past three years and a quarter had moved two or more times in the past three years (see **Figure 53** and Appendix Survey Tables, **Table 29**).

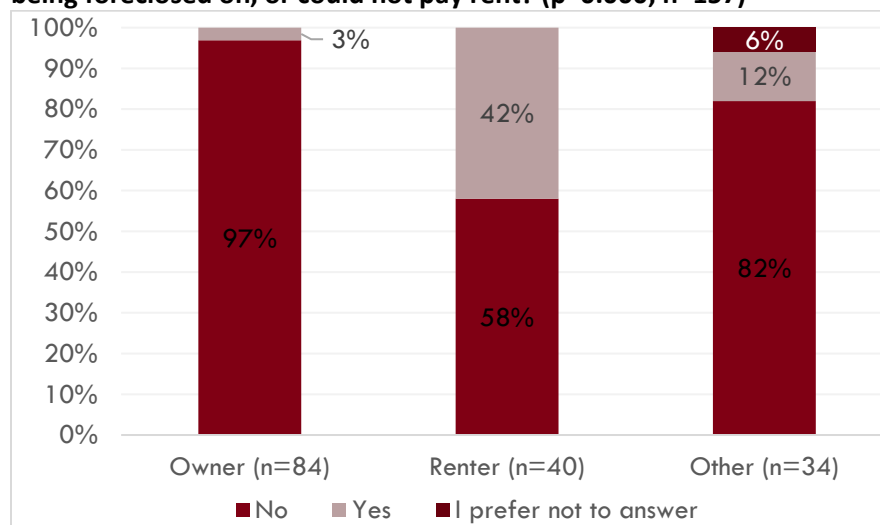
**Figure 53 In the past 3 years, how many times have you moved? (p=0.000, n=728)**



Source: Cape Cod Residents Survey 2022.

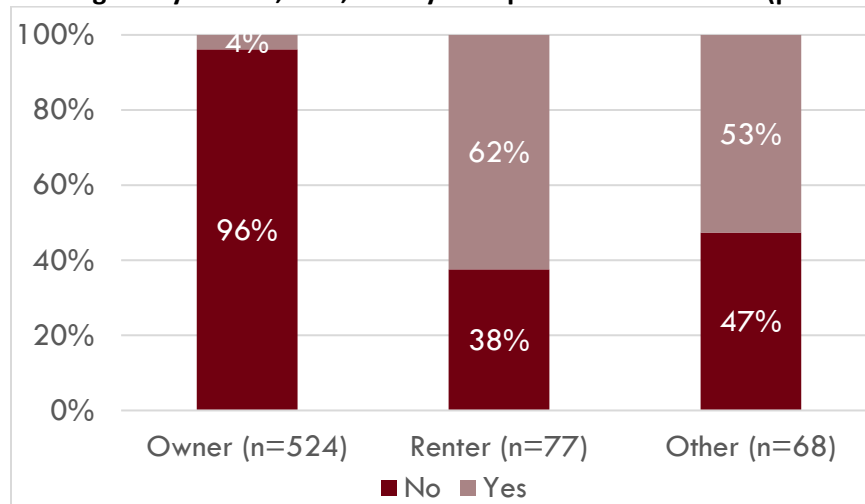
Respondents who had moved were also asked if their move was due to affordability issues. Only 3 percent of owners responded that affordability issues motivated their move, while 42 percent of renters cited affordability as the reason for their move (see **Figure 54** and Appendix: Survey Tables, **Table 30**).

**Figure 54 Were any of these moves because you could not afford the place you were living, or were being foreclosed on, or could not pay rent? (p=0.000, n=157)**



Source: Cape Cod Residents Survey 2022.

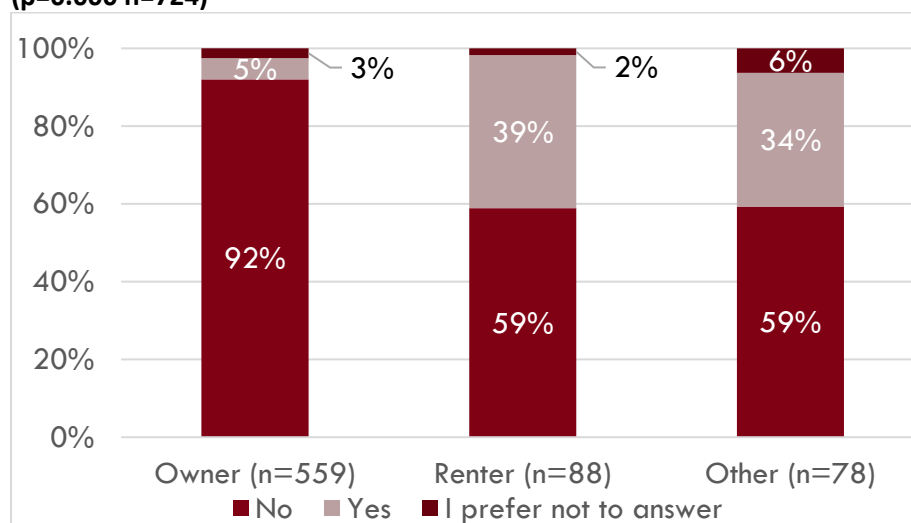
**Figure 55 Are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household? (p=0.000, n=669)**



Source: Cape Cod Residents Survey 2022.

Housing stability is a pressing concern for renters. Over 60 percent of Cape renters indicated that they were worried that they may not have stable housing in the next twelve months (see **Figure 55** and Appendix: Survey Tables, **Table 58**). Responses to questions about prior moves suggest that this concern is not necessarily due only to worries about their ability to afford their current housing, but also the concern that their current housing may be unavailable at any price. Combined with responses that show nearly 40 percent of renters have had trouble paying rent in the last 12 months (see **Figure 56** and Appendix: Survey Tables, **Table 57**), our findings suggest that these concerns about the future are well grounded.

**Figure 56 In the past 12 months, have you had trouble paying the rent or making mortgage payments? (p=0.000 n=724)**



Source: Cape Cod Residents Survey 2022.

## Why People are Moving or Would Like to Move

Housing cost was the dominant factor influencing where respondents chose to live, with over two-thirds of respondents (68%) indicating that rent or sales price was “Very” or “Extremely” important in choosing their current or most recent home. This was the most salient factor for respondents among the factors that the survey suggested (see Appendix: Survey Tables, **Table 41**).

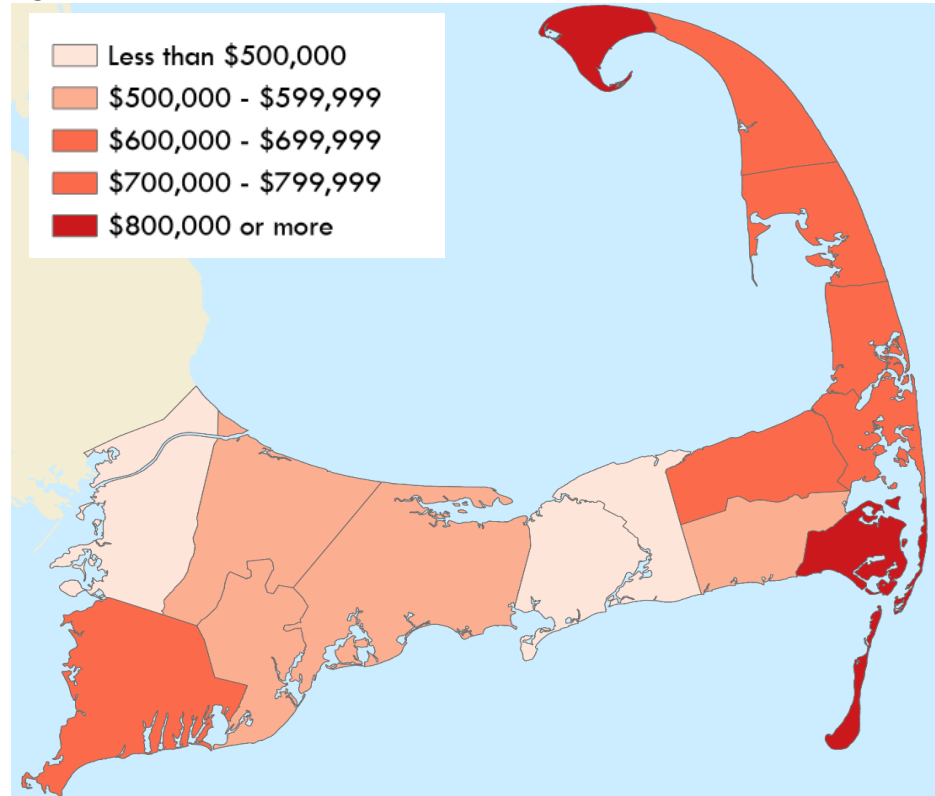
To shed light on pressures constraining residents’ decisions about housing, respondents were asked if they would like to move in the next two years and why (see Appendix: Survey Tables, **Table 52**). Respondents who indicated that they would like to move (18%) or might consider moving (19%) and those who indicated they were dissatisfied with their current housing, were asked a follow up question on why they might move. The most popular response is again related to housing costs, with 38 percent of respondents indicating they would like to move to a home that is more affordable. The next most popular response ran somewhat counter to the housing cost trend with 31 percent of respondents desiring a larger home; however, the overlap between these responses could potentially be attributed to respondents desiring to find a larger home in a more affordable area. Other frequent reasons respondents gave for desiring to move are wanting to move off Cape (25%), wanting a home where they could age in place (24%), wanting a more walkable neighborhood (17%), and wanting a smaller home (15%) (see Appendix: Survey Tables, **Table 53**).

To get more insight on where respondents might wish to move, all respondents were asked where they thought offers the best quality of life for them and their family. Sixty-nine percent responded that their current town on Cape Cod offers the best quality of life, which roughly lines up with the 63 percent of respondents who indicated they had no plans to move in the next two years (see Appendix: Survey Tables, **Table 54**). Nine percent believed that another town on Cape Cod offered the best quality of life, while 11 percent each believed that another town or city in Massachusetts or another town or city outside of Massachusetts offered the best quality of life. Of those respondents who believed another town on Cape Cod offered the best quality of life, Barnstable was the most frequent response (30%) followed by Brewster (15%) and Falmouth (15%) (see Appendix: Survey Tables, **Table 55**).

In order to understand barriers to moving, those who were dissatisfied with their current housing or expressed interest in the possibility of moving in the next two years were asked about perceived barriers to moving. Housing price is again the most common response, with 70 percent indicating that it is a barrier to moving. Fifty-five percent responded that there is a lack of housing options that fits their needs, and 37 percent perceived the cost of moving itself as a barrier (see Appendix: Survey Tables, **Table 56**).

## Housing Market Trends

Figure 57 Median Home Sale Price, All Home Sales

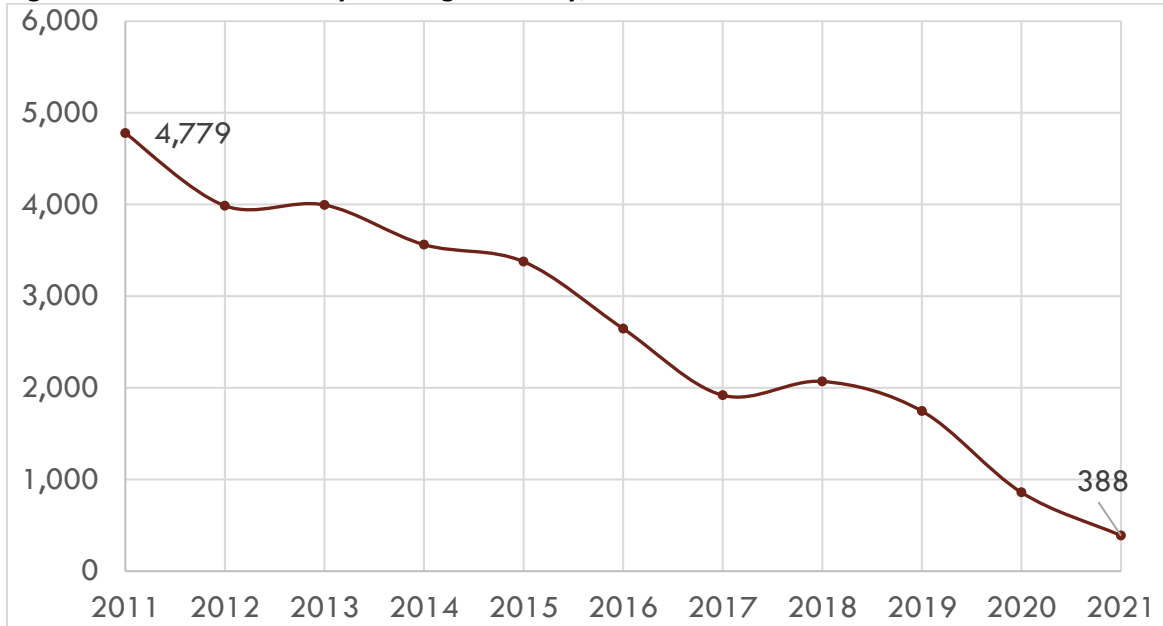


Source: Cape and Islands Association of REALTORS, Annual Data Reports, 2021. Analysis and map by UMDI.

Note: All dollars adjusted for inflation to 2021 dollars. Data include all home sales including both single family and condominiums.

In 2021 the median home price on the Cape (including single family and condos) reached \$570,000, up from \$501,504 in 2020 (in real terms, 2021 dollars). Housing prices were up across the Cape, but varied from community to community. This map illustrates which towns in Barnstable County had the highest median price for home sales in 2021 (both single family and condos). The darkest red sections are the towns of Chatham and Provincetown which are the two towns with median prices in excess of \$800,000 in 2021. Bourne, Dennis, and Yarmouth fall into the lowest category of median sales price which is under \$500,000. Provincetown's sale price is remarkable for being most expensive and also because condominiums are the majority of homes in the town. Condos tend to sell for less than single family homes, with median prices for single family homes between one and a half and twice the median price of a condominium county-wide in 2021. However, Provincetown happens to have some of the most expensive condominiums in Barnstable County, with the highest median price in the county for 8 of 12 months in 2021, helping push the median sale price for all homes up.

**Figure 58 Barnstable County Housing Inventory, Homes for Sale**



Source: Cape and Islands Association of REALTORS, Annual Data Reports, 2011–2021.

The number homes for sale have been decreasing over a long time in Barnstable County because of several factors, including the price of the land, the price of construction, and the price of the finished homes, all of which are above the market average. Homes can also change hands less frequently while prices are rising. Meanwhile, low stock can drive the prices of available homes higher.

In addition to pressures from costs, land on Cape Cod can be subject to physical issues as a coastal area, with risks of impacts from climate change are also elevated. These possible future limitations on the usable land to build houses on presents potential difficulties for maintaining housing in the future, which could also affect housing stock levels.



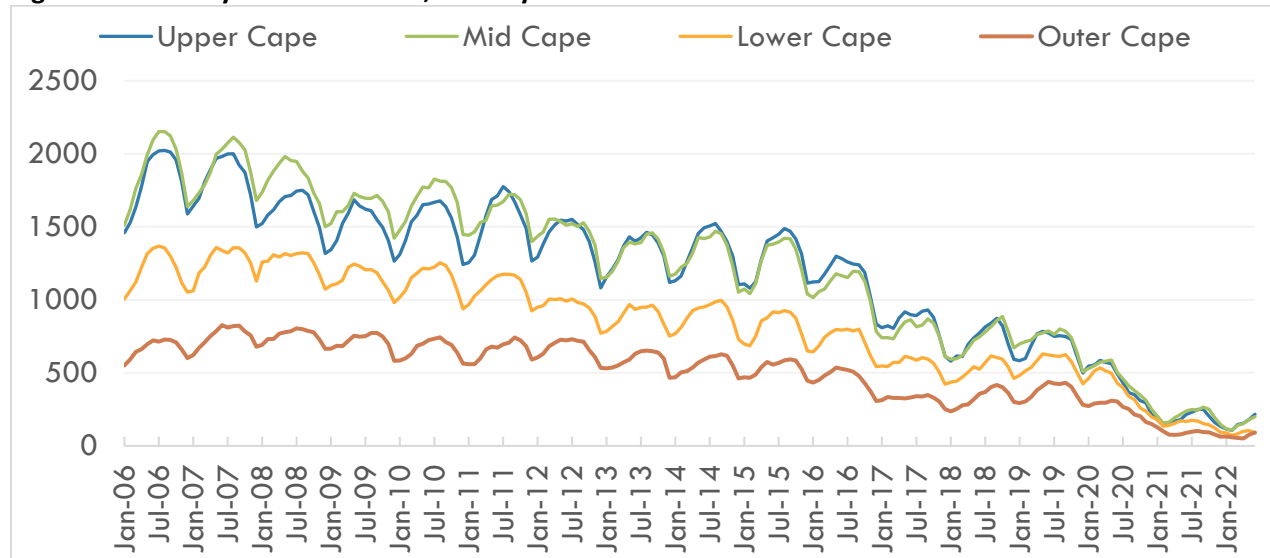
**Figure 59 Barnstable County Housing Inventory, Months Supply**



Source: Cape and Islands Association of REALTORS, Annual Data Reports, 2011–2021.

The real estate market concept “Months Supply of Inventory” tracks how long it would take to sell all of the real estate currently available for sale. It is the relationship between the total inventory of available properties and how fast they have been selling. To get the numbers, the Cape and Islands Association of REALTORS counts the homes available for sale at the end of a given month, and divides that by the average monthly pending sales from the last 12 months. The months supply of inventory fell by 14 times from 2011 to 2021, showing that availability of homes for sale is increasingly limited.

**Figure 60 Monthly Homes for Sale, January 2006 to June 2022**



Source: Cape and Islands Association of REALTORS, Monthly Data Reports, January 2006–June 2022.

The number of homes available for sale has been markedly decreasing over time, well beyond the seasonal cycles where there are generally more homes for sale in the summer than in the corresponding winter. The graph shows a dramatically decreasing number of homes for sale, which can create strong upward pressure on prices.

In addition to fewer homes available for sale at higher prices, other constraints on the housing market are also part of the picture. There can be focused local opposition when housing is being built. For example, one focus group participant noted: *“There is a group that basically thinks that we should support all regional housing, we have enough [in our community], we don't need to expand housing within our town [...] we support housing. Just not here.”* Combined with zoning restrictions and wastewater management issues, there are limitations on new housing development on Cape Cod, especially multifamily housing. Beyond these issues, the cost to build on the Cape is high and is predicted to remain high. The next subsection enumerates construction costs using a model that builders employ to scope their projects and generate quotes.

## Construction Costs

Construction costs can also be a source of upward pressure on prices of new housing, and these costs are pronounced on the Cape. After a slight dip during the pandemic, construction costs have increased in the most recent year estimates. To estimate the typical cost of constructing a single family home and a multifamily building in the region the RS Means Square Foot Cost Estimator was used, a planning tool intended for contractors which includes price estimates for 13 regions of Massachusetts centered around densely settled cities/towns. For this report the Hyannis region was used to estimate construction costs. The region around Buzzards Bay was also an available geography analyzed as a comparison in **Appendix: Construction Cost Comparison with Buzzards Bay**.

The Home Mortgage Disclosure Act requires many financial institutions to maintain, report, and publicly disclose data on mortgage loans. Data relevant to Barnstable County has been compiled by the Cape Cod Commission.

**Table 14 Percent of New Purchasers Over Age 45, Owner Occupied Mortgages**

Region	2018	2019	2020	2021
<b>All Cape Cod (Barnstable County)</b>	<b>51%</b>	<b>50%</b>	<b>50%</b>	<b>48%</b>
Upper Cape	47%	46%	46%	44%
Mid Cape	48%	47%	48%	49%
Lower Cape	60%	59%	58%	54%
Outer Cape	65%	65%	60%	58%

Source: Cape Cod Commission BI analysis using 2018-2021 HMDA data, 2022 Note: Each cell reflects new mortgages issued only, not existing mortgages. Existing mortgages and other owned or rented homes which have not recently been purchased are the largest share of housing.

Land prices were estimated using a working paper from the Federal Housing Finance Agency which used information from millions of land appraisals nationwide between 2012 and 2019 to estimate land prices down to the county and ZIP code levels. Those prices were then projected forward using a linear trend function and applied to recent years.<sup>20</sup>

The purpose of the RS Means estimator is for builders to make estimates and quotes, therefore the years of data available are only a series of three years around the present day, with one year in the future. Complementary data on general construction cost trends across the northeast from the Census Bureau are also included in this section in order to provide historical context. These data show that construction costs have been increasing dramatically.

Information that the cost of construction on the Cape is quite high and increasing is anecdotally supported by a recent multifamily project in Orleans: from 2021 to 2022, the construction costs in one project went up 5 percent from \$330,000 per unit to \$347,000 per unit for a multi-family project with 62 units in total (not adjusted for inflation). While this isn’t directly comparable to the RS Means estimates, which uses an example 4-unit development for a multifamily assumption, this example suggests that the modeled costs generated by RS Means may not have kept up with the recent increases and may therefore be conservative compared to true construction costs of on-the-ground projects currently underway on Cape Cod, as key stakeholders have reported.

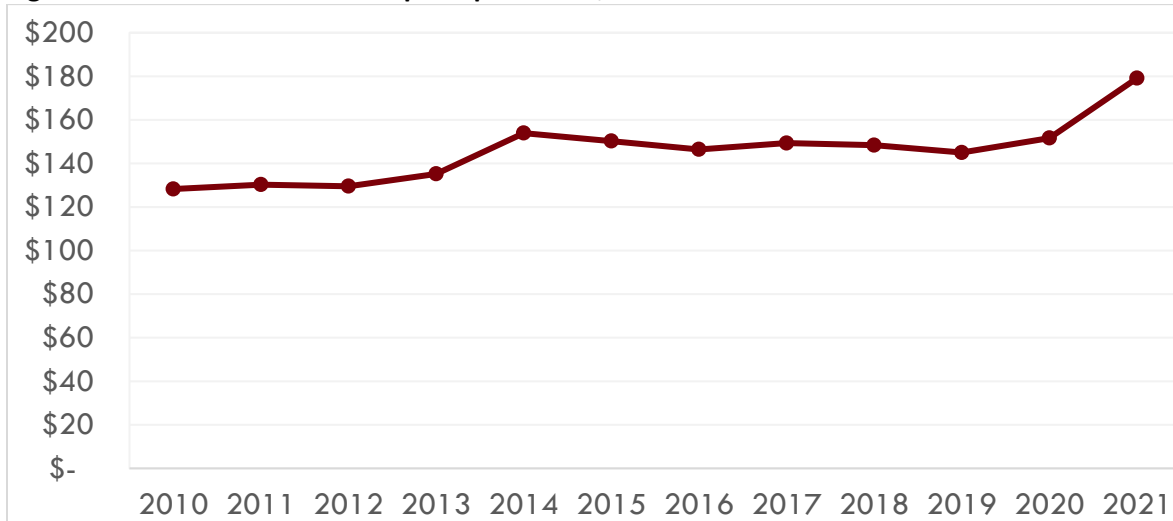
Cost increases have been evident in the larger Northeast region. The following median construction costs in the Northeast show the broader context of overall cost trends in the region overall.

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<sup>20</sup> Working Paper 19-01: The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States: <https://www.fhfa.gov/PolicyProgramsResearch/Research/Pages/wp1901.aspx>

## Historical Construction Costs

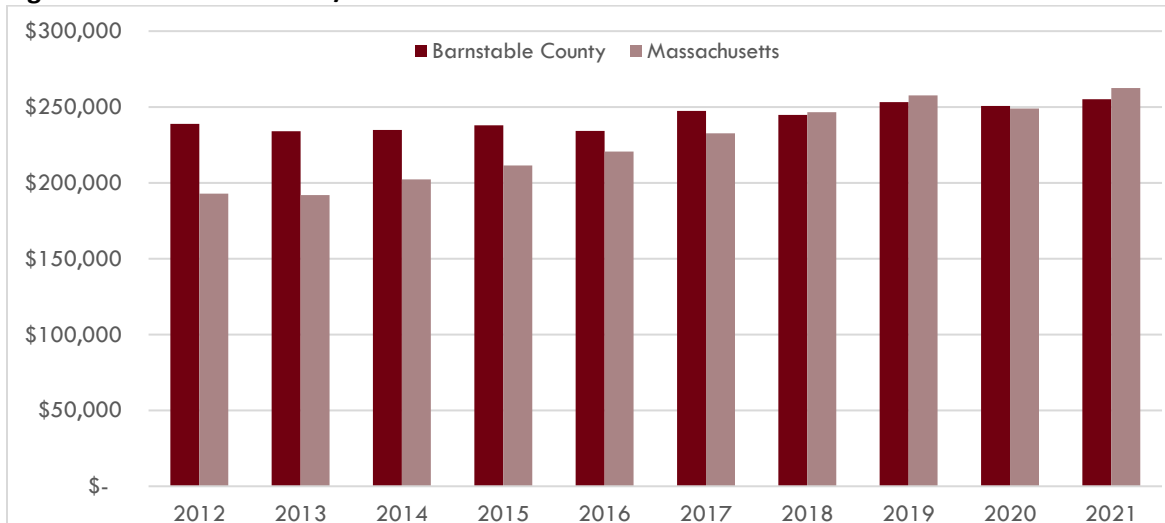
**Figure 61 Median Contract Price per Square Foot, Northeast United States**



Source: U.S. Census Bureau, 2021 Characteristics of New Housing.  
 Note: All dollars adjusted for inflation to 2021 dollars.

Median construction costs in the Northeast United States grew 40 percent from 2010 to 2021, but almost all of this growth was driven by two large spikes in 2014 and 2021. The spike was especially large in 2021, as after seven years of construction costs holding steady (around \$150 per square foot) prices rose nearly 18 percent in a single year (see Appendix: Data Tables, **Table 88**).

**Figure 62 Land Value of a 1/4 Acre Lot**



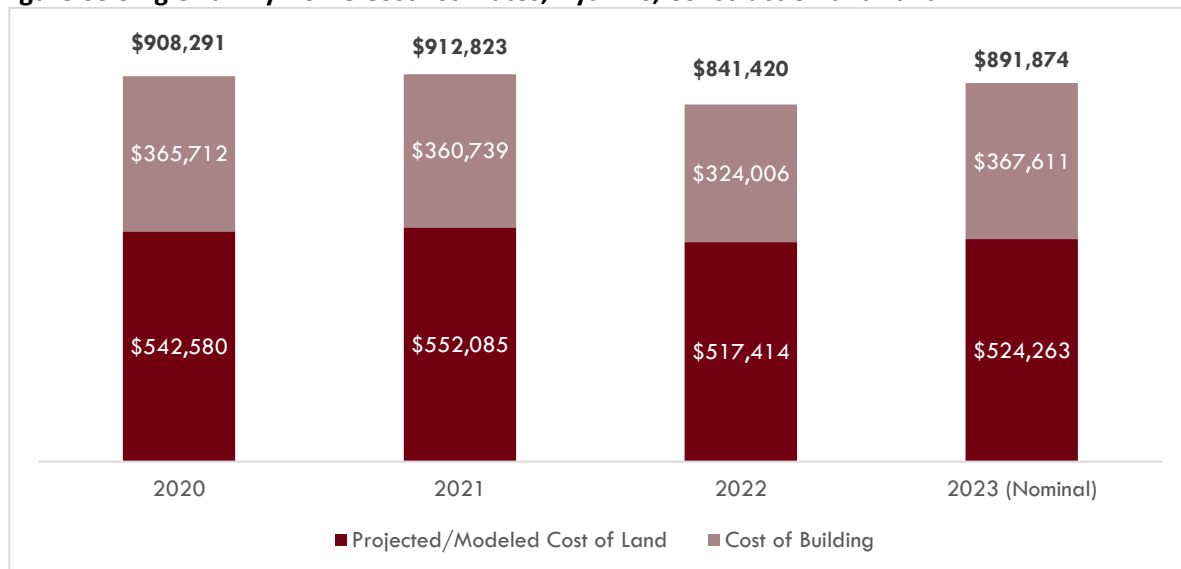
Source: U.S. Census New Construction Survey and Federal Housing Finance Agency Working Paper “The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0” from October 2020.  
 Note: All dollars adjusted for inflation to 2021 dollars.

Land values in Barnstable County were considerably higher than the state as a whole in 2012. Over the following decade, however, land values gradually equalized, with Barnstable land prices being close to the state average in the past four years, driven by increases across the state from 2012-2019, coming alongside continued but not-quite-as-steep price growth on Cape Cod. (see **Appendix: Data Tables, Table 89**).

### Single Family Home Estimates

This analysis estimated the dimensions of the median single family home on Cape Cod. Using property records for homes built in the last decade in Barnstable County, the typical size of a single family home was estimated to be 2,364 square feet spread across 2 stories. The Northeast region in the U.S. New Construction survey from the Census Bureau was another source of information. Based on that data, the single family home is assumed to be wood framed with an unfinished basement. The RS Means estimator allows the user to plug in various additives and based on construction survey data, 2.5 baths were included. A natural gas water heater and hot water heat were added to reflect the use of natural gas as the most common source of heat based on information from Cape Light Compact and the Cape Cod Commission.<sup>21</sup> Added to this model project were basic home appliances including an oven, dishwasher and fridge. The single family home is also assumed to have an attached one-car garage. Based on property records, a 0.5 acre lot was the assumption used for property acreage.

**Figure 63 Single Family Home Cost Estimates, Hyannis, Construction and Land**



Source: RS Means, U.S. Census New Construction Survey and Federal Housing Finance Agency Working Paper “The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0” from October 2020.

Note: Dollar Values are adjusted to September 2022.

<sup>21</sup> Greenhouse gas emissions inventory including a breakdown of home heating by type: <https://capecodcommission.org/our-work/greenhouse-gas-emissions-inventory/>

The cost of an estimated single family project falls between about \$800 and \$900 thousand for all years 2020 to 2023. Land prices are a substantial part of the overall cost of a potential single family home project, so the model established by the Census Bureau and the Federal Housing Finance Agency for land prices was extended in its trend to estimate future land costs.

## Multifamily Home Estimate

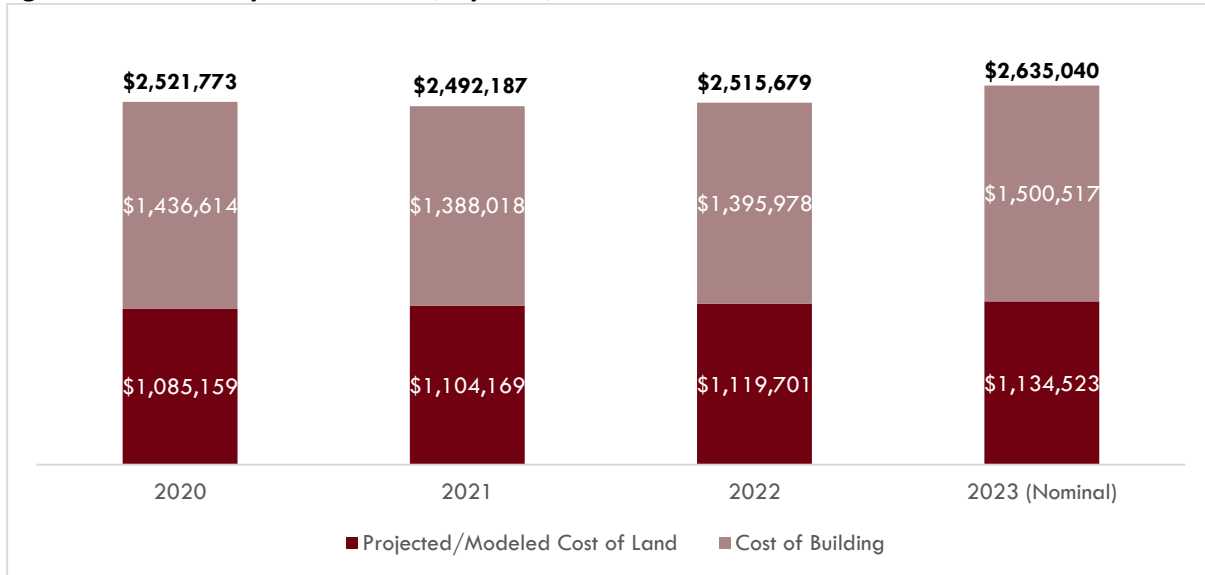
Barnstable County does not have many large apartment complexes. Our research found that many multifamily properties were condo complexes or “cottages” which resemble a cluster of single family homes on a smaller property. Analysis of property records filtered for the last 10 years of construction for condominiums and multifamily (non-apartment) units (duplexes, three families, etc.)<sup>22</sup> showed that the typical multifamily parcel contained 4 units with a median combined square footage of 6,480 SF for all 4 units on a single acre lot.<sup>23</sup> Many properties did not have a listed number of floors, but of those that did report how many floors the property had, a single story was the most common, which can be separate footprints across a parcel (or paired). This was the mode for number of stories in the property record data, some properties reported stories with a decimal place, but rounding those to the nearest whole number of stories, still showed single story as the most common height for a multifamily property. In RS Means a wooden-framed structure was estimated. The cost of construction for an example multifamily unit was estimated using the commercial apartment setting of the RS Means Square Foot Cost Estimator. The unit estimated here is not meant to be a large apartment building, it is meant to be a higher density block of housing. In testing it was found that the commercial setting in the estimator produced more realistic costs than the residential single family home setting with a larger footprint. The residential estimate setting with the dimensions of the multifamily home produced an estimate very close to that of the defined single family home because it was not estimating a structure with multiple units. Both settings are available in the Square Foot Cost Estimator tool, but the commercial apartment estimator divides the structure up into multiple units, and estimates the costs of additional structural elements (doors, windows, drywall) to reflect that. It also adds typical code compliant features around things like fire prevention, which are often found in higher density units, which defeats some of the cost savings that can be attained due to economies of scale typical to this type of construction.

