

# Estimating the Economic Impacts of Short-Term Rentals on the City of South Haven, Michigan



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# Executive Summary

The City of South Haven wanted to understand the estimated economic impacts of short-term rentals (STRs) on the city's economy. This study estimates the economic impacts from operating and maintaining the permitted STRs in South Haven. The study also provides insights into the "but for" question of what the impacts would be if the permitted STRs were utilized based on the existing portfolio of non-STR residential parcels in the city. The impacts to changes in sales prices are also estimated. The study is based on local data including the configuration of a nationally recognized economic impact model, IMPLAN, for zip code 49090, which includes the city of South Haven.

The findings from the research focus on the *economic impacts* of STRs on the study area. It is acknowledged that there are strong *emotional impacts*, both pro and con, to the discussion. While some of these impacts are captured in this document, it is not the focus of the research.

As might have been expected, STRs have an impact on South Haven. While STRs have a positive impact on the economy, from both jobs and personal income perspectives, they also appear to drive the prices of real estate.

A note of caution that, over time and with different conditions, these findings may vary. Also note that South Haven is a unique place with a variety of characteristics that may not easily be replicated in other places. Therefore, generalizing these results to areas beyond South Haven may not be appropriate.

The primary findings:

- The operation of short-term rentals (STRs) creates between just under 400 and almost 525 year-round jobs and generates personal income of between \$11.7 million and \$14.9 million in the South Haven City area.<sup>11</sup> This accounts for between 5% to 6% of employment in the area and between 3% and 4% of the personal income of residents.
- The economic impact of STRs is somewhat seasonal, which exerts a strong demand for labor in the summer months. Monthly employment generated by STRs reaches estimates as high as 1,140 jobs during July and August. In contrast, it is estimated that STRs generate less than 100 jobs in December and January.
- This study used available data to estimate the impact of STRs on city residential parcel values. While most of the models did not find a relationship between STRs and housing prices, two models did. While proximity of a sale to an existing STR was not found to affect price, parcels that were permitted as STRs in the next year were found to have increased prices between \$73,000 and \$75,000.
- The estimated economic impacts of STRs are not related to the emotional impacts that STRs have on segments in the community. Interviews with stakeholders on both sides of the discussion were conducted. While some stakeholders indicated that they perceive STRs as harmful to their quality of life, there were also perceptions that STRs support a variety of amenities such as good restaurants and specialty retailers not available in similar-sized communities.

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<sup>11</sup> In this report, South Haven is defined as zip code 49090, which does not coincide exactly with the boundaries of the city.

# Introduction

Airbnb started in 2007 when its founders discovered that they could charge guests a fee for sleeping on an air mattress in their small San Francisco apartment.<sup>2</sup> Since then, Airbnb and its competitors, including VRBO (1995), have revolutionized the lodging industry. Their success, however, has not been without controversy.

Short-term rentals (STRs) pose a challenging and sometimes a divisive topic for most all tourism-dependent communities. It is an activity that cuts across major issues, including (but not limited to) quality of life in neighborhoods, an area's supply of housing, job creation, and property rights.

STRs allow visitors to enjoy the comforts of living in a home-like environment, often complete with a kitchen, living area, and separate bedrooms. STRs can be found in almost all the City of South Haven's neighborhoods. As of October 2022, the city housed 741 registered STRs.

This study estimates the economic impacts of STRs in South Haven. The study is based on local data including the configuration of a nationally recognized economic impact model, IMPLAN, for zip code 49090, which includes the city of South Haven.

Estimating the economic impacts of STRs on the city includes four major components:

1. The consumption-based expenditures of persons staying at the city's STRs.
2. The maintenance and operating expenditures, including landscaping and housekeeping, made by STR owners and managers.
3. The foregone opportunity costs to the city of having residential units being used for STRs instead of being occupied by permanent residents (owners and renters) and seasonal homeowners.
4. The possible impact of STRs on residential property values in the city.

The methodology and data used in estimating these impacts is discussed below. However, we first start the report with a summary of the views expressed by stakeholders, including citizens and businesses, regarding the operation of STRs in South Haven. In preparing the report, the team listened to and read the comments of many residents, stakeholders, and city representatives. Some believe that STRs damage the city's social environment, while others see STRs as an important economic driver for the city. All understand that STRs are in high demand because South Haven is a very special place that attracts people from around the country. These visitors are willing to pay substantial amounts to enjoy the city's beaches and downtown. Moreover, there is general agreement that the city's quality of life is enhanced through better restaurants and festivals that are partially supported by STR stayers.

This is followed by the review of recent economic research on the economic impact of STRs in communities, large and small, across the country. In nearly all settings, evidence suggests that STRs are in high demand, have modest, positive impacts on house prices, and generate business activity.

The next section is a detailed description of the methodology used in this report to measure the economic impact of STRs through the expenditures of their guests and their upkeep. Also presented

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<sup>2</sup> <https://en.wikipedia.org/wiki/Airbnb>

is an alternative development scenario that reflects the opportunity costs to the city's economy of not having the STRs as a residential use. The team also presents the structure and findings of a series of regression analyses that explores possible relationships between housing prices and the presence of STRs.

It is important to note that this report focuses on the *economic impact* of STRs on the City of South Haven. The report is not designed to address the *emotional* impacts expressed by some stakeholders about STRs. Through the interviews, stakeholders discussed the possible impacts of STRs on their quality of life and neighborhood environment. The *economic* impact of STRs is only one factor of many that should be considered as the community moves forward regarding its policies on STRs.

# Establishing the Baseline

The housing economics of the City of South Haven are changing. There is concern from many stakeholders that housing in the city is no longer affordable. As experienced in local and national markets, the cost of purchasing a home has increased significantly since 2020, at least partially due to COVID-19-related changes in the economy. In many places, the amount of available housing for purchase (supply) has been much lower than those seeking to purchase housing (demand).

The team was able to obtain summary data for the housing trends in South Haven from 2016 to 2022. These summary statistics are provided using the Multiple Listing Service (MLS) of sales data for the study period. The lowest number of sales in the city for the study period was 254 in 2018 and the highest was 361 in 2021. The average for the period was about 305.

In 2022, there were 301 reported sales in the city of South Haven. The median sales price was \$370,000 and the median list price was \$369,900. The average (mean) price was \$476,298. Later in the report, the generally accepted statistic of affordability for homeowners is 2.5 times household income (HHI) is adopted in the analysis. When the affordability ratio is applied to the median sales price, the HHI needed is \$148,000 and when applied to the mean sales price the HHI needed is just over \$190,000. Note that the median and mean prices in 2022 were for all residential sales regardless of intended use.

Claritas<sup>3</sup> is a provider of data on populations of places and is commonly used in the practices of economic development and site selection. The estimates from the Claritas database “PopFacts” is used in this report to better understand the HHI for the city of South Haven. The PopFacts data mirror the data from the American Community Survey<sup>4</sup> (ACS). Claritas is used for this study because it provides more current estimates of economic and demographic conditions as the ACS often has significant lags when reporting data. Note that the estimates from Claritas were not created just for South Haven but were extracted from data that contain estimates for a variety of geographies for the entire United States.

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<sup>3</sup> <https://claritas.com/>

<sup>4</sup> <https://www.census.gov/programs-surveys/acs>

Table 1: Income Estimates for South Haven in 2022

Income Categories	Combined	Cumulative Combined	Combined Share	Cumulative Share
< \$15,000	177	177	8.65%	8.65%
\$15,000 - \$24,999	138	315	6.74%	15.40%
\$25,000 - \$34,999	324	639	15.84%	31.23%
\$35,000 - \$49,999	293	932	14.32%	45.55%
\$50,000 - \$74,999	328	1260	16.03%	61.58%
\$75,000 - \$99,999	256	1516	12.51%	74.10%
\$100,000 - \$124,999	170	1686	8.31%	82.40%
\$125,000 - \$149,999	89	1775	4.35%	86.75%
\$150,000 - \$199,999	110	1885	5.38%	92.13%
\$200,000 - \$249,999	63	1948	3.08%	95.21%
\$250,000 - \$499,999	74	2022	3.62%	98.83%
\$500,000+	24	2046	1.17%	100.00%

Table 1 contains the estimates from Claritas for HHI in South Haven. The data are for the two census tracts in South Haven. As shown in the table, the median HHI is between \$50,000 and \$74,999 and the average HHI is just over \$84,000. Using median HHI and 2.5 times HHI to identify maximum affordability, the housing price tops out at just over \$187,000. When the 2.5 ratio is applied to the average price, affordability tops out at about \$211,000.



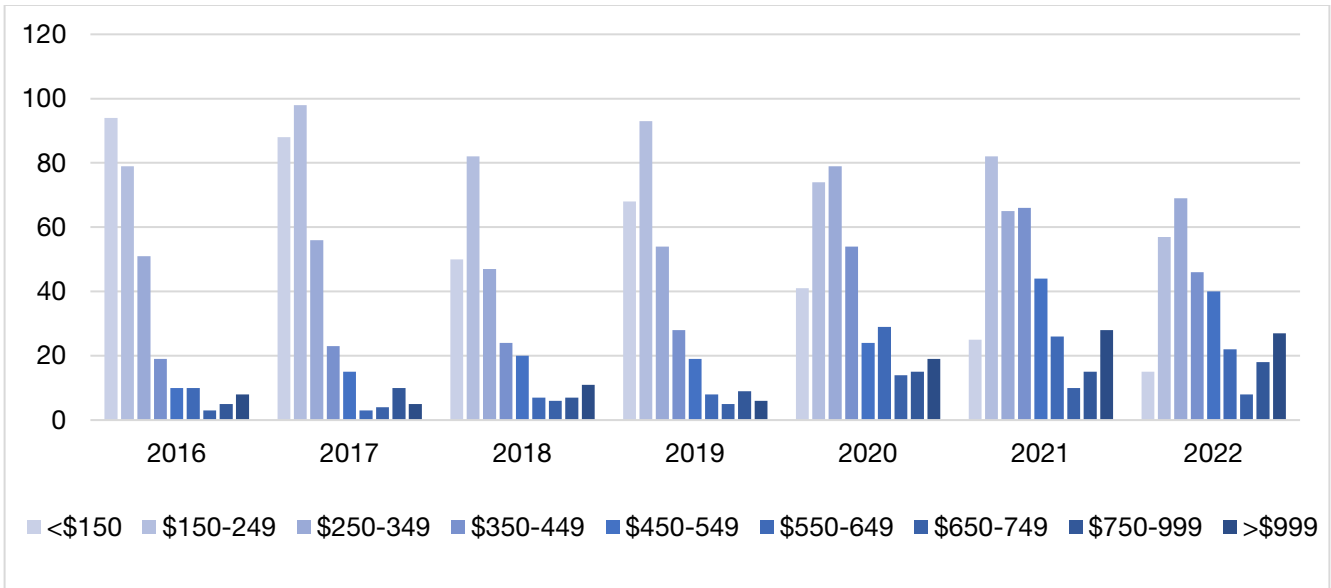


Figure 1: Housing sale prices in South Haven: 2016-2022 (in '000s)

Figure 1 contains the sales from 2016 to 2022 by cost of units. In 2016, most sales (94) were at or below \$150,000. In that same year, about 62% (173) were sold for \$249,000 or less. The remaining sales were for \$250,000 or more. Sales of \$1 million or more were 8, or less than 3% (see Figure 2). By 2022 house sales at or below \$150,000 had dropped to 15 and accounted for less than 5% of the market. Expanding the sales price to less than \$249,000 adds 57 units for a total of 72 units; this segment represents just under 24% of the market for houses sold in South Haven in 2022.

