The Effects of Short-Term Rentals on Housing in Rural Utah

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Executive Summary

Housing prices and rental rates have increased significantly in Utah over the past five years. Although rural Utah's price increase has not been as dramatic as that seen along the Wasatch Front, rural counties are seeking to understand the causes. This study explores how the increase of short-term rentals (STRs) contributes to a loss of available housing and an increase in rental rates in two of Utah's rural counties, Carbon County and Emery County.

According to research published in 2021 by the Kem C. Gardner Institute, the price to purchase a home in Utah has risen 28.3% (Eskic & Wood, 2021). The rural counties of Carbon and Emery were not immune to the increase. Carbon County saw an increase of 21.3% and Emery County saw an increase of 5.6%. Not only did the price increase effect home purchases, it also impacted rentals. Between 2020 and 2023, across five of the most populated counties in the state, Davis, Salt Lake, Utah, and Weber, rental prices increased between 10% and 16.6%. At the same time housing prices were increasing, the number of STRs in the state also increased including in Carbon County and Emery County. The total number of STRs in the state in 2019 was 14,782 and that number increased to 18,743 by 2021 (Eskic, 2022). Although the increase was not as dramatic in Carbon County or Emery County as it was in the Wasatch Front, the increase did contribute to the rental shortage and higher rental rates. Carbon County had 42 STRs in 2020 and 2021 and Emery County went from 34 in 2020 to 49 in 2021 (Eskic, 2022).