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<sup>22</sup> Apartments were excluded from the multifamily property record analysis.

<sup>23</sup> The RS Means estimator required specific dimensions for a proposed property, so a typical example of a multifamily unit was defined and details on it were entered into the modelling tool. Apartment buildings of 5 or more units were some of the least common structures in the property records and building permit data and were excluded from the typical multi-family structure specification.

**Figure 64 Multifamily Cost Estimate, Hyannis, Construction and Land**



Source: RS Means, U.S. Census New Construction Survey and Federal Housing Finance Agency Working Paper "The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0" from October 2020.  
Note: All dollars adjusted for inflation to September 2022 dollars, except where noted as nominal.

The cost of an estimated multifamily project falls between about \$2.5 and \$2.6 million for all years 2020 to 2023. Land cost is a substantial share of that total project cost. The estimates for both types of units showed similar trends, between 2022 and 2023 with total project cost growing 6 percent for a single family unit and 4.7 percent for a multifamily unit.

## Conclusion: Cape Cod's Present Unmet Housing Needs and Cape Cod's Future

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The data presented in this housing needs assessment is intended to support a planning process to help ensure Cape Cod residents can affordably access housing, strengthening communities and economic wellbeing. The housing price and availability crises are real and growing. Two levels of projections estimate a potential housing shortfall of over 13,000 to nearly 22,000 units by 2030 and 2035, respectively. In the present, housing market pressures are already intensely consequential now. Too many people are facing having to leave their homes in Barnstable County due to increasingly high housing costs and a lack of availability of housing, and new workers are becoming increasingly difficult to hire, in part due to housing unavailability and the distance between wages and home prices. Meanwhile, increased migration to the Cape and quickly increasing housing prices and decreasing availability during the pandemic increased this pressure. Even if the resident population declines, demand for short-term and second homes will keep pressure on the housing market.

Several phenomena unique to the region have increased pressure on the price and availability of year-round housing, for both rental and owned homes. Vacationers in short-term rentals are an important part of the livelihoods of many Cape Codders but that housing is then often seasonally vacant, as are second homes. People retiring to Cape Cod into their second homes, making them their primary residences, as well as people buying or renting as year-round permanent residents at the point of retirement increases the average age of the region, but is an important source of in-migration. Multifamily housing is rare on the Cape and more rental units are needed. These patterns differ from the rest of the state and are critical to understand. Recent trends during the pandemic have further exacerbated these dynamics as well, along with increasing issues of affordability.

Incomes are not high enough compared to housing prices among renters, more than half of whom experience housing cost burden on Cape Cod (paying 30 percent or more of income for their housing). This struggle has been at a very high level for a long period of time. Among owners, who have higher incomes, there has been some improvement in housing cost burden, but more than a third of homeowners on Cape Cod remain cost burdened. Prices are high and have been rising quickly. Housing instability is a concern for large numbers of the region's residents who struggle to afford and retain their housing, which is not limited to lower income residents but in the face of current housing prices, also true for middle and upper middle-class households.

Meanwhile, the housing market has gone from hot to hotter, in that home prices are increasing rapidly and there is low housing stock available for sale, creating further upward pressure. Some of this was likely driven by the previously low mortgage lending rates. Since these rates have risen this trend will probably cool somewhat, but prices are more likely to level off than to rapidly decline. This is within an environment where the median single family home price is already unaffordable to people at the median household income of each town on Cape Cod. Rents have also been rising, applying even more cost burden pressure to existing renters who, as noted, already face an affordability gap and a cost mismatch even more pronounced than typical for this high-housing-cost state. In addition, recent data

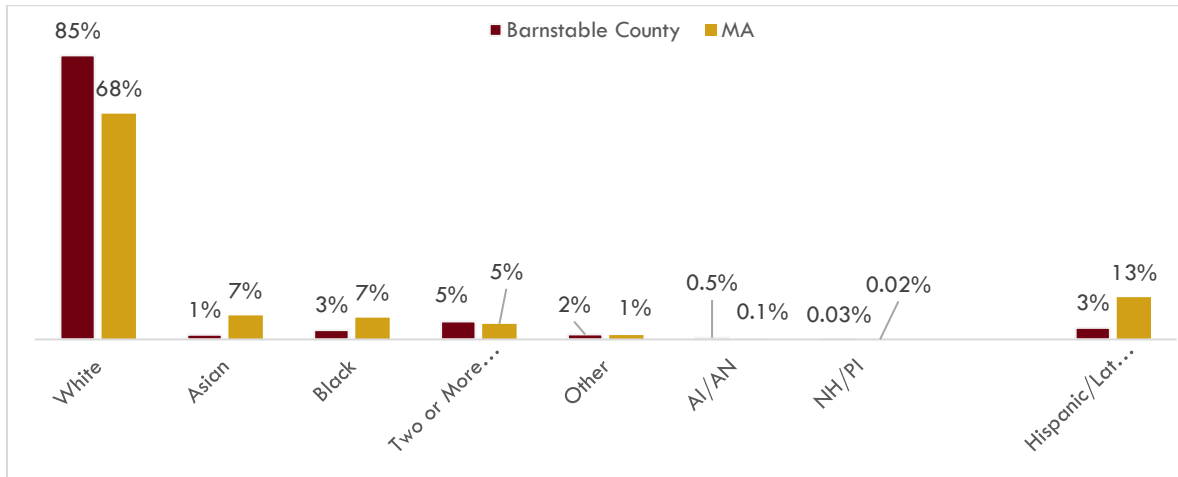


shows that new renters moving in using internet listings are facing even higher rent prices. Calculations modeling potential future affordability gaps predict a continuation of these housing crises.

All these issues underscore the need for town-level change supported by regional housing goals. Stakeholders participating in focus groups and in meetings noted that economic inequality is increasing and affecting life on Cape Cod as wealthier people still have the capacity to move in, and the pandemic accelerated pre-existing trends toward an increasing housing crisis. Remote work and early retirements increased demand for housing with more people moving in during 2020, leading to some owners of long-term rentals selling or converting the home to short-term rentals. Meanwhile, focused local opposition when housing is being built is an obstacle, combined with zoning restrictions and wastewater management issues limiting new housing development on Cape Cod, especially multifamily housing. Naturally affordable housing is scarce across a broad swath of the income spectrum, while HUD funding mechanisms for subsidized affordable housing are insufficient in Barnstable County due in part to the high housing costs and area median incomes. But there is also hope. Town leaders cited successful examples of regional collaboration that can be built upon. With relevant data to form shared goals, the housing crisis can be redressed at each income level and the difficult prognostications for the future need not be sustained. If more housing is made available at each income level for year-round use to secure and increase the availability of housing for all, the vitality and community of residents of Cape Cod can be reinvigorated and restored.

## Appendix: Detail on Race and Ethnicity

Figure 65 Detailed Race and Ethnicity vs. MA



Source: U.S. Census Bureau, Decennial Census PI-94, 2020

Note: All race groups exclude Hispanic people, Hispanic/Latino may be of any race.

AI/AN stands for American Indian and Alaskan Native, and NH/PI stands for Native Hawaiian and Pacific Islander.

Barnstable County is considerably less diverse than the state of Massachusetts as a whole. White residents make up 85 percent of Barnstable County, compared to 68 percent of Massachusetts residents. The percentage of residents who are Black is less than half that of the state as a whole and the percentage of the population who are Asian is one-seventh. Hispanic/Latino representation is exceedingly low compared to representation in the state overall: while 13 percent of Massachusetts residents are Hispanic/Latino, only 3 percent of Cape Cod residents are (see **Appendix: Data Tables**).

While still small in absolute terms, the percentage of the population who are American Indian/Alaskan Native is five times greater in Barnstable County than in the state as a whole. Members of the Wampanoag Tribe of Aquinnah and Mashpee Wampanoag Tribes, as well as anyone else who responds to the Census as American Indian or Alaskan Native, contribute to this representation on Cape Cod.

## Appendix: Housing Unit Supply and Demand Projections

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### Detailed Housing Unit Demand Method

The first step of UMDI's demand projection approach combines population by age and householders by age from the 2015-2019 American Community Survey at the state, county, and municipal levels. Tenure in the ACS is the term for distinguishing if it is an owner or renter household. While the U.S. Census Bureau has made 2016-2020 ACS data available, there are several notable issues with these data due to data collection challenges in 2020, and not all of the housing variables used in this projection exercise are available in that dataset. Age groups younger than 16, the youngest age in the householders by age table, are dropped. From there, headship rates<sup>24</sup> are calculated by age by dividing the number of householders in each age group by the number of total people in that age group for Massachusetts and all of its constituent counties and municipalities. The resulting headship rates are then applied to UMDI's population projections. Headship rates are then applied to projected population estimates by age at the state, county, and municipal levels.

In some cases, the American Community Survey reported that there were zero householders, either homeowners or renters, within a certain age cohort. While some of those zeroes could be accurate (they tended to occur among younger age cohorts and in either very small communities or communities with very high housing costs), they also could be the result of data suppression. The ACS does not report household-level data if there are less than three households that would fit that description in order to avoid identifying individuals according to the U.S. Census Bureau, who UMDI contacted about this issue. In these cases, UMDI opted to use the midpoint between zero and two and assume one householder in cells showing zeroes.

For this project, since seasonal vacancies are a large share of the total vacancy in this region, and because the share of seasonally vacant housing has been changing over time, a decision was made to treat the number of seasonally vacant housing units as a distinct factor which is unrelated to the overall size of the future population. As a result, the number of seasonally vacant housing units is linearly projected forward using its historical trend, while all other vacant housing units were calculated by multiplying projected households for each age and year by the ratio of ACS counts of vacant, non-seasonally vacant housing units divided by the number of households. This is based on the assumption that vacancy rates in future years will be comparable to those observed in the most recent complete dataset.<sup>25</sup> To be more specific, to calculate seasonal vacancies, UMDI used single year data on the number of seasonally-vacant housing units in Barnstable County from 2006-2019, and projected that number forward. In order to project seasonally-vacant housing unit demand for municipalities, UMDI used five-year ACS data for 2005-2009, 2010-2014, and 2015-2019, and projected the trend in those datasets forward. Since these projections were based on only three observations, they were then

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<sup>24</sup> The headship rate is defined as number of households divided by the population.

<sup>25</sup> In order to project housing units from households in previous projections, the number of vacant units were estimated by taking the number of housing units, also from the American Community Survey, and dividing the number of housing units by the number of households. Projected households for each age and year were then multiplied by this ratio. As in the case of headship rates, the assumption being made here is that vacancy rates in future years will be comparable to those observed in the most recent complete dataset.

controlled back to the county projection. In the control process, the town-level age and sex cohorts are summed across all towns to produce a total population by age and sex. Each age and sex town cohort is then divided by the summed age and sex cohort total to determine that town's share of the "uncontrolled" county age and sex cohort total. The share is then applied back to the corresponding population by age and sex developed in the county-level model to produce a new "controlled" age/sex town population. By this method, each town maintains its own unique share of the county's age and sex cohort.

UMDI then controlled these county projections to the state projection by calculating each county's share of projected county-level housing unit demand and applying those shares to the state-level projection. A similar process was then followed for each of the municipalities within Massachusetts' counties. The logic for controlling smaller geographies to larger ones is that larger estimates for both projections and survey data are likely to be more robust. Controlling in this fashion also ensures internal consistency across geographical levels while still reflecting the differences regionally and municipally.

#### Detailed Housing Unit Supply Method

To project the total housing units that would be available on Cape Cod going forward, UMDI used a method similar to that used to project the number of seasonally vacant housing units. One difference is that an additional year of data was added for 2020 by using Census PL94 data. A linear model was constructed based on these 15 years of data, which was then projected forward to 2050. It is important to note that this assumes a linear rate of change in housing supply over this period, which could be affected by a number of political, economic, or environmental factors over the next 28 years.

UMDI then analyzed trends in housing units between the last three non-overlapping ACS five-year data sets at the municipal level. This trend was also projected forward. Since these data are based on a relatively smaller sample, they were constrained so that housing change could not rise or fall by more than one percent a year, and the resulting projections were then controlled back to the state projection.

A similar process was followed to project the number of year-round occupied housing units by municipality. The only difference here was that the change in occupied housing units was not constrained to a change of one percent a year. The reason for this decision is that it seems possible, in certain communities, that year-round occupied housing could potentially be converted into seasonal housing at an annual rate greater than one percent. It is also possible that seasonal and other vacant units could get converted back into year-round occupied housing at a rate greater than one percent.

To create municipal level projections of housing supply, UMDI then analyzed trends in housing units between the last three non-overlapping ACS five-year data sets at the municipal level. This trend was also projected forward. Since these data are based on a relatively smaller sample, they were also constrained so that housing change could not rise or fall by more than one percent a year, and the resulting projections were then controlled back to the state projection.

**Table 15 Housing Unit Demand Projection**

Geography Type	Geography	Year						
		2020	2025	2030	2035	2040	2045	2050
Upper Cape	Bourne	11,822	12,426	12,872	13,054	13,060	12,970	12,853
Upper Cape	Falmouth	23,039	22,893	22,956	22,970	22,805	22,405	21,758
Upper Cape	Mashpee	11,087	11,510	11,839	11,900	11,766	11,475	11,181
Upper Cape	Sandwich	9,906	10,196	10,336	10,264	9,949	9,471	9,012
Mid Cape	Barnstable	29,328	29,758	29,919	29,668	29,147	28,580	28,160
Mid Cape	Dennis	17,480	17,917	18,192	18,309	18,380	18,486	18,750
Mid Cape	Yarmouth	18,149	18,765	19,261	19,565	19,727	19,831	20,000
Lower Cape	Brewster	8,871	9,373	9,767	10,020	10,117	10,142	10,174
Lower Cape	Chatham	8,106	8,227	8,280	8,283	8,237	8,213	8,221
Lower Cape	Harwich	11,681	12,321	12,843	13,192	13,379	13,517	13,683
Lower Cape	Orleans	6,353	6,643	6,870	7,039	7,185	7,382	7,631
Outer Cape	Eastham	7,009	7,215	7,348	7,378	7,355	7,346	7,381
Outer Cape	Provincetown	5,356	5,600	5,758	5,893	5,964	5,971	6,008
Outer Cape	Truro	4,273	4,668	4,989	5,235	5,427	5,614	5,833
Outer Cape	Wellfleet	5,001	5,221	5,362	5,434	5,459	5,515	5,587
Subregion	Upper-Cape	55,854	57,025	58,003	58,188	57,580	56,321	54,804
Subregion	Mid-Cape	64,957	66,440	67,372	67,542	67,254	66,897	66,910
Subregion	Lower-Cape	35,011	36,564	37,760	38,534	38,918	39,254	39,709
Subregion	Outer-Cape	21,639	22,704	23,457	23,940	24,205	24,446	24,809
County	Barnstable County	177,461	182,733	186,592	188,204	187,957	186,918	186,232

Source: UMDI Cape Cod Housing Projections, 2022

**Table 16 Housing Unit Projections**

Geography Type	Geography	Year						
		2020	2025	2030	2035	2040	2045	2050
Upper Cape	Bourne	11,944	12,514	13,229	13,941	14,651	15,338	16,009
Upper Cape	Falmouth	21,819	21,629	21,413	21,204	21,002	20,807	20,619
Upper Cape	Mashpee	10,398	10,669	10,925	11,181	11,438	11,696	11,955
Upper Cape	Sandwich	10,075	10,488	10,886	11,282	11,679	12,075	12,472
Mid Cape	Barnstable	26,679	26,604	26,497	26,397	26,305	26,221	26,143
Mid Cape	Dennis	16,377	17,071	17,738	18,404	19,069	19,735	20,400
Mid Cape	Yarmouth	17,240	17,458	17,654	17,851	18,052	18,256	18,463
Lower Cape	Brewster	8,103	8,296	8,476	8,657	8,839	9,022	9,206
Lower Cape	Chatham	7,536	7,752	7,956	8,161	8,366	8,572	8,778
Lower Cape	Harwich	10,701	11,135	11,552	11,967	12,383	12,799	13,215
Lower Cape	Orleans	5,776	6,051	6,367	6,681	6,979	7,276	7,572
Outer Cape	Eastham	6,289	6,535	6,772	7,008	7,245	7,481	7,718
Outer Cape	Provincetown	4,638	4,703	4,763	4,822	4,883	4,945	5,007
Outer Cape	Truro	3,392	3,554	3,734	3,907	4,076	4,245	4,414
Outer Cape	Wellfleet	4,799	5,001	5,194	5,387	5,580	5,773	5,966
Subregion	Upper-Cape	54,236	55,300	56,453	57,608	58,770	59,916	61,055
Subregion	Mid-Cape	60,296	61,133	61,889	62,652	63,426	64,212	65,006
Subregion	Lower-Cape	32,116	33,234	34,351	35,466	36,567	37,669	38,771
Subregion	Outer-Cape	19,118	19,793	20,463	21,124	21,784	22,444	23,105
County	Barnstable County	165,766	169,460	173,156	176,850	180,547	184,241	187,937

Source: UMDI Cape Cod Housing Projections, 2022

**Table 17 Housing Unit Projection (Year-Round Units)**

		Year						
Geography Type	Geography	2020	2025	2030	2035	2040	2045	2050
Upper Cape	Bourne	9,077	9,553	10,269	11,001	11,749	12,505	13,268
Upper Cape	Falmouth	14,269	13,893	13,487	13,085	12,688	12,362	12,069
Upper Cape	Mashpee	6,723	7,047	7,353	7,656	7,959	8,260	8,562
Upper Cape	Sandwich	8,359	8,749	9,124	9,496	9,868	10,239	10,610
Mid Cape	Barnstable	19,871	19,224	18,544	17,872	17,502	17,139	16,758
Mid Cape	Dennis	7,025	6,833	6,615	6,397	6,180	5,964	5,747
Mid Cape	Yarmouth	11,223	10,903	10,563	10,223	9,888	9,556	9,228
Lower Cape	Brewster	4,229	4,116	4,038	3,959	3,879	3,794	3,705
Lower Cape	Chatham	2,991	2,925	2,847	2,768	2,710	2,668	2,624
Lower Cape	Harwich	5,650	5,592	5,518	5,442	5,368	5,294	5,221
Lower Cape	Orleans	2,909	2,698	2,529	2,361	2,178	1,995	1,812
Outer Cape	Eastham	2,322	2,277	2,231	2,184	2,137	2,087	2,034
Outer Cape	Provincetown	1,710	1,495	1,346	1,193	1,037	877	713
Outer Cape	Truro	628	492	354	213	70	-	-
Outer Cape	Wellfleet	1,645	1,657	1,659	1,674	1,695	1,715	1,734
Subregion	Upper-Cape	38,428	39,242	40,233	41,238	42,264	43,366	44,509
Subregion	Mid-Cape	38,119	36,960	35,722	34,492	33,570	32,659	31,733
Subregion	Lower-Cape	15,779	15,331	14,932	14,530	14,135	13,751	13,362
Subregion	Outer-Cape	6,305	5,921	5,590	5,264	4,939	4,679	4,481
County	Barnstable County	98,631	97,454	96,477	95,524	94,908	94,455	94,085

Source: UMDI Cape Cod Housing Projections, 2022

**Table 18 Housing Unit Projection (Seasonal Housing Units)**

		Year						
Geography Type	Geography	2020	2025	2030	2035	2040	2045	2050
Upper Cape	Bourne	2,867	2,961	2,960	2,940	2,902	2,833	2,741
Upper Cape	Falmouth	7,550	7,736	7,926	8,119	8,314	8,445	8,550
Upper Cape	Mashpee	3,675	3,622	3,572	3,525	3,479	3,436	3,393
Upper Cape	Sandwich	1,716	1,739	1,762	1,786	1,811	1,836	1,862
Mid Cape	Barnstable	6,808	7,380	7,953	8,525	8,803	9,082	9,385
Mid Cape	Dennis	9,352	10,238	11,123	12,007	12,889	13,771	14,653
Mid Cape	Yarmouth	6,017	6,555	7,091	7,628	8,164	8,700	9,235
Lower Cape	Brewster	3,874	4,180	4,438	4,698	4,960	5,228	5,501
Lower Cape	Chatham	4,545	4,827	5,109	5,393	5,656	5,904	6,154
Lower Cape	Harwich	5,051	5,543	6,034	6,525	7,015	7,505	7,994
Lower Cape	Orleans	2,867	3,353	3,838	4,320	4,801	5,281	5,760
Outer Cape	Eastham	3,967	4,258	4,541	4,824	5,108	5,394	5,684
Outer Cape	Provincetown	2,928	3,208	3,417	3,629	3,846	4,068	4,294
Outer Cape	Truro	2,764	3,062	3,380	3,694	4,006	4,245	4,414
Outer Cape	Wellfleet	3,154	3,344	3,535	3,713	3,885	4,058	4,232
Subregion	Upper-Cape	15,808	16,058	16,220	16,370	16,506	16,550	16,546
Subregion	Mid-Cape	22,177	24,173	26,167	28,160	29,856	31,553	33,273
Subregion	Lower-Cape	16,337	17,903	19,419	20,936	22,432	23,918	25,409
Subregion	Outer-Cape	12,813	13,872	14,873	15,860	16,845	17,765	18,624
County	Barnstable County	67,135	72,006	76,679	81,326	85,639	89,786	93,852

Source: UMDI Cape Cod Housing Projections, 2022

## Appendix: High-Series Projections

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For the Cape Cod Housing Needs study UMDI considers two distinct series of population projections: a “standard” series that UMDI produced in cooperation with the Massachusetts Department of Transportation (MassDOT) for their statewide transportation planning model – or the “UMDI V2022” series<sup>26</sup> – and an alternative “high series” projection<sup>27</sup> that makes different assumptions about future migration rates in the region. Assumptions in each series differ based on how each one factors the abrupt population growth experienced in the region at the start of the COVID-19 pandemic into future migration rates. While both the standard series and the high series use the robust Census 2020 population counts for the 2020 “launch” – or starting point – populations, the high series also incorporates the large increase in population growth that occurred shortly before and during the 2020 Census count into its migration rates, and assumes those trends will continue in the future. In contrast, the standard series assumes that the 2019-to-2020 period represents an off-trend year of population change and, instead, incorporates the population change observed through 2019 and extrapolated to 2020 into future migration rates. The rationale for developing two distinct rates is that the COVID-19 pandemic had a profound effect on domestic migration in the region, but there is uncertainty as to whether that migration represents a short-term phenomenon or is instead indicative of a “new normal.”

Population estimates developed by the U.S. Census Bureau suggest that the seasonal areas of Massachusetts, including the Cape and Islands and southern Berkshires, all experienced dramatic population growth near the time of the 2020 Census count, which is consistent with stakeholder observations describing an influx of residents during the pandemic. The Bureau’s “Evaluation Estimates” series continues the trend of post-Census estimates developed after the 2010 Census count and updated annually with actual component data including county-level births and deaths, and migration estimated using county-level IRS tax returns and Medicaid enrollment data.<sup>28</sup> As depicted in the map below (**Figure 66**), the population counted in the 2020 Census departs dramatically from the Bureau’s anticipated April 1, 2020 population in the “seasonal” regions of the state as well as in many of the communities along major commuting routes.

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<sup>26</sup> UMDI V2022 Long-Term Population Projections for Massachusetts Municipalities and Regional Planning Areas (UMDI V2022 Population Projections), UMass Donahue Institute Population Estimates Program. December 15, 2022.

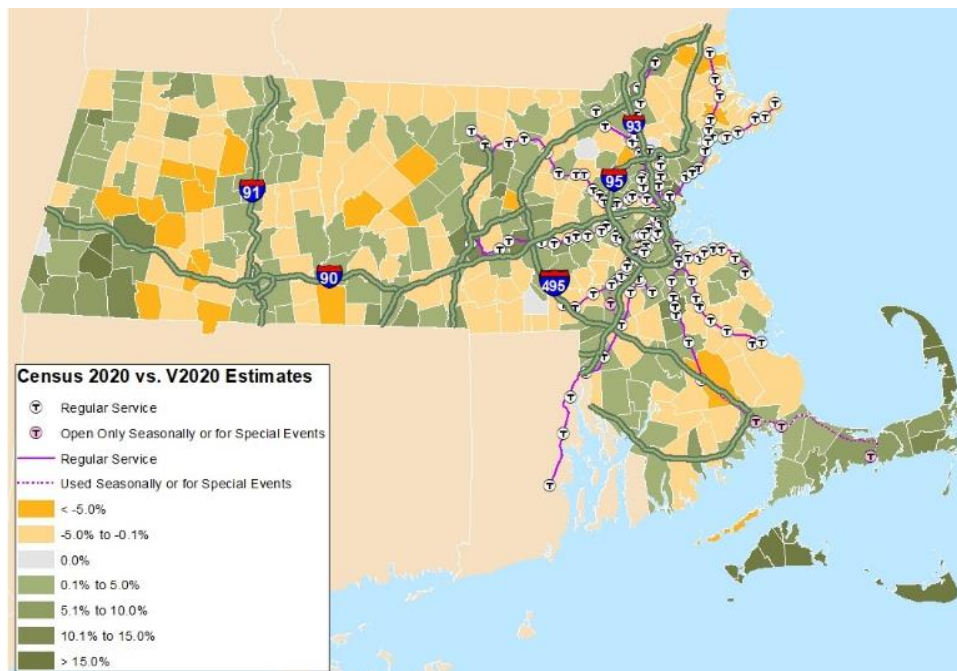
<sup>27</sup> UMass Donahue Institute V2023 High-Series Population Projections for Barnstable County Municipalities (UMDI V2023 Cape Cod High Series). February 10, 2023.

<sup>28</sup> Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020 (SUB-EST2020). U.S. Census Bureau, Population Division. July 2021.

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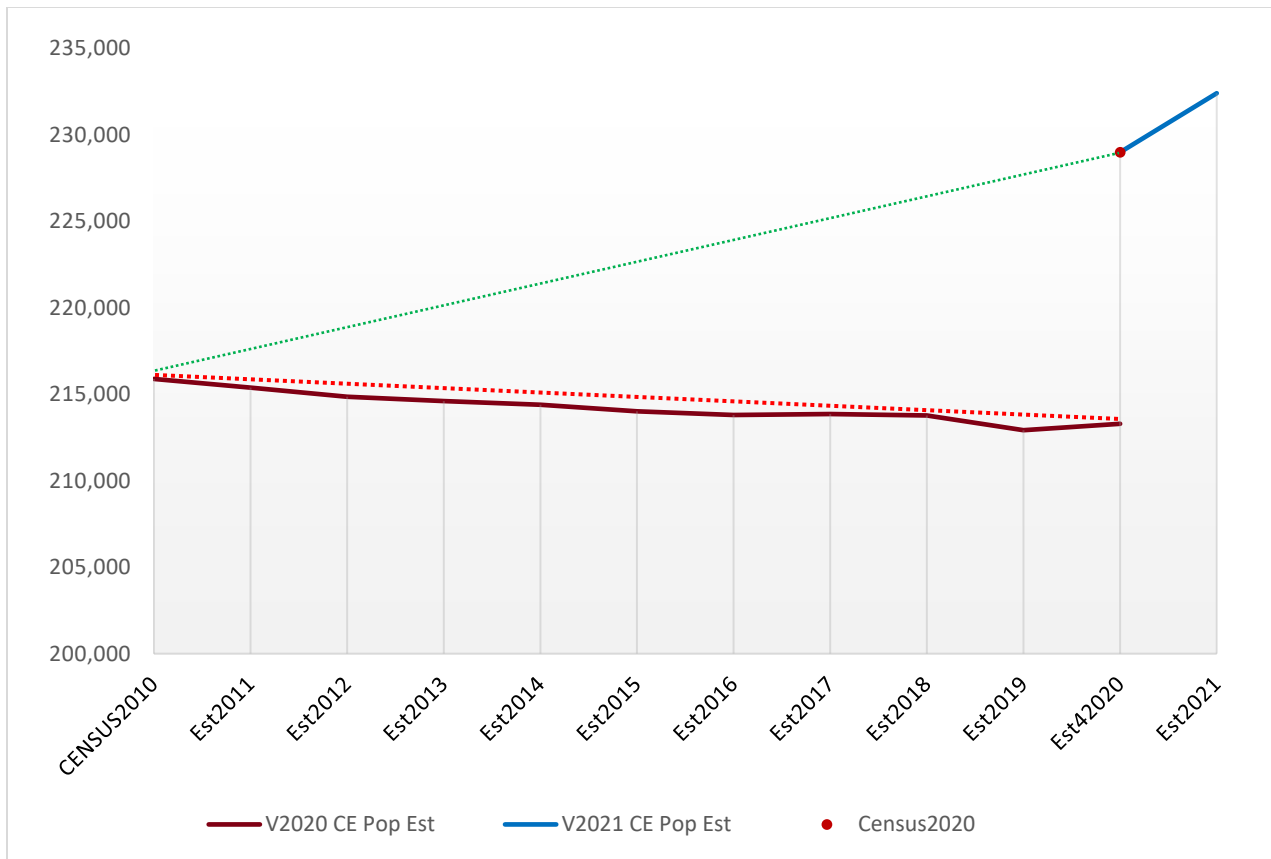
**Figure 66 Percent Difference in Massachusetts City and Town Populations, Census 2020 Count compared to Census 2020 Estimates**



Source data: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020 (SUB-EST2020). U.S. Census Bureau, Population Division. July 2021; Annual Estimates of the Resident Population: April 1, 2020 to July 1, 2021 (CO-EST2021-alldata), U.S. Census Bureau, Population Division, March 24, 2022. Transportation shapefiles layers from MassGIS.

**Figure 67**, below, shows the population trajectory estimated by the U.S. Census Bureau in the ten years leading up to the count and including the 2020 evaluation estimate compared to the Census 2020 count and post-2020 estimates for Barnstable County. This graph also illustrates the two different population trends that form the bases of the alternate migration rates. The dotted red line shows the population change used to develop migration rates in the standard series, and the dotted green line shows the population change used to develop migration rates in the alternative high-series population projections.

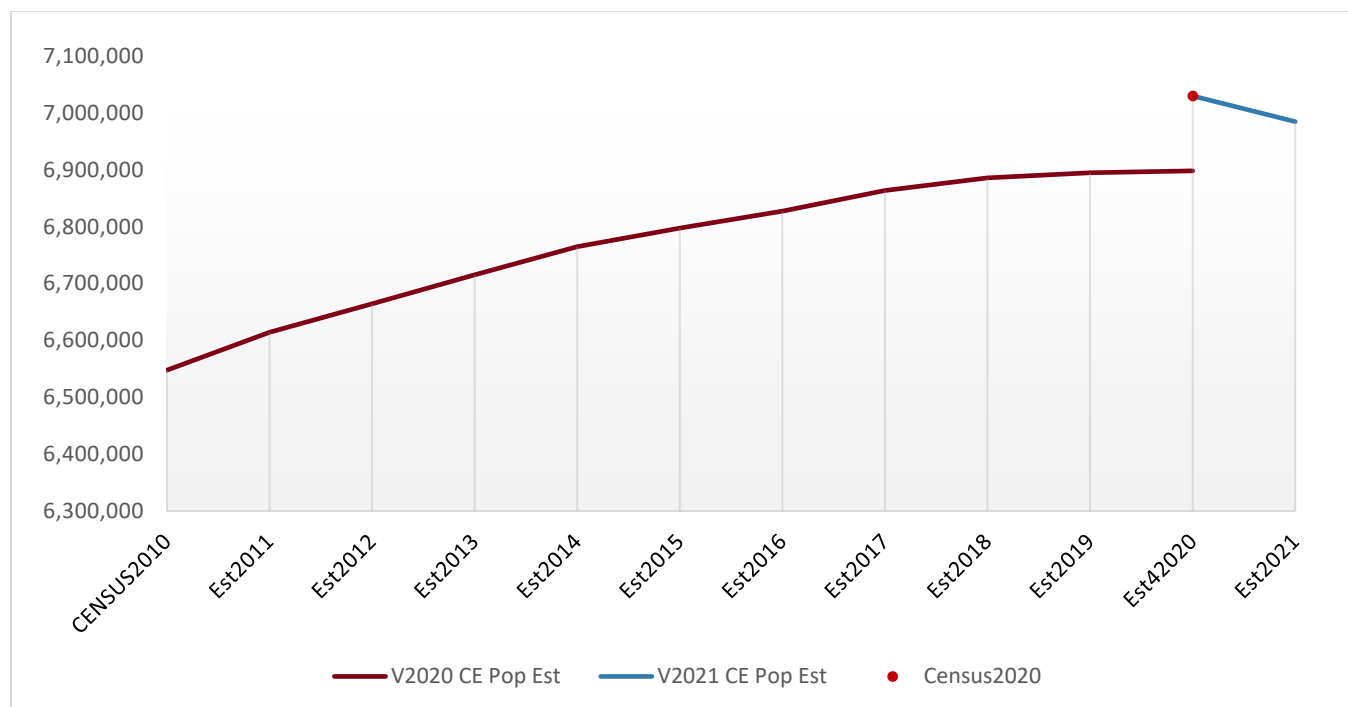
**Figure 67 Census Annual Estimates 2010-2021 and Census 2020 Count for Barnstable County**



Source: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020 (SUB-EST2020). U.S. Census Bureau, Population Division. July 2021; Annual Estimates of the Resident Population: April 1, 2020 to July 1, 2021 (CO-EST2021-alldata), U.S. Census Bureau, Population Division, March 24, 2022.