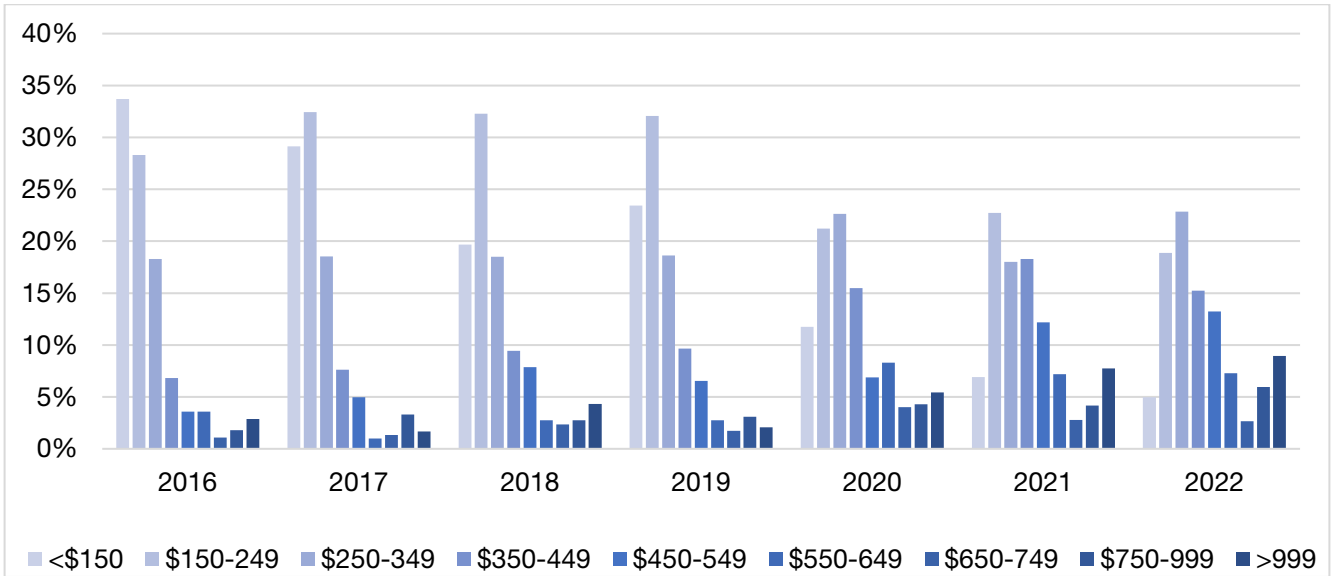


Figure 2: Housing sale price in South Haven by price and share: 2016 to 2022 (prices in '000s)

Conversely, the market on the higher end has increased during the study period. Sales of homes at \$1 million or higher in 2022 were at 27 units, just under 9%. In the middle and when 2016 and 2022 are compared (see Figure 3), the share of the market from \$250,000 to \$549,999 increased from 26.7% in 2016 to 51.3% in 2022. Similarly, the share of sales between \$550,000 and \$999,999 increased from 6.5% in 2016 to 15.9% in 2022.

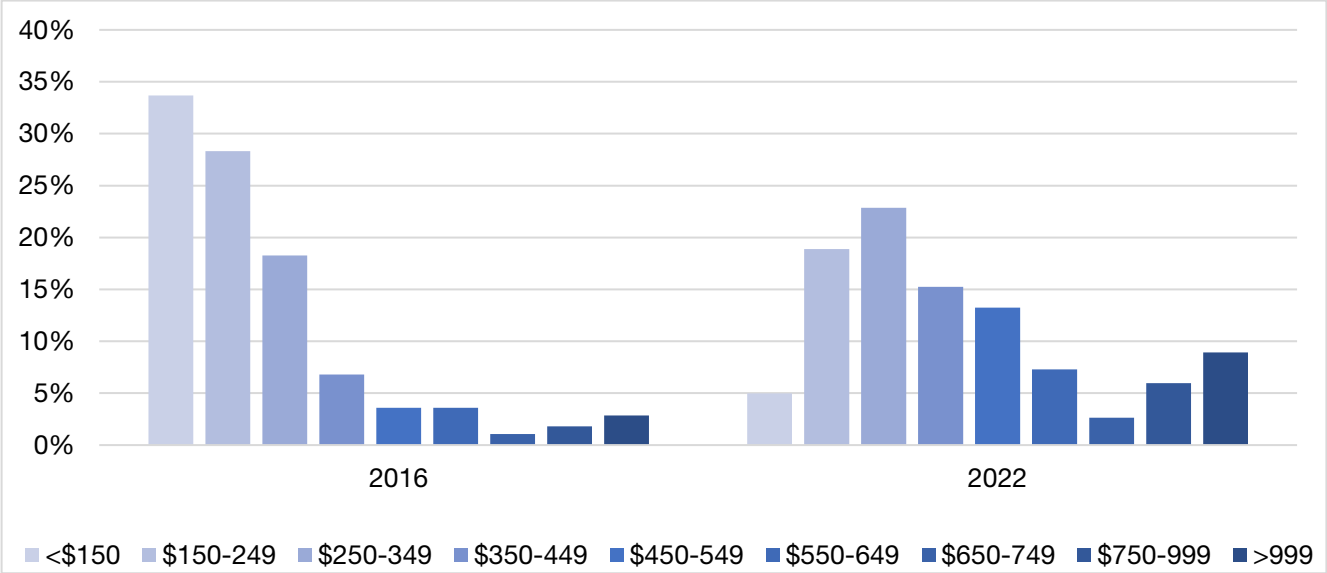


Figure 3: Housing Unit Sales in South Haven by Price and Share, 2016 and 2022 (prices in '000s)

The team did not have access to specific transaction data for all years to estimate the changes in housing prices specifically for South Haven. But as a point of reference, the Federal Reserve Bank of St Louis<sup>5</sup> (FRED) retrieves and reports data from a variety of sources, including the U.S. Federal Housing Finance Agency (FHFA). The FHFA provides an index using all transactions for housing prices nationally as well as for the state of Michigan. The prices are indexed to 1980 (1980=100) and are reported quarterly. In the first quarter (Q1) of 2016, the index was 366.52 for the nation and 282.44 for the state of Michigan. In the third quarter (Q3) of 2022, the index was 628.88 for the nation and 482.34 for the state of Michigan. For both the nation and the state, housing transaction prices have increased for the study period from 2016 (Q1) to 2022 (Q3) by more than 70%.

<sup>5</sup> <https://fred.stlouisfed.org/>

# Community Perceptions on the Social and Economic Impact of Short-Term Rentals

In summarizing the many comments and views heard during our conversations with community members and stakeholders, the team organized them under five topics:

- General Points of Agreement
- Case for Expanding STR Activity
- Case for Reducing the Number of STRs
- Case for Staying with the Current Policy
- Presentation of Evidence to Address Several Misconceptions

The team did its best to report what was heard without bias. There is, not surprisingly, a lack of consensus that was reached in the discussions. In fact, one stakeholder was very distressed that this community's debate on STRs has become so vocal and, in some instances, very emotional. Some individuals hold strong views regarding the impact of STRs on both the economic and social environment of South Haven. Much of the evidence provided on all sides of the issue could not be verified; however, new data are provided in the final section, which we hope addresses some of the unfounded concerns or comments expressed in our discussions.

## General Points of Agreement

### *South Haven is a Wonderful Place to Live and to Visit*

There was strong agreement that tourism will remain a major economic development driver for the city. Moreover, all agreed that tourism supports a diversity of activities and restaurants in the city that are not found in other communities. In short, the downtown of South Haven would be less vibrant without tourism and the existence of STRs. At the same time there was agreement that it is important to maintain the city's small-town environment.

Most agreed that efforts should be made to build and expand the city's year-round economy. There was general agreement that manufacturing will not play the same role as it did in the past and that other year-round economic activities should be explored. These include attracting professionals who can work from home, extending the tourist season to be year-round, and expanding health care services.

Finally, there was general agreement that housing affordability is a major issue for which there is not an easy solution and that it went beyond the potential impact of STRs on housing prices and supply.

## The Case for Expanding the Number of STRs

STRs account for nearly two-thirds of the city's lodging capacity (number of guests) and it is a growing segment of the nation's hospitality industry. If the number of STRs in the city were reduced, it is highly likely that current renters would seek STRs in other communities along Lake Michigan. Most would not switch to staying in a traditional motel or hotel, or bed and breakfast establishments in South Haven. Many STRs are used for family or friendship reunions, or special events, and a

similar environment cannot be achieved in booking connecting rooms at a traditional lodging establishment.

STRs have a positive economic impact on the city through visitors' expenditures and the demand by STR owners for operations, including (but not limited to) building maintenance and cleaning support services. These are the impacts that this study is designed to estimate. Several stakeholders claimed that STRs have changed the city's tourism season from being based solely on weekend day trippers to week-long vacationers. Some also argued that STRs are lengthening the city's tourism season. Evidence suggests that STRs are contributing to tourism getting "broader shoulders" with more spring and fall visitors. Even winter vacationers are increasing in numbers, especially during the holiday season. One STR owner said that he had only three vacated weekends last year. According to the data from AirDNA<sup>6</sup>, there was a 33% occupancy rate for the city's STRs in January of 2022.

Several stakeholders disagreed that STRs generate mostly low-wage jobs. STRs have enabled housekeepers and restaurant workers to earn more through additional hours and better pay. Several argued that these are career opportunities and are not dead-end positions. However, as shown below in Figure 4, wages in the industries most affected by STRs continue to pay below-average wages and many jobs are seasonal.

STRs encourage year-round activities, as some owners come back and reside in the STRs during the off season. Many stories were shared of owners of personal STRs renting their primary residence in the summer and moving to their boats or other locations during the summer months. In other words, these houses are being used year-round.

The Van Buren Convention and Visitors Bureau invests a portion of its revenue from STRs to provide community assets. Moreover, the South Haven Vacation Rentals Community Fund has raised approximately \$15,000 for community public investments.

Regarding housing demand, it was claimed there is a greater STR demand for large houses than smaller houses for big events and family reunions. This suggests that STRs may not take away from affordable housing in the area. We provide evidence showing that STRs are found across all houses according to value.

## The Case for Reducing the Number of STRs

Some of the residents shared the sentiment that "the neighborhood doesn't belong to us anymore" and that "neighborhoods need neighbors." These individuals felt that they are losing their sense of neighborhood because they don't know their current neighbors due to the presence of STRs. Similarly, one participant claimed that STRs are destroying the South Haven "brand."

It was further claimed by some stakeholders that many previous homes that had permanent residents are being converted into STRs. As shown below in Table 2, this does not appear to be the case. Big-box STRs were mentioned several times. These structures are described as being two to three stories, five-plus bedrooms, and not having any likely use except as an STR. It was claimed that there has been a steady transfer of permanent homes to STRs over the past 15 years. The

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<sup>6</sup> AirDNA (<https://www.airdna.co/>) supports the STR market, including the occupancy data used in this report

number of STRs in the city have been on the rise during the past decade. Overall, most persons interviewed thought that personal STRs were acceptable.