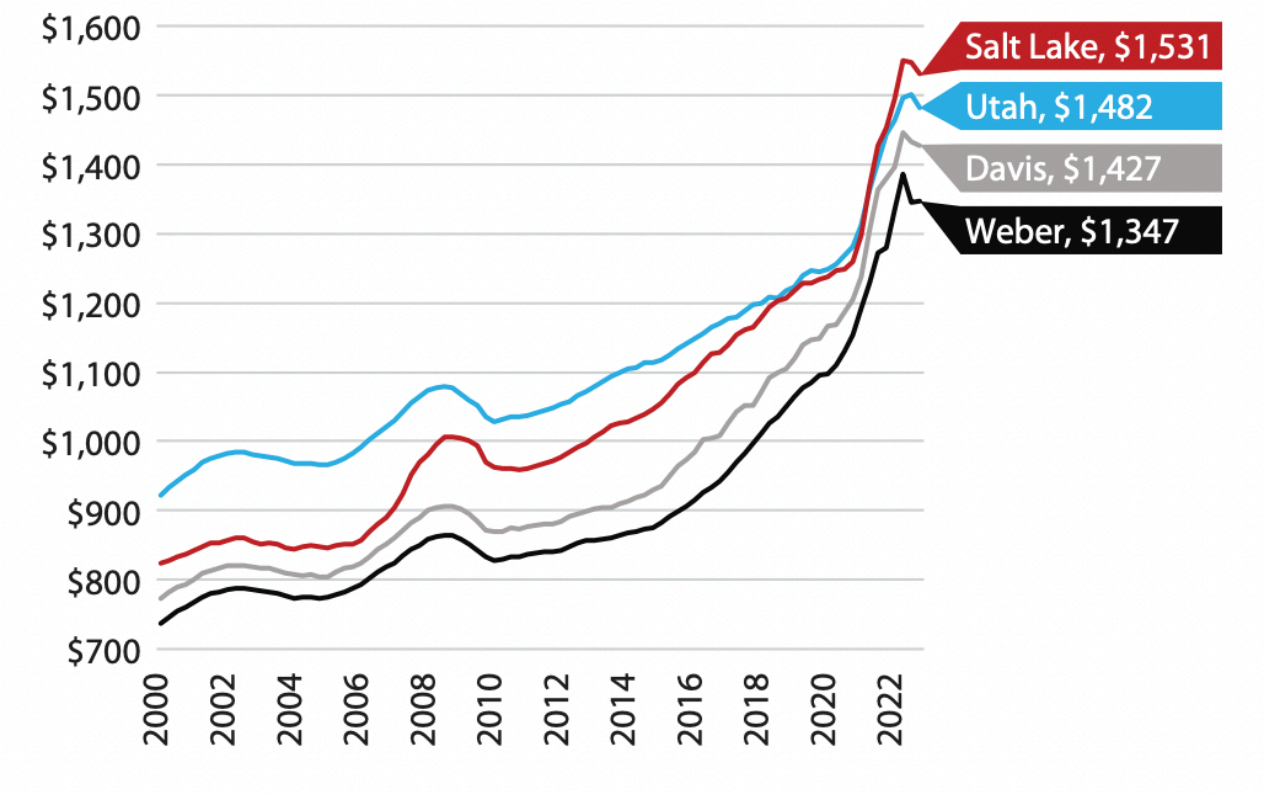
Introduction

The recent housing spike in Utah and subsequent housing shortage and price increase is what drove this research. The purpose then is to understand how the growing STR market is negatively affecting the rental housing market in Carbon County and Emery County. While STRs

provide a place for visitors to Utah's rural areas, without addressing the potential loss of long-term rental properties caused by the expanding STR market, the overall housing market of these rural communities may suffer. To understand the effects this research started by analyzing the long-term rental markets in Emery County and Carbon County from 2019 through March 2023.

Utah has experienced one of the highest increases in housing prices in the nation in the past several years (Eskic & Wood, 2021). The rising prices have affected home buyers and renters alike. A February 2023 Fact Sheet produced by the Gardner Institute shows a sharp increase to rental costs in four of Utah's most populous counties from 2000 through 2022 (Gardner Institute, 2023). Prices have risen enough that many renters in the state can't afford to purchase a home.

Figure 1: Average Asking Apartment Rents



Source: Kem C. Gardner Institute, February 2023 Fact Sheet. Utah's Rental Market

The housing problem facing renters in Utah is exists in both urban communities and rural communities. This study is important because no research examined the effects for STRs on housing in Carbon County and Emery County. This research study is designed to better understand one of the causes of the housing shortage and increased cost for renters in the two counties (STRs) and address possible options to address the crises. Understanding the effects of vacation rentals in these areas is necessary to help policymakers create thoughtful and effective regulations and ordinances.

Literature Review

Many studies have explored the effects of STRs on national and local housing markets and communities. In this literature review I examine several that explain the link between the expansion of STRs and impact on availability of long-term rentals and the impact of STRs on housing affordability. The literature discussed here explores the impact of STRs in both urban and rural communities.

STR Impact on Housing Availability

Short-term rentals may have negatively impacted rental availability by reducing the supply of long-term rentals (Li, Kim, & Srinivasan, 2022). According to DiNatale et al. (2018), cities with more STR activity experience higher rental prices, less rental availability, and displacement of residents. In addition to the Li, et. al. (2022) research findings , the Municipal League of Michigan produced a white paper (2021) showing the negative impact of STRs on availability and affordability in Arizona. As STRs have increased in Arizona, the supply of long-term rental homes has decreased and made it difficult for renters to find affordable options (Michigan Municipal League, 2021).

In major U.S. cities, an increase in STR listings reduced the availability of long-term rental housing (Li, et al., 2022). The effect was greater in areas with a lot of tourism. Their research suggests that the growth of the STR market may have contributed to the housing affordability crisis in many urban areas. Similarly, DiNatale et al. (2018) analyzed the impact of STRs on small cities in Oregon and the regulatory approaches adopted by those cities to manage the growth of the industry. They found that STRs have negative impacts on housing availability and affordability, community character, and safety. The authors emphasize the importance of effective regulation in managing the impacts of STRs on the rental housing market.

These studies suggest that STRs negatively impact long-term renters and the housing market. Simply stated, as more STRs are created, housing availability will diminish even more, making it difficult for renters to find affordable homes. Together these research efforts suggest that it is important to manage the impacts of STRs on the rental housing market and ensure that there are available options for renters (DiNatale et al., 2018; Li et al., 2022; Michigan Municipal League, 2021).