This same abrupt uptick in the Census 2020 count compared to the Census Bureau’s annual estimates series is also observed in the Massachusetts total population, as seen in **Figure 68** below, which was a primary consideration in how future migration rates were developed for the MassDOT V2022 or “standard” statewide series.

**Figure 68 Census Annual Estimates 2010-2021 and Census 2020 Count for Massachusetts**



Source: Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020 (SUB-EST2020). U.S. Census Bureau, Population Division. July 2021; Annual Estimates of the Resident Population: April 1, 2020 to July 1, 2021 (CO-EST2021-alldata), U.S. Census Bureau, Population Division, March 24, 2022.

Both the standard and the high series incorporate the pandemic-related shift to a large extent in that they both use the Census 2020 counted population totals as their “launch” populations for 2020. This means that the starting population for 2020 – against which fertility, mortality, and migration rates are applied in order to calculate future populations – are the same in both series and capture the full extent of the population that responded to the Census count as Barnstable residents in 2020. It is notable that while the Census is meant to capture an April 1 population, in 2020 the count operations started much later than in usual decades due to the pandemic, especially in seasonal areas, which are heavily reliant upon Update/Leave operations.<sup>29</sup> Originally scheduled from March 15 – April 17, 2020, the 2020 Update/Leave operation was delayed, with a phased re-opening period starting May 4 through June 12, 2020 and concluding on August 13, 2020.<sup>30</sup> Meanwhile, Census Non-Response Follow-Up Operations were bumped from April 9 – July 31, 2020 to July 16 – October 15, 2020, with both operations

<sup>29</sup> “Update/Leave” refers to a Decennial Census operational phase that distributes Census questionnaires in geographic areas that do not have regular mail delivery. The Census Type of Enumeration Area (TEA) Viewer shows that the Cape, Islands, and Berkshires had the highest concentrations of Update/Leave areas in the state. <https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=66cb1f187d4e45fd984a1a96fcee505e>

<sup>30</sup> 2020 Census Operational Timeline and Adjustments Due to COVID-19, U.S. Census Bureau. <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/operational-adjustments.html>. Page last revised February 3, 2023. Accessed on March 7, 2023.

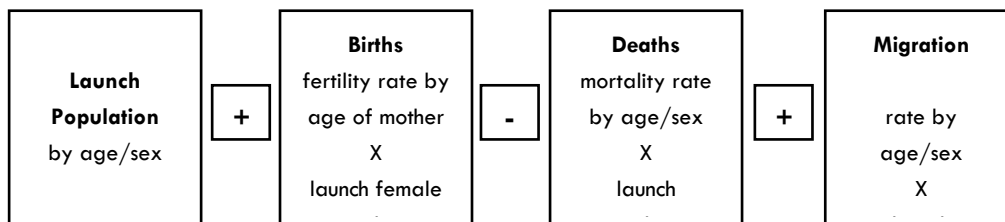
potentially capturing more of the snowbird and other seasonal residents in Barnstable County during the 2020 count than in previous decennial counts.

In developing future population projections, an assumption must be made whether or not the migration trends that occurred around April of 2020 are indicative of the migration trends over the course of the next fifteen years or if the Cape will more likely see migration patterns similar to its pre-pandemic level. The high series model assumes that pandemic-level migration will persist, and uses the same PL-94-controlled population used as the launch population for the 2020 endpoint when calculating migration rates. The standard series assumes that pre-pandemic migration is more likely in the future, and uses an estimate extrapolated from the 2010-2019 time series as the 2020 population for migration rate calculations. An explanation of how endpoint populations factor into migration rates is included in the methodology section below.

### Standard and High Population Series: Shared Methodology

While UMDI develops distinct future migration rates for the standard and high series population projections, both series share the same methodological framework, data sources, and many of the same assumptions and limitations. Both series are based on a demographic accounting framework for modeling population change commonly referred to as a *cohort-component* model. The cohort-component method recognizes that there are only four ways that a region’s population can change from one time-period to the next. It can add residents through either births or in-migration, and it can lose residents through deaths or out-migration.<sup>31</sup> Figure 69 below displays the basic concept of a cohort-component model.

Figure 69 Cohort-Component Model Overview



Launch populations by age, sex, and place (town, city, and county) for both series are based on Census 2020 total population counts for each place. Because the U.S. Census Bureau has not yet published Census 2020 populations by sex and five-year age groups, launch populations for each town are from the *UMDI 2020 Interim Population Estimates by Age, Sex, and Municipality* developed for the Massachusetts Department of Transportation.<sup>32</sup> To produce the *Interim* estimates, age/sex distributions

<sup>31</sup> For a full understanding of the cohort-component model used to generate the UMDI V2022 population projections, refer to the methodology report: *Long-Term Population Projections for Massachusetts Municipalities and Regional Planning Areas: Population Projections Methodology*, UMass Donahue Institute Population Estimates Program. December 15, 2022.

<sup>32</sup> *UMDI 2020 Interim Population Estimates by Age, Sex, and Municipality*, UMass Donahue Institute Population Estimates Program. October 18, 2021.

for each town are developed using a modified *Hamilton-Perry* model at the town level controlled to Census annual population estimates by age and sex and the county level.

Fertility and mortality rates for both the standard and high-series model are developed distinctly for each age/sex/place cohort by using births and deaths data from the Massachusetts Department of Public Health for years 2010-2019 and interpolated age/sex/place populations for the same years.

Both series use the *residual net migration* method to account for the migration component of population change. “Residual” refers to the fact that migration is assumed to be responsible for past population change after accounting for births and deaths. This residual net migration is then used to estimate past migration rates. The procedure applies the resulting net migration rates by age/sex estimated to the survived population by age/sex in order to project net migration by age/sex for the population ages five and older. For the population ages 0-4, it is assumed that residence of infants will be determined by the migration of their birth mothers.

In the context of the UMDI projections, this method takes the population count in 2010 for each age/sex/place cohort and accounts for births and deaths occurring within that cohort as it ages forward five years. The resulting “natural” population – five years later and five years older in the same place and after accounting for births and deaths – is then compared to the 2015 estimate in the corresponding age group. The difference between the expected “natural” population and the “actual” population is attributed to migration, which is then developed into a migration rate unique to its corresponding age/sex/place cohort. This process is repeated for the 2015 to 2020 period, and the two resulting five-year migration rates are averaged together for each age/sex cohort. Both series take the population counts by age and sex from the decennial Census 2010 Summary File 1 (SF1) file for the 2010 endpoint population. Population values for 2015 are UMDI small area population estimates that are controlled to<sup>33</sup> the U.S. Census Bureau’s county-level population estimates by age and sex for 2015.<sup>34</sup> For the 2020 age/sex endpoint population of the high-series, the *UMDI 2020 Interim Population Estimates by Age, Sex, and Municipality* are used, the same population used for the launch population in both series. These estimates are controlled to the Census 2020 PL-94 total populations under 18 and 18-plus by town. For the 2020 age/sex endpoint population of **standard series**, the same methodology used to develop the estimated 2020 launch population is employed, except that instead of controlling the 2019 age/sex estimates to the Census 2020 PL-94 count totals, the 2010-2019 age/sex time series is extrapolated out to 2020. This variation is applied in order to overcome the instability of the 2020 count observed in many areas of Massachusetts relative to their V2019 and V2021 estimates.<sup>35</sup>

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<sup>33</sup> As is typical with small-area cohort component models, UMDI develops the model at both the county level and separately for each individual town. The resulting age/sex/town cohorts are then controlled to the resulting county age/sex cohorts. This method is commonly applied in population projections modelling because projections developed at larger levels of geography are less subject to extreme rates that may be generated by small cohort sizes and thus provide a measure of stability to the overall series.

<sup>34</sup> UMDI-DPH Small Area Population Estimates V2019.

<sup>35</sup> Subcounty Resident Population Estimates: April 1, 2010 to July 1, 2020 (SUB-EST2020) and Subcounty Resident Population Estimates: April 1, 2020 to July 1, 2021 (SUB-EST2021). U.S. Census Bureau, Population Division, July 2021 and May 2022.

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Both the standard and high series may also be described as “status-quo” projections; they assume that recent trends in the demographic components of population change, such as fertility, mortality, and migration by age, will persist in future periods. While it is reasonable to expect that these rates will change in future years, predicting the directionality of these trends invites additional assumptions into the model and, with them, additional uncertainty. The recent COVID-19 pandemic is an example of how an unexpected event can reverse an apparently steady component trend, with mortality rates increasing after a long period of gradual decrease in most age groups. Likewise, fertility rates have been slowing over a long period, but economic or social influences could just as readily disrupt that trend, as happened with the unforeseen “baby boom” that kicked off in the late 1940s. Fluctuations in immigration and migration are even less predictable. For example, there was a steep drop off in net immigration to Massachusetts following the 2016 elections. This trend was further exacerbated by a global pandemic in 2020, but could be substantially reversed again, depending on future federal policy. For these reasons, the UMDI V2022 series may be defined strictly as “projections” and not as “scenarios” or “forecasts.”

The cohort-component approach also accounts for population change associated with the aging of the population, with the understanding that the current age profile is a strong predictor of future population in any given region and acknowledging that natural increase based on births and deaths can differ greatly from one region to another based on their age profiles. For example, a place that is anticipating a large number of women coming into their twenties and thirties in the next decade will experience more births, while an area with a large concentration of elderly residents will experience more deaths in decades to come.

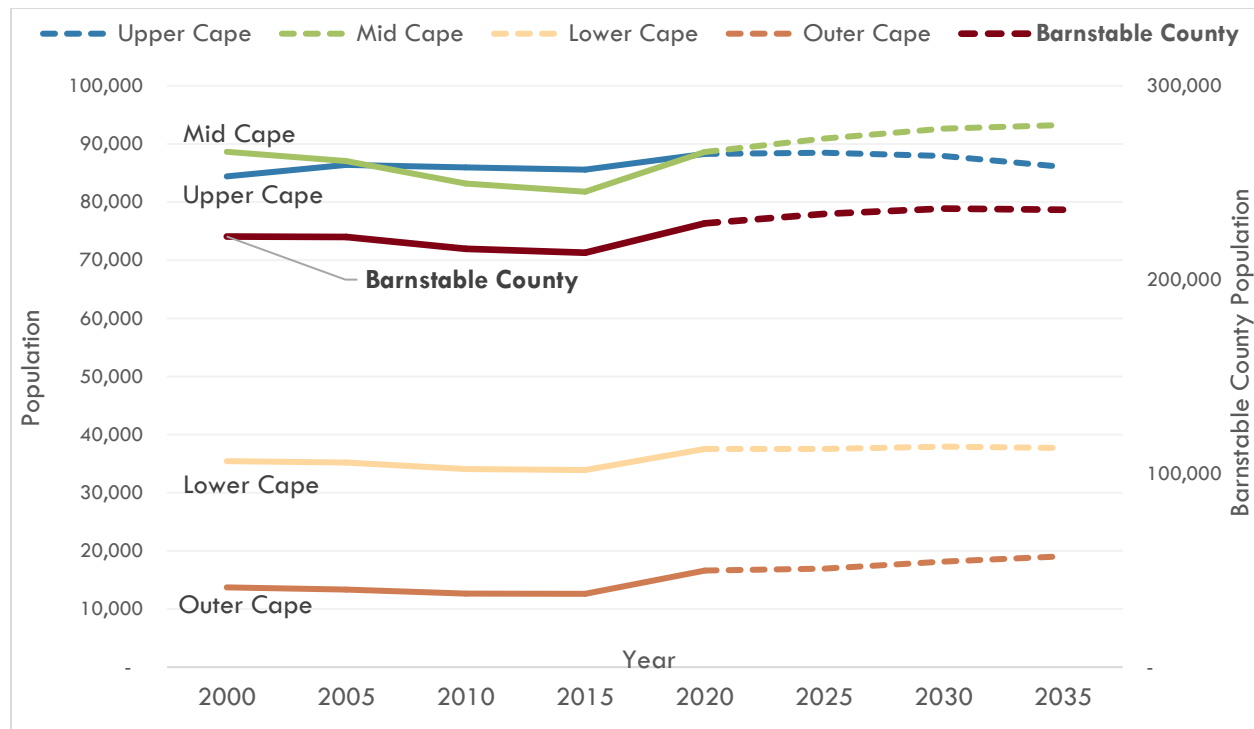
Finally, both series are developed to represent *the permanent resident populations* in the region, as defined by the U.S. Census Bureau. As a practical consideration, the data inputs used for the V2022 model, including births and deaths by residence of mother or decedent – as well as the Census 2010 and 2020 counts that are used as the population “endpoints” and denominators for migration, fertility, and mortality rates in the model – are all tied to the concept of permanent, or year-round, residency. From a project perspective, the standard UMDI V2022 projection series was developed in accordance with instructions from the Massachusetts Department of Transportation to consider the resident population on a “typical fall or spring day.”

A consideration in using these resident population projections in the context of a housing needs assesment is that they do not account for seasonal, part-time residents, or other vistors placing a demand on regional housing stock. These residents, including part-time and seasonal residents alike, constitute a sizeable population over and above the permanent resident population represented in both the standard UMDI V2022 series and the high Cape Cod series. For this reason, it is recommended that future research be conducted to develop methods for estimating seasonal populations over and above the resident population accounted for in the UMDI projections series. There is a project planned, called the UMDI-MassDOT Cape and Islands Seasonal Population Study, for the Cape Cod Commission for UMDI to do preliminary research into capturing seasonal populations in a population model context.

## Effects on Projected Population

Population projections using the high estimate methodology described above show Cape Cod retaining the population gains observed from 2015 to 2020 and then growing further, albeit at a slower pace, through 2035, when the projected population would stand at approximately 236,000. Most population accrues to the Mid and Outer Cape, with the population of Lower Cape remaining relatively stable and the population of the Upper Cape declining somewhat. **Figure 70** shows the historical and projected populations using this methodology.

**Figure 70 Historical and Projected Population, High-Estimate, Barnstable County, 2000-2035**



Source: UMDI High-Series Population Estimate for Barnstable County, UMass Donahue Institute Population Estimates Program, 2025-2035; U.S. Census Bureau, Decennial Census 2000, 2010, and 2020, UMass Donahue Institute Population Estimates Program population estimates for all years between historical census years.

These projections stand in contrast with the standard scenario projections from UMDI which project a decline in the population of Barnstable County and all four sub-regions declining over the same period, 2020-2035. **Table 19** below compares the difference between these two projections, both in absolute and percent terms, for the Cape and the four sub-regions. In terms of absolute numbers, the Mid Cape experiences the biggest difference in population between the two projections, with approximately half of the difference in projected population accruing to that sub-region. In terms of percent change, however, the region to see the biggest difference between projections is the Outer Cape, whose projected population is over fifty percent higher in the high estimate projections. In terms of both absolute and percent change, the difference in projected populations is the smallest on the Upper Cape.

This is because the Upper Cape is the region of the Cape where the demographic shifts experienced in 2020 had the smallest impact on the overall population.

**Table 19 Projected Population by Subregion, Standard vs. High Estimates**

<b>Region</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>Projected Population (High Estimate)</b>			
Barnstable County	233,879	236,645	236,077
Upper Cape	88,489	87,926	86,069
Mid Cape	90,918	92,626	93,256
Lower Cape	37,527	37,934	37,689
Outer Cape	16,945	18,159	19,063
<b>Projected Population (Standard Estimate)</b>			
Barnstable County	225,685	220,135	211,205
Upper Cape	88,056	87,485	85,723
Mid Cape	86,914	84,300	80,486
Lower Cape	35,945	34,652	32,655
Outer Cape	14,770	13,698	12,341
<b>Difference in Projections</b>			
Barnstable County	8,194	16,510	24,872
Upper Cape	433	441	346
Mid Cape	4,004	8,326	12,770
Lower Cape	1,582	3,282	5,034
Outer Cape	2,175	4,461	6,722
<b>Difference in Projections (Percent Change)</b>			
Barnstable County	3.6%	7.5%	11.8%
Upper Cape	0.5%	0.5%	0.4%
Mid Cape	4.6%	9.9%	15.9%
Lower Cape	4.4%	9.5%	15.4%
Outer Cape	14.7%	32.6%	54.5%

Source: UMDI High-Series Population Estimate for Barnstable County, UMass Donahue Institute Population Estimates Program, 2025-2035

Beyond total population, the demographic composition of the Cape also changes in the high scenario projections. Projected future population on the Cape in the high scenario has some notable differences in terms of age composition from the standard scenario. This affects projections of housing demand, as persons in different age groups tend towards different housing configuration patterns.<sup>36</sup> **Figure 71** shows shifts in the age composition of each of Cape Cod's subregions. To give an example of how this is calculated, people aged 15 through 19 were projected to comprise 3.5 percent of the population of the

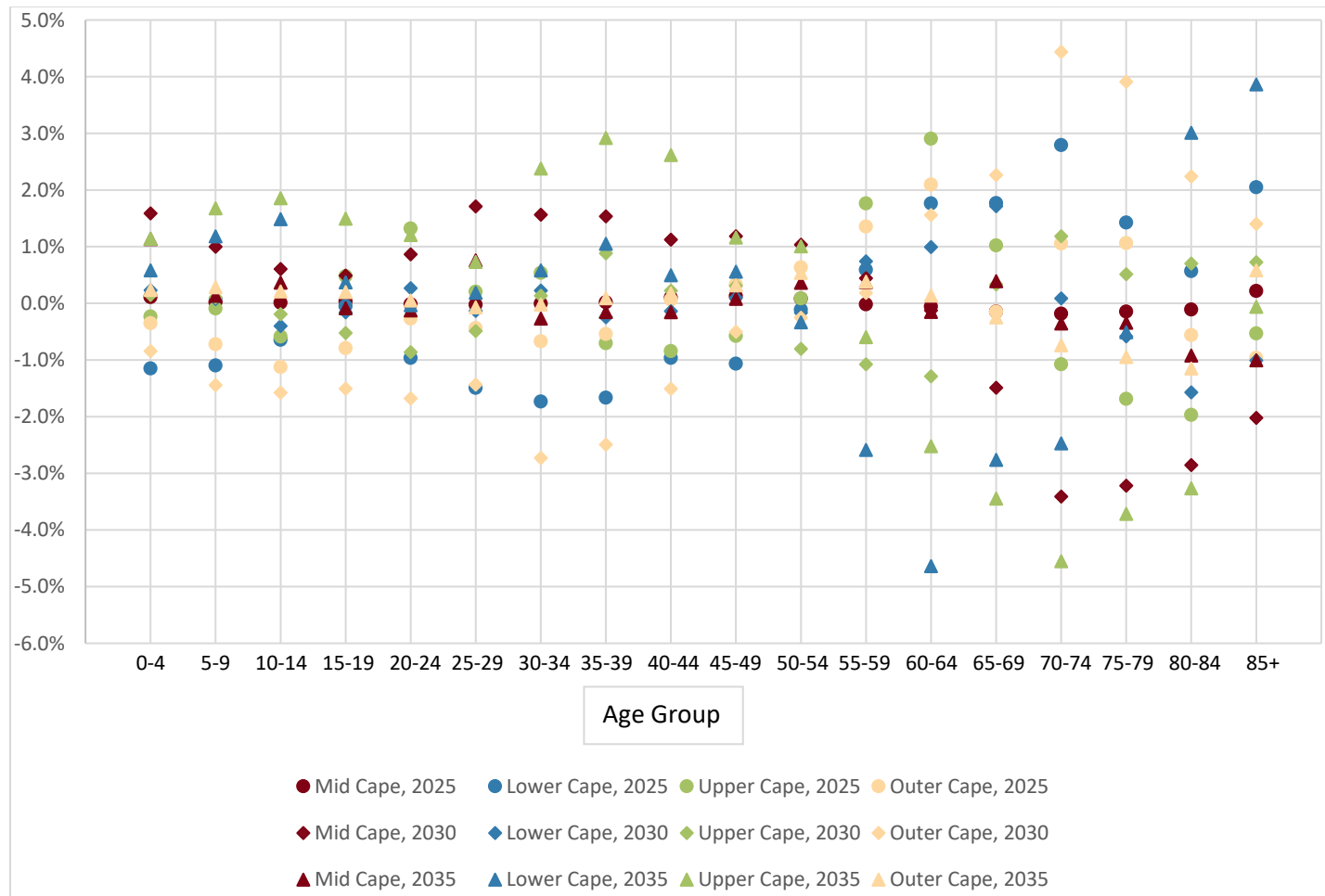
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<sup>36</sup> For more on how age affects headship rates and household demand, see the housing unit projections methodology section.



Mid Cape in 2030 in the standard projection. In the high scenario, they are projected to represent 4.0 percent of the population, so the shift in the share is 0.5 percent.

**Figure 71 Comparison of Standard and High Projection Age Groups' Share of Total Population**



Source: UMDI High-Series Population Estimate for Barnstable County, UMass Donahue Institute Population Estimates Program, 2025-2035.

Overall, most age cohorts' share of their subregion's population shifts by less than one percent. There are a few notable exceptions, however. The Mid, and Upper Cape all saw the share of residents over the age of 60 decline when compared to the standard scenario projection, while the Lower Cape sees that same population comprising a larger share of the population. Conversely, people in their 30s and 40s comprise a larger share of the population on the Upper Cape, but a smaller share on the Outer Cape, in the high scenario projections.

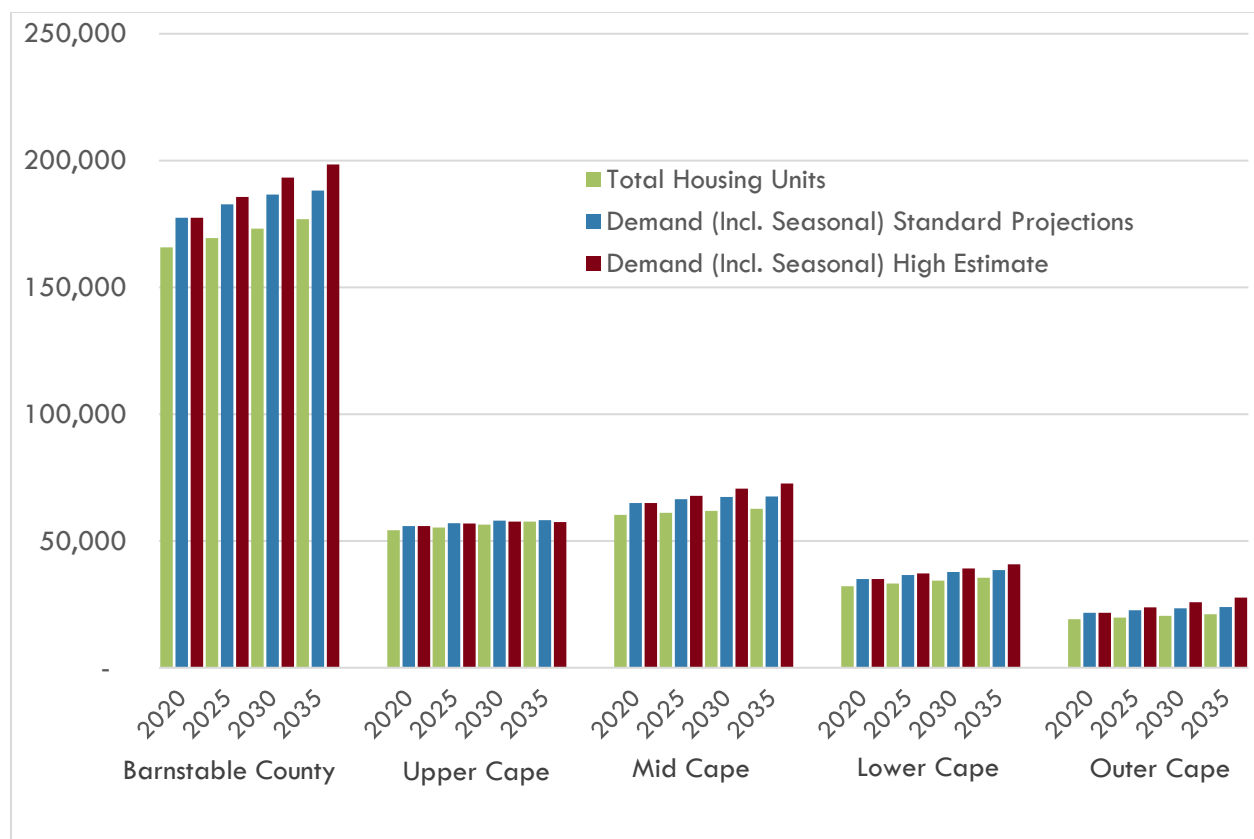
### ***Effects on Housing Projections***

UMDI's population projections are a major component of projected housing unit demand in the 2022 Cape Cod Housing Projections. Housing unit supply, on the other hand, is projected as a continuation of the historical trend, and does not consider demographic change as a factor. As a result, an increase in

projected population on Cape Cod will increase the projected gap between the number of housing units demanded by households and the number supplied.

In order to estimate the housing implications of this alternate projection, UMDI reran the housing projection model, using the high series projections in lieu of the standard projections that were used in the initial projections work. No other changes were made to the housing projection methodology. **Figure 72** shows the new high estimate housing demand projections, compared with the existing standard projections and housing supply projections. While the high estimate projections do not change the amount of housing, they do project a larger gap between the projected housing unit supply and demand in most parts of Cape Cod.

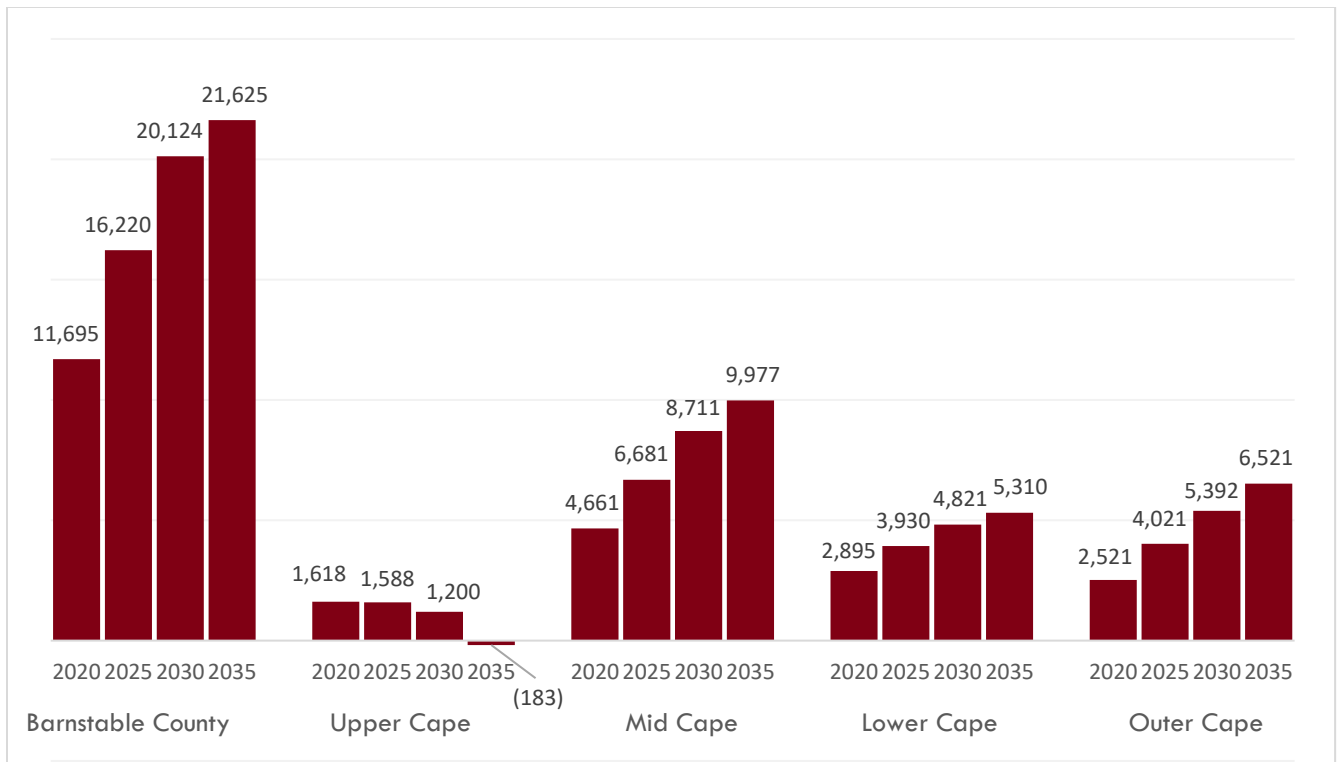
**Figure 72 Projected Housing Unit Supply and Demand**



Source: UMDI High-Series Housing Estimate for Barnstable County, 2025-2035

The gap between projected housing unit supply and demand in the high estimate projections, as shown in **Figure 72** above, is shown in detail in **Figure 74** below. As shown in **Figure 73**, in the high-series projections, the housing need gap estimate nearly doubles over the projected 15-year span, rising from 11,695 units in 2020 to 21,625 units in 2035. Most of this growth in demand in this high-series model is projected to occur on the Mid Cape, but there is also notably more demand for units on the Lower and Outer Cape.