Those living near STRs have found most STR stayers are nice individuals and families; however, some were described as disrespectful and noisy with big weekend parties. There were claims that several personal STRs are not primary residences nor follow city regulations and that many STRs that are not registered with the city. Additionally, some second homes are rented to only friends and families, while others are simply operating without being permitted by the city.

Common complaints about STRs that were expressed during our listening meetings include:

1. Existing houses are renovated from three bedrooms to six with no change in parking. Overall, parking and congestion issues were raised more than once.
2. The city did not enforce ordinances from 2017 to 2021. Moreover, it was said that inspections do not happen or are late.
3. There is little evidence that STRs help smooth the seasonality of the area's tourism industry.
4. Some neighborhoods should be reserved for single-family housing only.

It was argued by some that while it is true that snowbirds and second-home owners exit the city during the winter months, leaving their houses dark in the winter, neighbors welcome them back in the summer months. It was furthered argued by some that it is in the summer months that neighbors enjoy each other's company, and it is during these times that STRs cause the most disruption to the neighborhoods.

Some participants argued that the number of community volunteers is declining due in part to STRs, thus having a negative impact on the city's social fabric. Moreover, some argued that there is a growing perception by some that the community is unsafe. Some respondents worry that their children can no longer play in the neighborhood because people don't know their neighbors.

In addition, concerned residents said that the city's 1 to 4 ratio of STRs to residences does not address the issues of neighborhood density. They are concerned with not only the number of STRs allowed but their concentration in residential neighborhoods. Several argued that more than two STRs on a block will change the neighborhood's environment. Some mentioned the proposed 250/2 rule regarding the density of STRs, which would allow no more than two STRs on a block – both sides of a block – and a limit of 250 STRs in the city. This would be a sharp reduction of 66% in the number of current STRs in the city, which currently stands at about 740.<sup>7</sup>

Some fear that there will be a saturation point when the community will not be able to return to being a community of primarily year-round families. Several voiced their concerns that rising housing prices will close access to the city for permanent residents. Indeed, it was argued by some that the current level of STR activity is too high because it is negatively impacting house affordability.

Some also feel the loss of neighborhoods and housing affordability may make it more difficult to attract professional workers. One participant cited an instance when that lack of affordable housing drove a professional firm to move to a larger west Michigan community.

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<sup>7</sup>South Haven data showing Registered Short-Term Rentals as of October 5, 2022.

## Case for Staying with the Current Policy

Some stakeholders argued that the current level of STRs is a good balance. These stakeholders fear that if the city restricts the growth of STRs too much, it will impact local businesses that depend upon it. Plus, STRs provide wonderful experiences for visitors.

Many thought that STRs are more of a symptom of the changing nature of South Haven – older and more tourist focused – than being a catalyst of change. South Haven has simply succeeded in improving itself to become an attractive location on the lake.

Some respondents were concerned about the reduction of STR permits. These respondents were concerned about the issue of intergenerational wealth transfer through changes in ownership, either through sale or from an inheritance, that the value of the property would be decreased due to the loss of an STR permit.

Finally, several worried that it would be difficult to reduce the number of current STRs, as it would decrease the investment value of the residential properties and may generate lawsuits against the city.

## Presentation of Evidence to Address Several Misconceptions

During the interviews, several concerns were expressed by residents for which we now have data to address:

1. *Several residents feared that nearly all homes that are sold are purchased for the purpose of being converted into a STR.*

As shown in Table 2, the percentage of sold houses that are later certified as STRs has been stable during the past several years, from 18% in 2016 to 28% in 2020. It dropped to 7% in 2019. The partial data we have for 2021 sales indicate it has taken a significant step up.

Table 2: Percentage of Parcels Sold that later had Short-Term Rental Permits

	2016	2017	2018	2019	2020	2021
Total House Sales	103	100	87	95	112	145
Number Issued STR Permits within Two Years of Sale	18	34	18	7	31	62*
Percent	17%	34%	21%	7%	28%	43%

*\*These partial data, the final number could be higher*

2. *Employment in tourist-related occupations is all low wage.*

Wages in the industries most affected by STRs continue to pay below-average wages and many jobs in these industries are part-time and offer only seasonal employment opportunities. As shown in Figure 4 (below), many of the occupations in sectors that are tourist related pay low wages as measured by average employee compensation per hour, which reportedly includes tips and other types of non-wage payments. All are below the average compensation per hour of \$36.60 for the area.<sup>8</sup> Several of the businesses interviewed reported that they hired temporary workers for the summer months or move workers to their South Haven stores from other business locations.

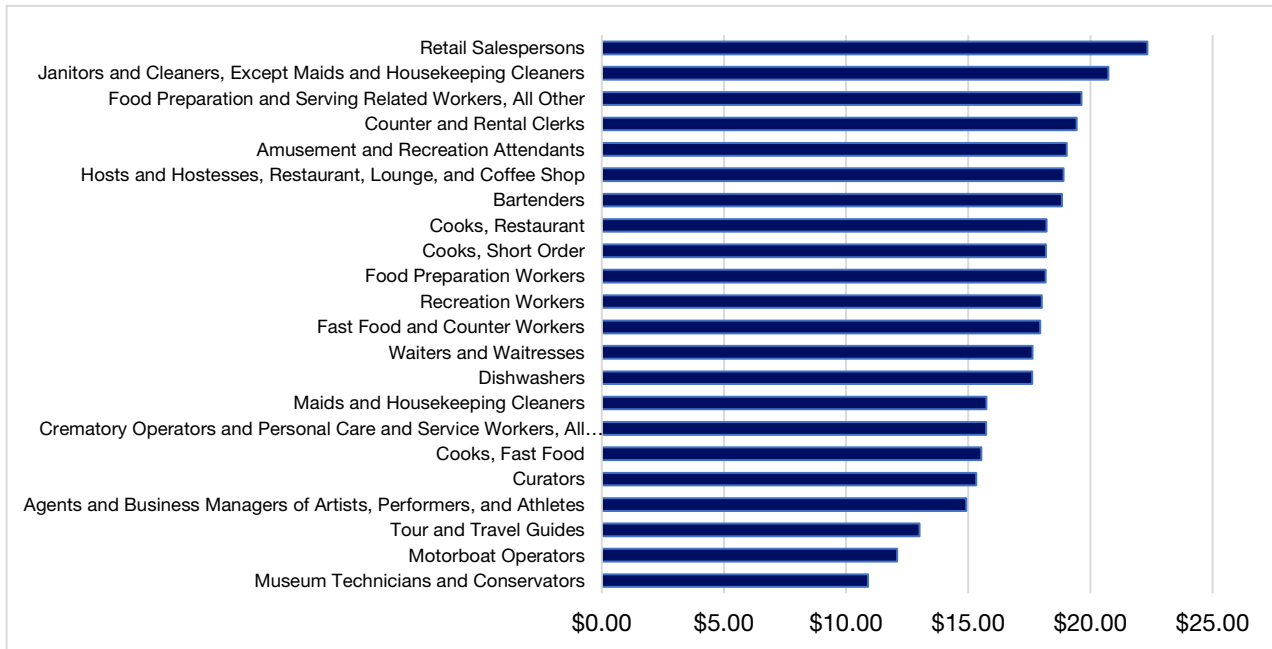


Figure 4: 2020 Estimated Hourly Wage Rates for Occupations Associated with STR Impacted Industries

3. *STRs have a negative impact on neighborhoods because they are vacant much of the year.*

Many seasonal and permanent residents leave South Haven during the winter months. Using both residential assessment data and water usage data from the city, it is estimated (Table 3) that second homeowners and snowbirds — permanent residents who spend the winter elsewhere — account for 49% of the occupied housing units in the city that are not being permitted as STRs. The fact that some residential streets are dark in the winter months is due to the ability of many owners to avoid the city’s cold winter months.

<sup>8</sup> 2021 estimate generated by IMPLAN Modeling for Zip Code 49090.

Table 3: Estimate of Types of Homeowners' Arrangements Excluding Short-Term Rentals

Type of Owner	Definition	Number	Percent
Permanent Homeowner	Taxpayer lives at the address and water usage is stable year round	659	36%
Snowbirds	Taxpayer lives at the address, but water usage is seasonal	377	21%
In-town Landlords	Taxpayer lives in South Haven but not at the address and the water usage is stable year round	107	6%
Out-of-Town Landlords	Taxpayer lives out of the city but water usage at the house address is stable year round	182	10%
Second Homeowners	Taxpayer lives out of the city but water usage at the house address is seasonal	508	28%
Total Excluding STRs		1833	100%

4. *STRs are taking housing away from middle income households.*

To address this concern, the team reviewed the assessed valuation of 662 STRs in the city. First, we sorted these STRs by their assessed value and divided them into quintiles<sup>9</sup> of 132 to 133 units each. Assessed values are meant to equal 50% of the estimated market value of the house. Though this is often not the case, for purposes of this analysis it is assumed to be accurate. According to recognized national guidelines, households should not buy or rent a dwelling that is worth more than 2.5 times their annual income. Using this benchmark, we estimate that 40% of STRs, if sold, would be in reach of households making \$100,000 or less. In other words, approximately 60% of existing STR parcels would be out of reach for most low- to middle-income households living in the city.

<sup>9</sup> Quintiles divide the data into five equally proportioned groups.



Table 4: Estimated Type of Residents by Household Income in the Alternative Scenario

Household Income Quintile Midpoint	Type of Resident			Area Income
	Permanent (Owner or Renter)	Snowbird (6-Month Residents)	Seasonal Second Homes (3-Months Residents)	
\$58,320	100%	0%	0%	\$7,756,560
\$96,000	90%	10%	0%	\$12,129,600
\$129,200	80%	20%	0%	\$15,465,240
\$169,680	15%	40%	45%	\$10,944,360
\$286,240	0%	25%	75%	\$13,310,160
			Total:	\$59,605,920

*5. If STRs were locally owned they would generate more jobs in the area.*

Currently, 12% of the city’s STRs are owned locally. While it is true that personal income would be enhanced if all the STRs were locally owned, they would generate fewer than 10 year-round jobs in the city.

Overall, all agree that housing affordability is an issue in South Haven, as well as across the state of Michigan and across the country. Our analysis indicates that STRs, at most, are a minor contributor to the lack of affordable housing in South Haven.

# Literature Review: What is Happening in Other Communities?

Nationwide, there is a large and growing literature on the economic impact of STRs. In general, the major questions of the research are around the impact of STRs on housing prices and more traditional lodging providers. Unfortunately, there is not a dearth of studies for small areas such as South Haven; most studies have been at the national level or for larger metro areas where data are more readily available.