STR Impact on Rental Prices

The expansion of the STR market has not only disrupted the availability of traditional rentals, it has also disrupted the affordability of housing in the rental market. The disruption has led to significant concerns among policymakers and housing advocates. Because the STR market allows homeowners to rent properties temporarily, the demand for STRs from vacationers has increased and with it, so have rental prices (Barron et al., 2019; Koster et al., 2021).

Studies like the quasi-experimental study on STRs in Los Angeles by Koster et. al. (2021), found that the airbnb.com (Airbnb) platform had a significant effect on the rental market, leading

to a 0.4% increase in rental prices and a 0.7% decrease in the long-term rental supply. Additional research found similar results, for example, Barron et al. (2019) found that Airbnb had a positive effect on home prices and rents in the United States, leading to an increase in rental prices by approximately 0.64% and a decrease in the long-term rental supply.

Apart from the impact on rental prices and housing availability, short-term rentals also have other implications for housing affordability. Bivens (2019) for instance, argues that short-term rentals can lead to a reduction in tax revenues and result in an uneven playing field for traditional hotels and other lodging establishments that are subject to regulations and taxes.

Taken together the research shows that the growth of the STR market has decreased the availability of long-term rental properties and increased the price of housing across the board. The increase has prompted policymakers to take action. Some proposed regulations include limiting the number of nights that homeowners can rent out their properties, requiring homeowners to obtain permits or licenses, and imposing taxes and fees on short-term rentals (Zou, 2019).

Methodology

To research the impact of STRs on the long-term rental market in rural Utah this study utilizes primarily quantitative data from the U.S. Department of Housing and Urban Development, the Census Bureau, the Gardner Institute, www.airbnb.com (Airbnb), www.vrbo.com (Vrbo), and airdna.com (airdna). Airdna is a website that compiles data from STR companies on the availability, price, type, and demand month-to-month for STRs.

The cost of the renting analysis is based on data from HUD and the U.S. Census Bureau. The number of total available housing units in the target areas is from data reported by the U.S. Census Bureau and the American Community Survey.

The measures of the data is in the form of a time series snapshot, capturing the years 2019-2023 to determine the growth of the STR market, the change in housing units, and the increase in total rental costs in the targeted areas. Interviews with Utah's rural community leaders are also used to explain what impact they have observed from STRs.

Findings: Impact on Availability and Cost

The average cost of rental properties in Emery County and Carbon County substantially increased between 2019 and 2023. In Emery County the cost for a one-bedroom home increased from $611 to $731, and a four-bedroom home increased from $945 to $1,407. Carbon County also saw an increase in rental prices in the same time period. In 2019, prices ranged from $549 for a single bedroom to $1,211 for a four-bedroom. Now in, 2023, prices sit at $669 for a one-bedroom, $826 for a two-bedroom, $1,039 for a three-bedroom, and $1,407 for a four-bedroom home (See: Tables 1 and 2).

Table 1: Emery County Average Monthly Rent by Unit Type, 2019-2023

	One-Bed	Two-Bed	Three-Bed	Four-Bed
2019	$611	$699	$887	$945
2020	$627	$714	$890	$967
2021	$644	$734	$914	$995
2022	$664	$757	$998	$1,027
2023	$731	$826	$1,137	$1,407

$ Increase	$120	$127	$250	$462
% Increase	20%	18%	28%	49%

Source. Data for Emery County Average Monthly Rent by Unit Type 2019 - 2023 are from *FY 2023 Fair Market Rent Documentation System* by the Program Parameters and Research Division, HUD.