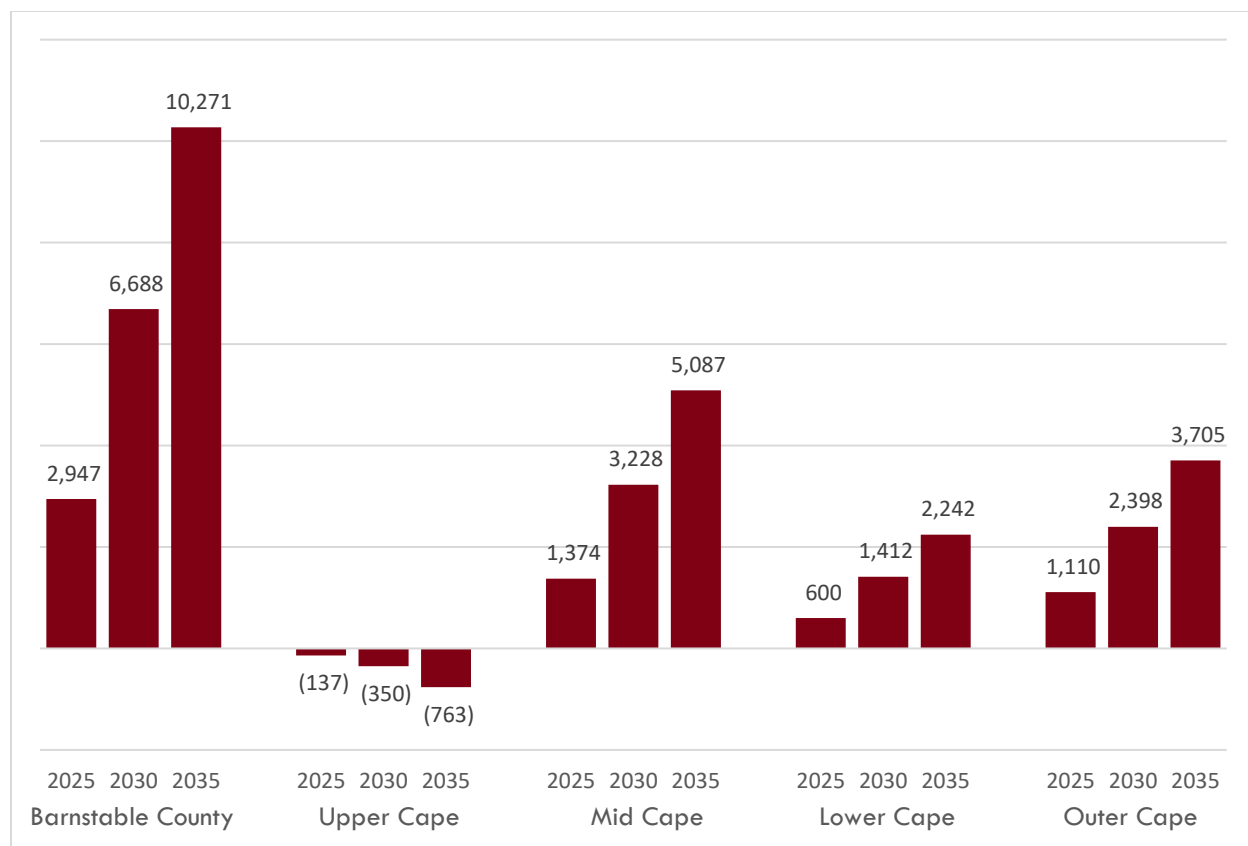
**Figure 73 Housing Need Gap, High- Series Projections**



Source: UMDI High-Series Housing Estimate for Barnstable County, 2025-2035

**Figure 74** shows the degree to which the high projections differ in the estimation of the gap between projected housing supply and demand from the standard projection. By 2035, the high estimate projections cause the projected gap between housing unit supply and demand to grow by an additional 10,000 units. This growth is projected to be concentrated on the Mid Cape, with pronounced new housing needs on the Lower and Outer Cape as well. The Upper Cape, which was less affected by COVID-era shifts in population patterns, actually sees its housing unit need fall slightly in this projection, largely due to demographic factors which are explained above.

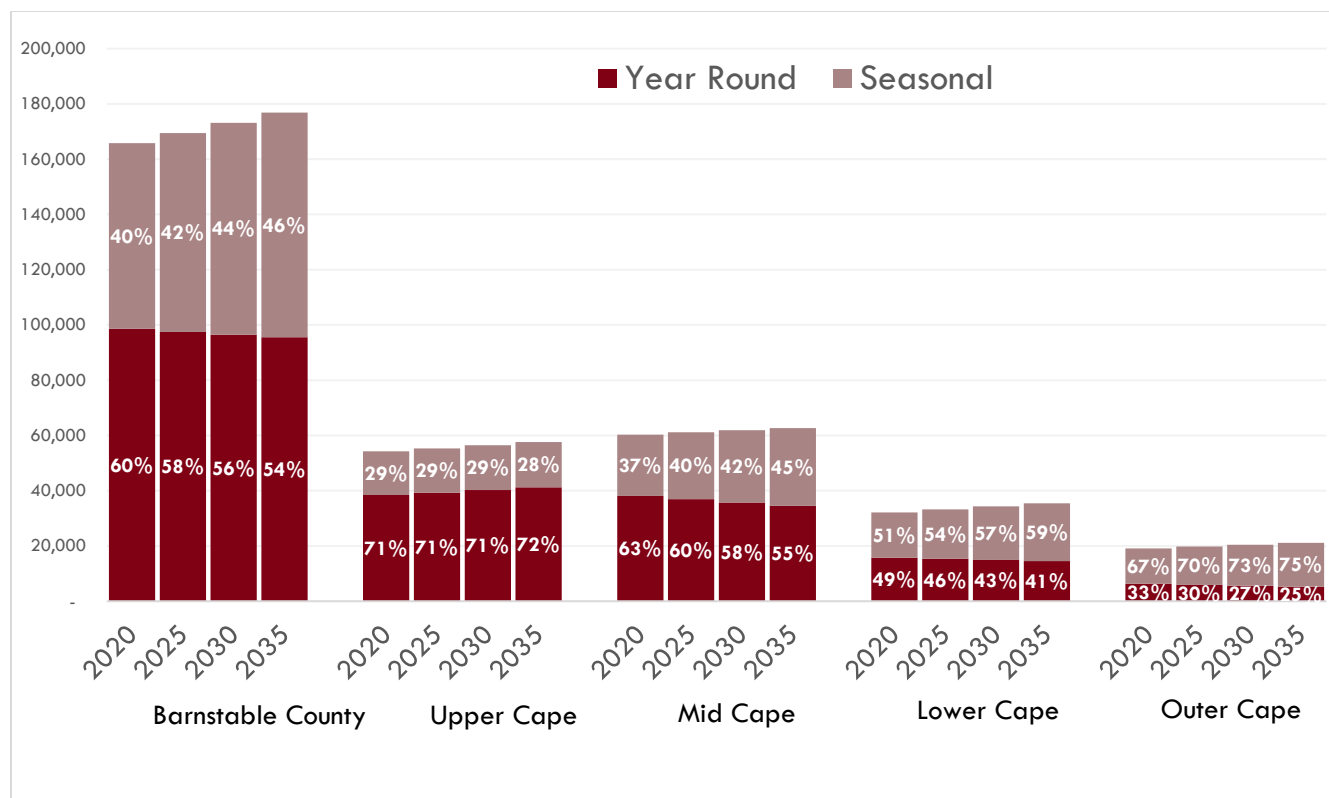
**Figure 74 Difference Between Projections in Housing Need Gap, High-Series Minus Standard Estimate**



Source: UMDI High-Series Housing Estimate for Barnstable County, 2025-2035

As stated above, the supply model for projecting housing unit *supply* in this project did not take changes in population into account, only the demand part of the model does. As a result, the number of projected available housing units on the Cape does not change, nor does the number of those units that are projected to be available for seasonal versus year-round use. It is conceivable that an increase in the residential population causing high year-round housing demand could increase the price to the point that some, rather than seasonal use, but whether or not more property owners would consider selling or renting their housing units for year-round use would occur if increased populations caused prices for year-round housing to further rise, or more housing would be developed as another response, would be dependent on a number of factors not included in this projection, such as the incomes of the new projected residents, developer behavior, and the price elasticity of demand for seasonal housing.

**Figure 75 Projected Housing Supply, Year Round vs Seasonal, 2020-2035**



Source: UMDI High-Series Housing Estimate for Barnstable County, 2025-2035

The housing projection for seasonal and year round units was repeated with the years 2025, 2030, and 2035 to show years consistent with the other projections from the high-series model, the results of which are shown in **Figure 75** above.

## Limitations

It is important to note that modeled projections cannot and do not purport to predict the future, but rather may serve as points of reference for planners and researchers. Like all forecasts, the UMDI projections rely upon assumptions about future trends based on past and present trends which may or may not actually persist into the future. The V2022 standard and Cape Cod high-series both employ a status-quo model approach to predict future population change. They assume that recently observed trends in the components of population change, including birth, death, and migration rates, will persist in future years. They are also a demographically-based models, assuming that population change is driven by births, deaths, and the persistence of historic migration rates into the future.

As suggested by the demographic-accounting framework, both series of projections are based on demographic components of change to the exclusion of other factors, such as housing or transportation development initiatives, large-scale institutional changes, cultural shifts, and public policy revisions. To

the extent that geographically-specific birth, death, and migration trends from the last ten years reflect the development that occurred in that place over the past ten years, the projections should serve as reasonable reflections of future development should development continue at the same relative pace in that geography. Should a region's economic development outlook change dramatically, relative to other places in the state or the U.S., then the migration component in the model may no longer reflect the migration that may be anticipated in future years. An important counterpoint to the very likely possibility of future changes in migration, however, is that the strongest predictor of future population in almost all places is the population residing there today.

Factors specific to the timing of this series may also greatly impact the accuracy of the V2022 and Barnstable high-series projections. For one, the projections are based on trends unfolding during what may be described as an off-trend period. The COVID-19 pandemic drastically shifted short-term trends in births and deaths – two of the main components used as direct inputs in the UMDI population projections method – not only in Massachusetts but around the U.S. as a whole. Secondly, the pandemic altered typical migration and immigration patterns, with an already declining trend in immigration exacerbated by the global pandemic and with a shift in domestic migration out of urban and into more rural and seasonal areas. While population data from 2020 are incorporated into the launch populations in our projections models, it is still too early to tell whether 2020 residency choices will persist into future years as the “new normal” or whether they will revert to pre-pandemic tendencies, or, if something in-between, to what extent they will persist or rebound.

Another major consideration affecting our ability to produce accurate population projections in 2022 relates to the release schedule of detailed Census 2020 data. As of the date of this report, the only decennial Census data available for 2020 are the total combined male and female populations by race and ethnicity for two large age cohorts: under-18 and 18-plus years of age. While detailed count data by specific five-year and single-year age cohorts are usually available to researchers by this time in the Census cycle, due to both pandemic and methodological-related delays within the U.S. Census Bureau, the release of five-year age cohorts is now not anticipated until May of 2023.<sup>37</sup> The decennial Census counts published every ten years by the U.S. Census Bureau are typically considered the “gold-standard” against which other estimates and rates may be evaluated or produced. In the V2022 estimates series, UMDI must instead rely on age distributions extrapolated from a Census 2010 base which, though reasonable, lack the precision of an actual recent count.

For all of these reasons, researchers should use caution when planning initiatives around the V2022 and Cape Cod High Series population projections, and be thoughtful about the data sources, methods, and assumptions that underpin the series. This methodology report represents UMDI's efforts to provide transparency and clarity on the inputs, methods, and assumptions used in the series so that potential users may be well informed on the components used to generate the final projection results.

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<sup>37</sup> <https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/release/about-2020-data-products.html>

# Appendix: Survey Postcard



**Dear Cape Cod Resident:**

You have been randomly selected to participate in the 2022 Cape Cod Resident Housing Survey. We want to hear from you! The Cape Cod Commission is working with the Center for Public Opinion at UMass Lowell and the Donahue Institute at UMass Amherst to better understand Cape Cod residents' satisfaction with, and the factors influencing, their housing situations.

Please take a few minutes to answer each question in the online survey. Your responses will be kept confidential and your privacy will be protected. We won't share your personal information. You may contact [surveys@uml.edu](mailto:surveys@uml.edu) for any questions about the survey.

Visit [ccom.link/resident-survey](https://ccom.link/resident-survey) and enter the following code <codexxxx> or access the survey with a smartphone via the QR Code to complete the survey and ensure your response is included. Everyone who completes the survey will have a chance to win one of five \$100 Amazon gift cards from UMass Lowell.

Thank you in advance for promptly completing the survey.

Kristy Senatori  
Executive Director, Cape Cod Commission



Please have a resident at this address respond to this survey.

[www.capecodcommission.org/housing](http://www.capecodcommission.org/housing)



CAPE COD  
COMMISSION



Center for Public Opinion  
University of Massachusetts Lowell  
883 Broadway Street, Suite 201  
Lowell, MA 01854

UMassAmherst | Donahue Institute



CAPE COD RESIDENT HOUSING SURVEY

Your feedback is important to us!

## Appendix: Survey Method and Demographics

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The Center for Public Opinion at UMass Lowell was commissioned to conduct the survey. The survey was conducted using a push-to-web method, where postcards with an invitation to participate in the housing study were sent to a random-sample of residents (see **Appendix: Survey Postcard**). The postcards included a QR code and survey link. As an incentive to encourage participation, respondents were offered the opportunity to enter a drawing to receive one of five \$100 Amazon gift cards. In total, 20,000 postcards were mailed to residential homes on Cape Cod, seasonal addresses were excluded. To ensure an adequate number of renters were included in the sample, renters were oversampled, meaning that rental addresses were overrepresented in the mailing. Survey responses were collected from September 22 through October 7, 2022. In total, 743 responses were received. The data were weighted by age, gender, race, education, home ownership status, and Cape Cod subregion using iterated proportional fitting. The design effect (DEFF) was 1.64 and the overall weighted margin of error was +/- 4.6 percent. Residents were eligible to complete the survey if they lived on Cape Cod for at least two consecutive months during the year, in order to capture people who were seasonally employed on the Cape while excluding those just visiting on the weekends.

Full survey results are included in **Appendix: Survey Tables**. The total number of valid responses for any particular question varies based on the number of respondents as some individuals did not answer one or more of the questions. Findings are presented for each Cape Cod subregion and for the Cape Cod Region as a whole. Frequencies and percentages, as well as means where appropriate, are presented in the appendix. Further analyses were conducted to determine whether differences between the four Cape Cod subregions were statistically significant. For testing of statistical significance among regions and sub-groups (*e.g.* owners and renters) we conducted chi-square tests for nominal data and t-tests for continuous variables. We used a 95 percent confidence interval, (*i.e.*  $p < 0.05$ ) as our standard for statistical significance testing for both tests. Note p-values are presented for all testing of statistical significance among groups.

The demographics of survey respondents largely mirrored the demographics of the Cape Cod region. Among survey respondents' over a third (37%) are over 65, similarly 33 percent are retired. Sixty-two are under 65 and the same percent are employed (see Appendix: Survey Tables, **Table 60** and **Table 65**). Respondents are highly educated; less than one percent of survey respondents have not completed high school. Twelve percent of respondents indicated that their highest level of education is a high school degree or GED, 26 percent having attended some college professional training, or trade school, and 15 percent holding an associate degree. Just under half (45%) of the population hold a bachelor's or advanced degree (22 and 23 percent, respectively) (see Appendix: Survey Tables, **Table 66**). With regard to income, respondents came from all socio-economic backgrounds, 39 percent reported household incomes below \$75,000, 42 percent were in households earning between \$75,000 to \$149,999, and the remaining 20 percent had household incomes at or above \$150,000 (see Appendix: Survey Tables **Table 78**).



Forty-six percent of respondents are male, 50 percent are female, less than 1 percent each were non-binary or other, and 3 percent preferred not to answer (see Appendix: Survey Tables, **Table 74**). Respondents are overwhelmingly White)

## Appendix: Survey Questionnaire

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**Note:** This survey was conducted on-line using Qualtrics. To include the questionnaire in this report we have reformatted it to allow readers to see every question and the logic that was used for branching questions. The formatting and design of the questionnaire in this report therefore does not match the survey as it appeared to respondents who completed it through a web-based platform.

### Introduction

Thank you for participating in the 2022 Cape Cod Resident Housing Survey. The Cape Cod Commission is working with the Center for Public Opinion at UMass Lowell and the Donahue Institute at UMass Amherst to conduct this survey. We seek to better understand Cape Cod residents' satisfaction with, and the factors influencing, their housing situations.

Please take a few minutes to answer each question in the survey. You are free to skip any questions that you do not wish to answer. For support with this survey, please email [surveys@uml.edu](mailto:surveys@uml.edu).

Everyone who completes the survey can enter for a chance to win one of five \$100 Amazon gift cards from UMass Lowell.

Thank you for completing the survey.

If you have an access code on the postcard you received, please enter it below before starting the survey.

### Survey Instrument

#### In what town do you currently live?

Barnstable	Mashpee
Bourne	Orleans
Brewster	Provincetown
Chatham	Sandwich
Dennis	Truro
Eastham	Wellfleet
Falmouth	Yarmouth
Harwich	Off-Cape

*If respondent answered "In what town do you currently live?" with "Off-Cape" they were then asked:*

**If you currently live off of Cape Cod, where do you live?**

- |                                   |                                     |                                      |  |
|-----------------------------------|-------------------------------------|--------------------------------------|--|
| <input type="radio"/> Alabama     | <input type="radio"/> Indiana       | <input type="radio"/> Nebraska       | <input type="radio"/> South Carolina   |
| <input type="radio"/> Alaska      | <input type="radio"/> Iowa          | <input type="radio"/> Nevada         | <input type="radio"/> South Dakota     |
| <input type="radio"/> Arizona     | <input type="radio"/> Kansas        | <input type="radio"/> New Hampshire  | <input type="radio"/> Tennessee        |
| <input type="radio"/> Arkansas    | <input type="radio"/> Kentucky      | <input type="radio"/> New Jersey     | <input type="radio"/> Texas            |
| <input type="radio"/> California  | <input type="radio"/> Louisiana     | <input type="radio"/> New Mexico     | <input type="radio"/> Utah             |
| <input type="radio"/> Colorado    | <input type="radio"/> Maine         | <input type="radio"/> New York       | <input type="radio"/> Vermont          |
| <input type="radio"/> Connecticut | <input type="radio"/> Maryland      | <input type="radio"/> North Carolina | <input type="radio"/> Virginia         |
| <input type="radio"/> Delaware    | <input type="radio"/> Massachusetts | <input type="radio"/> North Dakota   | <input type="radio"/> Washington       |
| <input type="radio"/> Florida     | <input type="radio"/> Michigan      | <input type="radio"/> Ohio           | <input type="radio"/> West Virginia    |
| <input type="radio"/> Georgia     | <input type="radio"/> Minnesota     | <input type="radio"/> Oklahoma       | <input type="radio"/> Wisconsin        |
| <input type="radio"/> Hawaii      | <input type="radio"/> Mississippi   | <input type="radio"/> Oregon         | <input type="radio"/> Wyoming          |
| <input type="radio"/> Idaho       | <input type="radio"/> Missouri      | <input type="radio"/> Pennsylvania   | <input type="radio"/> Outside the U.S. |
| <input type="radio"/> Illinois    | <input type="radio"/> Montana       | <input type="radio"/> Rhode Island   |  |

*If respondent answered "In what town do you currently live?" with "Off-Cape" they were then asked:*

**When you are on the Cape where do you live?**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| <input type="radio"/> Barnstable | <input type="radio"/> Mashpee      |
| <input type="radio"/> Bourne     | <input type="radio"/> Orleans      |
| <input type="radio"/> Brewster   | <input type="radio"/> Provincetown |
| <input type="radio"/> Chatham    | <input type="radio"/> Sandwich     |
| <input type="radio"/> Dennis     | <input type="radio"/> Truro        |
| <input type="radio"/> Eastham    | <input type="radio"/> Wellfleet    |
| <input type="radio"/> Falmouth   | <input type="radio"/> Yarmouth     |
| <input type="radio"/> Harwich    |                                    |

**Do you live on Cape Cod for 2 consecutive months or more?**

- Yes
- No

**How many years have you lived on Cape Cod, full-time and part-time?**

- Years, full-time
- Years, part-time

**How many years have you lived at your current location on the Cape?**

- \_\_\_\_\_

**Do you currently live on Cape Cod year-round or part-time?**

- I live on Cape Cod year round
- I live on Cape Cod for only part of the year

*If respondent answered "Do you currently live on Cape Cod year-round or part-time?" With "I live on Cape Cod for only part of the year" they were then asked:*

**What months do you typically live on the Cape? Select all that apply.**

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

*Instructions: The following questions ask about your current housing situation on Cape Cod. Note that if you spend only part of the year on Cape Cod, please answer these questions thinking about your housing situation on Cape Cod.*

**How would you describe your housing situation? Select all that apply.**

- I live in a single family home
- I live in a duplex or town-home
- I live in an accessory dwelling unit (ADU) or “in-law” apartment or guest house
- I live in an apartment or condo in a multifamily building
- I live with roommates
- I live in a senior independent living community
- I live in an assisted living community (including medical or other support services)
- I live at a campground
- I live in a vehicle
- I don't have stable housing
- I prefer not to answer

**On the Cape, do you own or rent your home, or live with others who own or rent? Select all that apply.**

- I live in a home that I own
- I live in a home where I pay rent
- I live in a home that is rented by friends or family
- I live in a home that is owned by friends or family
- Other
- I prefer not to answer

**How many bedrooms are in your home?**

- None, it's a studio
- 1 Bedroom
- 2 Bedrooms
- 3 Bedrooms
- 4 Bedrooms or more
- Not applicable

**About how many square feet of living space does your home contain?**

- Less than 600 square feet
- 600 - 2,000 square feet
- 2,001 to 5,000 square feet
- over 5,000 square feet
- Not applicable

*If respondent answered "On the Cape, do you own or rent your home, or live with others who own or rent"? with "I live in a home where I pay rent" or "I live in a home that is rented by friends or family" they were then asked:*

**How long is your lease?**

- Long-term (one-year or longer)
- Short-term (less than a year, but more than one month)
- Month-to-month
- I do not have a lease
- I don't know

**In the past 3 years, how many times have you moved?**

*Note: If you live on Cape Cod part-time, do NOT include planned moves between your Cape Cod home and off-Cape home/s. DO include any moves between homes on Cape Cod.*

- I have not moved
- 1 move
- 2 moves
- 3 moves
- 4 or more moves

*If respondent answered "In the past 3 years, how many times have you moved?" with "I have not moved" the following was skipped:*

**Were any of these moves because you could not afford the place you were living, or were being foreclosed on, or could not pay rent?**

- Yes
- No
- I prefer not to answer

*If respondent answered “In the past 3 years, how many times have you moved?” with “I have not moved” the following was skipped:*

**Were any of these moves because the place you were living was no longer available to you?**

- Yes
- No
- I prefer not to answer

*If respondent answered “Were any of these moves because the place you were living was no longer available to you”? with “Yes” they were then asked:*

**Why was the place you were living no longer available to you?**

- The owner did not renew my lease because they **sold or planned to sell the home**
- The owner did not renew my lease because **the owner or their family decided to live in the home**
- The owner did not renew my lease because they decided to **rent it out on a shorter-term basis**
- The owner did not renew my lease, I do not know the reason
- Other (please specify)

**Is your housing on Cape Cod affordable (in other words, housing costs including rent or mortgage, utilities, taxes, HOA or condo fees, and insurance are less than 30% of your income) given your income and/or resources?**

- Yes
- No
- I don't know

*If respondent answered “On the Cape, do you own or rent your home, or live with others who own or rent”? with “I live in a home where I pay rent” or “I live in a home that is rented by friends or family” they were then asked:*

**What is your monthly rent for your home on Cape Cod?**

*Note: if you share the rent with another person, please indicate the total rent of the home or apartment.*

- \_\_\_\_\_

*If respondent answered "On the Cape, do you own or rent your home, or live with others who own or rent"? with "I live in a home where I pay rent" or "I live in a home that is rented by friends or family" they were then asked:*

**Does your rent include utilities other than heat and hot water?**

- Yes
- No
- I don't know

*If respondent answered "On the Cape, do you own or rent your home, or live with others who own or rent"? With "I live in a home that I own" or "I live in a home that is owned by friends or family" they were then asked:*

**Is there a mortgage on your Cape Cod home?**

- Yes
- No
- I don't know

*If respondent answered "On the Cape, do you own or rent your home, or live with others who own or rent"? With "I live in a home that I own" or "I live in a home that is owned by friends or family" they were then asked:*

**About how much do you pay per month in housing costs, including mortgage payments, homeowners insurance, HOA or condo fees, and property taxes?**

- \_\_\_\_\_



**Have you ever applied for federal, state, or local assistance with housing costs?**

- Yes
- No
- I don't know
- I prefer not to answer

*If respondent answered "Have you ever applied for federal, state, or local assistance with housing costs"? With "Yes" they were then asked:*

**Did you receive federal, state, or local assistance with housing costs?**

- Yes
- No
- I don't know
- I prefer not to answer

*If respondent answered "Did you receive federal, state, or local assistance with housing costs"? With "Yes" they were then asked:*

**What type of assistance did you receive? Select all that apply.**

- Assistance with down payment
- Rental voucher such as Section 8 or MVRP
- Residential Assistance for Families in Transition (RAFT)
- I live in an affordable housing unit (e.g. a home with a deed restriction)
- I live in public housing
- Other
- I prefer not to answer

*If respondent answered, "What type of assistance did you receive?" With "Other" they were then asked:*

**Q126 What other assistance did you receive?**

- \_\_\_\_\_

*The following questions have to do with the reasons someone might choose to live in a certain home.*

**Please consider your current or most recent home on Cape Cod, how important were the following factors in your decision to live there?**

**Distance to your job**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important
- Not applicable, I work from home or do not work

**Availability of public transit**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Distance to healthcare, school, or childcare**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Distance to open space, local parks, or playgrounds**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Distance to saltwater beaches**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Distance to freshwater ponds or lakes**

- Not at all important
- Slightly important
- Moderately important
- Very important

**Distance to grocery stores, shopping, and restaurants**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Being near family and/or friends**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Quality of public school system**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Size of the home**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Property tax rate**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Housing cost (rent or sales price)**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Living in an area or town where I have personal connections to the community**

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

**Consider your current or most recent home on Cape Cod. How satisfied are you with the following characteristics?**

**Distance to your job**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied
- Not applicable, I don't work or work from home

**Availability of public transit**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Distance to open space, local parks, or playgrounds**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Distance to saltwater beaches**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Distance to freshwater ponds or lakes**

- Very satisfied
- Somewhat satisfied
- Neutral

- Somewhat dissatisfied
- Very dissatisfied

**Distance to friends and/or family**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Distance to grocery stores, shopping, and restaurants**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Cost of maintenance for your home**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**Size of your current home**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

*If respondent answered "Size of your current home"? With "Somewhat dissatisfied " or "Very dissatisfied " they were then asked:*

**What size home would you prefer?**

- A larger home
- A smaller home
- I don't know

**Overall how satisfied are you with your current housing?**

- Very satisfied
- Somewhat satisfied
- Neutral
- Somewhat dissatisfied
- Very dissatisfied

**In the next two years, would you like to move?**

- Yes, I would like to move
- Maybe, I might consider moving
- No, I am not considering a move
- I don't know

*If respondent answered "In the next two years, would you like to move"? With "Yes, I would like to move" or "Maybe, I might consider moving " they were then asked:*

**Why might you move in the next two years? Select all that apply.**

- I am living in a home that is too large and I would like to downsize
- I am living in a home that is too small and I would like to move to a larger home
- I would like to move to a home that is more affordable
- I would like to move to a home that is in a more walkable neighborhood
- I would like to move to a home that is closer to friends or family
- I would like to move to a home that is closer to my work
- I would like to move to a home where I can age in place
- I would like to move to a home that is closer to open space or beaches
- I would like to move to a home that has better access to public transit
- I would like to move to a home that is more accessible to myself or family members who have a disability
- I would like to move to a home in a different school system
- I would like to move off Cape
- Other

*If respondent answered “Why might you move in the next two years”? With “Other” they were then asked:*

**Please describe the other reason you might move in the next two years.**

- \_\_\_\_\_

**Of the following options, where do you think offers the best quality of life for you and your family? Select one choice.**

- My current town on Cape Cod
- Another town on Cape Cod
- Another town or city in Massachusetts
- Another town or city outside of Massachusetts



*If respondent answered “Of the following options, where do you think offers the best quality of life for you and your family”? With “Another town on Cape Cod” they were then asked:*

**Which town on Cape Cod do you think offers the best quality of life for you and your family?**

- Barnstable
- Bourne
- Brewster
- Chatham
- Dennis
- Eastham
- Falmouth
- Harwich
- Mashpee
- Orleans
- Provincetown
- Sandwich
- Truro
- Wellfleet
- Yarmouth

*If respondent answered “Of the following options, where do you think offers the best quality of life for you and your family”? With anything other than “My current town on Cape Cod” or respondent answered “Overall how satisfied are you with your current housing” with “somewhat dissatisfied” or “very dissatisfied” or If respondent answered “In the next two years, would you like to move?” with anything other than “No, I am not considering a move” they were then asked:*

**What are the barriers to you moving? Select all that apply.**

- Price of housing
- Cost of moving
- Lack of housing options that meet my needs
- Family constraints
- Job or employment constraints
- Health constraints
- Time constraints
- Other There are no barriers

*If respondent answered "What are the barriers to you moving"? With "Other" they were then asked:*

**What is the other barrier to you moving?**

- \_\_\_\_\_

**In the past 12 months, have you had trouble paying the rent or making mortgage payments?**

- Yes
- No
- I prefer not to answer

**Are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household?**

- Yes
- No
- I don't know

*If respondent answered "Are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household"? With "Yes" they were then asked:*

**Why are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household?**

- I'm worried the landlord will not renew my lease because they are planning to sell or live in the home.
- I'm worried I will not be able to afford staying in my current housing situation.
- Other
- I prefer not to answer

**What best describes your current employment status?**

- Employed part-time, working fewer than 35 hours per week
- Employed full-time, working 35 hours or more per week
- Student, also working
- Student and not working
- Not employed, but looking for work
- Not employed and not looking for work
- Not able to work
- Retired
- I prefer not to answer

*If respondent answered “What best describes your current employment status”? With “Employed part-time, working fewer than 35 hours per week”, “Employed full-time, working 35 hours or more per”, or “Student, also working” they were then asked:*

**What best describes your current work situation?**

- I work outside my home, at my place of employment, most of the time.
- I work remotely most of the time.
- I work in a hybrid situation, where I work at home or remotely and at my place of employment about the same amount.

*If respondent answered “What best describes your current employment status”? With “Employed part-time, working fewer than 35 hours per week”, “Employed full-time, working 35 hours or more per”, or “Student, also working” they were then asked:*

**In what city or town is your primary work site? Note, if you are self-employed or a remote worker, select where is your business located.**

- Barnstable
- Bourne
- Brewster
- Chatham
- Dennis
- Eastham
- Falmouth
- Harwich
- Mashpee
- Orleans
- Provincetown
- Sandwich
- Truro
- Wellfleet
- Yarmouth

*If respondent answered “What best describes your current employment status”? With “Employed part-time, working fewer than 35 hours per week”, “Employed full-time, working 35 hours or more per”, or “Student, also working” they were then asked:*

**In the past 12 months, have you been employed in a seasonal position?**

- Yes, I have held a seasonal job(s) or position(s).
- No, all my position(s) have been year-round.

*If respondent answered “What best describes your current employment status”? With “Employed part-time, working fewer than 35 hours per week”, “Employed full-time, working 35 hours or more per”, or “Student, also working” they were then asked:*

**In the past 12 months, how many jobs or positions have you held (count all jobs, seasonal or year-round, part-time or full-time)?**

- 1 job or position
- 2 to 3 jobs or positions
- 3 to 4 jobs or positions
- 5 or more jobs or positions

**What is your age?**

- 24 or under
- 25-34
- 35-44
- 45-54
- 55-64
- 65-74
- 75 or older
- I prefer not to answer

**What is the highest level of education you have completed?**

- Less than a high school degree
- High school degree or GED
- Some college, professional training or trade school
- Associate/2-year degree
- Bachelor/4-year degree
- Graduate or Professional (M.A., J.D., Ph.D., etc.) degree
- I prefer not to answer

**Not including yourself, how many people live with you in your home or household?**

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more
- Not applicable, I live in group housing, such as an assisted living facility.

*If respondent answered “Not including yourself, how many people live with you in your home or household”? With anything other than “0”, or “Not applicable, I live in group housing, such an assisted living facility” they were then asked:*

**Think of the other people who live with you.**

- How many are under the age of 18 years?  
\_\_\_\_\_
- How many are adults 18 years to 34 years?  
\_\_\_\_\_
- How many are adults 35 years to 64 years?  
\_\_\_\_\_
- How many are 65 years or older?  
\_\_\_\_\_

*If respondent answered “Not including yourself, how many people live with you in your home or household”? With anything other than “0”, or “Not applicable, I live in group housing, such an assisted living facility” they were then asked:*

**Are you a caregiver for any members of your household? Select all that apply.**

- Yes, I care for children under 18
- Yes, I care for adult family members
- No

**What best describes your gender identity?**

- Male
- Female
- Non-binary
- Other
- I prefer not to answer

**Are you Hispanic or Latino/a?**

- Yes
- No
- I prefer not to answer

**What is your race? Select all that apply.**

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Pacific Islander
- White
- Other
- I prefer not to answer

**Do you own more than one home on Cape Cod?**

- Yes
- No
- I prefer not to answer

**What is your household income?**

- Less than \$15,000
- \$15,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 to \$199,999
- \$200,000 to \$249,999
- \$250,000 to \$499,999
- \$500,000 or more

*The following questions have to do with tasks of daily life that may impact someone's ability to find housing. You may skip any questions you do not wish to answer.*

**Do you or someone in your household have difficulty hearing, even if using a hearing aid?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer

**Do you or someone in your household have difficulty walking or climbing steps?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer

**Do you or someone in your household have difficulty remembering or concentrating?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer

**Do you or someone in your household have difficulty with self-care, such as brushing your teeth or hair?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer

**Using your usual (customary) language, do you or someone in your household have difficulty communicating, for example understanding or being understood?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer

**Do you or someone in your household have difficulty seeing, even if wearing glasses?**

- No – no difficulty
- Yes – some difficulty
- Yes – a lot of difficulty
- Cannot do at all
- I prefer not to answer



## Appendix: Survey Tables

The following tables are from the 2022 Cape Cod Resident Housing Survey. The data were weighted by age, gender, race, education, home ownership status, and Cape Cod subregion using iterated proportional fitting. The design effect (DEFF) was 1.64 and the weighted margin of error for the full sample of 734 respondents is plus or minus 4.6 percentage points. For all statistical significance testing where we compared subregions or other subgroups we used a 95 percent confidence interval as our threshold, results with a p-value of less than 0.05 were considered statistically significant. In most instances we test to determine whether there are statistically significant differences among the subregions. For tables that include sub-regions a p-value greater than 0.05 indicates that there are no significant differences among the regions, a p-value less than 0.05 indicates that there are statistically significant sub-regional differences.