Few studies conclude that STR growth should be unrestricted. Many have found that STRs can generate positive, long-term residential growth in terms of stronger tax revenues with growing property values and higher demand for new residential construction.<sup>10, 11</sup>

In their study using a national listing of Airbnb properties, Barron, et al. (2020) found that a 1% increase in Airbnb listings leads to a 0.018% increase in rents (an annual average increase of \$9 per monthly rent) and a 0.026% increase in house prices (on average \$1,800).<sup>12</sup> In a 2017 study, the same group of researchers, again examining nationwide Airbnb listings, found that a 10% increase in Airbnb listings was associated with a 0.4% increase in rents or a 0.76% increase in housing prices. Larger impacts were witnessed in zip code areas with fewer owner-occupied residents, which agrees with the belief that STRs are a substitute for investors switching from long-term rental agreements to more short-term arrangements.<sup>13</sup>

In a study of the greater Boston region, Horn and Merante (2017) found that a one standard deviation in Airbnb listings was associated with an increase in asking rents of 0.4%.<sup>14</sup> Sheppard and Udell, in their study on the impact of Airbnb on property values and rents in New York City (2018), found that, using a standard regression model, a doubling of Airbnb listings is associated with increases of 6% to 11% in house values. Using a difference-in-difference approach, other researchers (Allen, 2017; Sheppard et al., 2018) generated an estimate of an even larger 31% increase in property values for the city.<sup>15, 16</sup>

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<sup>10</sup> Bekkerman, R., Cohen, M. C., Kung, E., and Maiden, J. "Research: Restricting Airbnb Rentals Reduce Development," Harvard Business Research, Nov 17, 2021.

<sup>11</sup> Gold, A.E., *Community Consequences of Airbnb*, 94 WASH. L. REV. 1577 (2019) provides a good summary of the better economic impact studies of STRs and the issue that STRs raise for communities. Available at: <https://digitalcommons.law.uw.edu/wlr/vol94/iss4/2>

<sup>12</sup> Barron, K., Kung, E., and Proserpio, D. The Effect of Home-Sharing on House Prices and Rents: Evidence from Airbnb (March 4, 2020). Available at SSRN: <https://ssrn.com/abstract=3006832> or <http://dx.doi.org/10.2139/ssrn.3006832>

<sup>13</sup> Barron, K., Kung, E., and Proserpio, D. "The Sharing Economy, K and Housing Affordability: Evidence from Airbnb." Working Paper, October 20, 2017.

<sup>14</sup> Horn, K. and Merante, M. "Is Home Sharing Driving Up Rents? Evidence from Airbnb in Boston," *Journal of Housing Economics*, 2017, vol 38 issue C 14-24.

<sup>15</sup> Sheppard, S. and Udell, A. 2018. "Do Airbnb Properties Affect House Prices?" Williams University working paper, January 2018.

<sup>16</sup> Allen, J.A. *Disrupting Affordable Housing: Regulating Airbnb and Other Short-Term Rental Hosting in New York City*, 26 J. AFFORDABLE HOUSING & COMMUNITY DEV. L.151 (2017).

Li et al. (2021), in their study of nine representative cities, found an association between a growing number of Airbnbs and a decline in long-term rentals, but did not provide any specific estimates.<sup>17</sup> Bivens (2019) raised the following concerns regarding STRs: 1) STRs could harm the immediate area's quality of life if noisy and disrupted activities are associated with the STRs, and 2) area employment could be impacted if area traditional lodging establishments are negatively impacted.<sup>18</sup>

Overall, research on the impact of STRs on surrounding businesses suggest that it is positive. According to an Airbnb survey with more than 35,000 responses, 92% of Airbnb hosts said that they recommend local restaurants to stayers, and 56% recommended cultural activities.<sup>19</sup> Indeed these recommendations can matter: a study of the impact of Airbnbs on restaurant revenue for the state of Texas found that a 1% increase in Airbnb reviews in a zip code area is associated with a 0.011% increase in restaurant revenue in the same zip code area. Considering the median annual Airbnb growth in each zip code area, this result implied that Airbnb reviews could explain about 12% of the median annual restaurant revenue growth (Basuroy et al., 2020).<sup>20</sup>

In a study conducted by the National University System Institute for Policy Research (2015) for the City of San Diego, researchers found that the 6,100 STRs in the city created an economic impact of \$285 million and supported 1,840 jobs. Moreover, they reported that the city's hotels continued to see increases in occupancy and revenues during the same time.<sup>21</sup>

In one of the few studies that examined a non-metro area, which included five counties in Colorado, researchers found that STR stayers spent an estimated \$1 billion in 2020 and created 14,700 jobs or 15% of the total jobs in the area. The overall employment multiplier was estimated to be 1.11, where every job created through the direct expenditures of STR stayers created another 0.11 jobs in the area.<sup>22</sup>

The Colorado study is interesting in that it concludes that the increase in STRs did not impact the already limited supply of workforce housing, but instead impacted the number of existing units that were used for seasonal purposes. In fact, only 3% of the STRs could be converted to workforce housing due to typology, availability, and price point. In short, if the STRs were eliminated, the housing would return to private seasonal use. The researchers argued that the area's lack of affordable housing was not due to STRs, but due to not enough low-cost housing being built. From 2010 to 2019, the number of low- to moderate-paying jobs grew by nearly 20% while renter occupied units inched up by just 2%.<sup>23</sup>

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<sup>17</sup> Hui, L., Kim, Y., and Srinivasan, K. Market Shifts in the Sharing Economy: The Impact of Airbnb on Housing Rentals (July 1, 2021). *Management Science*, Available at SSRN: <https://ssrn.com/abstract=3435105> or <http://dx.doi.org/10.2139/ssrn.3435105>

<sup>18</sup> Bivens, Josh, "The economic costs and benefits of Airbnb: No reason for local policymakers to let Airbnb bypass tax or regulatory obligations." January 30, 2019, Economic Policy Institute.

<sup>19</sup> <https://news.airbnb.com/airbnb-estimated-direct-economic-impact-in-the-u-s-nears-34-billion/> accessed 12-17-22.

<sup>20</sup> Basuroy, S., Kim, Y., and Proserpio, D. Estimating the impact of Airbnb on the local economy: Evidence from the restaurant industry (July 7, 2020). Available at SSRN: <https://ssrn.com/abstract=3516983> or <http://dx.doi.org/10.2139/ssrn.3516983>

<sup>21</sup> Short-term Rentals in the City of San Diego: An Economic Impact Analysis, the National University System Institute for Policy Research, San Diego October 2015.

<sup>22</sup> HR&A Airbnb Colorado Short-Term Rental Impact Study. May 2022.

<sup>23</sup> Ibid.

DiNatalea, et al. (2018) examined 237 small cities in Oregon and they did not report any evidence that STRs affect housing prices. They did find that local governments did not charge lodging taxes and that 35% of governments surveyed regulated STRs. They also hypothesized that in some cases the number of STRs relative to existing housing stock could impact supply.<sup>24</sup>

In their examination of the potential impact of STRs in California, Dubetz, et.al. (2022) warned that, although community leaders should monitor STR activities, they are not a prime reason for the state's chronic housing shortage. Plus, undue restrictive STR policies could have a significant impact on the community's tourism industry. The study found that each STR generated 1.3 direct and 1.9 total jobs, respectively, in the state, which was the highest estimated multiplier effect found in our literature review.<sup>25</sup> In his 2021 examination of the housing market in New Hampshire, Innis found little evidence that STRs were associated with the jump in housing prices in the state. Moreover, he found that STRs generated a substantial economic impact on the town of Conway, New Hampshire, having a 1.6 multiplier effect.<sup>26</sup>

In summary, there is a general agreement that STRs, regardless of location, urban or rural, can generate small increases in local rents and home values and do have positive economic impacts on area businesses. However, it is open to debate as to their impact on housing affordability.

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<sup>24</sup> DiNatalea, S., Lewis, R., and Parker, R., "Short-term rentals in small cities in Oregon: Impacts and regulations." Land Use Policy 79 (2018), pg 407-423.

<sup>25</sup> Dubetz, A., Horton, M., and Kesteven, C., "Staying Power: The Effects of Short-Term Rentals on California's Tourism Economy and Housing Affordability, Milken Institute, 2022. [https://milkeninstitute.org/sites/default/files/2022-05/Short\\_Term\\_Rentals\\_California.pdf](https://milkeninstitute.org/sites/default/files/2022-05/Short_Term_Rentals_California.pdf)

<sup>26</sup> Innis, D., Ph.D., Professor of Marketing and Hospitality Management, Peter T. Paul College of Business and Economics, University of New Hampshire. October 2021.

# Economic Impact of STRs on the City of South Haven: Data, Methodology, and Findings

As outlined in the introduction, the economic impact of short-term rentals can be broken down into four components:<sup>27</sup>

1. Visitor expenditures made by persons staying at the city's STRs.
2. Maintenance and operating expenditures of STRs.
3. If properties are not being used for STRs, a key question is how they would be used otherwise. Therefore, estimates are also created for a counterfactual scenario for the city—a city without STRs.
4. Changes in property values in terms of both externalities—neighborhood effects as well as an increase in the price for properties.

The net economic impact is the difference between the impact of STR stayers' expenditures plus expenditures on maintenance and operations of STRs minus the impact of the most likely counterfactual scenario. Table 9 below presents the estimates of the annualized economic impacts of STRs on South Haven. In this table, jobs are defined as being year-round employment, and may be either full-time or part-time.

These estimates are generated using the nationally recognized IMPLAN model. This model was specifically calibrated for zip code 49090. Detailed descriptions of the model and its applications are readily available;<sup>28</sup> however, in short, IMPLAN is an input-output model that captures local economic activities that are generated by the direct expenditures of new money into the area or the creation of employment.

Creating estimates of economic impacts on small areas such as South Haven are difficult because of data limitations and the uniqueness of the community. We sincerely appreciate the assistance we received from the City of South Haven, South Haven/Van Buren County Convention and Visitors Bureau, and stakeholders.

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<sup>27</sup> Again, it should be noted that we did estimate local ownership of STRs and found that it is modest. Even if all the city's STRs were locally owned, we estimate that it would create no more than 10 jobs in the city.

<sup>28</sup> See <https://implan.com> for more information. A good summary of IMPLAN is provided by David Mulkey and Alan Hodges "USING IMPLAN TO ASSESS LOCAL ECONOMIC IMPACTS" at: [https://implan.com/cloud/?utm\\_term=implan%20input%20output%20model&utm\\_campaign=Search\\_IMPLAN&utm\\_source=adwords&utm\\_medium=ppc&hsa\\_acc=3435734339&hsa\\_net=adwords&hsa\\_cam=16222623499&hsa\\_ad=582242924857&hsa\\_kw=implan%20input%20output%20model&hsa\\_grp=134159578995&hsa\\_mt=p&hsa\\_ver=3&hsa\\_src=g&hsa\\_tgt=kwd-1634541200129&gclid=Cj0KCQiAofieBhDXARIsAHTTIdrvsdfTw7pFj260SsMJ6z7WU22S64XR8QX\\_NHxbjsWw3GmVObGdJn8aAlbLEALw\\_w\\_cB](https://implan.com/cloud/?utm_term=implan%20input%20output%20model&utm_campaign=Search_IMPLAN&utm_source=adwords&utm_medium=ppc&hsa_acc=3435734339&hsa_net=adwords&hsa_cam=16222623499&hsa_ad=582242924857&hsa_kw=implan%20input%20output%20model&hsa_grp=134159578995&hsa_mt=p&hsa_ver=3&hsa_src=g&hsa_tgt=kwd-1634541200129&gclid=Cj0KCQiAofieBhDXARIsAHTTIdrvsdfTw7pFj260SsMJ6z7WU22S64XR8QX_NHxbjsWw3GmVObGdJn8aAlbLEALw_w_cB)

## Economic Impact of STR Stayers Consumption Expenditures

The largest impact of STRs in South Haven is from the visitor expenditures of the persons who rent them. In measuring this component of the impact of STRs, the following factors were considered:

1. Impact on traditional lodging establishments: motels/hotels and bed and breakfasts.
2. Level of expenditures: some STR stayers bring in their own provisions, cook their own meals, and spend little in the city's restaurants and retailers. Others spend money in the city for eating and drinking, entertainment and recreation, and retail purchases.
3. Seasonality: STR occupancy is highest in the summer when the city is already full of day visitors, and persons staying at the more traditional lodging establishments in and around the city. However, according to the AirDNA data, occupancy was estimated at 33% for the city's STRs in January 2022.
4. Multiplier impacts: when business is strong, employers hire workers who also generate additional rounds of economic activity in the city. For manufacturing, this multiplier can be substantial, although less so in smaller geographies due to a more limited local supply chain. For tourism, the multiplier effect is typically small because most of the goods sold are produced elsewhere, and many tourism-related jobs are in some cases part-time or seasonal.