Table 2: Carbon County Average Monthly Rent by Unit Type, 2019-2023

	One-Bed	Two-Bed	Three-Bed	Four-Bed
2019	$549	$699	$1,011	$1,211
2020	$556	$714	$1,005	$1,254
2021	$581	$734	$993	$1,271
2022	$611	$757	$982	$1,296
2023	$669	$826	$1,039	$1,407
$ Increase	$120	$127	$28	$196
% Increase	22%	18%	3%	16%

Source: Data for Carbon County Average Monthly Rent by Unit Type 2019 - 2023 are from *FY 2023 Fair Market Rent Documentation System* by the Program Parameters and Research Division, HUD.

The annual growth was measured using a simple change over time formula, that is change in cost (y) = [the latest year (x) - the starting year (a)] / the starting year (a), y=(x-a)/a. The average growth is represented by the percentages annual growth (x) / the period of time (b), y=x/b. In the case of this research the calculated period of time is five years.

The current study used data obtained from the Gardner Institute to initiate its calculations. While there is a lack of available data on STRs in 2019 in both counties, Gardner Institute published findings that indicate Carbon County had a total of 42 STRs in 2020 and 2021 (Eskic, 2022). Data from airdna shows that Carbon County grew its available stock of STRs to 67 in

2022 and 88 in 2023. This growth is confirmed by county leaders, who indicate drastic increases in new STRs in Carbon County (T. Martines, personal communication, March 23, 2023). The Gardner Institute also published findings that Emery County had a total of 34 STRs in 2020, 49 by 2021 and data from airdna shows a total of 65 in 2022 and 76 total available STRs in the current year (2023). While these numbers are tiny compared to Summit County and Salt Lake County, for the selected rural counties in Utah with a total number of housing units, as reported by the Census Bureau of 9,570 in Carbon and 4,125 in Emery. These numbers suggest a direct contribution to the decrease in the overall available housing stock (See: Table 3).

Table 3: Housing Units by County, 2019-2022

	Carbon	Emery
2020	9,579	4,598
2021	9,608	4,084
2022	9,570	4,125

Source: 2020 Carbon County and Emery County based on *Census Bureau 2020 Decennial Census*; 2021 Carbon County and Emery County data collected from *U.S. Census Bureau;* Data collected for 2022 Carbon County and Emery County collected from *U.S. Census Bureau. American Community Survey 5-year estimates*.

The data also indicates that in 2020 of the total 9,579 housing units in Carbon 2,165 were renter occupied. Emery had 921 units of its 4,069 units renter occupied in 2020. By 2022 Carbon had 2,994 renter occupied housing units and Emery had 953 (See: Tables 4 and 5).

Table 4: Carbon County STRs to Housing Units 2020-2022

	Available STRs	Total Housing Units	Total Rental Units	STR % of total housing	STR % of Rental Units
2020	42	9,579	2,165	0.44%	1.9%

2021	42	9,608	*	0.44%	*
2022	67	9,570	2,994	0. 70%	2.2%
2023	88	*	*	*	*

Source: STR data for 2020 and 2021 is extracted from a *June 2022 Short-Term-Rental Inventory Policy Brief*, by the Gardner Institute. Data for 2020 Carbon County total housing units based on *Census Bureau 2020 Decennial Census*. Data for 2021 Carbon County total housing units collected from *U.S. Census Bureau (2021). American Community Survey 5-year estimates. Retrieved from Census Reporter*. 2022-2023 STR data for Carbon County extracted from airdna. (* indicates no available data.)

Table 5: Emery County STRs to Housing Units 2020-2022

	Available STRs	Total Housing Units	Total Rental Units	STR % of total housing	STR % of Rental Units
2020	34	4,069	921	0.84%	3.6%
2021	49	4,084	*	1.20%	*
2022	65	4,125	953	1.58%	6.8%
2023	76	*	*	*	*

Source: STR data for 2020 and 2021 is extracted from a *June 2022 Short-Term-Rental Inventory Policy Brief*, by the Gardner Institute. Data for 2020 Emery County total housing units based on *Census Bureau 2020 Decennial Census*. Data for 2021 Emery County total housing units collected from *U.S. Census Bureau (2021). American Community Survey 5-year estimates. Retrieved from Census Reporter*. 2022-2023 STR data for Emery County extracted from airdna. (* indicates no available data)