**Table 20 How many years have you lived on Cape Cod, full-time and part-time?**

	Mean	95% conf. interval	
		Lower Limit	Upper Limit
Full-time (n=722)	24	22.80	26.04
Part-time (n=381)	9	7.71	10.76
Total	28	26.71	29.98

Sub-Regional Details	Mean	95% conf. interval	
n=734		Lower Limit	Upper Limit
Upper Cape	26	23.69	28.79
Mid Cape	30	27.04	32.62
Lower Cape	31	27.47	34.51
Outer Cape	26	19.24	32.18

**Table 21 How many years have you lived at your current location on the Cape?**

n=734	Mean	95% conf. interval	
		Lower Limit	Upper Limit
Upper Cape	14	12.66	16.21
Mid Cape	14	11.72	15.33
Lower Cape	15	12.59	17.30
Outer Cape	15	11.22	18.14
Total	14	13.10	15.26

**Table 22 Do you currently live on Cape Cod year-round or part-time?**

p=0.000, n=731	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
I live on Cape Cod year-round	281	96%	277	99%	114	98%	36	88%	708	97%
I live on Cape Cod for only part of the year	12	4%	4	1%	2	2%	5	12%	24	3%
Total	293	100%	281	100%	116	100%	41	100%	731	100%

**Table 23 How many months do you typically live on the Cape?**

n=734	Mean	95% conf. interval	
		Lower Limit	Upper Limit
Upper Cape	12	11.64	11.90
Mid Cape	12	11.83	11.99
Lower Cape	12	11.76	11.99
Outer Cape	11	10.62	11.78
Total	12	11.74	11.88

**Table 24 How would you describe your housing situation? Select all that apply.**

n=731	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
I live in a single family home*	254	87%	234	83%	83	72%	33	81%	605	83%
I live in an accessory dwelling unit (ADU) or "in-law" apartment or guest house	3	1%	3	1%	4	4%	0	1%	10	1%
I live in an apartment or condo in a multifamily building	16	6%	19	7%	15	13%	4	9%	53	7%
I live in a senior independent living community	2	1%	7	3%	2	2%	0	0%	12	2%
I live in an assisted living community (including medical or other support services)	0	0%	1	0%	0	0%	0	0%	1	0%
I don't have stable housing	7	2%	12	4%	6	5%	1	2%	26	4%
I prefer not to answer	6	2%	1	0%	0	0%	0	0%	7	1%
I live in a duplex or town-home	7	2%	11	4%	6	5%	3	8%	27	4%
I live at a campground	0	0%	0	0%	0	0%	0	0%	0	0%
I live with roommates	5	2%	5	2%	2	2%	2	5%	14	2%
I live in a vehicle	4	2%	2	1%	0	0%	0	0%	7	1%

\*indicates a p-value<0.05

**Table 25 On the Cape, do you own or rent your home, or live with others who own or rent?**

n=728	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
I live in a home that I own*	250	86%	194	69%	85	74%	34	84%	563	77%
I live in a home where I pay rent*	21	7%	45	16%	18	15%	5	11%	88	12%
I live in a home that is rented by friends or family	0	0%	7	2%	0	0%	1	2%	7	1%
I live in a home that is owned by friends or family	21	7%	26	9%	5	5%	1	3%	53	7%
I prefer not to answer	0	0%	2	1%	1	1%	0	0%	4	1%
Other	5	2%	9	3%	9	8%	0	0%	22	3%

\*indicates a p-value<0.05

**Table 26 How many total bedrooms are in your home?**

p=0.001, n=730	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
None, it's a studio	3	1%	3	1%	0	0%	0	0%	6	1%
1 bedroom	5	2%	14	5%	12	11%	7	18%	38	5%
2 bedrooms	51	17%	84	30%	29	25%	10	25%	174	24%
3 bedrooms	167	57%	131	47%	51	44%	18	43%	366	50%
4 bedrooms	68	23%	48	17%	23	20%	6	14%	145	20%
Not applicable	0	0%	1	0%	0	0%	0	0%	1	0%
Total	293	100%	280	100%	116	100%	41	100%	730	100%

**Table 27 About how many square feet of living space does your home contain?**

p=0.001, n=713	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 600 square feet	9	3%	20	7%	16	14%	4	11%	48	7%
600 - 2,000 square feet	179	63%	188	68%	72	63%	28	67%	466	65%
2,001 to 5,000 square feet	90	32%	67	24%	25	22%	9	21%	190	27%
over 5,000 square feet	6	2%	0	0%	2	2%	1	1%	8	1%
Total	284	100%	275	100%	114	100%	41	100%	713	100%

**Table 28 How long is your lease?**

p=0.002, n=95	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Long-term (one-year or longer)	13	64%	35	67%	10	54%	3	47%	60	63%
Short-term (less than a year, but more than one month)	0	2%	0	0%	1	3%	2	36%	3	3%
Month-to-month	3	14%	16	30%	6	32%	0	5%	25	26%
I do not have a lease	4	20%	1	2%	2	11%	1	11%	8	8%
Total	21	100%	51	100%	18	100%	6	100%	95	100%

**Table 29 In the past 3 years, how many times have you moved?**

p=0.000, n=728	Owner		Renter		Other		Total	
	N	%	N	%	N	%	N	%
I have not moved	479	85%	48	54%	44	56%	571	78%
1 move	74	13%	17	20%	20	26%	112	15%
2 moves	4	1%	6	7%	2	2%	11	2%
3 moves	2	0%	8	9%	8	10%	17	2%
4 or more moves	4	1%	9	10%	4	6%	18	2%
Total	563	100%	88	100%	78	100%	728	100%

Sub-Regional Details	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
p = 0.985, n = 731										
I have not moved	236	80%	215	76%	91	79%	32	79%	574	78%
1 move	44	15%	44	16%	18	15%	6	14%	112	15%
2 moves	4	1%	4	2%	2	2%	1	3%	11	2%
3 moves	6	2%	8	3%	3	2%	0	0%	17	2%
4 or more moves	4	1%	9	3%	2	2%	2	4%	18	2%
Total	293	100%	281	100%	116	100%	41	100%	731	100%

Note: Respondents were instructed: "If you live on Cape Cod part-time, do NOT include planned moves between your Cape Cod home and off-Cape home/s. DO include any moves between homes on Cape Cod."

**Table 30** Were any of these moves because you could not afford the place you were living, or were being foreclosed on, or could not pay rent?

<b>p=0.000 n=157</b>	<b>Owner</b>		<b>Renter</b>		<b>Other</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	3	3%	17	42%	4	12%	24	15%
No	81	97%	23	58%	28	82%	132	84%
I prefer not to answer	0	0%	0	0%	2	6%	2	1%
<b>Total</b>	<b>84</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>34</b>	<b>100%</b>	<b>157</b>	<b>100%</b>

<b>Sub-Regional Details</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
<b>p = 0.923, n = 157</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	8	13%	10	15%	5	20%	1	9%	24	15%
No	49	84%	56	84%	20	80%	8	91%	132	84%
I prefer not to answer	2	3%	1	1%	0	0%	0	0%	2	1%
<b>Total</b>	<b>58</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>25</b>	<b>100%</b>	<b>9</b>	<b>100%</b>	<b>157</b>	<b>100%</b>

**Table 31** Were any of these moves because the place you were living was no longer available to you?

<b>p=0.000, n=156</b>	<b>Owner</b>		<b>Renter</b>		<b>Other</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	16	19%	32	79%	20	60%	67	43%
No	68	81%	8	21%	13	40%	89	57%
<b>Total</b>	<b>84</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>32</b>	<b>100%</b>	<b>156</b>	<b>100%</b>

<b>Sub-Regional Details</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
<b>p = 0.476, n = 156</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	24	43%	33	50%	7	28%	3	33%	67	43%
No	32	57%	33	50%	18	72%	6	67%	89	57%
<b>Total</b>	<b>56</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>25</b>	<b>100%</b>	<b>9</b>	<b>100%</b>	<b>156</b>	<b>100%</b>

**Table 32 Why was the place you were living no longer available to you?**

p=0.002, n=67	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
The owner did not renew my lease because they sold or planned to sell the home	9	35%	17	53%	1	13%	2	71%	29	43%
The owner did not renew my lease because the owner or their family decided to live in the home	0	2%	1	2%	5	76%	0	0%	7	10%
The owner did not renew my lease because they decided to rent it out on a shorter-term basis	7	31%	3	9%	0	0%	1	29%	11	17%
Other (please specify)	6	24%	11	32%	1	7%	0	0%	17	25%
The owner did not renew my lease, I do not know the reason	2	10%	1	4%	0	4%	0	0%	4	6%
Total	24	100%	33	100%	7	100%	3	100%	67	100%

**Table 33 Is your housing on Cape Cod affordable (i.e. housing costs including rent or mortgage, utilities, taxes, HOA or condo fees, and insurance are less than 30% of your income) given your income and/or resources?**

p=0.000 n=664	Owner		Renter		Other		Total	
	N	%	N	%	N	%	N	%
Yes	372	72%	34	42%	20	30%	426	64%
No	146	28%	46	58%	46	70%	238	36%
Total	518	100%	80	100%	65	100%	664	100%

Sub-Regional Details	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
p=0.5904, n=667										
Yes	177	65%	155	62%	65	63%	30	74%	428	64%
No	94	35%	97	38%	39	72%	10	26%	239	36%
Total	271	100%	252	100%	104	100%	40	100%	667	100%

**Table 34 What is your monthly rent for your home on Cape Cod? Note: if you share the rent with another person, please indicate the total rent of the home or apartment.**

n=85	95% conf. interval		
	Mean	Lower Limit	Upper Limit
Rent	\$ 1,635	\$ 1,413	\$ 1,858
Rent (Utilities included)	\$ 1,287	\$ 956	\$ 1,617
Rent (Utilities NOT included)	\$ 1,744	\$ 1,474	\$ 2,014

**Table 35 Does your rent include utilities other than heat and water?**

p=0.084, n=95	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	7	35%	7	14%	8	44%	1	11%	23	24%
No	14	65%	44	86%	10	56%	5	84%	72	75%
I don't know	0	0%	0	0%	0	0%	0	7%	1	1%
Total	21	100%	51	100%	18	100%	6	100%	95	100%

**Table 36 Do you have a mortgage on your Cape Cod home?**

p=0.540, n=614	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	192	71%	137	63%	55	61%	24	68%	408	66%
No	75	28%	75	35%	34	38%	11	32%	195	32%
I don't know	3	1%	6	3%	1	1%	0	0%	11	2%
Total	270	100%	218	100%	90	100%	36	100%	614	100%

**Table 37 About how much do you pay per month in housing costs, including mortgage payments, homeowners insurance, HOA or condo fees, and property taxes?**

n=585	95% conf. interval		
	Mean	Lower Limit	Upper Limit
Monthly homeowner costs	\$ 1,769	\$ 1,632	\$ 1,906
...with mortgage	\$ 2,170	\$ 2,003	\$ 2,337
...without mortgage	\$ 894	\$ 720	\$ 1,068

Sub-Regional Details	95% conf. interval		
	Mean	Lower Limit	Upper Limit
n=585			
Upper Cape	\$ 1,938	\$ 1,753	\$ 2,123
Mid Cape	\$ 1,667	\$ 1,384	\$ 1,949
Lower Cape	\$ 1,484	\$ 1,231	\$ 1,738
Outer Cape	\$ 1,751	\$ 1,412	\$ 2,089

**Table 38 Have you ever applied for federal, state, or local assistance with housing costs?**

p=0.107, n=726	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	13	4%	29	10%	15	13%	3	8%	60	8%
No	276	95%	250	89%	97	85%	38	92%	660	91%
I prefer not to answer	2	1%	2	1%	3	2%	0	0%	6	1%
Total	290	100%	280	100%	115	100%	41	100%	726	100%

**Table 39 Did you receive federal, state, or local assistance with housing costs?**

p=0.266, n=58	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	10	90%	18	62%	10	66%	1	23%	39	66%
No	1	11%	11	38%	5	34%	2	77%	20	34%
Total	12	100%	29	100%	15	100%	3	100%	58	100%



**Table 40 What type of assistance did you receive? Select all that apply.**

n=39	Cape Cod	
	N	%
Assistance with down payment	3	8%
Rental voucher such as Section 8 or MVRP	17	45%
Residential Assistance for Families in Transition (RAFT)	7	17%
I live in an affordable housing unit (e.g. a home with a deed restriction)	10	25%
I live in public housing	0	1%
Other	5	12%
I prefer not to answer	0	1%

**Table 41 Please consider your current or most recent home on Cape Cod, how important were the following factors in your decision to live there?**

	Not at all important		Slightly important		Moderately important		Very important		Extremely important		Total
	N	%	N	%	N	%	N	%	N	%	N
Availability of public transit	505	69%	119	16%	65	9%	30	4%	12	2%	731
Size of the home	90	12%	137	19%	348	48%	130	18%	24	3%	729
Distance to freshwater ponds or lakes	262	36%	184	25%	187	26%	70	10%	27	4%	729
Distance to grocery stores, shopping, and restaurants	48	7%	129	18%	286	39%	220	30%	45	6%	729
Distance to healthcare, school, or childcare	126	17%	173	24%	227	31%	151	21%	52	7%	729
Distance to your job***	135	23%	79	14%	128	22%	177	31%	58	10%	576
Distance to open space, local parks, or playgrounds*	107	15%	171	23%	229	31%	156	21%	66	9%	729
Living in an area or town where I have personal connections to the community*	99	14%	124	17%	222	30%	210	29%	76	10%	730
Distance to saltwater beaches*	111	15%	127	17%	224	31%	193	26%	76	10%	730
Quality of public school system	241	33%	83	11%	122	17%	200	27%	84	11%	730
Being near family and/or friends	123	17%	131	18%	202	28%	172	24%	103	14%	730
Property tax rate	110	15%	115	16%	220	30%	159	22%	123	17%	727
Housing cost (rent or sales price)	35	5%	47	6%	148	20%	276	38%	222	31%	728

\*indicates a p-value<0.05

\*\*\*Respondents who do not work or work from home were given the option of selecting “not applicable”, which was not included in the total.

**Table 42 Distance to open space, local parks, or playgrounds**

<b>p=0.007, n=729</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Not at all important	33	11%	50	18%	22	19%	2	6%	107	15%
Slightly important	64	22%	80	28%	20	17%	7	16%	171	23%
Moderately important	120	41%	69	25%	28	25%	11	27%	229	31%
Very important	57	20%	58	21%	27	24%	13	32%	156	21%
Extremely important	18	6%	24	8%	16	14%	8	19%	66	9%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>281</b>	<b>100%</b>	<b>114</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>729</b>	<b>100%</b>

**Table 43 Distance to saltwater beaches**

<b>p=0.007, n=730</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Not at all important	35	12%	51	18%	24	21%	1	1%	111	15%
Slightly important	53	18%	49	17%	23	20%	2	5%	127	17%
Moderately important	100	34%	83	30%	28	24%	13	31%	224	31%
Very important	82	28%	73	26%	19	17%	19	46%	193	26%
Extremely important	24	8%	25	9%	21	18%	7	16%	76	10%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>281</b>	<b>100%</b>	<b>115</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>730</b>	<b>100%</b>

**Table 44 Living in an area or town where I have personal connections to the community**

<b>p=0.043, n=730</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Not at all important	43	15%	30	11%	20	17%	6	13%	99	14%
Slightly important	47	16%	54	19%	13	11%	10	25%	124	17%
Moderately important	92	32%	89	32%	30	26%	11	27%	222	30%
Very important	80	27%	92	33%	31	27%	7	16%	210	29%
Extremely important	31	11%	15	5%	22	19%	8	19%	76	10%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>281</b>	<b>100%</b>	<b>115</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>730</b>	<b>100%</b>

**Table 45 Consider your current or most recent home on Cape Cod, how satisfied are you with the following characteristics?**

	Very satisfied		Somewhat satisfied		Neutral		Somewhat dissatisfied		Very dissatisfied		Total
	N	%	N	%	N	%	N	%	N	%	N
Distance to your job***	253	53%	85	18%	91	19%	33	7%	18	4%	480
Availability of public transit	77	11%	68	9%	430	60%	89	12%	58	8%	722
Distance to open space, local parks, or playgrounds	354	49%	158	22%	194	27%	14	2%	6	1%	725
Distance to saltwater beaches*	443	61%	141	19%	132	18%	6	1%	5	1%	727
Distance to freshwater ponds or lakes	315	43%	132	18%	269	37%	6	1%	4	1%	725
Distance to friends and/or family	298	41%	192	26%	171	23%	52	7%	14	2%	727
Distance to grocery stores, shopping, and restaurants*	399	55%	225	31%	60	8%	27	4%	14	2%	726
Cost of maintenance for your home*	79	11%	199	27%	215	29%	164	23%	70	10%	727
Size of your current home*	328	45%	151	21%	133	18%	87	12%	27	4%	727

\*indicates a p-value<0.05

\*\*\*Respondents who do not work or work from home were given the option of selecting “not applicable”, which was not included in the total.

**Table 46 Distance to saltwater beaches**

p=0.047, n=727	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Very satisfied	159	54%	184	66%	67	58%	34	83%	443	61%
Somewhat satisfied	73	25%	47	17%	15	13%	6	16%	141	19%
Neutral	55	19%	45	16%	32	28%	0	0%	132	18%
Somewhat dissatisfied	4	1%	2	1%	0	0%	1	1%	6	1%
Very dissatisfied	3	1%	1	1%	1	0%	0	0%	5	1%
Total	293	100%	279	100%	115	100%	41	100%	727	100%

**Table 47 Distance to grocery stores, shopping, and restaurants**

<b>p=0.002, n=726</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Very satisfied	135	46%	180	65%	70	61%	14	35%	399	55%
Somewhat satisfied	108	37%	71	26%	24	21%	22	54%	225	31%
Neutral	26	9%	18	6%	13	12%	3	8%	60	8%
Somewhat dissatisfied	14	5%	5	2%	7	6%	1	3%	27	4%
Very dissatisfied	11	4%	4	1%	0	0%	0	0%	14	2%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>277</b>	<b>100%</b>	<b>115</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>726</b>	<b>100%</b>

**Table 48 Cost of maintenance for your home**

<b>p=0.044, n=727</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Very satisfied	27	9%	32	11%	15	13%	5	12%	79	11%
Somewhat satisfied	97	33%	70	25%	27	24%	6	16%	199	27%
Neutral	78	26%	99	35%	27	23%	12	28%	215	29%
Somewhat dissatisfied	71	24%	47	17%	29	26%	16	40%	164	23%
Very dissatisfied	21	7%	31	11%	16	14%	2	5%	70	10%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>279</b>	<b>100%</b>	<b>115</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>727</b>	<b>100%</b>

**Table 49 Size of your current home**

<b>p=0.020, n=727</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Very satisfied	138	47%	118	42%	47	41%	26	63%	328	45%
Somewhat satisfied	61	21%	64	23%	19	16%	7	17%	151	21%
Neutral	60	20%	48	17%	23	20%	3	7%	133	18%
Somewhat dissatisfied	32	11%	36	13%	14	13%	5	12%	87	12%
Very dissatisfied	1	0%	14	5%	12	10%	0	0%	27	4%
<b>Total</b>	<b>293</b>	<b>100%</b>	<b>279</b>	<b>100%</b>	<b>115</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>727</b>	<b>100%</b>

**Table 50 What size home would you prefer?**

p=0.195, n=109	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
A larger home	30	97%	43	91%	26	100%	5	92%	104	95%
A smaller home	1	3%	4	9%	0	0%	0	6%	6	5%
Total	31	100%	47	100%	26	100%	5	100%	109	100%

**Table 51 Overall how satisfied are you with your current housing?**

p=0.058, n=722	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Very satisfied	148	50%	145	53%	57	50%	26	64%	375	52%
Somewhat satisfied	100	34%	62	23%	28	24%	11	28%	201	28%
Neutral	23	8%	15	5%	6	5%	0	0%	44	6%
Somewhat dissatisfied	9	3%	27	10%	11	9%	3	7%	49	7%
Very dissatisfied	14	5%	25	9%	13	12%	0	0%	52	7%
Total	293	100%	274	100%	115	100%	41	100%	722	100%

**Table 52 In the next two years, would you like to move?**

p=0.183, n=724	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes, I would like to move	40	14%	64	23%	26	23%	3	7%	132	18%
Maybe, I might consider moving	57	20%	52	19%	21	18%	9	22%	138	19%
No, I am not considering a move	170	58%	147	52%	63	56%	29	70%	408	56%
I don't know	24	8%	18	6%	3	3%	0	1%	46	6%
Total	291	100%	281	100%	112	100%	41	100%	724	100%

**Table 53 Why might you move in the next two years? Select all that apply.**

n=269	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
I am living in a home that is too large and I would like to downsize	12	13%	24	21%	4	9%	0	3%	41	15%
I am living in a home that is too small and I would like to move to a larger home	30	31%	35	30%	16	34%	5	38%	84	31%
I would like to move to a home that is more affordable	36	38%	42	37%	19	42%	6	49%	103	38%
I would like to move to a home that is in a more walkable neighborhood*	10	10%	30	26%	3	6%	3	26%	45	17%
I would like to move to a home that is closer to friends or family	8	8%	17	15%	6	14%	1	12%	33	12%
I would like to move to a home that is closer to my work	7	7%	10	9%	4	8%	0	0%	20	8%
I would like to move to a home where I can age in place*	23	23%	29	25%	6	13%	7	60%	65	24%
I would like to move to a home that is closer to open space or beaches	9	9%	14	12%	2	4%	0	0%	24	9%
I would like to move to a home that has better access to public transit	9	9%	7	6%	1	1%	2	16%	19	7%
I would like to move to a home that is more accessible to myself or family members who have a disability	11	11%	17	15%	1	2%	2	16%	30	11%
I would like to move to a home in a different school system	3	3%	8	7%	1	2%	0	0%	12	4%
I would like to move off Cape	27	28%	30	26%	11	24%	0	0%	68	25%
Other	14	15%	15	13%	6	14%	3	21%	38	14%

\*indicates a p-value<0.05

**Table 54 Of the following options, where do you think offers the best quality of life for you and your family? Select one choice.**

p=0.535, n=721	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
My current town on Cape Cod	196	67%	189	69%	83	73%	28	68%	495	69%
Another town on Cape Cod	34	12%	21	7%	6	5%	7	18%	68	9%
Another town or city in Massachusetts	32	11%	34	12%	9	8%	1	3%	76	11%
Another town or city outside of Massachusetts	30	10%	32	12%	15	14%	4	11%	82	11%
Total	292	100%	275	100%	113	100%	41	100%	721	100%

**Table 55 Which town on Cape Cod do you think offers the best quality of life for you and your family?**

p=0.000, n=67	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Barnstable	19	55%	1	5%	0	0%	0	0%	20	30%
Brewster	0	0%	5	23%	1	9%	5	71%	10	15%
Chatham	0	0%	1	3%	0	0%	0	0%	1	1%
Dennis	1	4%	4	20%	3	49%	0	0%	8	12%
Eastham	0	0%	0	2%	0	0%	0	0%	0	1%
Falmouth	8	24%	1	7%	0	0%	0	0%	10	15%
Harwich	1	3%	2	11%	0	0%	2	24%	5	7%
Mashpee	2	7%	0	0%	2	28%	0	0%	4	6%
Orleans	1	3%	3	17%	0	0%	0	0%	5	7%
Provincetown	0	0%	1	6%	0	0%	0	0%	1	2%
Sandwich	0	1%	0	0%	0	0%	0	0%	0	0%
Truro	0	0%	0	0%	1	11%	0	0%	1	1%
Wellfleet	0	0%	1	4%	0	0%	1	7%	1	2%
Yarmouth	1	3%	0	0%	0	0%	0	0%	1	1%
Total	34	100%	20	100%	5	100%	7	100%	67	100%

**Table 56 What are the barriers to you moving? Select all that apply.**

n=402	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Price of housing*	108	68%	125	79%	34	53%	16	74%	283	70%
Cost of moving	52	33%	74	46%	15	23%	9	42%	149	37%
Lack of housing options that meet my needs	87	55%	96	60%	25	38%	14	65%	221	55%
Family constraints	28	17%	34	21%	11	17%	2	9%	74	18%
Job or employment constraints	42	26%	30	19%	15	24%	1	7%	88	22%
Health constraints	10	6%	18	11%	4	7%	0	1%	32	8%
Time constraints	17	11%	20	13%	4	5%	3	12%	44	11%
Other	15	10%	11	7%	5	8%	1	6%	33	8%
There are no barriers	17	10%	11	7%	10	15%	4	19%	42	10%

\*indicates a p-value<0.05

**Table 57 In the past 12 months, have you had trouble paying the rent or making mortgage payments?**

p=0.000, n=724	Owner		Renter		Other		Total	
	N	%	N	%	N	%	N	%
Yes	31	5%	35	39%	27	34%	92	13%
No	514	92%	52	59%	46	59%	612	84%
I prefer not to answer	14	3%	2	2%	5	6%	21	3%
Total	559	100%	88	100%	78	100%	724	100%

Sub-Regional Details	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
p=0.392, n= 728										
Yes	32	11%	41	15%	19	16%	2	4%	93	13%
No	250	85%	231	82%	94	82%	40	97%	614	84%
I prefer not to answer	11	4%	8	3%	2	1%	0	0%	21	3%
Total	293	100%	280	100%	114	100%	41	100%	728	100%



**Table 58 Are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household?**

<b>p=0.000, n=669</b>	<b>Owner</b>		<b>Renter</b>		<b>Other</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	20	4%	48	62%	36	53%	104	16%
No	504	96%	29	38%	32	47%	565	84%
Total	524	100%	77	100%	68	100%	669	100%

<b>Sub-Regional Details</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
<b>p=0.034, n=672</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
Yes	29	11%	55	22%	21	19%	3	7%	107	16%
No	244	89%	197	78%	89	81%	36	93%	565	84%
Total	273	100%	252	100%	109	100%	39	100%	672	100%

**Table 59 Why are you worried or concerned that in the next twelve months you may not have stable housing that you own, rent, or stay in as part of a household?**

<b>p=0.166, n=105</b>	<b>Region of Cape</b>									
	<b>Upper Cape</b>		<b>Mid Cape</b>		<b>Lower Cape</b>		<b>Outer Cape</b>		<b>Total</b>	
	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>	<b>N</b>	<b>%</b>
I'm worried the landlord will not renew my lease because they are planning to sell or live in the home.	6	19%	15	27%	5	24%	2	52%	27	25%
I'm worried I will not be able to afford staying in my current housing situation.	21	73%	21	40%	6	31%	1	28%	50	47%
Other	2	6%	14	27%	9	45%	1	21%	26	25%
I prefer not to answer	0	1%	3	5%	0	0%	0	0%	3	3%
Total	29	100%	53	100%	21	100%	3	100%	105	100%

**Table 60 What best describes your current employment status?**

p=0.659, n=730	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Employed part-time, working fewer than 35 hours per week	29	10%	24	9%	18	16%	6	15%	77	11%
Employed full-time, working 35 hours or more per week	165	56%	135	48%	44	38%	17	42%	360	49%
Student, also working	3	1%	4	1%	3	2%	0	0%	10	1%
Student and not working	0	0%	2	1%	0	0%	0	0%	2	0%
Not employed, but looking for work	2	1%	0	0%	2	1%	0	0%	4	1%
Not employed and not looking for work	2	1%	4	1%	0	0%	1	2%	7	1%
Not able to work	5	2%	8	3%	6	5%	2	5%	22	3%
Retired	85	29%	99	35%	40	35%	15	37%	239	33%
I prefer not to answer	3	1%	6	2%	3	2%	0	0%	11	2%
Total	293	100%	281	100%	115	100%	41	100%	730	100%

**Table 61 What best describes your current work situation?**

p=0.414, n=446	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
I work outside my home, at my place of employment, most of the time.	117	59%	119	73%	38	60%	14	65%	289	65%
I work remotely most of the time.	36	18%	22	14%	13	20%	4	18%	75	17%
I work in a hybrid situation, where I work at home or remotely and at my place of employment about the same amount.	44	22%	22	13%	13	20%	4	17%	82	18%
Total	197	100%	163	100%	64	100%	22	100%	446	100%

**Table 62 In what city or town is your primary work site? Note, if you are self-employed or a remote worker, select where is your business located.**

p=0.000, n=444	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Barnstable	24	12%	63	39%	2	3%	0	0%	89	20%
Bourne	15	8%	0	0%	0	0%	0	0%	15	3%
Brewster	0	0%	1	0%	5	8%	0	0%	6	1%
Chatham	1	1%	10	6%	10	15%	5	21%	26	6%
Dennis	0	0%	23	14%	7	11%	0	0%	30	7%
Eastham	0	0%	0	0%	1	1%	5	23%	6	1%
Falmouth	68	35%	9	5%	0	0%	0	0%	77	17%
Harwich	0	0%	12	8%	4	7%	0	0%	17	4%
Mashpee	22	11%	8	5%	3	4%	0	0%	33	7%
Orleans	0	0%	1	1%	11	17%	1	5%	13	3%
Provincetown	0	0%	0	0%	0	0%	2	8%	2	0%
Sandwich	13	7%	3	2%	0	0%	0	0%	16	4%
Truro	0	0%	0	0%	0	0%	2	9%	2	0%
Wellfleet	0	0%	0	0%	6	10%	3	14%	10	2%
Yarmouth	6	3%	17	10%	6	9%	1	3%	29	7%
Off-Cape	46	23%	15	9%	9	14%	4	17%	73	17%
Total	195	100%	161	100%	64	100%	23	100%	444	100%

**Table 63 In the past 12 months, have you been employed in a seasonal position?**

p=0.026, n=447	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes, I have held a seasonal job(s) or position(s).	14	7%	37	22%	10	16%	4	19%	65	14%
No, all my position(s) have been year-round.	183	93%	126	77%	54	84%	19	81%	382	86%
Total	197	100%	163	100%	64	100%	23	100%	447	100%

	Owner		Renter		Other		Total	
	N	%	N	%	N	%	N	%
<b>P=0.008, n=445</b>								
Yes	32	10%	20	33%	12	20%	65	15%
No	288	90%	42	67%	51	80%	381	85%
Total	320	100%	62	100%	64	100%	445	100%

**Table 64 In the past 12 months, how many jobs or positions have you held (count all jobs, seasonal or year-round, part-time or full-time)?**

	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
<b>p=0.332, n=447</b>										
1 job or position	155	79%	110	67%	37	57%	17	72%	318	71%
2 to 4 jobs or positions	42	22%	53	32%	27	43%	7	28%	128	29%
5 or more jobs or positions	0	0%	1	1%	0	0%	0	0%	1	0%
Total	197	100%	163	100%	64	100%	23	100%	447	100%

	Owner		Renter		Other		Total	
	N	%	N	%	N	%	N	%
<b>P=0.001, n=445</b>								
1 job	248	77%	26	42%	43	67%	317	71%
2 or more jobs	72	23%	36	58%	21	33%	129	29%
Total	320	100%	62	100%	64	100%	445	100%

**Table 65 What is your age?**

p=0.443, n=730	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
24 or under	0	0%	1	0%	3	2%	0	0%	4	1%
25-34	41	14%	24	8%	6	5%	1	2%	71	10%
35-44	42	14%	48	17%	22	19%	10	25%	122	17%
45-54	39	13%	39	14%	18	15%	4	9%	99	14%
55-64	67	23%	54	19%	25	22%	9	23%	155	21%
65-74	68	23%	75	27%	28	24%	14	33%	185	25%
75 or older	35	12%	35	12%	13	12%	3	8%	86	12%
I prefer not to answer	2	1%	6	2%	1	1%	0	0%	9	1%
Total	293	100%	281	100%	114	100%	41	100%	730	100%

**Table 66 What is the highest level of education you have completed?**

p=0.154, n=726	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Less than a high school degree	0	0%	2	1%	0	0%	0	0%	2	0%
High school degree or GED	31	10%	33	12%	16	13%	6	14%	86	12%
Some college, professional training or trade school	67	23%	88	32%	27	23%	7	18%	189	26%
Associate/2-year degree	56	19%	41	15%	13	11%	1	2%	110	15%
Bachelor/4-year degree	60	20%	59	21%	30	26%	13	32%	161	22%
Graduate or Professional (M.A., J.D., Ph.D., etc.) degree	78	27%	51	18%	25	21%	14	34%	168	23%
I prefer not to answer	2	1%	3	1%	5	5%	0	0%	9	1%
Total	293	100%	277	100%	115	100%	41	100%	726	100%