### *Possible Displacement Impact*

Do STRs simply displace motel/hotel or bed and breakfast stayers? In other words, would the users of STRs stay at the city's more traditional lodging establishments if STRs were not available? In less attractive areas this would be a serious concern. However, it is not believed that this is a major factor in South Haven for two reasons:

1. During the summer months the area's more traditional lodging establishments are reportedly fully occupied.
2. More importantly, many STR stayers are looking for accommodations that cannot be provided by traditional lodging establishments: kitchens, large living areas, decks/porches, private outdoor areas, and connecting bedrooms. We believe most STR stayers would stay in another Lake Michigan community, such as Grand Haven, St. Joseph, or Ludington if they could not secure a STR in South Haven.

Therefore, we don't include any displacement impacts in calculating this economic impact analysis of STRs.

### *Estimated Number of Persons Staying at STRs in South Haven*

This is the major challenge in preparing this economic impact report. Fortunately, AirDNA reports statistics on STR occupancy rates, and the city has data on the number of bedrooms available in its STRs. Currently, the permitted STRs offer a combined total of 1,130 bedrooms nightly. These STRs range from one-bedroom suites to houses with more than five bedrooms. Of course, not all are open year-round, and demand is highly seasonal, as shown in Figure 5.

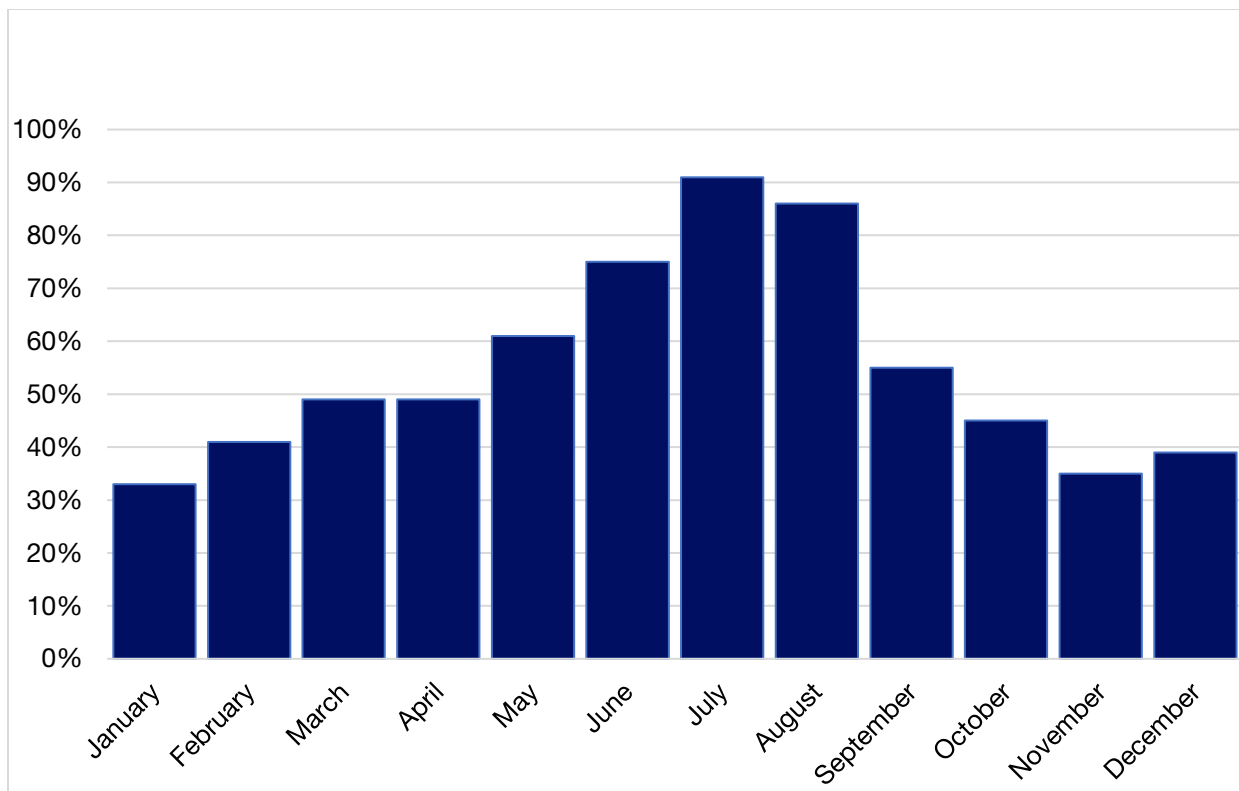


Figure 5: Month Occupancy Rates for STRS in South Haven

Source: AirDNA

While these data are highly useful and clearly show the seasonal demand for STRs, they do not, unfortunately, provide estimates on the average number persons per bedroom staying at STRs. Therefore, we developed and examined the following three scenarios in designing our economic impact:

- Estimate 1: 1.5 persons per bedroom year round
- Estimate 2: 1 person per bedroom from January to May, 3 persons per bedroom in June to August, returning to 1 person from September to December
- Estimate 3: 1.5 persons per bedroom from January to April, 2.5 from May to September, and returning to 1.5 persons in the final months of the year

### *Expenditures Per Person Staying at a STR in South Haven*

There are no expenditure data available showing how much STR stayers spend in the local area. The Michigan Economic Development Corporation (MEDC) generates county-level tourist expenditures but does not break these data out by type of visitor (day visitors or overnight stayers), nor does it provide an estimate of the annual number of visitors to the county.

MEDC estimates that, statewide, the average overnight tourist spent \$166 per day in 2021 (\$180 in current dollars). In Van Buren County, MEDC estimates average daily expenditures reached only \$148 in 2021. In addition, MEDC provides a percentage break out of expenditures statewide, as shown below in Table 5. While the cost of an overnight stay in a South Haven STR varies greatly, we

believe it is much higher, overall, than average statewide lodging. Therefore, we estimate that 60% of STR stayers’ tourist expenditures are used to pay for the STR itself (see Figure 6). In addition, the beach and riverwalk are the primary recreational activities available in South Haven and both are free. The only transportation expenditures are for gas, boating, and fishing charters.

Table 5: Estimated Expenditures of STR Stayers in South Haven vs. Other Overnight Stayers in Van Buren County and the state of Michigan.

Activity	Estimated Percent of Tourist Expenditures made by STR Stayers	Percent of Tourist Expenditures made by Overnight Stayers in Van Buren County*	Percent of Tourist Expenditures made by Overnight Stayers in the State*
Permanent Homeowner	60%	26%	37%
Snowbirds	25%	22%	25%
In-Town Landlords	10%	13%	14%
Out-of-Town Landlords	3%	14%	11%
Second Homeowners	2%	25%	11%

Visitor expenditures are also expected to vary according to the season. Winter visitors are estimated to spend less per person because many tourist-related stores are closed at this time of the year, and the weather is not conducive to casual shopping. At the same time, we expect summer visitors to spend more than average. Therefore, we made seasonal adjustments to our monthly expenditure estimates.<sup>29</sup>

The final necessary step in estimating the economic impact of STR stayers’ tourism expenditures is break it down to the detailed level of annual expenditures required for the IMPLAN model especially constructed for the zip code area 49090.

<sup>29</sup> We reduced our estimated daily expenditures of STR stayers by 20% in the winter months and increased by 20% in the high season months of June, July, and August.



### Summary Employment and Income Impact STR Stayers' Expenditures

Overall, we estimate that STR stayers spend between \$25.0 to \$35.5 million annually in South Haven. Using an IMPLAN model especially calibrated for the 49090 zip code area, we estimate that these expenditures generate between 305 and 432 annualized jobs and between \$7.6 and \$10.7 million in personal income annually, as shown in Figure 6.