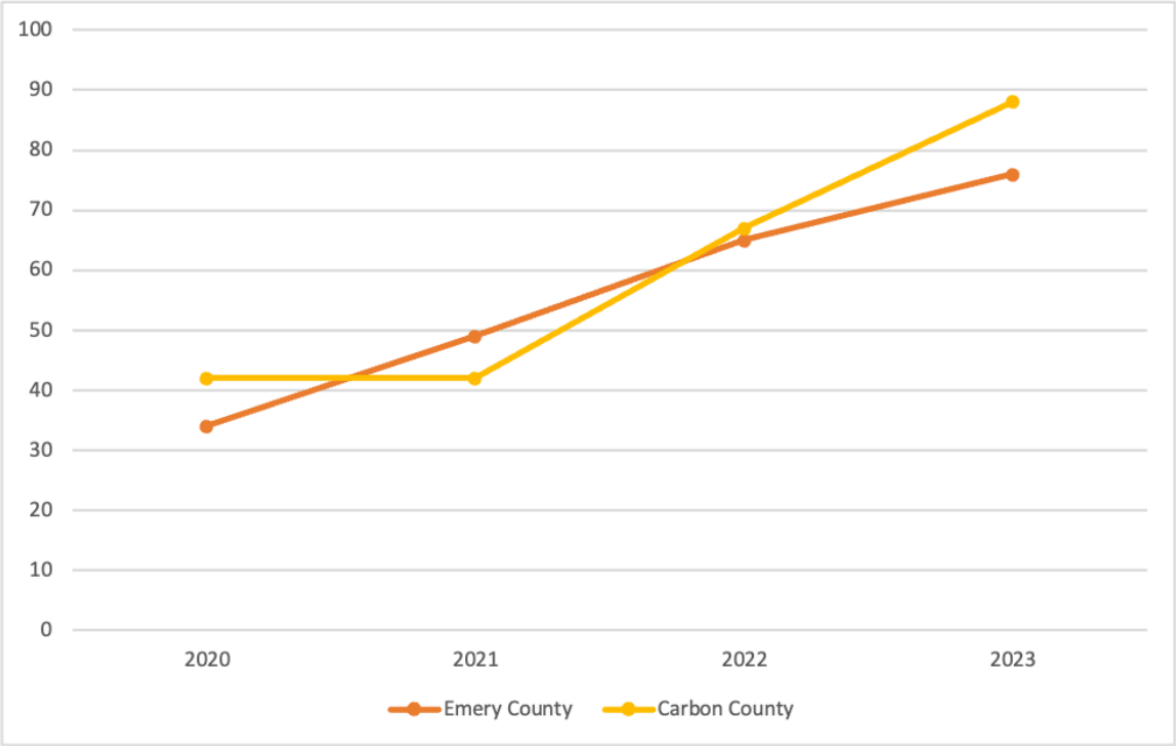
As seen in Tables 4 and 5, STRs composed .70% of total housing and 2.2% of total rentals in Carbon County and 1.58% of total housing units and 6.8% of total rental units in Emery County by 2022. These figures are small but not insignificant, because as discussed previously, Utah is already facing an ongoing housing shortage and the rising number of STRs is contributing to that shortage.

Averaging the price of the rentals in Carbon County and comparing it to the number of STRs shows correlation between the price increase of rentals and the number of STRs. This

finding suggests that the increase of STRs is affecting the price of rentals in the market. The analysis also finds that Emery County had similar results showing a correlation between increases in price to rent to the increased number of STRs in the market (See: Figures 2, 3, and 4).