**Table 67 Not including yourself, how many people live with you in your home or household?**

p=0.557, n=727	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
0	27	9%	35	13%	19	17%	7	18%	88	12%
1	127	43%	109	39%	43	37%	18	43%	296	41%
2	60	20%	68	24%	30	27%	6	13%	163	22%
3	47	16%	31	11%	6	6%	8	21%	92	13%
4	24	8%	15	5%	5	4%	2	4%	44	6%
5	5	2%	10	4%	7	6%	1	1%	23	3%
6 or more	5	2%	10	4%	4	4%	0	0%	19	3%
Not applicable, I live in group housing, such as an assisted living facility.	0	0%	1	0%	0	0%	0	0%	2	0%
Total	293	100%	279	100%	114	100%	41	100%	727	100%

**Table 68 Household Composition by Age**

	0		1		2		3		4 or more		Total
	N	%	N	%	N	%	N	%	N	%	N
How many are under the age of 18 years?	526	73%	94	13%	81	11%	16	2%	2	1%	719
How many are adults 18 years to 34 years?	548	76%	107	15%	46	6%	12	2%	6	1%	719
How many are adults 35 years to 64 years?	350	49%	242	34%	113	16%	13	2%	0	0%	719
How many are 65 years or older?	486	68%	195	27%	38	5%	0	0%	0	0%	719

**Table 69 Think of the other people who live with you. How many are under the age of 18 years?**

p=0.539, n=719	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
0	214	74%	197	71%	84	75%	31	77%	526	73%
1	33	12%	45	16%	16	14%	1	1%	94	13%
2	36	12%	30	11%	9	8%	6	16%	81	11%
3	6	2%	5	2%	4	4%	2	4%	16	2%
4	0	0%	0	0%	0	0%	1	1%	1	0%
9	1	0%	0	0%	0	0%	0	0%	1	0%
Total	290	100%	276	100%	112	100%	41	100%	719	100%

**Table 70 Think of the other people who live with you. - How many are 65 years or older?**

p=0.196, n=719	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
0	198	69%	178	65%	81	72%	28	68%	486	68%
1	70	24%	84	30%	28	25%	13	32%	195	27%
2	21	7%	14	5%	3	2%	0	0%	38	5%
Total	290	100%	276	100%	112	100%	41	100%	719	100%

**Table 71 Think of the other people who live with you. - How many are adults 18 years to 34 years?**

p=0.830, n=719	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
0	212	73%	212	77%	87	78%	37	92%	548	76%
1	52	18%	38	14%	14	12%	2	6%	107	15%
2	18	6%	20	7%	8	7%	0	0%	46	6%
3	5	2%	3	1%	3	3%	1	2%	12	2%
4	2	1%	4	2%	0	0%	0	0%	6	1%
Total	290	100%	276	100%	112	100%	41	100%	719	100%

**Table 72 Think of the other people who live with you. - How many are adults 35 years to 64 years?**

p=0.347, n=719	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
0	134	46%	145	52%	50	44%	22	54%	350	49%
1	102	35%	90	33%	37	33%	13	33%	242	34%
2	52	18%	37	13%	19	17%	5	11%	113	16%
3	2	1%	5	2%	6	6%	1	2%	13	2%
Total	290	100%	276	100%	112	100%	41	100%	719	100%

**Table 73 Are you a caregiver for any members of your household? Select all that apply.**

n=635	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes, I care for children under 18	54	21%	70	29%	21	22%	9	26%	153	24%
Yes, I care for adult family members	18	7%	18	7%	5	5%	0	1%	41	6%
No	193	73%	157	65%	71	75%	25	74%	446	70%

**Table 74 What best describes your gender identity?**

p=0.064 n=719	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Male	136	47%	133	48%	40	35%	25	62%	334	46%
Female	145	51%	138	49%	65	57%	15	37%	362	50%
Non-binary	0	0%	0	0%	1	1%	0	0%	1	0%
Other	0	0%	1	0%	0	0%	0	0%	1	0%
I prefer not to answer	5	2%	8	3%	9	8%	0	1%	22	3%
Total	286	100%	279	100%	114	100%	41	100%	719	100%

**Table 75 Are you Hispanic or Latino/a?**

p=0.278 n=717	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	8	3%	2	1%	6	6%	0	0%	17	2%
No	272	95%	264	95%	100	89%	41	100%	676	94%
I prefer not to answer	7	2%	12	4%	6	5%	0	0%	24	3%
Total	286	100%	279	100%	112	100%	41	100%	717	100%



**Table 76 What is your race?**

n=726	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
American Indian or Alaska Native	10	4%	5	2%	2	2%	0	0%	17	2%
Asian	2	1%	0	0%	1	1%	0	0%	3	0%
Black or African American	10	3%	10	4%	5	5%	0	0%	25	3%
Native Hawaiian or Pacific Islander	0	0%	0	0%	0	0%	0	0%	0	0%
White	256	88%	248	89%	100	87%	41	99%	644	89%
Other	1	0%	9	3%	4	4%	0	1%	15	2%
I prefer not to answer	23	8%	17	6%	7	6%	0	0%	47	7%

**Table 77 Do you own more than one home on Cape Cod?**

p=0.940 n=724	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Yes	19	6%	16	6%	10	9%	2	5%	47	7%
No	271	93%	261	94%	104	91%	39	95%	676	93%
I prefer not to answer	1	0%	1	0%	0	0%	0	0%	1	0%
Total	290	100%	278	100%	114	100%	41	100%	724	100%

**Table 78 What is your household income?**

p=0.016, n=684	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
Less than \$15,000	5	2%	10	4%	6	6%	0	1%	21	3%
\$15,000 to \$24,999	10	3%	9	3%	6	5%	0	1%	24	4%
\$25,000 to \$34,999	10	4%	23	9%	6	6%	3	7%	42	6%
\$35,000 to \$49,999	18	7%	36	14%	16	15%	1	2%	71	10%
\$50,000 to \$74,999	37	13%	42	16%	19	18%	6	16%	104	15%
\$75,000 to \$99,999	53	19%	52	20%	18	17%	8	21%	130	19%
\$100,000 to \$149,999	73	26%	48	18%	24	23%	10	26%	154	23%
\$150,000 to \$199,999	41	15%	24	9%	5	5%	2	4%	71	10%
\$200,000 to \$249,999	13	5%	12	4%	3	3%	2	4%	30	4%
\$250,000 to \$499,999	14	5%	8	3%	3	3%	4	10%	28	4%
\$500,000 or more	5	2%	0	0%	1	1%	3	8%	9	1%
Total	277	100%	261	100%	107	100%	38	100%	684	100%

**Table 79 Do you or someone in your household have difficulty hearing, even if using a hearing aid?**

p=0.780, n=720	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	208	73%	194	70%	84	74%	34	85%	521	72%
Yes, some difficulty	63	22%	71	25%	25	22%	6	15%	166	23%
Yes, a lot of difficulty	13	5%	11	4%	2	2%	0	0%	26	4%
I prefer not to answer	2	1%	3	1%	2	1%	0	0%	7	1%
Total	287	100%	279	100%	113	100%	40	100%	720	100%

**Table 80 Do you or someone in your household have difficulty walking or climbing steps?**

p=0.447, n=724	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	233	81%	207	74%	88	78%	34	85%	561	78%
Yes, some difficulty	41	14%	46	16%	18	16%	6	15%	111	15%
Yes, a lot of difficulty	13	4%	24	8%	5	4%	0	0%	42	6%
Cannot do at all	1	0%	2	1%	0	0%	0	0%	3	0%
I prefer not to answer	3	1%	2	1%	3	2%	0	0%	7	1%
Total	290	100%	280	100%	113	100%	40	100%	724	100%

**Table 81 Do you or someone in your household have difficulty remembering or concentrating?**

p=0.976, n=723	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	227	79%	211	75%	88	77%	33	83%	558	78%
Yes, some difficulty	50	18%	48	17%	19	17%	4	11%	122	17%
Yes, a lot of difficulty	10	3%	16	6%	5	5%	2	5%	33	5%
Cannot do at all	0	0%	0	0%	0	0%	0	0%	0	0%
I prefer not to answer	3	1%	5	2%	2	1%	0	0%	10	1%
Total	289	100%	280	100%	114	100%	40	100%	723	100%

**Table 82 Do you or someone in your household have difficulty with self-care, such as brushing your teeth or hair?**

p=0.640, n=721	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	272	95%	258	92%	107	94%	38	95%	675	94%
Yes, some difficulty	13	5%	16	6%	2	2%	0	0%	31	4%
Yes, a lot of difficulty	2	1%	4	1%	2	2%	0	0%	8	1%
Cannot do at all	0	0%	1	0%	0	0%	0	0%	1	0%
I prefer not to answer	2	1%	2	1%	3	3%	0	0%	7	1%
Total	289	100%	280	100%	114	100%	39	96%	721	100%

**Table 83 Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?**

p=0.170, n=724	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	277	96%	262	94%	105	93%	37	92%	680	95%
Yes, some difficulty	10	4%	11	4%	3	3%	2	5%	27	4%
Yes, a lot of difficulty	1	0%	0	0%	3	3%	1	3%	5	1%
Cannot do at all	0	0%	6	2%	0	0%	0	0%	6	1%
I prefer not to answer	2	1%	2	1%	3	3%	0	0%	7	1%
Total	290	101%	280	100%	114	100%	40	100%	724	101%

**Table 84 Do you or someone in your household have difficulty seeing, even if wearing glasses?**

p=0.265, n=725	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No, no difficulty	216	75%	220	79%	95	84%	37	92%	568	79%
Yes, some difficulty	62	21%	56	20%	12	10%	3	8%	133	18%
Yes, a lot of difficulty	8	3%	2	1%	5	4%	0	0%	15	2%
Cannot do at all	1	0%	0	0%	0	0%	0	0%	1	0%
I prefer not to answer	4	1%	2	1%	3	3%	0	0%	8	1%
Total	290	101%	280	100%	114	101%	40	100%	725	101%

**Table 85 Disability Screener**

p=0.333, n=724	Region of Cape									
	Upper Cape		Mid Cape		Lower Cape		Outer Cape		Total	
	N	%	N	%	N	%	N	%	N	%
No person with a disability present in the household	246	85%	230	83%	96	84%	35	86%	608	84%
Person with a disability present in the household	35	12%	44	16%	12	11%	3	8%	94	13%
Prefer not to Answer	10	3%	4	1%	7	6%	3	6%	23	3%
Total	290	100%	278	100%	115	100%	41	100%	724	100%

## Appendix: HMDA Mortgage Data

The Home Mortgage Disclosure Act requires many financial institutions to maintain, report, and publicly disclose data on mortgage loans. Data relevant to Barnstable County has been compiled by the Cape Cod Commission.

**Table 86 Percent of New Purchasers Over Age 45, Owner Occupied Mortgages**

Region	2018	2019	2020	2021
<b>All Cape Cod (Barnstable County)</b>	<b>51%</b>	<b>50%</b>	<b>50%</b>	<b>48%</b>
Upper Cape	47%	46%	46%	44%
Mid Cape	48%	47%	48%	49%
Lower Cape	60%	59%	58%	54%
Outer Cape	65%	65%	60%	58%

Source: Cape Cod Commission BI analysis using 2018-2021 HMDA data, 2022 Note: Each cell reflects new mortgages issued only, not existing mortgages. Existing mortgages and other owned or rented homes which have not recently been purchased are the largest share of housing.

## Appendix: Construction Cost Comparison with Buzzards Bay

Buzzards Bay is a neighborhood of Bourne on the mainland right next to the Bourne Bridge and Hyannis is a neighborhood of the town of Barnstable. Hyannis and Buzzards Bay are the only available geographies in RS Means that are both within Barnstable County but on opposite sides of the bridge. Cost estimates for both Buzzards Bay and Hyannis are provided below for comparison.

**Figure 76 Single Family Home Cost Estimates, Construction and Land**



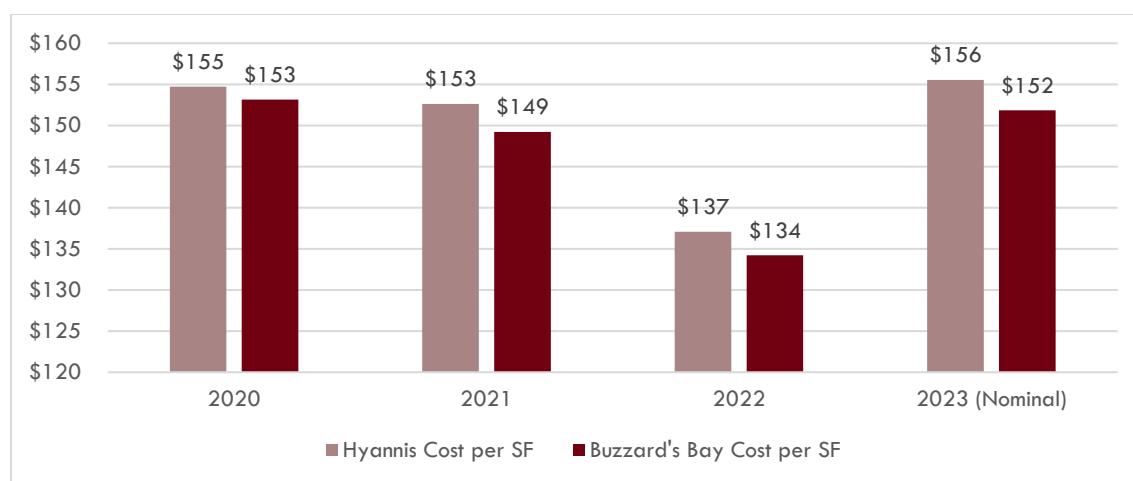
Source: RS Means, U.S. Census New Construction Survey and Federal Housing Finance Agency Working Paper "The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0" from October 2020.

Note: Dollar Values are adjusted to September 2022.

When examining Buzzards Bay, we see that the cost estimate for an identical single family home is slightly lower, and the land cost estimate is substantially lower, compared to the Hyannis estimate (Error! Reference source not found.). Land is of course at a premium in many parts of Barnstable County particularly as you travel into Cape Cod. Locals also report there are higher costs for construction in any location “over the bridge”.

This analysis estimates that a 2023 single family construction project near Hyannis can expect to pay a 16 percent premium compared to Buzzards Bay, mostly due to higher land costs but also higher construction costs overall. This illustrates the construction cost disparity between these mainland and Mid Cape locations.

**Figure 77 Hyannis vs. Buzzards Bay Construction Cost Est. per SF, Single Family**

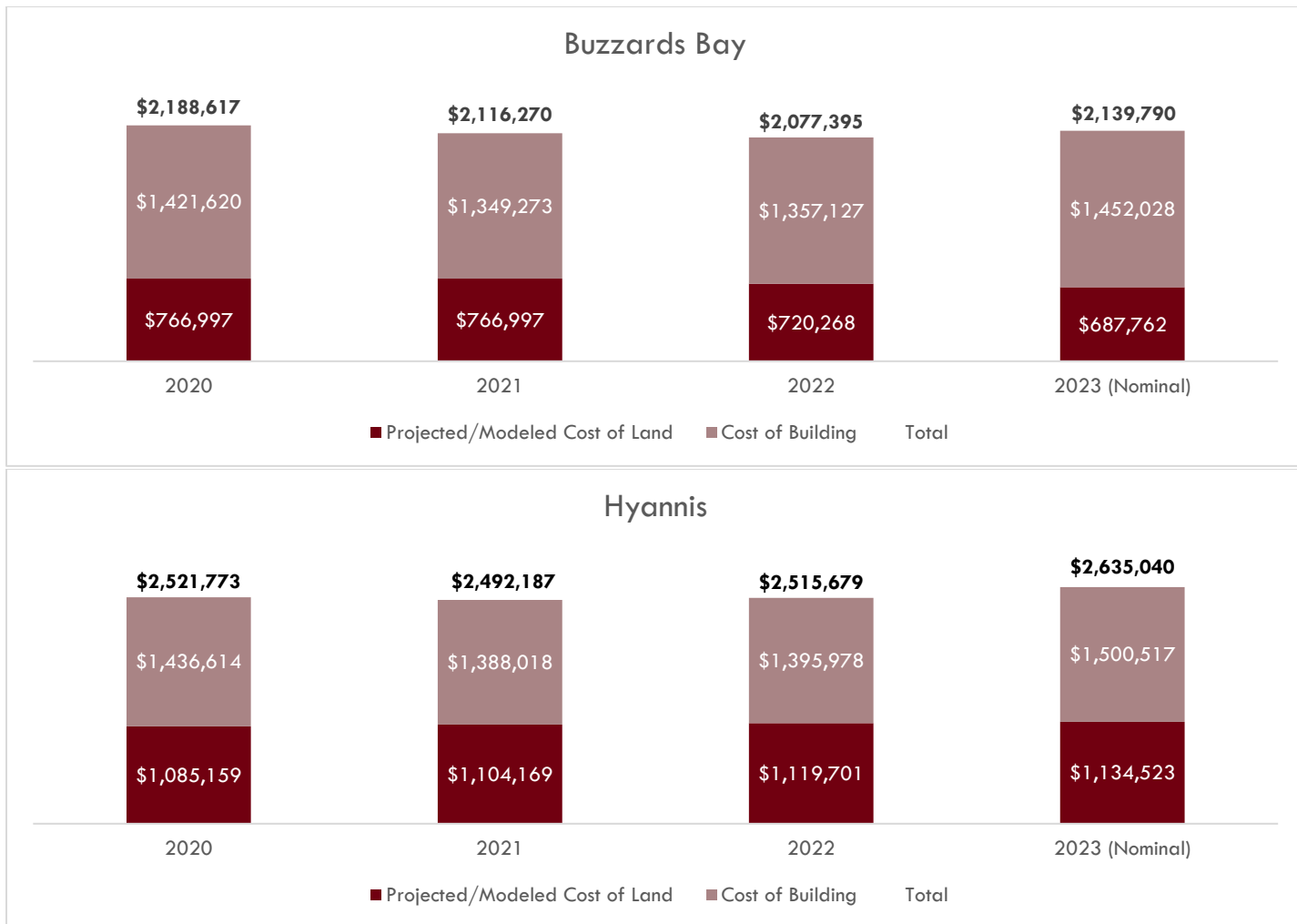


Source: RS Means and U.S. Census Bureau New Construction Survey

Note: All dollars adjusted for inflation to September 2022 dollars, except where noted as nominal.

On a per square foot basis, the difference between the two areas is clearer and suggests that construction prices in Hyannis are higher and increasing faster as the gap between Hyannis and Buzzards Bay construction has grown slightly between 2020 and 2022.

**Figure 78 Multifamily Unit Cost Estimate, Construction and Land**

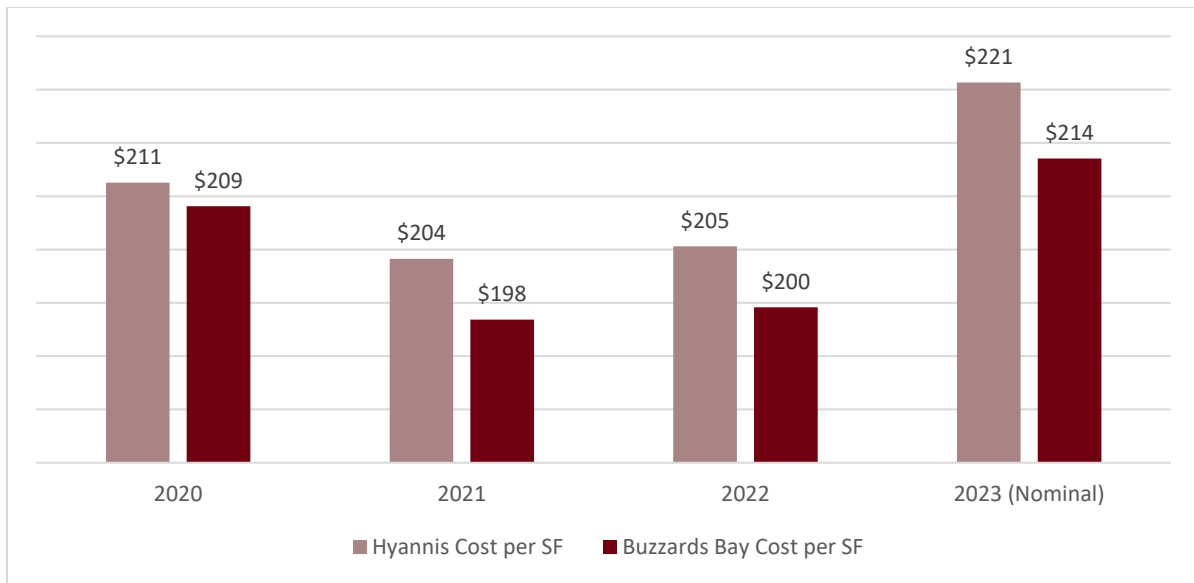


Source: RS Means, U.S. Census Bureau New Construction Survey and Federal Housing Finance Agency Working Paper “The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0” from October 2020  
 Note: All dollars adjusted for inflation to September 2022 dollars, except where noted as nominal.

Multifamily units present a similar story as single family, with Hyannis paying a premium when compared to a place at the counties edge, like Buzzards Bay. In 2023, the total cost of the project would be 19 percent more in Hyannis.



**Figure 79 Hyannis vs. Buzzards Bay Construction Cost Est. per SF, Multifamily**



Source: RS Means, U.S. Census Bureau New Construction Survey and Federal Housing Finance Agency Working Paper “The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0” from October 2020.

Note: All dollars adjusted for inflation to September 2022 dollars, except where noted as nominal.

The gap in per square foot cost grew between 2022 and into the 2023 cost projection. Some of the overall change in prices is likely due to increases in inflation, but the larger gap suggests that construction costs across the bridge have increased more rapidly than Buzzards Bay.

## Appendix: Data Tables Referenced

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A selection of the data tables referenced in the text are included here.

**Table 87 Race and Ethnicity Shares, 2020**

	<b>Barnstable County</b>	<b>Massachusetts</b>
White	85%	68%
Black	3%	7%
American Indian and Alaska Native (AI/AN)	0%	0%
Asian	1%	7%
Native Hawaiian and Other Pacific Islander (NH/PI)	0%	0%
Other	2%	1%
Two or More Races	5%	5%
Hispanic or Latino	3%	13%

Source: U.S. Census Bureau, Decennial Census, PL-94, 2020, Table P2: Hispanic or Latino, and not Hispanic or Latino by Race

**Table 88 Median Contract Price per Square Foot, Northeast United States**

	<b>Median Contract Price per Square Foot</b>
2010	\$ 128
2011	\$ 130
2012	\$ 130
2013	\$ 135
2014	\$ 154
2015	\$ 150
2016	\$ 146
2017	\$ 149
2018	\$ 148
2019	\$ 145
2020	\$ 152
2021	\$ 179

Source: U.S. Census Bureau, 2021 Characteristics of New Housing

Note: All dollars adjusted for inflation to 2021 dollars

**Table 89 Modeled Land Value of a 1/4 Acre Lot, Federal Housing Finance Agency (FHFA)**

	<b>Barnstable County</b>	<b>Massachusetts</b>
2012	\$ 238,875	\$ 192,847
2013	\$ 234,031	\$ 191,924
2014	\$ 234,874	\$ 202,252
2015	\$ 237,911	\$ 211,501
2016	\$ 234,269	\$ 220,608
2017	\$ 247,402	\$ 232,699
2018	\$ 244,740	\$ 246,575
2019	\$ 253,209	\$ 257,661
2020	\$ 250,726	\$ 249,050
2021	\$ 255,118	\$ 262,504

Source: U.S. Census New Construction Survey and Federal Housing Finance Agency Working Paper, "The Price of Residential Land for Counties, ZIP codes, and Census Tracts in the United States V3.0" from October 2020  
Note: All dollars adjusted for inflation to 2021 dollars

## Appendix: Commuting Data Tables

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**Table 90 Internal Jobs from OnTheMap**

<b>Geography</b>	<b>Jobs</b>	<b>Share</b>
Barnstable	15,229	17%
Falmouth	9,015	10%
Yarmouth	7,762	9%
Sandwich	5,904	7%
Mashpee	4,205	5%
Harwich	4,194	5%
Dennis	4,011	5%
Bourne	3,737	4%
Brewster	3,248	4%
Chatham	1,511	2%
Orleans	1,432	2%
Eastham	1,243	1%
Provincetown	1,146	1%
Wellfleet	752	1%
Truro	382	0%
<b>Total</b>	<b>63,771</b>	

Source: U.S. Census Bureau, OnTheMap, All Jobs, 2019.

Note: In the OnTheMap data, the 2019 data was the most recent available at time of analysis in 2022.

OnTheMap uses job counts, not person counts, so 2 or more jobs in these values may be worked by the same person.

**Table 91 Inflow Jobs from OnTheMap**

<b>Geography</b>	<b>Jobs</b>	<b>Share</b>
Plymouth town (Plymouth, MA)	2,961	3%
Wareham town (Plymouth, MA)	1,675	2%
New Bedford city (Bristol, MA)	1,267	1%
Boston city (Suffolk, MA)	787	1%
Fall River city (Bristol, MA)	447	1%
Carver town (Plymouth, MA)	375	0%
Dartmouth town (Bristol, MA)	368	0%
Nantucket town (Nantucket, MA)	367	0%
Marshfield town (Plymouth, MA)	354	0%
Brockton city (Plymouth, MA)	347	0%
Kingston town (Plymouth, MA)	320	0%
Worcester city (Worcester, MA)	306	0%
Taunton city (Bristol, MA)	304	0%
Fairhaven town (Bristol, MA)	265	0%
Pembroke town (Plymouth, MA)	231	0%
All Other Locations	13,711	57%
<b>Total</b>	<b>24,085</b>	

Source: U.S. Census Bureau, OnTheMap, All Jobs, 2019.

Note: In the OnTheMap data, the 2019 data was the most recent available at time of analysis in 2022.

OnTheMap uses job counts, not person counts, so 2 or more jobs in these values may be worked by the same person.

**Table 92 Outflow Jobs from OnTheMap**

<b>Geography</b>	<b>Jobs</b>	<b>Share</b>
Boston city (Suffolk, MA)	4,643	5%
Plymouth town (Plymouth, MA)	2,092	2%
Wareham town (Plymouth, MA)	936	1%
New Bedford city (Bristol, MA)	695	1%
Brockton city (Plymouth, MA)	695	1%
Quincy city (Norfolk, MA)	655	1%
Cambridge city (Middlesex, MA)	653	1%
Worcester city (Worcester, MA)	555	1%
Fall River city (Bristol, MA)	544	1%
Dartmouth town (Bristol, MA)	473	0%
Taunton city (Bristol, MA)	458	0%
Waltham city (Middlesex, MA)	444	0%
Newton city (Middlesex, MA)	391	0%
Framingham city (Middlesex, MA)	380	0%
Braintree Town city (Norfolk, MA)	326	0%
All Other Locations	19,370	58%
<b>Total</b>	<b>33,310</b>	

Source: U.S. Census Bureau, OnTheMap, All Jobs, 2019.

Note: In the OnTheMap data, the 2019 data was the most recent available at time of analysis in 2022.

OnTheMap uses job counts, not person counts, so 2 or more jobs in these values may be worked by the same person.

## Appendix: Affordability Gap Methodological Detail

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### Summary of Method

UMDI conducted this affordability gap projection analysis utilizing an approach consistent with the methods in the *2017 Regional Housing Market Analysis and 10-Year Forecast of Housing Supply and Demand for Barnstable County*.<sup>38</sup> The affordability gap is difference between the supply of units and the demand for units at 50, 80, 100 and 120 percent of the median income for a given area.

Estimated unit demand is based on vacant and existing units. Those units are distributed to income groups based on income information from the ACS 5-Year PUMS data for 2020 for the whole Cape and Islands Region.

Unit supply is the number of units affordable to each income group in each place. The method estimates the price of an affordable home in the area based on 30 percent of the median household incomes of owners and renters. The 30 percent threshold is used by HUD to identify cost burdened households and is a standard way of identifying households who are paying too much for housing.

To project the gap forward, the number of units uses the trends established in the 2017 report. This provides estimated unit demand. Median incomes are projected forward using projections data from Moody's analytics and those new incomes provide a basis for the affordable housing estimates for renters and owners. Prices for owned houses are projected using another Moody's data series for home price. Rental prices are projected forward using the BLS CPI-U for residential rents in the Boston-Cambridge-Newton region, the region closest and most specific to the Cape.

The 2017 Cape Cod Housing Report's affordability gap analysis had 5 key pieces: Incomes, Housing Price, Demand and Supply.

### Income

The method starts with 2020 American Community Survey 5-Year Median Household Incomes by Housing Tenure (Owner/Renter) for the region's towns and the county, adjusted with latest year of CPI (\$2021). From this median, incomes were calculated at 50, 80 100 and 120 percent of the median income of each municipality. These incomes were then converted to a monthly value, 30 percent of which was taken to create a "housing budget" for renters and owners in each municipality. 30 percent is the share of income over which HUD considers a household cost-burdened.

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<sup>38</sup> Regional Housing Market Analysis and 10-Year Forecast of Housing Supply and Demand, Barnstable County, Massachusetts, June 30<sup>th</sup> 2017, <https://www.capecodcommission.org/our-work/housing-market-analysis/>

## Housing Price

### Owners

The formula for affordable owned-home price was reverse engineered based on the data from the 2015 gap tables in the 2017 Report. This formula included estimates of utilities, home insurance, private mortgage insurance, property taxes and interest rate. The utility amount was held constant for all geographies, and based on estimates of home heating and water usage in the state. Home insurance was based on an estimate for insurance in Massachusetts from Nerdwallet. Private Mortgage Insurance was based on an estimate of the typical PMI rate for a conventional home nationwide, also from Nerdwallet. Property tax was based on FY2020 property tax rates for each town. For the county, the median property tax rate of all 15 towns was applied. Using these inputs, and constraining the formula by the total housing budget at each level of income, an affordable price for each income level was estimated in each geography.

### Renters

The monthly housing budget was created as the amount of rent that could be ‘afforded’ set at 30% of each income level.

### Demand

In the 2017 report, housing demand was the number of occupied housing units for renters and owners, plus a portion of the vacant units. The report summed together vacant units for sale, rent, vacant units rented/sold but unoccupied, and all other vacant units (a category including homes vacant due to things like estate sales and other reasons.) to create a total count of vacant units in each geography. It then apportioned those vacant units to renters and owner according to the share of total occupied housing belonging to those two tenures. So for example, about 80 percent of all occupied housing in the county belonged to owners, so 80 percent of vacant units from the above categories was attributed to owners. The sum of each tenure’s occupied housing, plus its share of vacant units, gave us a total housing demand number for each tenure and geography.

This total demand then had to be distributed to each income group. The report appeared to use ACS income categories for this task, but the cuts of those groups are quite large. Instead, ACS 5-Year Public Use Microdata (PUMs) data was used to identify the share of households, by tenure, of the whole cape and islands region which fell exactly into the 50, 80, 100 and 120 percent of median household income for the whole region. These shares were then applied to the total demand to get demand by level of income. PUMS uses Public Use Microdata Areas. There are two for the Cape and Islands as a whole, and neither perfectly maps to Barnstable County, but PUMS allows a more precise estimate of how many people are at each income level rather than grouping static income groups together.



## Supply

Housing supply is constructed in the exact same way as demand in the 2017 report. That total is then distributed not by income, as with demand, but by number of housing units at the affordable price points calculated in the Housing Price section.

## Owners

To get a count of homes affordable at each income level, the housing prices calculated earlier were used to count the number of homes in the Barnstable County property records for each town that were valued at that price or lower (minus the number of homes affordable to the previous income level). This provides a precise count of home values for each town. In order to consider only residential property records, the Cape Cod Commission residential housing list was used. The data was filtered to leverage the values of only single family homes and condos to approximate the most common types of home a household might move into and to prevent partially rented-out properties and larger residential properties, like apartment buildings, from skewing the distribution of unit price.

## Renters

Unlike the income categories from the ACS, contract rent categories were much finer, as small as \$50 for rents below \$1,000. This allowed use of the ACS contract rent table to approximate the number of homes in each town that are priced at or below each affordable rent point. These data were used because unlike owned properties, detailed data on the exact prices of all rented homes by town is not readily available.