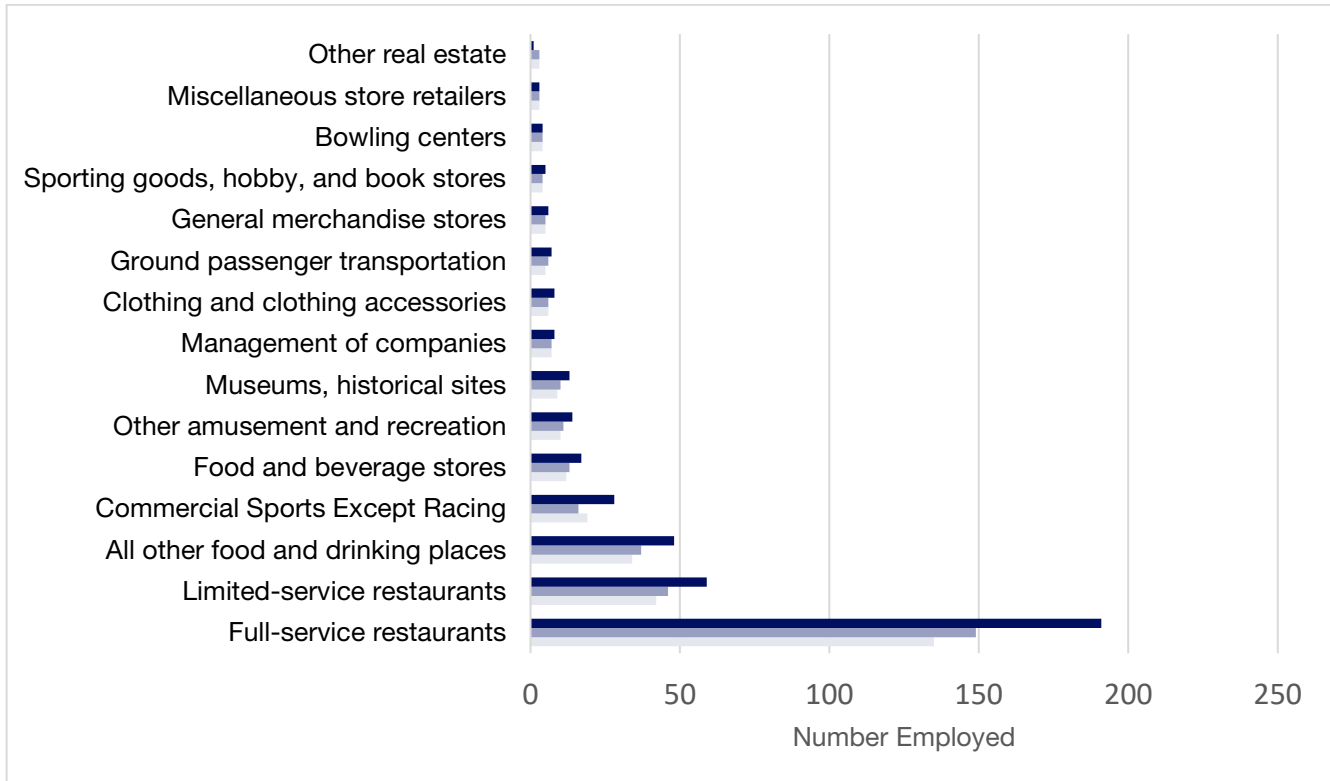
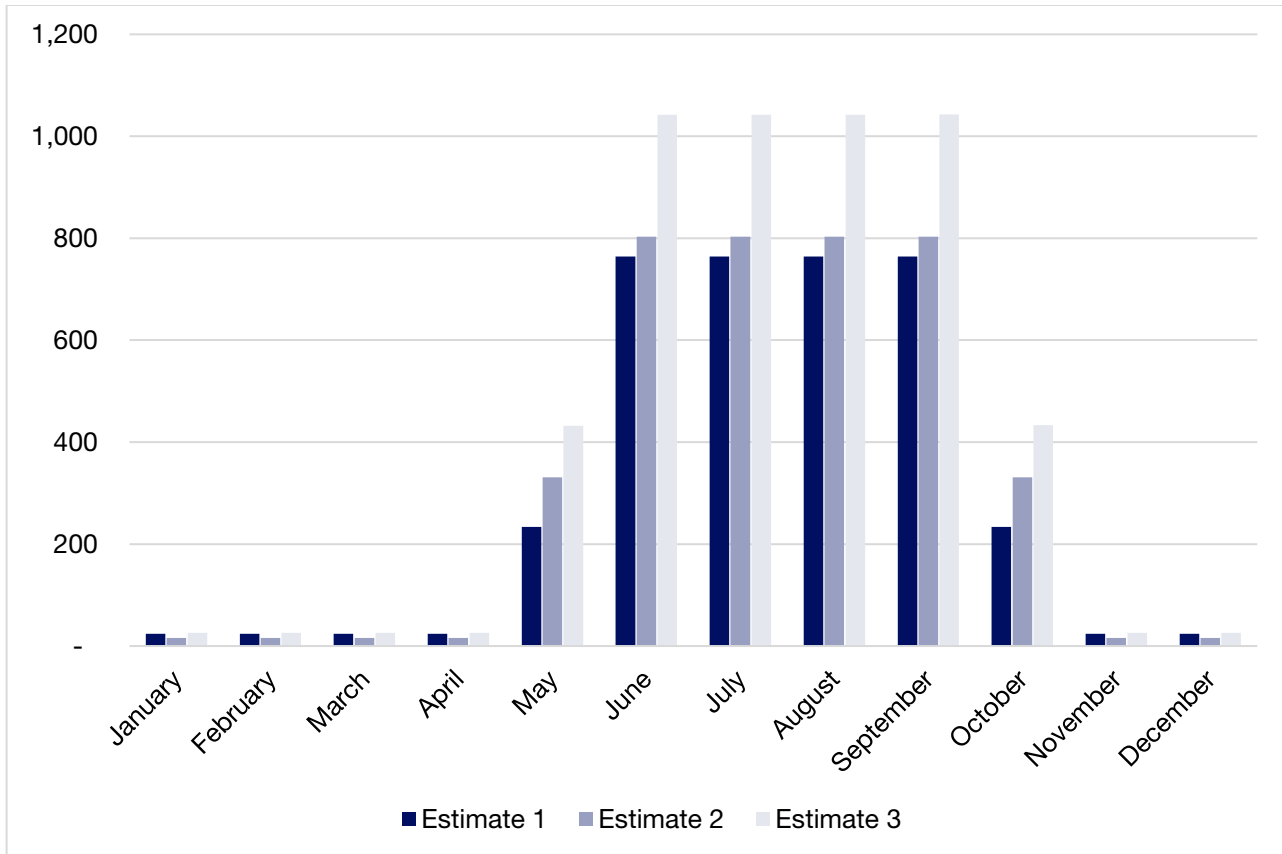


Figure 6: Estimated Industry Employment Impact of Consumer Spending of STR Stayers in South Haven

Not surprisingly, restaurants are the most-impacted industry due to STR stayers' expenditures. While annualized employment estimates provide an understanding of the impact that STRs have on particular sectors of the local economy, the more important impact STR stayers have on the area economy is their seasonal demand on the area's labor supply. As shown below in Figure 7, as expected, we estimated that their strongest impact on the area's employment situation occurs in the area's already busy summer months. Employment demand driven by STR stayers tops between 740 to 1,042 per month in the summer. These include both full-time and part-time workers, as well as seasonal workers.



Source: IMPLAN

Figure 7: Monthly Employment Due to Expenditures of STR Stayers

### *Economic Impact of the Operation and Maintenance of STRs in South Haven*

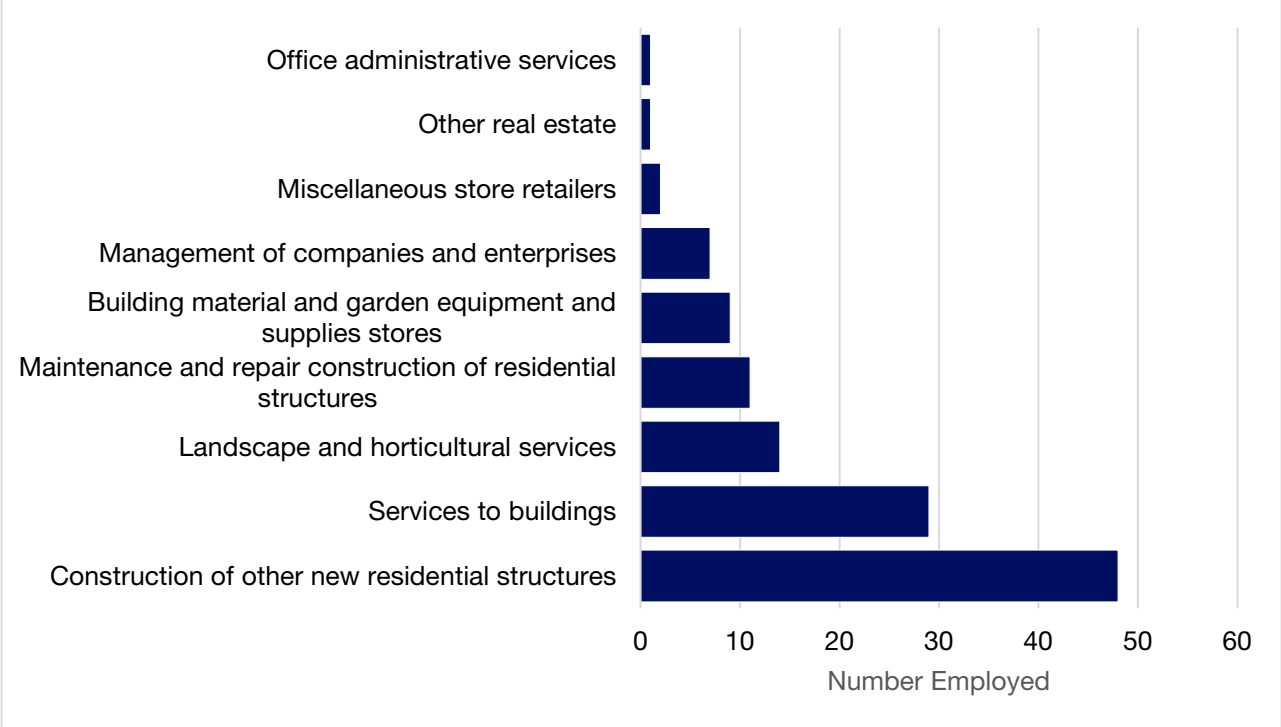
In addition to the impact of persons staying at the city’s STRs, it is equally important to capture the operating and maintenance expenditures made by STR owners and property managers. Fortunately, we were able to obtain detailed expenditure data for 64 STRs operating in the city. Based on this sample, we estimated STR expenditures for 2021 and 2022 on the following activities:<sup>30</sup>

- Landscaping and snowplowing
- Cleaning
- Building maintenance and repair
- Management services
- Gifts for guests
- Major renovations/annual start-up costs

The employment impact of these annual expenditures is shown in Figure 8. We estimate that these expenditures generate 126 annualized jobs and a \$5.5 million increase in personal income in the city.

<sup>30</sup> It could be argued that a share of these costs would occur if STRs were used for alternative uses. This is one of the major reasons why it was important for us to prepare an alternative scenario, as discussed below.

The seasonality of these jobs is not as great as those generated by STR stayers, because many of these activities are required year-round; however, as shown in Table 6, there remains a seasonal factor. Monthly employment providing these services climbs to 166 in the summer months.



Total Employment 126	Total income (\$millions) \$5.51
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Source: IMPLAN

Figure 8: Estimated Industry Employment Impact of STR Operational Expenditures

Table 6: Employment of Operating and Maintenance Expenditures of STR Owners and Managers

	Total Employment	Year-Round Employment	Seasonal Employment
January	86	86	0
February	86	86	0
March	86	86	0
April	86	86	0
May	166	86	79
June	166	86	79
July	166	86	79
August	166	86	79
September	166	86	79
October	166	86	79
November	86	86	0
December	86	86	0

*Alternative Use “Opportunity Cost” Scenario*

If the permitted properties were not STRs, it is unlikely that the dwellings would remain vacant. The challenge is to forecast what would be their next-best use. The economic impact of this alternative scenario is dependent on the expected use of the properties. Would they be used by full-time or seasonal residents? To address this question, we examined current homeownership trends by examining water usages, owner addresses, and assessed value data provided by the city.

First, as shown in the Table 7 (which is the same as Table 3) using information on owner addresses and monthly water usage, we are able to estimate the existing type of homeowners in the city.<sup>31</sup> We estimate that nearly 50% of the city’s housing units, excluding STRs, are used seasonally by either snowbirds — permanent households who leave for the winter — or seasonal homeowners. Permanent homeowners who stay year-round and year-round rental properties account for the remaining 52%.

<sup>31</sup> We sincerely thank the city staff for preparing these data. As with all administrative data, there are omissions; therefore we recommend that these statistics be taken as a sample rather than a census of the type of homeowners in the city.

Table 7: Homeowner Types in Alternative Scenario of Existing STRs Returning to Residential Use

Type of Owner	Definition	Number	Percent
Permanent Homeowner	Taxpayer lives at the address and water usage is stable year round	659	36%
Snowbirds	Taxpayer lives at the address, but water usage is seasonal	377	21%
In-Town Landlords	Taxpayer lives in South Haven but not at the address and the water usage is stable year round	107	6%
Out-of-Town Landlords	Taxpayer lives out of the city but water usage at the house address is stable year round	182	10%
Second Homeowners	Taxpayer lives out of the city but water usage at the house address is seasonal	508	28%
<b>Total Excluding STRs</b>		<b>1833</b>	<b>100%</b>

Second, we examined the assessed value of residential units currently be used as STRs<sup>32</sup> and estimate the household income of potential owners of these residential units using the nationally accepted ratio of house value to income. Nationwide it is suggested that the price of a home should not be more than 2.5 times the homeowners/renters’ annual income. As shown in Table 8, we divided our sample of STRs, 662 units in quintiles of 132/133 each. For each of these quintiles we estimated the household’s midpoint necessary to purchase a home in this price range. For example, for a household to buy or affordably rent a house in the lowest quintile, they would need an annual income of \$58,000, on average. For a household to reasonably afford the typical STR in the top range, if it went on the market, they should have an income of at least \$286,000. Finally, we made assumptions on the percentage of these residents by income who would be snowbirds or second-house homeowners. For example, we assume that all households who buy or rent at the bottom quintile of STRs would be permanent residents, which means purchasers at the top end would more likely be second-home buyers. These estimates are shown in Table 7.