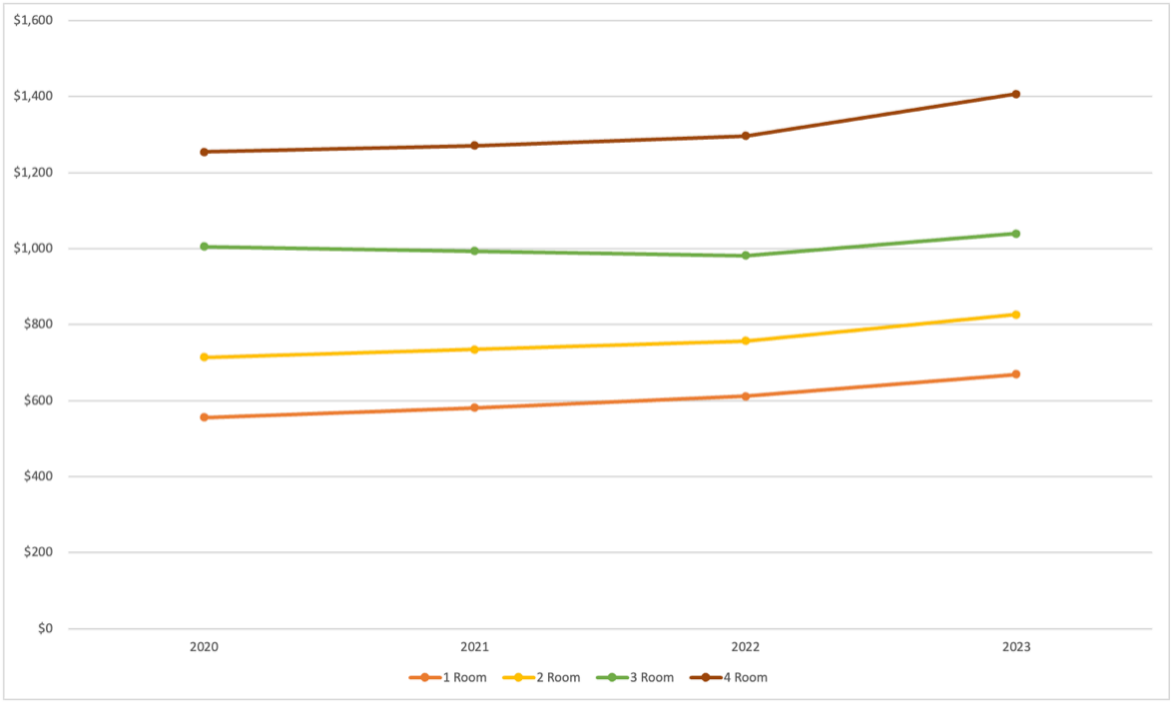
While there are other factors playing a role in the rising cost of renting, STRs are shown to impact the overall cost of housing. Therefore, in combination, analysis of the available data in addition to previous research literature showing the potential impact of STRs on housing, policy options addressing the issue are needed. While the data presented generates valuable information and understanding of the impact of vacation rentals on the housing market, the lack of current official data is, nevertheless, a shortcoming in the overarching analysis presented here. While