## Affordability Gap Projections

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The affordability gap calculations were conducted to follow on and extend the trend of the same work done showing 2015-2025. The affordability gap results tables, displayed and discussed at the end of this section, show the affordability gap alongside the affordable home prices for owners and renters. The table clearly shows the income disparity between the two groups. The cumulative gap indicates how unaffordability at one level income can exacerbate the affordability of housing at other income levels.

To project each of these points forward, the following processes were used:

### Income

Moody's Analytics provided the same Median Household Income series used in the 2017 report. This series contains a full range of historical values plus projections out 50 years. The percent change from 2020 to 2030 to the ACS 5-YR Median Household Incomes was applied.

### Housing Price

Using the projected incomes, the available housing budgets for owners and renters were modified. The 'affordable' home formula was repeated with the new incomes. The income changes were also applied to the 'affordable' rent prices.

### Demand

The projected growth in occupied housing units by town was applied to the occupied housing unit counts by tenure in the 2020 data. The projected growth in vacant units was applied to the 2020 vacant units data calculated earlier.

### Supply

The supply calculations described earlier were performed again on a projected pool of housing units and based on the new 'affordable' price points which reflected changes in median incomes.

The values of homes in the property records data were increased according to the Moody's FHFA All Transactions Home Price Index. The number of homes within each affordability category were then calculated using the method described above.

The income categories for contract rent were inflated with the CPI-U for residential rents in the Boston-Cambridge-Newton region and the counts of rents in each affordability category were recalculated.

In addition, as mentioned earlier, this method does not account for the projected growth in seasonal units, which may increase the year-round (residential) housing need going forward in addition to these gaps as the share of the stock of year-round housing declines for renters in particular, as well as owners as owners convert year-round units to seasonal housing or sell it to those who will.

## Affordability Gap Projections Results Tables

**Table 93** displays the affordability gap alongside the affordable home prices for owners and renters. The table clearly shows the income disparity between the two groups. The cumulative gap indicates how unaffordability at one level income can exacerbate the affordability of housing at other income levels. As low income residents are forced to take housing that costs more than 30 percent of their income, they push out middle income people for whom that higher cost housing is normally affordable. Those middle income earners then get pushed into housing that would normally fit a higher income family that is out of their affordable price range, increasing housing cost burden, or out of Cape Cod entirely.

**Table 93 Affordability Gap for Barnstable County, County Total Basis, 2020**

<b>Barnstable County-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income (County Average)	\$46,104	\$73,767	\$92,209	\$110,650	
Affordable Price (County Average)	\$139,477	\$236,495	\$301,174	\$365,853	
Estimated Unit Demand	17,148	13,881	9,799	7,349	33,479
Estimated Unit Supply	1,102	4,124	8,770	13,792	53,868
Affordability Gap in Units (supply minus demand)	-16,045	-9,758	-1,029	6,443	20,389
<b>Cumulative Demand</b>	<b>17,148</b>	<b>31,029</b>	<b>40,828</b>	<b>48,177</b>	<b>81,656</b>
<b>Cumulative Supply</b>	<b>1,102</b>	<b>5,226</b>	<b>13,996</b>	<b>27,787</b>	<b>81,656</b>
<b>Cumulative Gap</b>	<b>-16,045</b>	<b>-25,803</b>	<b>-26,832</b>	<b>-20,389</b>	
<b>Barnstable County-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income (County Average)	\$23,452	\$37,524	\$46,905	\$56,286	
Affordable Rent (County Average)	\$586	\$938	\$1,173	\$1,407	
Estimated Unit Demand	5,061	3,226	1,675	1,836	9,109
Estimated Unit Supply	3,085	2,111	5,710	4,395	5,606
Affordability Gap in Units (supply minus demand)	-1,977	-1,115	4,035	2,559	-3,503
<b>Cumulative Demand</b>	<b>5,061</b>	<b>8,287</b>	<b>9,962</b>	<b>11,797</b>	<b>20,906</b>
<b>Cumulative Supply</b>	<b>3,085</b>	<b>5,196</b>	<b>10,905</b>	<b>15,300</b>	<b>20,906</b>
<b>Cumulative Gap</b>	<b>-1,977</b>	<b>-3,092</b>	<b>943</b>	<b>3,503</b>	

Source: UMDI Calculations.

**Table 94 Affordability Gap for Barnstable County, County Total Basis, 2030**

<b>Barnstable County-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$64,048	\$102,476	\$128,095	\$153,714	
Affordable Price	\$202,407	\$337,184	\$427,036	\$516,887	
Estimated Unit Demand	16,655	13,482	9,517	7,138	32,516
Estimated Unit Supply	952	3,085	6,138	11,142	57,992
Affordability Gap in Units (supply minus demand)	-15,703	-10,398	-3,379	4,004	25,476
<b>Cumulative Demand</b>	<b>16,655</b>	<b>30,137</b>	<b>39,654</b>	<b>46,792</b>	<b>79,308</b>
<b>Cumulative Supply</b>	<b>952</b>	<b>4,036</b>	<b>10,174</b>	<b>21,316</b>	<b>79,308</b>
<b>Cumulative Gap</b>	<b>-15,703</b>	<b>-26,101</b>	<b>-29,480</b>	<b>-25,476</b>	
<b>Barnstable County-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$32,580	\$52,128	\$65,159	\$78,191	
Affordable Rent	\$814	\$1,303	\$1,629	\$1,955	
Estimated Unit Demand	4,916	3,133	1,626	1,783	8,847
Estimated Unit Supply	2,996	3,456	4,140	4,268	5,445
Affordability Gap in Units (supply minus demand)	-1,920	323	2,513	2,486	-3,402
<b>Cumulative Demand</b>	<b>4,916</b>	<b>8,049</b>	<b>9,675</b>	<b>11,458</b>	<b>20,305</b>
<b>Cumulative Supply</b>	<b>2,996</b>	<b>6,452</b>	<b>10,592</b>	<b>14,860</b>	<b>20,305</b>
<b>Cumulative Gap</b>	<b>-1,920</b>	<b>-1,597</b>	<b>916</b>	<b>3,402</b>	

Source: UMDI Calculations.

Projecting the affordability gap out to 2030, median income is expected to rise and some housing growth is predicted. Even with this expected growth in income and the amount of housing, there remains a large predicted cumulative gap for rental housing units in the price range affordable to the people at 80 percent and 50 percent of median income, as well as the higher-income renters' gap. This is likely to cause these households to have to obtain housing that would otherwise be available to households at the median and at 120 percent of median. For owners, there is an across the board projected cumulative housing gap for owned homes at and below the median income.

## Affordability Gap Tables, 2020, Towns and Subregions

Table 95 Upper Cape-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Upper Cape-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	6,728	5,446	3,844	2,883	13,135
Estimated Unit Supply	212	808	1,960	4,041	25,016
Affordability Gap in Units (demand minus supply)	-6,515	-4,639	-1,885	1,158	11,881
<b>Cumulative Demand</b>	<b>6,728</b>	<b>12,174</b>	<b>16,018</b>	<b>18,902</b>	<b>32,037</b>
<b>Cumulative Supply</b>	<b>212</b>	<b>1,020</b>	<b>2,980</b>	<b>7,021</b>	<b>32,037</b>
<b>Cumulative Gap</b>	<b>-6,515</b>	<b>-11,154</b>	<b>-13,039</b>	<b>-11,881</b>	
<b>Upper Cape-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	1,798	1,146	595	652	3,237
Estimated Unit Supply	1,035	998	1,527	1,477	2,392
Affordability Gap in Units (demand minus supply)	-764	-148	932	825	-845
<b>Cumulative Demand</b>	<b>1,798</b>	<b>2,945</b>	<b>3,540</b>	<b>4,192</b>	<b>7,428</b>
<b>Cumulative Supply</b>	<b>1,035</b>	<b>2,032</b>	<b>3,560</b>	<b>5,037</b>	<b>7,428</b>
<b>Cumulative Gap</b>	<b>-764</b>	<b>-912</b>	<b>20</b>	<b>845</b>	

**Table 96 Mid Cape-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Mid Cape-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	6,200	5,019	3,543	2,657	12,105
Estimated Unit Supply	199	715	1,183	3,049	24,378
Affordability Gap in Units (demand minus supply)	-6,001	-4,304	-2,360	392	12,273
Cumulative Demand	6,200	11,220	14,763	17,420	29,525
Cumulative Supply	199	914	2,098	5,147	29,525
Cumulative Gap	-6,001	-10,305	-12,665	-12,273	
<b>Mid Cape-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	2,353	1,499	778	853	4,234
Estimated Unit Supply	1,291	922	1,825	3,781	1,898
Affordability Gap in Units (demand minus supply)	-1,062	-577	1,047	2,928	-2,336
Cumulative Demand	2,353	3,852	4,630	5,484	9,718
Cumulative Supply	1,291	2,213	4,039	7,820	9,718
Cumulative Gap	-1,062	-1,639	-592	2,336	

Table 97 Lower Cape-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Lower Cape-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	3,010	2,437	1,720	1,290	5,877
Estimated Unit Supply	126	325	573	1,024	12,285
Affordability Gap in Units (demand minus supply)	-2,884	-2,111	-1,147	-266	6,408
<b>Cumulative Demand</b>	<b>3,010</b>	<b>5,447</b>	<b>7,167</b>	<b>8,457</b>	<b>14,333</b>
<b>Cumulative Supply</b>	<b>126</b>	<b>452</b>	<b>1,025</b>	<b>2,048</b>	<b>14,333</b>
<b>Cumulative Gap</b>	<b>-2,884</b>	<b>-4,995</b>	<b>-6,142</b>	<b>-6,408</b>	
<b>Lower Cape-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	631	402	209	229	1,135
Estimated Unit Supply	634	442	511	251	766
Affordability Gap in Units (demand minus supply)	3	40	302	23	-369
<b>Cumulative Demand</b>	<b>631</b>	<b>1,033</b>	<b>1,241</b>	<b>1,470</b>	<b>2,605</b>
<b>Cumulative Supply</b>	<b>634</b>	<b>1,076</b>	<b>1,587</b>	<b>1,839</b>	<b>2,605</b>
<b>Cumulative Gap</b>	<b>3</b>	<b>44</b>	<b>346</b>	<b>369</b>	

**Table 98 Outer Cape-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Outer Cape-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	1,200	971	686	514	2,343
Estimated Unit Supply	43	148	155	275	5,093
Affordability Gap in Units (demand minus supply)	-1,157	-823	-530	-240	2,750
<b>Cumulative Demand</b>	<b>1,200</b>	<b>2,171</b>	<b>2,857</b>	<b>3,371</b>	<b>5,714</b>
<b>Cumulative Supply</b>	<b>43</b>	<b>191</b>	<b>346</b>	<b>621</b>	<b>5,714</b>
<b>Cumulative Gap</b>	<b>-1,157</b>	<b>-1,980</b>	<b>-2,510</b>	<b>-2,750</b>	
<b>Outer Cape-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Estimated Unit Demand	291	186	96	106	524
Estimated Unit Supply	39	32	156	119	856
Affordability Gap in Units (demand minus supply)	-252	-153	60	13	332
<b>Cumulative Demand</b>	<b>291</b>	<b>477</b>	<b>573</b>	<b>678</b>	<b>1,202</b>
<b>Cumulative Supply</b>	<b>39</b>	<b>71</b>	<b>227</b>	<b>346</b>	<b>1,202</b>
<b>Cumulative Gap</b>	<b>-252</b>	<b>-405</b>	<b>-346</b>	<b>-332</b>	

Note: No renter median income data was available for Wellfleet in 2020, affordable rent prices and supply were calculated using the median renter income data from Provincetown for 2020 because in the 2019 ACS 5YR dataset, where data for Wellfleet was available, Provincetown had the closest median income for renters in the county (About \$1,000 more). The neighboring towns of Truro and Eastham had median renter incomes \$16,000 and \$7,000 higher respectively than Wellfleet median renter incomes in the 2019 5YR ACS.



Table 99 Town of Barnstable-Estimated Affordable Gap for Owner and Renter Units, 2020`

<b>Town of Barnstable-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$49,289	\$78,862	\$98,577	\$118,293	
Affordable Price	\$149,336	\$252,154	\$320,699	\$389,244	
Estimated Unit Demand	3,193	2,585	1,825	1,368	6,234
Estimated Unit Supply	13	122	350	1,161	13,559
Affordability Gap in Units (demand minus supply)	-3,180	-2,463	-1,474	-208	7,325
<b>Cumulative Demand</b>	<b>3,193</b>	<b>5,778</b>	<b>7,602</b>	<b>8,971</b>	<b>15,205</b>
<b>Cumulative Supply</b>	<b>13</b>	<b>135</b>	<b>485</b>	<b>1,646</b>	<b>15,205</b>
<b>Cumulative Gap</b>	<b>-3,180</b>	<b>-5,643</b>	<b>-7,117</b>	<b>-7,325</b>	
<b>Town of Barnstable-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$26,389	\$42,223	\$52,778	\$63,334	
Affordable Rent	\$660	\$1,056	\$1,319	\$1,583	
Estimated Unit Demand	1,309	835	433	475	2,356
Estimated Unit Supply	788	484	1,074	2,779	284
Affordability Gap in Units (demand minus supply)	-522	-350	641	2,304	-2,073
<b>Cumulative Demand</b>	<b>1,309</b>	<b>2,144</b>	<b>2,577</b>	<b>3,052</b>	<b>5,408</b>
<b>Cumulative Supply</b>	<b>788</b>	<b>1,272</b>	<b>2,346</b>	<b>5,125</b>	<b>5,408</b>
<b>Cumulative Gap</b>	<b>-522</b>	<b>-872</b>	<b>-231</b>	<b>2,073</b>	

**Table 100 Bourne-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Bourne-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$46,483	\$74,373	\$92,967	\$111,560	
Affordable Price	\$137,400	\$232,851	\$296,485	\$360,118	
Estimated Unit Demand	1,406	1,138	803	602	2,744
Estimated Unit Supply	54	360	716	1,238	4,325
Affordability Gap in Units (demand minus supply)	-1,352	-778	-87	636	1,581
<b>Cumulative Demand</b>	<b>1,406</b>	<b>2,544</b>	<b>3,347</b>	<b>3,949</b>	<b>6,694</b>
<b>Cumulative Supply</b>	<b>54</b>	<b>414</b>	<b>1,130</b>	<b>2,368</b>	<b>6,694</b>
<b>Cumulative Gap</b>	<b>-1,352</b>	<b>-2,130</b>	<b>-2,217</b>	<b>-1,581</b>	
<b>Bourne-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$23,971	\$38,354	\$47,942	\$57,531	
Affordable Rent	\$599	\$959	\$1,199	\$1,438	
Estimated Unit Demand	564	359	186	204	1,014
Estimated Unit Supply	385	299	553	507	585
Affordability Gap in Units (demand minus supply)	-179	-60	367	302	-430
<b>Cumulative Demand</b>	<b>564</b>	<b>923</b>	<b>1,109</b>	<b>1,314</b>	<b>2,328</b>
<b>Cumulative Supply</b>	<b>385</b>	<b>684</b>	<b>1,237</b>	<b>1,744</b>	<b>2,328</b>
<b>Cumulative Gap</b>	<b>-179</b>	<b>-239</b>	<b>128</b>	<b>430</b>	

**Table 101 Brewster-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Brewster-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$46,032	\$73,650	\$92,063	\$110,476	
Affordable Price	\$139,221	\$236,087	\$300,664	\$365,241	
Estimated Unit Demand	851	689	486	365	1,661
Estimated Unit Supply	1	93	203	261	3,494
Affordability Gap in Units (demand minus supply)	-850	-596	-284	-103	1,833
<b>Cumulative Demand</b>	<b>851</b>	<b>1,540</b>	<b>2,026</b>	<b>2,391</b>	<b>4,052</b>
<b>Cumulative Supply</b>	<b>1</b>	<b>94</b>	<b>296</b>	<b>558</b>	<b>4,052</b>
<b>Cumulative Gap</b>	<b>-850</b>	<b>-1,446</b>	<b>-1,730</b>	<b>-1,833</b>	
<b>Brewster-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$18,322	\$29,315	\$36,644	\$43,973	
Affordable Rent	\$458	\$733	\$916	\$1,099	
Estimated Unit Demand	175	111	58	63	314
Estimated Unit Supply	194	57	80	26	363
Affordability Gap in Units (demand minus supply)	20	-54	22	-37	49
<b>Cumulative Demand</b>	<b>175</b>	<b>286</b>	<b>344</b>	<b>407</b>	<b>721</b>
<b>Cumulative Supply</b>	<b>194</b>	<b>251</b>	<b>331</b>	<b>358</b>	<b>721</b>
<b>Cumulative Gap</b>	<b>20</b>	<b>-34</b>	<b>-12</b>	<b>-49</b>	

Table 102 Chatham-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Chatham-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$47,684	\$76,294	\$95,367	\$114,441	
Affordable Price	\$151,758	\$256,765	\$326,769	\$396,774	
Estimated Unit Demand	584	473	334	250	1,141
Estimated Unit Supply	17	53	54	110	2,548
Affordability Gap in Units (demand minus supply)	-568	-420	-279	-141	1,408
<b>Cumulative Demand</b>	<b>584</b>	<b>1,057</b>	<b>1,391</b>	<b>1,642</b>	<b>2,782</b>
<b>Cumulative Supply</b>	<b>17</b>	<b>70</b>	<b>124</b>	<b>234</b>	<b>2,782</b>
<b>Cumulative Gap</b>	<b>-568</b>	<b>-988</b>	<b>-1,267</b>	<b>-1,408</b>	
<b>Chatham-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$23,003	\$36,805	\$46,006	\$55,208	
Affordable Rent	\$575	\$920	\$1,150	\$1,380	
Estimated Unit Demand	108	69	36	39	194
Estimated Unit Supply	55	104	126	76	84
Affordability Gap in Units (demand minus supply)	-53	35	91	37	-110
<b>Cumulative Demand</b>	<b>108</b>	<b>177</b>	<b>212</b>	<b>251</b>	<b>446</b>
<b>Cumulative Supply</b>	<b>55</b>	<b>159</b>	<b>285</b>	<b>361</b>	<b>446</b>
<b>Cumulative Gap</b>	<b>-53</b>	<b>-18</b>	<b>73</b>	<b>110</b>	

**Table 103 Dennis-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Dennis-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$41,552	\$66,483	\$83,104	\$99,725	
Affordable Price	\$127,260	\$217,353	\$277,415	\$337,478	
Estimated Unit Demand	1,132	917	647	485	2,211
Estimated Unit Supply	145	311	190	493	4,253
Affordability Gap in Units (demand minus supply)	-987	-605	-458	7	2,043
<b>Cumulative Demand</b>	<b>1,132</b>	<b>2,049</b>	<b>2,696</b>	<b>3,181</b>	<b>5,392</b>
<b>Cumulative Supply</b>	<b>145</b>	<b>457</b>	<b>646</b>	<b>1,139</b>	<b>5,392</b>
<b>Cumulative Gap</b>	<b>-987</b>	<b>-1,592</b>	<b>-2,050</b>	<b>-2,043</b>	<b>0</b>
<b>Dennis-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$21,011	\$33,618	\$42,023	\$50,427	
Affordable Rent	\$525	\$840	\$1,051	\$1,261	
Estimated Unit Demand	498	317	165	181	896
Estimated Unit Supply	330	158	299	396	872
Affordability Gap in Units (demand minus supply)	-168	-159	135	216	-24
<b>Cumulative Demand</b>	<b>498</b>	<b>815</b>	<b>980</b>	<b>1,160</b>	<b>2,056</b>
<b>Cumulative Supply</b>	<b>330</b>	<b>488</b>	<b>787</b>	<b>1,184</b>	<b>2,056</b>
<b>Cumulative Gap</b>	<b>-168</b>	<b>-327</b>	<b>-192</b>	<b>24</b>	

**Table 104 Eastham-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Eastham-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$38,882	\$62,211	\$77,763	\$93,316	
Affordable Price	\$114,012	\$195,736	\$250,219	\$304,702	
Estimated Unit Demand	483	391	276	207	944
Estimated Unit Supply	12	40	64	134	2,053
Affordability Gap in Units (demand minus supply)	-472	-352	-213	-73	1,109
<b>Cumulative Demand</b>	<b>483</b>	<b>875</b>	<b>1,151</b>	<b>1,358</b>	<b>2,302</b>
<b>Cumulative Supply</b>	<b>12</b>	<b>51</b>	<b>115</b>	<b>249</b>	<b>2,302</b>
<b>Cumulative Gap</b>	<b>-472</b>	<b>-824</b>	<b>-1,036</b>	<b>-1,109</b>	
<b>Eastham-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$20,170	\$32,271	\$40,339	\$48,407	
Affordable Rent	\$504	\$807	\$1,008	\$1,210	
Estimated Unit Demand	55	35	18	20	99
Estimated Unit Supply	0	0	72	0	155
Affordability Gap in Units (demand minus supply)	-55	-35	54	-20	56
<b>Cumulative Demand</b>	<b>55</b>	<b>90</b>	<b>108</b>	<b>128</b>	<b>227</b>
<b>Cumulative Supply</b>	<b>0</b>	<b>0</b>	<b>72</b>	<b>72</b>	<b>227</b>
<b>Cumulative Gap</b>	<b>-55</b>	<b>-90</b>	<b>-36</b>	<b>-56</b>	

Table 105 Falmouth-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Falmouth-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$45,406	\$72,650	\$90,812	\$108,974	
Affordable Price	\$137,075	\$232,658	\$296,380	\$360,101	
Estimated Unit Demand	2,500	2,024	1,429	1,072	4,882
Estimated Unit Supply	110	143	547	1,302	9,804
Affordability Gap in Units (demand minus supply)	-2,391	-1,881	-881	231	4,923
<b>Cumulative Demand</b>	<b>2,500</b>	<b>4,525</b>	<b>5,954</b>	<b>7,025</b>	<b>11,907</b>
<b>Cumulative Supply</b>	<b>110</b>	<b>253</b>	<b>800</b>	<b>2,103</b>	<b>11,907</b>
<b>Cumulative Gap</b>	<b>-2,391</b>	<b>-4,272</b>	<b>-5,153</b>	<b>-4,923</b>	
<b>Falmouth-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$22,412	\$35,859	\$44,824	\$53,789	
Affordable Rent	\$560	\$896	\$1,121	\$1,345	
Estimated Unit Demand	759	484	251	275	1,366
Estimated Unit Supply	430	532	350	485	1,339
Affordability Gap in Units (demand minus supply)	-329	48	99	210	-27
<b>Cumulative Demand</b>	<b>759</b>	<b>1,243</b>	<b>1,494</b>	<b>1,770</b>	<b>3,136</b>
<b>Cumulative Supply</b>	<b>430</b>	<b>962</b>	<b>1,312</b>	<b>1,797</b>	<b>3,136</b>
<b>Cumulative Gap</b>	<b>-329</b>	<b>-281</b>	<b>-182</b>	<b>27</b>	

Table 90 Harwich-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Harwich-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$43,645	\$69,832	\$87,290	\$104,748	
Affordable Price	\$130,683	\$222,408	\$283,559	\$344,709	
Estimated Unit Demand	1,055	854	603	452	2,060
Estimated Unit Supply	75	122	234	563	4,031
Affordability Gap in Units (demand minus supply)	-981	-732	-369	111	1,971
<b>Cumulative Demand</b>	<b>1,055</b>	<b>1,910</b>	<b>2,513</b>	<b>2,965</b>	<b>5,026</b>
<b>Cumulative Supply</b>	<b>75</b>	<b>197</b>	<b>431</b>	<b>994</b>	<b>5,026</b>
<b>Cumulative Gap</b>	<b>-981</b>	<b>-1,713</b>	<b>-2,082</b>	<b>-1,971</b>	
<b>Harwich-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$32,234	\$51,575	\$64,469	\$77,363	
Affordable Rent	\$806	\$1,289	\$1,612	\$1,934	
Estimated Unit Demand	203	129	67	74	365
Estimated Unit Supply	211	262	202	149	13
Affordability Gap in Units (demand minus supply)	8	133	135	76	-352
<b>Cumulative Demand</b>	<b>203</b>	<b>332</b>	<b>399</b>	<b>473</b>	<b>837</b>
<b>Cumulative Supply</b>	<b>211</b>	<b>473</b>	<b>675</b>	<b>824</b>	<b>837</b>
<b>Cumulative Gap</b>	<b>8</b>	<b>141</b>	<b>276</b>	<b>352</b>	



**Table 106 Mashpee-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Mashpee-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$44,469	\$71,150	\$88,938	\$106,725	
Affordable Price	\$133,211	\$226,418	\$288,556	\$350,694	
Estimated Unit Demand	1,221	988	698	523	2,383
Estimated Unit Supply	32	211	469	916	4,184
Affordability Gap in Units (demand minus supply)	-1,188	-777	-228	393	1,801
<b>Cumulative Demand</b>	<b>1,221</b>	<b>2,209</b>	<b>2,906</b>	<b>3,429</b>	<b>5,813</b>
<b>Cumulative Supply</b>	<b>32</b>	<b>243</b>	<b>712</b>	<b>1,629</b>	<b>5,813</b>
<b>Cumulative Gap</b>	<b>-1,188</b>	<b>-1,965</b>	<b>-2,194</b>	<b>-1,801</b>	
<b>Mashpee-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$23,588	\$37,742	\$47,177	\$56,612	
Affordable Rent	\$590	\$944	\$1,179	\$1,415	
Estimated Unit Demand	256	163	85	93	462
Estimated Unit Supply	63	118	450	207	222
Affordability Gap in Units (demand minus supply)	-194	-46	365	114	-240
<b>Cumulative Demand</b>	<b>256</b>	<b>420</b>	<b>505</b>	<b>598</b>	<b>1,059</b>
<b>Cumulative Supply</b>	<b>63</b>	<b>181</b>	<b>630</b>	<b>837</b>	<b>1,059</b>
<b>Cumulative Gap</b>	<b>-194</b>	<b>-239</b>	<b>126</b>	<b>240</b>	

Table 107 Orleans-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Orleans-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$48,522	\$77,635	\$97,044	\$116,452	
Affordable Price	\$149,812	\$253,199	\$322,123	\$391,048	
Estimated Unit Demand	519	420	297	223	1,014
Estimated Unit Supply	34	58	81	89	2,211
Affordability Gap in Units (demand minus supply)	-485	-363	-215	-134	1,197
<b>Cumulative Demand</b>	<b>519</b>	<b>940</b>	<b>1,237</b>	<b>1,459</b>	<b>2,473</b>
<b>Cumulative Supply</b>	<b>34</b>	<b>92</b>	<b>173</b>	<b>262</b>	<b>2,473</b>
<b>Cumulative Gap</b>	<b>-485</b>	<b>-848</b>	<b>-1,063</b>	<b>-1,197</b>	
<b>Orleans-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$17,203	\$27,526	\$34,407	\$41,288	
Affordable Rent	\$430	\$688	\$860	\$1,032	
Estimated Unit Demand	145	93	48	53	262
Estimated Unit Supply	174	19	103	0	305
Affordability Gap in Units (demand minus supply)	29	-74	54	-53	44
<b>Cumulative Demand</b>	<b>145</b>	<b>238</b>	<b>286</b>	<b>339</b>	<b>601</b>
<b>Cumulative Supply</b>	<b>174</b>	<b>193</b>	<b>295</b>	<b>295</b>	<b>601</b>
<b>Cumulative Gap</b>	<b>29</b>	<b>-45</b>	<b>9</b>	<b>-44</b>	

**Table 108 Provincetown-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Provincetown-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$46,983	\$75,173	\$93,966	\$112,760	
Affordable Price	\$145,972	\$247,207	\$314,698	\$382,188	
Estimated Unit Demand	313	253	179	134	611
Estimated Unit Supply	21	45	44	59	1,320
Affordability Gap in Units (demand minus supply)	-292	-208	-135	-75	710
<b>Cumulative Demand</b>	<b>313</b>	<b>566</b>	<b>745</b>	<b>879</b>	<b>1,489</b>
<b>Cumulative Supply</b>	<b>21</b>	<b>66</b>	<b>110</b>	<b>169</b>	<b>1,489</b>
<b>Cumulative Gap</b>	<b>-292</b>	<b>-500</b>	<b>-635</b>	<b>-710</b>	
<b>Provincetown-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$15,300	\$24,479	\$30,599	\$36,719	
Affordable Rent	\$382	\$612	\$765	\$918	
Estimated Unit Demand	119	76	39	43	213
Estimated Unit Supply	18	32	30	36	374
Affordability Gap in Units (demand minus supply)	-101	-43	-9	-7	161
<b>Cumulative Demand</b>	<b>119</b>	<b>194</b>	<b>233</b>	<b>276</b>	<b>490</b>
<b>Cumulative Supply</b>	<b>18</b>	<b>50</b>	<b>80</b>	<b>116</b>	<b>490</b>
<b>Cumulative Gap</b>	<b>-101</b>	<b>-144</b>	<b>-154</b>	<b>-161</b>	

Table 109 Sandwich-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Sandwich-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$56,886	\$91,018	\$113,772	\$136,527	
Affordable Price	\$166,233	\$278,474	\$353,301	\$428,128	
Estimated Unit Demand	1,601	1,296	915	686	3,125
Estimated Unit Supply	17	93	227	585	6,702
Affordability Gap in Units (demand minus supply)	-1,584	-1,203	-688	-101	3,576
<b>Cumulative Demand</b>	<b>1,601</b>	<b>2,897</b>	<b>3,812</b>	<b>4,498</b>	<b>7,623</b>
<b>Cumulative Supply</b>	<b>17</b>	<b>110</b>	<b>337</b>	<b>921</b>	<b>7,623</b>
<b>Cumulative Gap</b>	<b>-1,584</b>	<b>-2,787</b>	<b>-3,475</b>	<b>-3,576</b>	
<b>Sandwich-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$26,818	\$42,909	\$53,637	\$64,364	
Affordable Rent	\$670	\$1,073	\$1,341	\$1,609	
Estimated Unit Demand	219	140	72	79	394
Estimated Unit Supply	157	49	175	279	246
Affordability Gap in Units (demand minus supply)	-62	-91	102	199	-148
<b>Cumulative Demand</b>	<b>219</b>	<b>359</b>	<b>431</b>	<b>511</b>	<b>905</b>
<b>Cumulative Supply</b>	<b>157</b>	<b>206</b>	<b>380</b>	<b>659</b>	<b>905</b>
<b>Cumulative Gap</b>	<b>-62</b>	<b>-153</b>	<b>-51</b>	<b>148</b>	

**Table 110 Truro-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Truro-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$39,506	\$63,209	\$79,011	\$94,814	
Affordable Price	\$118,115	\$202,521	\$258,792	\$315,062	
Estimated Unit Demand	132	107	75	57	258
Estimated Unit Supply	5	19	16	23	566
Affordability Gap in Units (demand minus supply)	-127	-87	-60	-34	308
<b>Cumulative Demand</b>	<b>132</b>	<b>239</b>	<b>314</b>	<b>371</b>	<b>629</b>
<b>Cumulative Supply</b>	<b>5</b>	<b>25</b>	<b>40</b>	<b>63</b>	<b>629</b>
<b>Cumulative Gap</b>	<b>-127</b>	<b>-214</b>	<b>-274</b>	<b>-308</b>	
<b>Truro-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$21,594	\$34,550	\$43,188	\$51,826	
Affordable Rent	\$540	\$864	\$1,080	\$1,296	
Estimated Unit Demand	26	17	9	10	47
Estimated Unit Supply	0	0	54	0	54
Affordability Gap in Units (demand minus supply)	-26	-17	46	-10	7
<b>Cumulative Demand</b>	<b>26</b>	<b>43</b>	<b>52</b>	<b>61</b>	<b>108</b>
<b>Cumulative Supply</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>54</b>	<b>108</b>
<b>Cumulative Gap</b>	<b>-26</b>	<b>-43</b>	<b>3</b>	<b>-7</b>	

**Table 111 Wellfleet-Estimated Affordable Gap for Owner and Renter Units, 2020**

<b>Wellfleet-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$43,316	\$69,306	\$86,632	\$103,959	
Affordable Price	\$131,031	\$223,119	\$284,511	\$345,903	
Estimated Unit Demand	272	220	155	116	530
Estimated Unit Supply	6	44	32	59	1,154
Affordability Gap in Units (demand minus supply)	-266	-176	-123	-58	623
<b>Cumulative Demand</b>	<b>272</b>	<b>492</b>	<b>647</b>	<b>763</b>	<b>1,294</b>
<b>Cumulative Supply</b>	<b>6</b>	<b>49</b>	<b>82</b>	<b>140</b>	<b>1,294</b>
<b>Cumulative Gap</b>	<b>-266</b>	<b>-442</b>	<b>-565</b>	<b>-623</b>	
<b>Wellfleet-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$15,300	\$24,479	\$30,599	\$36,719	
Affordable Rent	\$382	\$612	\$765	\$918	
Estimated Unit Demand	91	58	30	33	164
Estimated Unit Supply	21	0	0	83	273
Affordability Gap in Units (demand minus supply)	-70	-58	-30	50	109
<b>Cumulative Demand</b>	<b>91</b>	<b>150</b>	<b>180</b>	<b>213</b>	<b>377</b>
<b>Cumulative Supply</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>104</b>	<b>377</b>
<b>Cumulative Gap</b>	<b>-70</b>	<b>-128</b>	<b>-159</b>	<b>-109</b>	

Note: No renter median income data was available for Wellfleet in 2020, affordable rent prices and supply were calculated using the median renter income data from Provincetown for 2020 because in the 2019 ACS 5YR dataset, where data for Wellfleet was available), Provincetown had the closest median income for renters in the county (About \$1,000 more). The neighboring towns of Truro and Eastham had median renter incomes \$16,000 and \$7,000 more respectively in the 2019 5YR ACS.