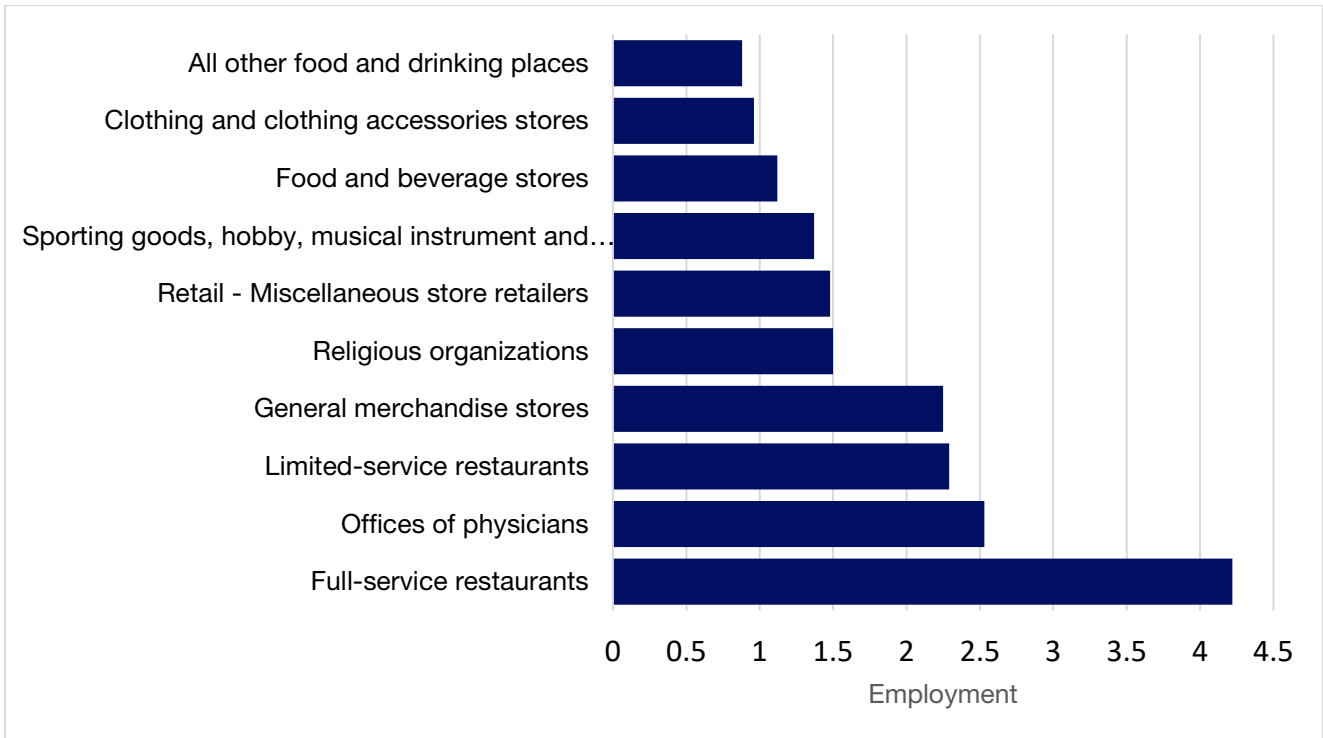
<sup>32</sup> At the time when these data were extracted from the city’s records, the number of certified STRs was 662.

Table 8: Estimated Type of Residents by Household Income in the Alternative Scenario

Household Income Quintile Midpoint	Type of Resident			Area Income
	Permanent (Owner or Renter)	Snowbird (6-Month Residents)	Seasonal Second Homes (3-Month Residents)	
\$58,320	100%	0%	0%	\$7,756,560
\$96,000	90%	10%	0%	\$12,129,600
\$129,200	80%	20%	0%	\$15,465,240
\$169,680	15%	40%	45%	\$10,944,360
\$286,240	0%	25%	75%	\$13,310,160
			Total:	\$59,605,920

In total, we estimate that the city’s income of its full-time and part-time residents would increase by nearly \$60 million, if current STRs would be converted into residential usage. The economic impact of this “lost” income is shown in Figure 9.<sup>33</sup> We estimate that the city would “lose” 36 jobs that would have generated an additional \$1.3 million in income of \$1.35 million.

<sup>33</sup> IMPLAN allowed us to enter the foregone income by each quintile of household income.



Total Employment 36	Total income \$1,346,900
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Figure 9: Employment and Income Impact of Alternative Scenario of STR Returning to Residential Usage

*Total Economic Impact of STRs in South Haven*

We estimate that the total employment impact of STRs in 2021 was between 395 to 522 jobs, depending upon the number of persons staying at the city’s STRs, as shown in Table 9. Total net personal income increased from \$11.7 to \$14.9 million. Overall, economic activity associated with the city’s STRs generates between 5% to 6% of the area’s overall employment and 3% to 4% of its personal income. In many economic impact studies, a distinction is made between direct and indirect employment and an employment multiplier is generated. In this case the employment multiplier is very small, at 1.04. Most all jobs created are front-line workers meeting the needs of the STR visitors, owners, and property managers. The added impact of the workers’ spending on the city of South Haven is estimated to be small.

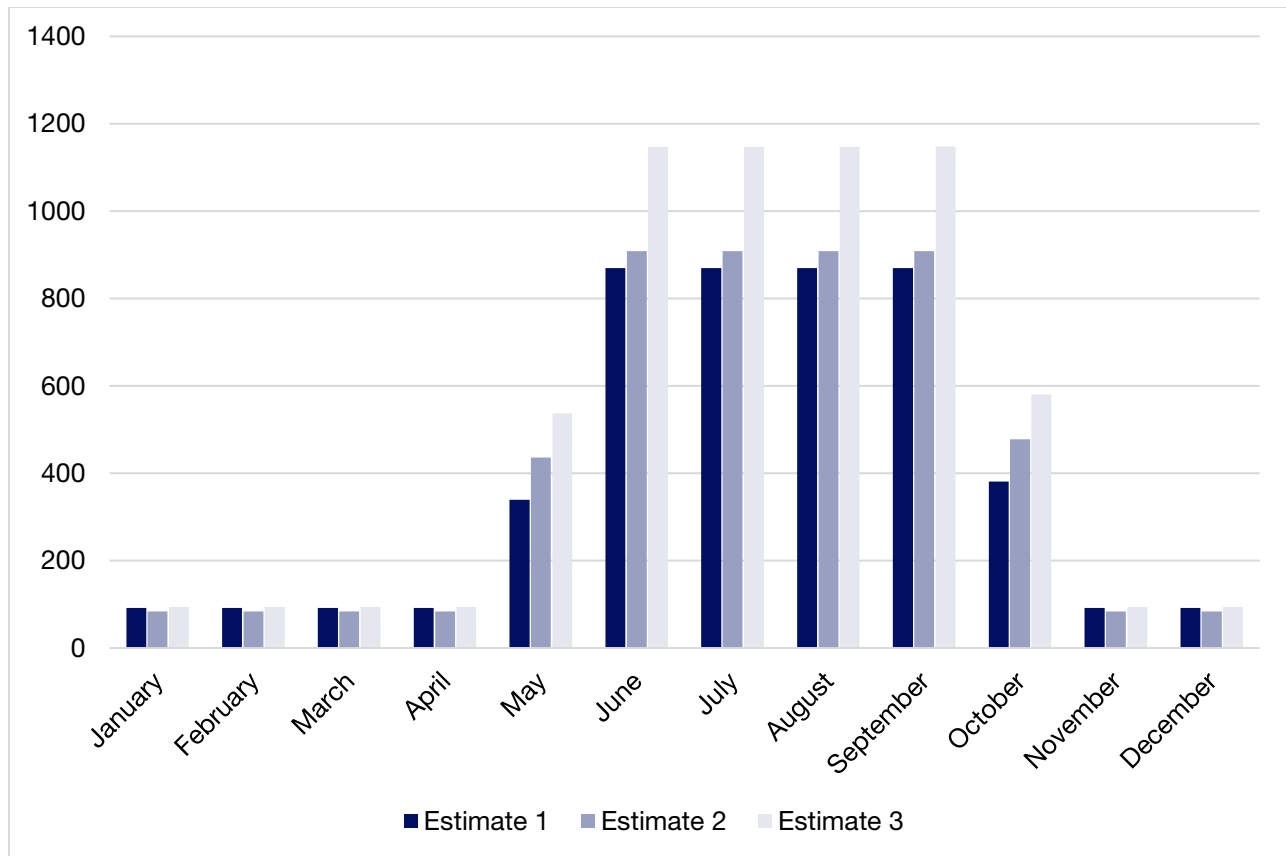
Table 9: Summary of Economic Impact Analysis

Employment	Estimate 1	Estimate 2	Estimate 3
STR Stayer Expenditures	305	381	432
STR Maintenance Operations	126	126	126
Alternative Usages of STRs	-36	-36	-36
Net Employment Impact	395	471	522
Total Personal Income (\$ million)			
STR stayer expenditures	\$7.55	\$9.41	\$10.69
STR maintenance operations	\$5.51	\$5.51	\$5.51
Alternative Usage of STRs	\$(1.35)	\$(1.35)	\$(1.35)
Net Personal Income	\$11.71	\$12.46	\$14.86
	1.5 persons per room year-round	1 person per room Jan to May and Sep to Dec and, 3 persons per room Jun to Aug	1 person per room Jan to May and Sep to Dec and, 3 persons per room Jun to Aug

Source: IMPLAN

Unfortunately, but not unexpectedly, employment generated by the area’s STRs is highly seasonal, putting pressure on the area’s employment situation during the summer months, as shown in Figure 10. STR activities are estimated to generate a demand for 1,100 jobs in the summer months.





Source: IMPLAN

Figure 10: Total Estimated Employment Impact by Month

### *Estimated Impact of STRs on South Haven Residential Real Estate Values*

As discussed in the literature review, nationwide, STR activity has been statistically associated with higher property values and rents in both rural and urban settings. Most of these studies used national data or large data sets available in the nation’s largest metro areas, such as New York and Boston.

Ideally to estimate the impact of STR on residential property values, we would have data for *South Haven with STRs* in contrast to *a South Haven without STRs* during the same period. Unfortunately, this is not possible. The next best situation would be to compare South Haven to a community with similar characteristics that did not allow STRs, but this is also not possible. The final “good” scenario would be to compare neighborhoods in South Haven that allowed STRs to those that did not.

However, STRs are distributed throughout the city, except in some homeowner associations (HOA) and a limited sample size became a problem.