Figure 2: Carbon County and Emery County STR Growth 2020-2023



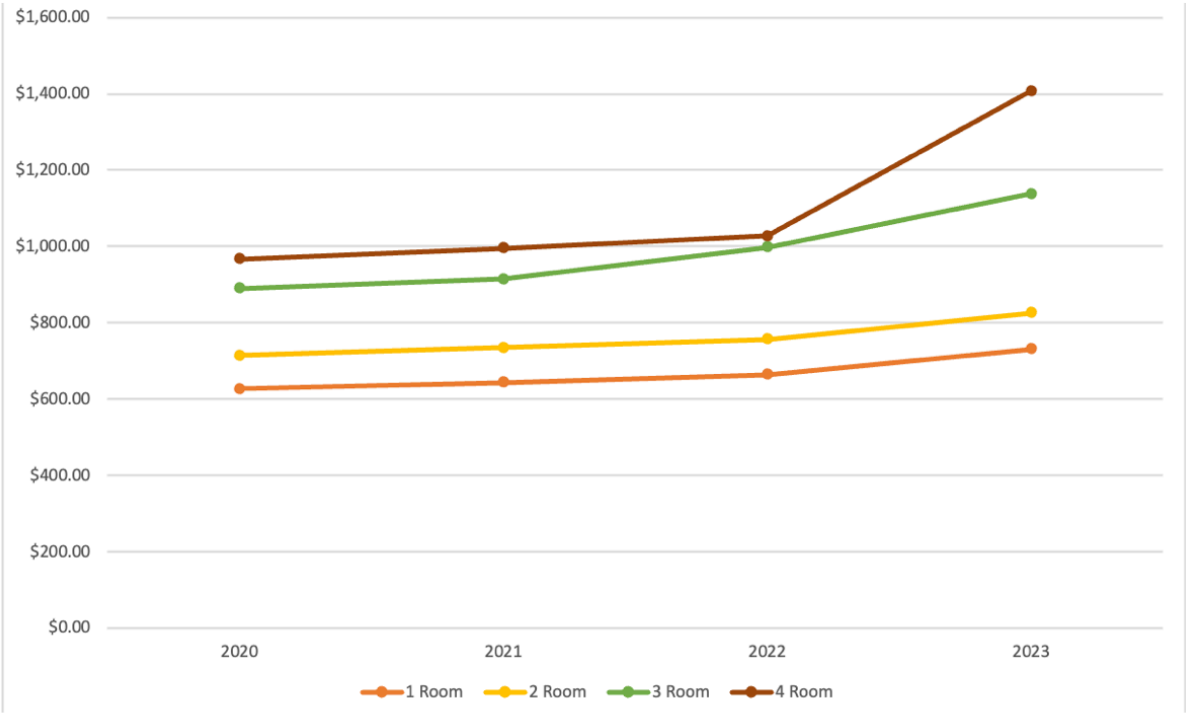
Source. Data compiled from Gardner Institute June 2022 Policy Brief Short-Term-Rental-Inventory and data collected from airdna.co.

Figure 3: Carbon County Rental Price increase 2020-2023



Source: data for Carbon County Average Monthly Rent by Unit Type 2019 - 2023 are from *FY 2023 Fair Market Rent Documentation System* by the Program Parameters and Research Division, HUD.

Figure 4: Emery County Rental Price increase 2020-2023



Source: Data for Emery County Average Monthly Rent by Unit Type 2019 - 2023 are from *FY 2023 Fair Market Rent Documentation System* by the Program Parameters and Research Division, HUD.

this analysis attempts to mitigate the missing data it provides a strong argument for an opportunity for future research.

Policy Options

To address the negative impacts of STRs on the housing market, policymakers have proposed various regulatory solutions. A white paper by Granicus provides a practical guide to regulating STRs at the local government level, including implementing registration and permitting systems, enforcing occupancy limits and zoning regulations, and imposing fines and penalties for violations (Binzer, 2016). Additionally, a white paper produced by *Harvard Business Review*, recommends that policymakers prioritize affordable housing initiatives and community development projects using revenue generated from STR taxes (Bekkerman et al., 2021). In addition to these regulatory solutions, DiNatale, et al. recommends policies that limit the number of STRs in a given area (2018).

As shown in this report's tables, rental housing prices in Carbon County and Emery County have consistently risen since 2019 showing that without effective policy mitigation the effect of STRs can potentially become increasingly economically burdensome for residents these counties. Utilizing this research and the aforementioned policy options, policymakers can address the growing burden of the housing crisis in Utah's rural counties specifically, and the state of Utah more generally.

Conclusion

The housing price increase in Utah over the past five years has affected every sector of the state's housing market, purchases, rentals, and rural communities have not escaped the effects. Understanding the causal nature of the price increase and how STRs have contributed to

the problem is an important piece in knowing what policy interventions will effectively mitigate the increase in housing costs for Utah's housing renters and buyers. The overall goal of this analysis is intended to determine one cause for the price increase in Carbon County and Emery County housing as well as discuss some of the policy options targeting the negative effects of STRs on Utah's housing market.