Table 112 Yarmouth-Estimated Affordable Gap for Owner and Renter Units, 2020

<b>Yarmouth-Estimated Affordable Gap for Owner Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$42,542	\$68,067	\$85,084	\$102,101	
Affordable Price	\$124,967	\$213,067	\$271,801	\$330,535	
Estimated Unit Demand	1,875	1,518	1,071	804	3,661
Estimated Unit Supply	41	282	643	1,396	6,566
Affordability Gap in Units (demand minus supply)	-1,834	-1,235	-428	592	2,905
<b>Cumulative Demand</b>	<b>1,875</b>	<b>3,393</b>	<b>4,464</b>	<b>5,268</b>	<b>8,929</b>
<b>Cumulative Supply</b>	<b>41</b>	<b>323</b>	<b>967</b>	<b>2,363</b>	<b>8,929</b>
<b>Cumulative Gap</b>	<b>-1,834</b>	<b>-3,070</b>	<b>-3,498</b>	<b>-2,905</b>	
<b>Yarmouth-Estimated Affordable Gap for Renter Units, 2020</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$24,964	\$39,942	\$49,927	\$59,913	
Affordable Rent	\$624	\$999	\$1,248	\$1,498	
Estimated Unit Demand	546	348	180	198	982
Estimated Unit Supply	174	280	452	606	742
Affordability Gap in Units (demand minus supply)	-372	-68	272	408	-240
<b>Cumulative Demand</b>	<b>546</b>	<b>893</b>	<b>1,074</b>	<b>1,272</b>	<b>2,253</b>
<b>Cumulative Supply</b>	<b>174</b>	<b>453</b>	<b>906</b>	<b>1,511</b>	<b>2,253</b>
<b>Cumulative Gap</b>	<b>-372</b>	<b>-440</b>	<b>-168</b>	<b>240</b>	

## Affordability Gap Tables, 2030, Towns and Subregions

Table 113 Upper Cape-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Upper Cape-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Price					
Estimated Unit Demand	6,527	5,284	3,730	2,797	12,744
Estimated Unit Supply	194	611	1,277	3,032	25,970
Affordability Gap in Units (demand minus supply)	-6,334	-4,673	-2,453	234	13,226
<b>Cumulative Demand</b>	<b>6,527</b>	<b>11,812</b>	<b>15,541</b>	<b>18,339</b>	<b>31,083</b>
<b>Cumulative Supply</b>	<b>194</b>	<b>805</b>	<b>2,082</b>	<b>5,113</b>	<b>31,083</b>
<b>Cumulative Gap</b>	<b>6,334</b>	<b>11,007</b>	<b>13,460</b>	<b>13,226</b>	
<b>Upper Cape-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Rent					
Estimated Unit Demand	1,745	1,112	577	633	3,140
Estimated Unit Supply	1,029	1,147	1,748	1,340	1,943
Affordability Gap in Units (demand minus supply)	-716	35	1,171	707	-1,197
<b>Cumulative Demand</b>	<b>1,745</b>	<b>2,857</b>	<b>3,434</b>	<b>4,067</b>	<b>7,208</b>
<b>Cumulative Supply</b>	<b>1,029</b>	<b>2,176</b>	<b>3,925</b>	<b>5,265</b>	<b>7,208</b>
<b>Cumulative Gap</b>	<b>-716</b>	<b>-681</b>	<b>490</b>	<b>1,197</b>	



Table 114 Mid Cape-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Mid Cape-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Price					
Estimated Unit Demand	6,025	4,877	3,443	2,582	11,763
Estimated Unit Supply	182	606	833	1,942	25,128
Affordability Gap in Units (demand minus supply)	-5,843	-4,272	-2,610	-640	13,365
<b>Cumulative Demand</b>	<b>6,025</b>	<b>10,902</b>	<b>14,345</b>	<b>16,927</b>	<b>28,691</b>
<b>Cumulative Supply</b>	<b>182</b>	<b>788</b>	<b>1,621</b>	<b>3,563</b>	<b>28,691</b>
<b>Cumulative Gap</b>	<b>-5,843</b>	<b>-10,115</b>	<b>-12,725</b>	<b>-13,365</b>	
<b>Mid Cape-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Rent					
Estimated Unit Demand	2,287	1,457	757	829	4,115
Estimated Unit Supply	1,281	870	1,774	2,354	3,165
Affordability Gap in Units (demand minus supply)	-1,006	-587	1,018	1,525	-949
<b>Cumulative Demand</b>	<b>2,287</b>	<b>3,744</b>	<b>4,500</b>	<b>5,330</b>	<b>9,445</b>
<b>Cumulative Supply</b>	<b>1,281</b>	<b>2,151</b>	<b>3,925</b>	<b>6,279</b>	<b>9,445</b>
<b>Cumulative Gap</b>	<b>-1,006</b>	<b>-1,593</b>	<b>-575</b>	<b>949</b>	

Table 115 Lower Cape-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Lower Cape-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Price					
Estimated Unit Demand	2,926	2,368	1,672	1,254	5,712
Estimated Unit Supply	123	277	391	765	12,376
Affordability Gap in Units (demand minus supply)	-2,803	-2,091	-1,281	-489	6,664
<b>Cumulative Demand</b>	<b>2,926</b>	<b>5,294</b>	<b>6,966</b>	<b>8,220</b>	<b>13,931</b>
<b>Cumulative Supply</b>	<b>123</b>	<b>400</b>	<b>791</b>	<b>1,555</b>	<b>13,931</b>
<b>Cumulative Gap</b>	<b>-2,803</b>	<b>-4,894</b>	<b>-6,175</b>	<b>-6,664</b>	
<b>Lower Cape-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Rent					
Estimated Unit Demand	613	391	203	222	1,103
Estimated Unit Supply	629	478	437	349	640
Affordability Gap in Units (demand minus supply)	16	87	234	126	-463
<b>Cumulative Demand</b>	<b>613</b>	<b>1,004</b>	<b>1,207</b>	<b>1,429</b>	<b>2,532</b>
<b>Cumulative Supply</b>	<b>629</b>	<b>1,106</b>	<b>1,543</b>	<b>1,892</b>	<b>2,532</b>
<b>Cumulative Gap</b>	<b>16</b>	<b>103</b>	<b>336</b>	<b>463</b>	

**Table 116 Outer Cape-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Outer Cape-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Price					
Estimated Unit Demand	1,166	944	666	500	2,277
Estimated Unit Supply	35	113	125	191	5,089
	-				
Affordability Gap in Units (demand minus supply)	1,131	-831	-541	-309	2,813
<b>Cumulative Demand</b>	<b>1,166</b>	<b>2,110</b>	<b>2,777</b>	<b>3,276</b>	<b>5,553</b>
<b>Cumulative Supply</b>	<b>35</b>	<b>148</b>	<b>273</b>	<b>464</b>	<b>5,553</b>
	-	-	-	-	
<b>Cumulative Gap</b>	<b>1,131</b>	<b>1,962</b>	<b>2,504</b>	<b>2,813</b>	
<b>Outer Cape-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income					
Affordable Rent					
Estimated Unit Demand	283	181	94	103	510
Estimated Unit Supply	36	54	131	154	796
Affordability Gap in Units (demand minus supply)	-247	-126	37	51	286
<b>Cumulative Demand</b>	<b>283</b>	<b>464</b>	<b>558</b>	<b>661</b>	<b>1,171</b>
<b>Cumulative Supply</b>	<b>36</b>	<b>90</b>	<b>221</b>	<b>375</b>	<b>1,171</b>
<b>Cumulative Gap</b>	<b>-247</b>	<b>-374</b>	<b>-337</b>	<b>-286</b>	

Note: No renter median income data was available for Wellfleet in 2020, affordable rent prices and supply were calculated using the median renter income data from Provincetown for 2020 because in the 2019 ACS 5YR dataset, where data for Wellfleet was available), Provincetown had the closest median income for renters in the county (About \$1,000 more). The neighboring towns of Truro and Eastham had median renter incomes \$16,000 and \$7,000 more respectively in the 2019 5YR ACS.

**Table 117 Town of Barnstable-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Town of Barnstable-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$68,471	\$109,554	\$136,942	\$164,331	
Affordable Price	\$216,028	\$358,862	\$454,084	\$549,306	
Estimated Unit Demand	3,104	2,513	1,774	1,330	6,061
Estimated Unit Supply	12	89	235	680	13,766
Affordability Gap in Units (demand minus supply)	-3,092	-2,424	-1,539	-650	7,706
<b>Cumulative Demand</b>	<b>3,104</b>	<b>5,617</b>	<b>7,391</b>	<b>8,721</b>	<b>14,782</b>
<b>Cumulative Supply</b>	<b>12</b>	<b>101</b>	<b>336</b>	<b>1,016</b>	<b>14,782</b>
<b>Cumulative Gap</b>	<b>-3,092</b>	<b>-5,516</b>	<b>-7,055</b>	<b>-7,706</b>	
<b>Town of Barnstable-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$36,659	\$58,655	\$73,319	\$87,983	
Affordable Rent	\$916	\$1,466	\$1,833	\$2,200	
Estimated Unit Demand	1,273	811	421	462	2,291
Estimated Unit Supply	766	471	1,044	1,380	1,597
Affordability Gap in Units (demand minus supply)	-507	-341	623	919	-694
<b>Cumulative Demand</b>	<b>1,273</b>	<b>2,084</b>	<b>2,506</b>	<b>2,967</b>	<b>5,258</b>
<b>Cumulative Supply</b>	<b>766</b>	<b>1,237</b>	<b>2,281</b>	<b>3,661</b>	<b>5,258</b>
<b>Cumulative Gap</b>	<b>-507</b>	<b>-848</b>	<b>-225</b>	<b>694</b>	

**Table 118 Bourne-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Bourne-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$64,574	\$103,318	\$129,148	\$154,978	
Affordable Price	\$199,314	\$331,913	\$420,312	\$508,711	
Estimated Unit Demand	1,362	1,103	778	584	2,659
Estimated Unit Supply	46	265	495	970	4,710
Affordability Gap in Units (demand minus supply)	-1,316	-838	-283	387	2,051
<b>Cumulative Demand</b>	<b>1,362</b>	<b>2,465</b>	<b>3,243</b>	<b>3,827</b>	<b>6,486</b>
<b>Cumulative Supply</b>	<b>46</b>	<b>310</b>	<b>805</b>	<b>1,776</b>	<b>6,486</b>
<b>Cumulative Gap</b>	<b>-1,316</b>	<b>-2,154</b>	<b>-2,437</b>	<b>-2,051</b>	
<b>Bourne-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$33,300	\$53,281	\$66,601	\$79,921	
Affordable Rent	\$833	\$1,332	\$1,665	\$1,998	
Estimated Unit Demand	546	348	181	198	983
Estimated Unit Supply	373	290	536	491	566
Affordability Gap in Units (demand minus supply)	-173	-58	355	293	-416
<b>Cumulative Demand</b>	<b>546</b>	<b>894</b>	<b>1,075</b>	<b>1,273</b>	<b>2,256</b>
<b>Cumulative Supply</b>	<b>373</b>	<b>663</b>	<b>1,199</b>	<b>1,690</b>	<b>2,256</b>
<b>Cumulative Gap</b>	<b>-173</b>	<b>-232</b>	<b>124</b>	<b>416</b>	

**Table 119 Brewster-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Brewster-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$63,946	\$102,314	\$127,893	\$153,471	
Affordable Price	\$202,053	\$336,617	\$426,326	\$516,036	
Estimated Unit Demand	826	668	472	354	1,612
Estimated Unit Supply	1	84	118	256	3,473
Affordability Gap in Units (demand minus supply)	-825	-585	-354	-98	1,862
<b>Cumulative Demand</b>	<b>826</b>	<b>1,494</b>	<b>1,966</b>	<b>2,319</b>	<b>3,931</b>
<b>Cumulative Supply</b>	<b>1</b>	<b>84</b>	<b>202</b>	<b>458</b>	<b>3,931</b>
<b>Cumulative Gap</b>	<b>-825</b>	<b>-1,410</b>	<b>-1,764</b>	<b>-1,862</b>	
<b>Brewster-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$25,453	\$40,725	\$50,906	\$61,087	
Affordable Rent	\$636	\$1,018	\$1,273	\$1,527	
Estimated Unit Demand	169	108	56	61	305
Estimated Unit Supply	188	55	78	130	248
Affordability Gap in Units (demand minus supply)	19	-53	22	68	-56
<b>Cumulative Demand</b>	<b>169</b>	<b>277</b>	<b>333</b>	<b>395</b>	<b>699</b>
<b>Cumulative Supply</b>	<b>188</b>	<b>244</b>	<b>321</b>	<b>451</b>	<b>699</b>
<b>Cumulative Gap</b>	<b>19</b>	<b>-33</b>	<b>-12</b>	<b>56</b>	

**Table 120 Chatham-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Chatham-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$66,242	\$105,986	\$132,483	\$158,980	
Affordable Price	\$219,870	\$365,744	\$462,994	\$560,243	
Estimated Unit Demand	568	460	324	243	1,108
Estimated Unit Supply	16	40	45	74	2,529
Affordability Gap in Units (demand minus supply)	-552	-420	-279	-170	1,420
<b>Cumulative Demand</b>	<b>568</b>	<b>1,027</b>	<b>1,352</b>	<b>1,595</b>	<b>2,703</b>
<b>Cumulative Supply</b>	<b>16</b>	<b>55</b>	<b>101</b>	<b>175</b>	<b>2,703</b>
<b>Cumulative Gap</b>	<b>-552</b>	<b>-972</b>	<b>-1,251</b>	<b>-1,420</b>	
<b>Chatham-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$31,956	\$51,129	\$63,912	\$76,694	
Affordable Rent	\$799	\$1,278	\$1,598	\$1,917	
Estimated Unit Demand	105	67	35	38	189
Estimated Unit Supply	66	149	62	74	82
Affordability Gap in Units (demand minus supply)	-39	82	28	36	-107
<b>Cumulative Demand</b>	<b>105</b>	<b>172</b>	<b>206</b>	<b>244</b>	<b>433</b>
<b>Cumulative Supply</b>	<b>66</b>	<b>215</b>	<b>277</b>	<b>351</b>	<b>433</b>
<b>Cumulative Gap</b>	<b>-39</b>	<b>43</b>	<b>71</b>	<b>107</b>	

**Table 121 Dennis-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Dennis-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$57,724	\$92,358	\$115,447	\$138,537	
Affordable Price	\$185,699	\$310,855	\$394,293	\$477,730	
Estimated Unit Demand	1,102	892	630	472	2,151
Estimated Unit Supply	136	279	142	350	4,339
Affordability Gap in Units (demand minus supply)	-965	-613	-488	-122	2,188
<b>Cumulative Demand</b>	<b>1,102</b>	<b>1,994</b>	<b>2,623</b>	<b>3,095</b>	<b>5,246</b>
<b>Cumulative Supply</b>	<b>136</b>	<b>415</b>	<b>557</b>	<b>907</b>	<b>5,246</b>
<b>Cumulative Gap</b>	<b>-965</b>	<b>-1,578</b>	<b>-2,066</b>	<b>-2,188</b>	
<b>Dennis-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$29,189	\$46,702	\$58,377	\$70,053	
Affordable Rent	\$730	\$1,168	\$1,459	\$1,751	
Estimated Unit Demand	484	309	160	176	872
Estimated Unit Supply	321	154	291	386	848
Affordability Gap in Units (demand minus supply)	-163	-155	131	210	-23
<b>Cumulative Demand</b>	<b>484</b>	<b>793</b>	<b>953</b>	<b>1,129</b>	<b>2,000</b>
<b>Cumulative Supply</b>	<b>321</b>	<b>475</b>	<b>766</b>	<b>1,152</b>	<b>2,000</b>
<b>Cumulative Gap</b>	<b>-163</b>	<b>-318</b>	<b>-187</b>	<b>23</b>	



**Table 122 Eastham-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Eastham-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$54,014	\$86,422	\$108,028	\$129,634	
Affordable Price	\$167,022	\$280,553	\$356,240	\$431,927	
Estimated Unit Demand	468	379	267	201	914
Estimated Unit Supply	10	32	45	93	2,048
Affordability Gap in Units (demand minus supply)	-458	-346	-222	-108	1,134
<b>Cumulative Demand</b>	<b>468</b>	<b>847</b>	<b>1,114</b>	<b>1,315</b>	<b>2,228</b>
<b>Cumulative Supply</b>	<b>10</b>	<b>42</b>	<b>88</b>	<b>180</b>	<b>2,228</b>
<b>Cumulative Gap</b>	<b>-458</b>	<b>-805</b>	<b>-1,026</b>	<b>-1,134</b>	
<b>Eastham-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$28,019	\$44,831	\$56,039	\$67,246	
Affordable Rent	\$700	\$1,121	\$1,401	\$1,681	
Estimated Unit Demand	53	34	18	19	96
Estimated Unit Supply	0	0	70	0	150
Affordability Gap in Units (demand minus supply)	-53	-34	52	-19	54
<b>Cumulative Demand</b>	<b>53</b>	<b>87</b>	<b>105</b>	<b>124</b>	<b>219</b>
<b>Cumulative Supply</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>70</b>	<b>219</b>
<b>Cumulative Gap</b>	<b>-53</b>	<b>-87</b>	<b>-35</b>	<b>-54</b>	

Table 123 Falmouth-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Falmouth-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$63,077	\$100,924	\$126,155	\$151,386	
Affordable Price	\$199,075	\$331,857	\$420,378	\$508,900	
Estimated Unit Demand	2,430	1,967	1,388	1,041	4,744
Estimated Unit Supply	104	107	340	939	10,081
Affordability Gap in Units (demand minus supply)	-2,325	-1,860	-1,049	-103	5,337
<b>Cumulative Demand</b>	<b>2,430</b>	<b>4,397</b>	<b>5,785</b>	<b>6,827</b>	<b>11,570</b>
<b>Cumulative Supply</b>	<b>104</b>	<b>211</b>	<b>551</b>	<b>1,490</b>	<b>11,570</b>
<b>Cumulative Gap</b>	<b>-2,325</b>	<b>-4,185</b>	<b>-5,234</b>	<b>-5,337</b>	
<b>Falmouth-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$31,135	\$49,816	\$62,269	\$74,723	
Affordable Rent	\$778	\$1,245	\$1,557	\$1,868	
Estimated Unit Demand	738	470	244	268	1,328
Estimated Unit Supply	443	492	811	378	923
Affordability Gap in Units (demand minus supply)	-295	22	567	111	-405
<b>Cumulative Demand</b>	<b>738</b>	<b>1,208</b>	<b>1,452</b>	<b>1,720</b>	<b>3,047</b>
<b>Cumulative Supply</b>	<b>443</b>	<b>935</b>	<b>1,746</b>	<b>2,124</b>	<b>3,047</b>
<b>Cumulative Gap</b>	<b>-295</b>	<b>-273</b>	<b>294</b>	<b>405</b>	

Table 124 Harwich-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Harwich-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$60,631	\$97,010	\$121,262	\$145,514	
Affordable Price	\$190,180	\$317,604	\$402,553	\$487,502	
Estimated Unit Demand	1,027	831	587	440	2,004
Estimated Unit Supply	75	103	171	354	4,186
Affordability Gap in Units (demand minus supply)	-952	-728	-416	-86	2,182
<b>Cumulative Demand</b>	<b>1,027</b>	<b>1,858</b>	<b>2,444</b>	<b>2,884</b>	<b>4,888</b>
<b>Cumulative Supply</b>	<b>75</b>	<b>177</b>	<b>348</b>	<b>703</b>	<b>4,888</b>
<b>Cumulative Gap</b>	<b>-952</b>	<b>-1,680</b>	<b>-2,096</b>	<b>-2,182</b>	
<b>Harwich-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$44,780	\$71,647	\$89,559	\$107,471	
Affordable Rent	\$1,119	\$1,791	\$2,239	\$2,687	
Estimated Unit Demand	197	126	65	72	355
Estimated Unit Supply	205	255	197	145	13
Affordability Gap in Units (demand minus supply)	8	129	131	74	-342
<b>Cumulative Demand</b>	<b>197</b>	<b>323</b>	<b>388</b>	<b>460</b>	<b>815</b>
<b>Cumulative Supply</b>	<b>205</b>	<b>460</b>	<b>657</b>	<b>802</b>	<b>815</b>
<b>Cumulative Gap</b>	<b>8</b>	<b>137</b>	<b>268</b>	<b>342</b>	

**Table 125 Mashpee-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Mashpee-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$61,776	\$98,841	\$123,551	\$148,262	
Affordable Price	\$193,670	\$323,151	\$409,472	\$495,793	
Estimated Unit Demand	1,183	958	676	507	2,310
Estimated Unit Supply	30	160	306	745	4,394
Affordability Gap in Units (demand minus supply)	-1,153	-798	-370	237	2,084
<b>Cumulative Demand</b>	<b>1,183</b>	<b>2,141</b>	<b>2,818</b>	<b>3,325</b>	<b>5,635</b>
<b>Cumulative Supply</b>	<b>30</b>	<b>190</b>	<b>496</b>	<b>1,241</b>	<b>5,635</b>
<b>Cumulative Gap</b>	<b>-1,153</b>	<b>-1,951</b>	<b>-2,321</b>	<b>-2,084</b>	
<b>Mashpee-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$32,769	\$52,430	\$65,538	\$78,645	
Affordable Rent	\$819	\$1,311	\$1,638	\$1,966	
Estimated Unit Demand	249	158	82	90	447
Estimated Unit Supply	61	318	232	201	215
Affordability Gap in Units (demand minus supply)	-188	160	150	111	-232
<b>Cumulative Demand</b>	<b>249</b>	<b>407</b>	<b>489</b>	<b>580</b>	<b>1,027</b>
<b>Cumulative Supply</b>	<b>61</b>	<b>379</b>	<b>611</b>	<b>812</b>	<b>1,027</b>
<b>Cumulative Gap</b>	<b>-188</b>	<b>-28</b>	<b>122</b>	<b>232</b>	

Table 126 Orleans-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Orleans-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$67,406	\$107,849	\$134,812	\$161,774	
Affordable Price	\$216,873	\$360,497	\$456,246	\$551,995	
Estimated Unit Demand	506	409	289	217	988
Estimated Unit Supply	32	51	57	81	2,188
Affordability Gap in Units (demand minus supply)	-474	-358	-232	-136	1,200
<b>Cumulative Demand</b>	<b>506</b>	<b>915</b>	<b>1,204</b>	<b>1,421</b>	<b>2,409</b>
<b>Cumulative Supply</b>	<b>32</b>	<b>83</b>	<b>140</b>	<b>221</b>	<b>2,409</b>
<b>Cumulative Gap</b>	<b>-474</b>	<b>-832</b>	<b>-1,065</b>	<b>-1,200</b>	
<b>Orleans-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$23,899	\$38,238	\$47,798	\$57,357	
Affordable Rent	\$597	\$956	\$1,195	\$1,434	
Estimated Unit Demand	142	90	47	51	255
Estimated Unit Supply	170	18	100	0	297
Affordability Gap in Units (demand minus supply)	28	-72	53	-51	42
<b>Cumulative Demand</b>	<b>142</b>	<b>232</b>	<b>279</b>	<b>330</b>	<b>585</b>
<b>Cumulative Supply</b>	<b>170</b>	<b>188</b>	<b>288</b>	<b>288</b>	<b>585</b>
<b>Cumulative Gap</b>	<b>28</b>	<b>-44</b>	<b>9</b>	<b>-42</b>	

**Table 127 Provincetown-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Provincetown-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$65,269	\$104,430	\$130,537	\$156,644	
Affordable Price	\$211,638	\$352,273	\$446,029	\$539,785	
Estimated Unit Demand	306	247	175	131	597
Estimated Unit Supply	19	32	41	45	1,318
Affordability Gap in Units (demand minus supply)	-286	-215	-133	-86	721
<b>Cumulative Demand</b>	<b>306</b>	<b>553</b>	<b>728</b>	<b>859</b>	<b>1,455</b>
<b>Cumulative Supply</b>	<b>19</b>	<b>51</b>	<b>93</b>	<b>138</b>	<b>1,455</b>
<b>Cumulative Gap</b>	<b>-286</b>	<b>-502</b>	<b>-635</b>	<b>-721</b>	
<b>Provincetown-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$21,254	\$34,006	\$42,508	\$51,009	
Affordable Rent	\$531	\$850	\$1,063	\$1,275	
Estimated Unit Demand	116	74	38	42	209
Estimated Unit Supply	16	54	0	81	328
Affordability Gap in Units (demand minus supply)	-100	-20	-38	39	119
<b>Cumulative Demand</b>	<b>116</b>	<b>190</b>	<b>228</b>	<b>270</b>	<b>479</b>
<b>Cumulative Supply</b>	<b>16</b>	<b>70</b>	<b>70</b>	<b>151</b>	<b>479</b>
<b>Cumulative Gap</b>	<b>-100</b>	<b>-120</b>	<b>-158</b>	<b>-119</b>	

Table 128 Sandwich-Estimated Affordable Gap for Owner and Renter Units, 2030

<b>Sandwich-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$79,025	\$126,441	\$158,051	\$189,661	
Affordable Price	\$239,037	\$394,961	\$498,910	\$602,859	
Estimated Unit Demand	1,552	1,257	887	665	3,031
Estimated Unit Supply	14	79	136	378	6,785
Affordability Gap in Units (demand minus supply)	-1,538	-1,178	-751	-287	3,754
<b>Cumulative Demand</b>	<b>1,552</b>	<b>2,809</b>	<b>3,696</b>	<b>4,361</b>	<b>7,392</b>
<b>Cumulative Supply</b>	<b>14</b>	<b>93</b>	<b>229</b>	<b>607</b>	<b>7,392</b>
<b>Cumulative Gap</b>	<b>-1,538</b>	<b>-2,716</b>	<b>-3,467</b>	<b>-3,754</b>	
<b>Sandwich-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$37,256	\$59,609	\$74,512	\$89,414	
Affordable Rent	\$931	\$1,490	\$1,863	\$2,235	
Estimated Unit Demand	212	135	70	77	382
Estimated Unit Supply	152	47	169	270	239
Affordability Gap in Units (demand minus supply)	-60	-88	99	193	-144
<b>Cumulative Demand</b>	<b>212</b>	<b>348</b>	<b>418</b>	<b>495</b>	<b>877</b>
<b>Cumulative Supply</b>	<b>152</b>	<b>199</b>	<b>369</b>	<b>639</b>	<b>877</b>
<b>Cumulative Gap</b>	<b>-60</b>	<b>-148</b>	<b>-49</b>	<b>144</b>	

**Table 129 Truro-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Truro-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$54,881	\$87,809	\$109,762	\$131,714	
Affordable Price	\$172,865	\$290,120	\$368,291	\$446,461	
Estimated Unit Demand	128	104	73	55	250
Estimated Unit Supply	3	17	13	19	557
Affordability Gap in Units (demand minus supply)	-125	-87	-60	-36	307
<b>Cumulative Demand</b>	<b>128</b>	<b>232</b>	<b>305</b>	<b>360</b>	<b>610</b>
<b>Cumulative Supply</b>	<b>3</b>	<b>20</b>	<b>34</b>	<b>53</b>	<b>610</b>
<b>Cumulative Gap</b>	<b>-125</b>	<b>-212</b>	<b>-272</b>	<b>-307</b>	
<b>Truro-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$29,998	\$47,997	\$59,996	\$71,995	
Affordable Rent	\$750	\$1,200	\$1,500	\$1,800	
Estimated Unit Demand	25	16	8	9	46
Estimated Unit Supply	0	0	53	0	53
Affordability Gap in Units (demand minus supply)	-25	-16	44	-9	7
<b>Cumulative Demand</b>	<b>25</b>	<b>42</b>	<b>50</b>	<b>59</b>	<b>105</b>
<b>Cumulative Supply</b>	<b>0</b>	<b>0</b>	<b>53</b>	<b>53</b>	<b>105</b>
<b>Cumulative Gap</b>	<b>-25</b>	<b>-42</b>	<b>2</b>	<b>-7</b>	



**Table 130 Wellfleet-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Wellfleet-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$60,174	\$96,279	\$120,349	\$144,418	
Affordable Price	\$190,763	\$318,691	\$403,976	\$489,261	
Estimated Unit Demand	264	214	151	113	516
Estimated Unit Supply	3	32	25	34	1,166
Affordability Gap in Units (demand minus supply)	-262	-182	-126	-79	650
<b>Cumulative Demand</b>	<b>264</b>	<b>479</b>	<b>630</b>	<b>743</b>	<b>1,259</b>
<b>Cumulative Supply</b>	<b>3</b>	<b>34</b>	<b>59</b>	<b>93</b>	<b>1,259</b>
<b>Cumulative Gap</b>	<b>-262</b>	<b>-444</b>	<b>-571</b>	<b>-650</b>	
<b>Wellfleet-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$21,254	\$34,006	\$42,508	\$51,009	
Affordable Rent	\$531	\$850	\$1,063	\$1,275	
Estimated Unit Demand	89	57	29	32	160
Estimated Unit Supply	21	0	8	73	266
Affordability Gap in Units (demand minus supply)	-68	-57	-21	40	106
<b>Cumulative Demand</b>	<b>89</b>	<b>146</b>	<b>175</b>	<b>207</b>	<b>367</b>
<b>Cumulative Supply</b>	<b>21</b>	<b>21</b>	<b>29</b>	<b>101</b>	<b>367</b>
<b>Cumulative Gap</b>	<b>-68</b>	<b>-125</b>	<b>-146</b>	<b>-106</b>	

Note: No renter median income data was available for Wellfleet in 2020, affordable rent prices and supply were calculated using the median renter income data from Provincetown for 2020 because in the 2019 ACS 5YR dataset, where data for Wellfleet was available), Provincetown had the closest median income for renters in the county (About \$1,000 more). The neighboring towns of Truro and Eastham had median renter incomes \$16,000 and \$7,000 more respectively in the 2019 5YR ACS.

**Table 131 Yarmouth-Estimated Affordable Gap for Owner and Renter Units, 2030**

<b>Yarmouth-Estimated Affordable Gap for Owner Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$59,099	\$94,558	\$118,197	\$141,837	
Affordable Price	\$182,113	\$304,501	\$386,094	\$467,686	
Estimated Unit Demand	1,819	1,473	1,039	780	3,552
Estimated Unit Supply	34	238	456	912	7,023
Affordability Gap in Units (demand minus supply)	-1,786	-1,234	-583	132	3,471
<b>Cumulative Demand</b>	<b>1,819</b>	<b>3,292</b>	<b>4,331</b>	<b>5,111</b>	<b>8,662</b>
<b>Cumulative Supply</b>	<b>34</b>	<b>272</b>	<b>728</b>	<b>1,640</b>	<b>8,662</b>
<b>Cumulative Gap</b>	<b>-1,786</b>	<b>-3,020</b>	<b>-3,603</b>	<b>-3,471</b>	
<b>Yarmouth-Estimated Affordable Gap for Renter Units, 2030</b>					
<b>% of Median Household Income</b>	<b>50%</b>	<b>80%</b>	<b>100%</b>	<b>120%</b>	<b>&gt;120%</b>
Income	\$34,679	\$55,487	\$69,358	\$83,230	
Affordable Rent	\$867	\$1,387	\$1,734	\$2,081	
Estimated Unit Demand	529	337	175	192	952
Estimated Unit Supply	194	246	439	588	720
Affordability Gap in Units (demand minus supply)	-335	-92	264	396	-233
<b>Cumulative Demand</b>	<b>529</b>	<b>867</b>	<b>1,042</b>	<b>1,234</b>	<b>2,186</b>
<b>Cumulative Supply</b>	<b>194</b>	<b>440</b>	<b>879</b>	<b>1,466</b>	<b>2,186</b>
<b>Cumulative Gap</b>	<b>-335</b>	<b>-427</b>	<b>-163</b>	<b>233</b>	