Still, it is useful in attempting to study this question that the city of South Haven shared its assessment records for all residential properties in the city from 2016 to 2022. This extensive data set includes:

- Property's address
- Owner's address
- Square footage
- Number of bedrooms
- STR status
- Parcel acres
- Assessed value
- Type of structure

We attempted to measure the impact of STRs on residential property values in two ways:

1. To answer the question if the location of an STR in proximity of a house for sale would have an impact on its sale price, we geocoded the location of existing and past STRs to the location of houses that were sold between 2015 and 2022. We then held the characteristics of the house constant, controlling for the assessed value and the square footage of the sold house. We found that neighboring STRs did not have a statistically significant association with the value of the house that was sold.
2. The second test we conducted was to see if a sold house that was later permitted as a STR sold for a higher price than a non-STR property. Again, we controlled for square footage and the assessed value of the house.

Due to the limited data available, we only had two control variables for the individual dwelling units: assessed value and square footage. We believe the assessed value is a good indicator of the importance of the house's location, condition, and type of construction, which are all factors the city assessor examines as when estimating the value of a home. The structure's square footage was the only house characteristic that proved statistically relevant. We put the house's number of bedrooms and acreage in the model as well, but both proved to be statistically insignificant.

The regression models we used was:<sup>34</sup>

$$HP_i = b_0 + b_1 * AV_i + b_2 * SQ_i + b_3 STR(1) + b_4 STR(2) + b_5 STR(150)$$

Where:  $HP$  = the sold parcel price

$AV$  = Assessed Value in Oct2022

$SQ$  = square footage at the time of sale

$STR(1) = 1$  if the parcel was permitted as a STR a year after sale and if the parcel was NOT permitted as a STR at time of sale

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<sup>34</sup> We ran the regressions in different structural forms, but the results did not improve.

$STR(2) = 1$  if the parcel was permitted as a STR two years after sale *if the parcel was NOT permitted as a STR at time of sale*

$STR(150) = 1$  if a STR was in 150 feet of the sold house at the time of sale

The number of observations is 648 and included parcel sales from 2016 to 2020. Although we have access to parcel sale data up to 2022, we had to truncate the available sample to 2020 to observe if a sold parcel was permitted as a STR two years after sale.

The variables of interest are STR(1) and STR(150). The first could suggest the intent of the buyer to turn the dwelling into a STR after purchase. Of course, it is impossible to get into the mind of the buyer; however, the buyer's actions on the purchased property a year later are known. STR(150) indicates if a neighboring STR effected the house parcel sale price.

The regression results are shown in Tables 10 and 11. In the Table 10 the STR(150) is excluded and added back into the regression on Table 11.

The control variables are significant and reasonable. Assessed value is highly statistically significant and indicates that the assessed value in Oct 2022 is  $(1/1.6) = 60\%$  of the sales price on average, which is close to its target of being 50% of the sales price. The square footage results, -2.5 or -2.3, are also statistically significant.

Table 10: Regression Statistics

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>p-value</i>		
Constant	24306.3	10539.3	2.3	0.021	Multiple R	0.86
STR(1)	73534.3	18133.1	4.1	0.000	R Squared	0.73
STR(2)	-19435.1	17544.3	-1.1	0.268	Adjusted R Squared	0.73
Sq Ft	-2.5	0.7	-3.3	0.001	Standard Error	149271.53
Assess Value	1.6	0.0	40.0	0.000	Observations	649

Table 11: Regression Statistics

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>p-value</i>		
Constant	29296.8	12771.8	2.3	0.022	Multiple <i>R</i>	0.86
STR (1)	75025.0	18267.8	4.1	0.000	<i>R</i> Squared	0.73
STR (2)	-18504.3	17602.8	-1.1	0.294	Adjusted <i>R</i> Squared	0.73
SQ FT	-2.4	0.7	-3.2	0.001	Standard Error	149331.90
Assess Value	1.6	0.0	39.8	0.000	Observations	649
STR (N)	-9280.4	13403.8	-0.7	0.489		

In both equations the STR(1) variable is large and statistically significant, ranging between \$73,500 to \$75,000. These findings suggest that if a parcel sold was permitted as a STR one year after sale, its sale price was more than \$73,000 more than the average. The average parcel price in the sample was \$325,760, which suggests that the parcel price increased by 22%, on average, if it was permitted as a STR a year later. This average reflects a sample that included 18 parcels with 0 values and a median price of about \$260,000.

Both the STR(2) and STR(150) variables were not statistically significant. The importance of STR(150) being insignificant is that it adds support that STRs do not negatively affect the sale price of a nearby parcel.

### *Creating Scalable Estimates*

This research focused on estimating the economic impacts from permitted STRs in South Haven. But, given the policy questions the city is considering, it is also useful to look at estimating the economic impacts in a scalable manner. The following estimates use averages to estimate the economic impacts from a change in 25 STRs in zip code 49090. While the results are reported as a change due to an increase in permitted STRs, the values would be the same but negative if the number of STRs decreased by 25.

As with earlier estimates, the following tables estimate the impacts of visitors, operations, and alternative uses as well as report the net change. The two sets of estimates use slightly different assumptions. The estimates in Table 12 assume 3 guests per room in the summer (June, July, and August) and 1 guest per room during the other nine months. The estimates in Table 13 assume 1.5 guests per room for all 12 months. This affects the visitor spending but not operations or alternative uses. Note that these are annualized values and the estimates, at least for the visitor employment

impacts, are likely to be much higher in the summer months and lower in the times with lower occupancy.

Table 12: Estimates based on 25 STRs with 3 Visitors Per Room in Summer, Rest of Year 1 Visitor per Room

	Employment	Income
Visitors	14.4	\$355,415
Operations	4.8	\$208,058
<b>Total Impact</b>	<b>19.1</b>	<b>\$563,473</b>
Alternative Use	-1.4	\$50,865
<b>Net Impacts</b>	<b>17.8</b>	<b>\$512,608</b>

Table 13: Estimates based on 25 STRS with 1.5 Visitors Per Room Year-Round

	Employment	Income
Visitors	13.3	\$328,002
Operations	4.8	\$416,116
<b>Total Impact</b>	<b>18.0</b>	<b>\$744,118</b>
Alternative Use	-1.4	\$50,865
<b>Net Impacts</b>	<b>16.7</b>	<b>\$693,253</b>

# Concluding Comments

The City of South Haven wanted to better understand the impacts of short-term rentals (STRs) on the city. The findings are based on research focused on the *economic* impacts of STRs on the study area. It is acknowledged that there are strong *emotional* impacts, both pro and con to the discussion. While some of these impacts are captured in this document, it is not the focus of the research.

This research focused on a timeframe from 2016 to 2022. Some of the analysis focuses on the entire period, and some focuses on a more limited timeframe due to limitations in the data. Within the study period, the city has undergone some significant changes. These include (but are not limited to) growth in STRs, increases in the number of sales of properties, and increased prices for residential real estate. Also in the study timeframe, the city, along with the rest of the country, experienced a national pandemic, a recession caused by administrative and regulatory decisions, and a period of economic recovery. Given the recent nature of these events, it is too soon to estimate the impacts of these factors on the city relative to the STR question.

In 2022, there were 301 reported residential sales in South Haven. The median (or middle value) sales price was \$369,900 and the average (mean) price was \$476,298. When the median and mean diverge so significantly, it suggests that the residential prices are skewed to the right and so the higher-priced properties are likely less clustered around prices than those lower than the median.

Using data from estimates retrieved from Claritas, a data source commonly used by the economic development community, the median household income (HHI) for the city in 2022 was estimated to be between \$50,000 and \$74,999. The mean or average HHI was just over \$84,000. Using a factor of 2.5 times HHI, the average household in South Haven could afford a property of around \$210,000.

A series of stakeholder and community meetings and key informant interviews were conducted onsite in the city in the fall of 2022 to better inform the team on the perceived economic and emotional impacts of STRs. On the pro side of the STR discussions, positive perceptions on economic growth, an expanded tourist season, opportunities for more visitors, and property rights were at the forefront. On the con side of STRs, negative perceptions of the STRs included visitors' disrespectful and noisy behavior, impacts to the neighborhoods with many going "dark" in the winter, the inability to have and know neighbors, a lack of community engagement, and in general, a sense of loss of community. Additionally, on the con side there was a concern that the city, with too many STRs, would reach a tipping point from which it couldn't return.

Using a combination of data from a variety of sources, two types of estimates of economic impact were created – the impacts from STRs on the city and the impacts on the price of real estate due to STRs. To estimate the impacts of STRs on the economy, the impacts from visitors using STRs and the operations of permitted STRs were estimated using a model from IMPLAN. The estimates were created applying a variety of estimates on number of people occupying a room. Seasonality was also a factor, as it affects occupancy levels. This acknowledges that summer occupancy is much higher than in the winter.

To estimate the "but for" question of what the impact would be if the currently permitted properties weren't STRs, a counterfactual was created that was based on the current estimated mix in the city

of stable and seasonal uses. This set of estimates was subtracted from the first set to create a net set of impacts due to permitted STRs on the city.

Using the estimates created that had 1.5 persons per room on a year-round basis and with monthly occupancy rates from AirDNA, visitors and operations from STRs added an estimated 431 annualized jobs in the city. The counterfactual, or alternative uses of the residential real estate, created 36 annualized jobs in the city. The net impact was estimated at 395 annualized jobs. Using the same indicators, the STRs added just over an estimated \$13 million in personal income to the city. The impact to personal income from the alternative use was estimated at \$1.3 million. This creates a net impact to the city for personal income of an estimated \$11.7 million.

Note that these are estimates based on 2022 data. These estimates are annualized and are subject to the effects of seasonality. Depending on the number of visitors, the number of permitted STRs, the number of operating STRs, and trends in the behavior of visitors due to the seasonal factors, these estimates will vary on a year-over-year basis. But some level of economic impact will occur in each year.

Given the prior statement, a set of scalable values were estimated. In this case, using averages for an STR, for each change of 25 STRs in the city, a net impact of 16.7 annualized jobs and just under \$700,000 in personal income were estimated to be attributable to STRs each year. IMPLAN is a symmetrical model, where an increase and a decrease due to inputs are the same. In this case, the impacts of increasing or decreasing the number of STRs by 25 will yield the same estimate, only with different signs.

The second question asked by the city was on the impact of STRs on residential property prices. To answer this question, assessor, sales, water usage, STR permits, and other data were combined and used in econometric models to create estimates of impacts. Additionally, the data were incorporated in a geographic information systems package to provide insights into STR locations.

In modeling these data in various combinations of variables, 18 regression models were specified. Of these, 16 offered no statistically significant results. Two of the models did have findings that were statistically significant. In two regression models, it was found that if a STR was permitted in the next year (Time+1) after being sold, the sales price increased between \$73,534 and \$75,025. In both of these equations, proximity to the sale was tested, and this was not statistically significant. Additionally, if a STR was permitted in year two (Time+2), the results were also not statistically significant.

In summary, and as might have been expected by all parties, STRs have an impact on South Haven, both economically and emotionally. While STRs have a positive impact on the economy, from both jobs and personal income perspectives, they also appear to drive the prices of real estate.

Again, a note of caution that, over time and with different conditions, these findings will vary. A second note of caution, South Haven is a unique place with a variety of characteristics that may not easily be replicated in other places. Therefore, generalizing these results to areas beyond South Haven may not be appropriate.