Reference List:

AirDNA Marketminder. (n.d.). Retrieved April 15, 2023, from https://www.airdna.co/vacation-rental-data/app/us/utah/price/overview

Barron, K., Kung, E., & Proserpio, D. (2019, April 17). *Research: When airbnb listings in a city increase, so do rent prices*. Harvard Business Review. Retrieved from https://hbr.org/2019/04/research-when-airbnb-listings-in-a-city-increase-so-do-rent-prices

Bekkerman, R., C. Cohen, M., Kung, E., Maiden, J., & Proserpio, D. (2021, November 17). Research: Restricting Airbnb Rentals Reduces Development. Harvard Business Review. https://hbr.org/2021/11/research-restricting-airbnb-rentals-reduces-development

Binzer, U. (2016). *A practical guide to effectively regulating short-term ... - granicus*. Retrieved from https://granicus.com/pdfs/Whitepaper_-A-practical-guide-to-effectively-regulating-short-term-rentals-on-the-local-government-level.pdf

Bivens, J. (2019, January 30). *The economic costs and benefits of Airbnb - Economic Policy Institute*. Retrieved from https://files.epi.org/pdf/157766.pdf

Census Reporter. (n.d.). Census Reporter: Making Census Data Easy to Use. https://censusreporter.org/

DiNatale, S., Lewis, R., & Parker, R. (2018). Short-term rentals in small cities in Oregon: Impacts and regulations. *Land Use Policy*, *79*, 407–423. https://doi.org/10.1016/j.landusepol.2018.08.023

Eskic, D. (2022). *Policy brief - kem C. gardner policy institute*. Retrieved from https://gardner.utah.edu/wp-content/uploads/ShortTermRent-PB-Jun2022.pdf?x71849

HUD Economic and Market Analysis Division. (n.d.). *FY 2023 Fair Market Rent Documentation System*. FY 2023 Fair Market Rent Documentation System - Calculation for $areaname$. Retrieved April 19, 2023, from https://www.huduser.gov/portal/datasets/fmr/fmrs/FY2019_code/2019summary.odn

Koster, H. R. A., van Ommeren, J., & Volkhausen, N. (2021). Short-term rentals and the housing market: Quasi-experimental evidence from Airbnb in Los Angeles. *Journal of Urban Economics*, *124*, 103356. https://doi.org/10.1016/j.jue.2021.103356

Kem C. Gardner Policy Institute (2023). Utah's Rental Market. University of Utah. https://gardner.utah.edu/wp-content/uploads/SLTribRenters-Feb2023.pdf

Li, H., Kim, Y., & Srinivasan, K. (2022). Market shifts in the sharing economy: The impact of Airbnb on housing rentals. *Management Science*, *68*(11), 8015–8044. https://doi.org/10.1287/mnsc.2021.428

Michigan Municipal League. (2021). *The Negative Consequences of Short-Term Rentals – Arizona's Recipe for Disaster*. from https://blogs.mml.org/wp/short-term-rentals/files/2021/06/STR-White-Paper-The-Negative-Consequences-of-Short-Term-Rentals-Arizonas-Recipe-for-Disaster.pdf

USAGov. (n.d.). *U.S. Census Data*. Retrieved April 19, 2023, from https://www.usa.gov/census-data

US Census Bureau. (2022, October 20). Decennial Census (2020, 2010, 2000). Census.gov. https://www.census.gov/data/developers/data-sets/decennial-census.2020.html#list-tab-533552149

Wood, J., & Eskic, D. (2021). *The State of the State's Housing Market Utah's housing market faces a severe imbalance that creates record price increases for homeowners and renters.* Kem C. Gardner Policy Institute, University of Utah. https://gardner.utah.edu/wp-content/uploads/StateOfState-Oct2021.pdf?x71849

Zou, Z. (2019). Examining the impact of short-term rentals on housing prices in Washington, DC: Implications for housing policy and equity. *Housing Policy Debate*, *30*(2), 269–290. https://doi.org/10.1080/10511482.2019.1681016