

Introduction

Housing affordability has become one of the most important urban policy issues in the United States. Rising home values and rents shape who can remain in a neighborhood, who is displaced, and how cities balance economic development with residential stability. One of the most visible policy debates inside this broader housing discussion concerns short-term rentals, especially platform-based rentals such as Airbnb. Supporters argue that short-term rentals create income opportunities for property owners, increase tourism capacity, and make more efficient use of underutilized housing space. Critics argue that short-term rentals pull units out of the long-term housing stock, intensify investor demand, and contribute to higher prices for local residents.

This debate matters especially in tourism-heavy cities. In a city where visitor demand is strong, an owner may earn more by renting a unit to tourists than by leasing it to a long-term tenant. If enough owners make that choice, the supply of housing available to residents can shrink. In theory, that reduction in supply can put upward pressure on both rents and sales prices. At the same time, the effect may not be uniform. Some listings are only spare bedrooms or occasional rentals of owner-occupied homes, which may have much smaller effects than commercial operators who control multiple entire-unit listings.

Literature

• Ayouba, K., Breuille, M.-L., Grivault, C., & Le Gallo, J. (2020). Does Airbnb disrupt the private rental market? An empirical analysis for French cities. International Regional Science Review, 43(1-2), 76-104.

• Barron, K., Kung, E., & Proserpio, D. (2021). The effect of home-sharing on house prices and rents: Evidence from Airbnb. Marketing Science, 40(1), 23-47.

• Benitez-Aurioles, B., & Tussyadiah, I. P. (2020). What Airbnb does to the housing market. Annals of Tourism Research, 90, 103108

Results and Implications

Short-term rental (STR) density (per 1,000 units) varies substantially across New Orleans ZIP codes, indicating uneven concentrations of STR activity. Crosstab and chi-square results show a statistically significant and strong relationship between STR density and rent levels ($\chi^2 = 7.63$, $p < .05$; Cramer's $V = 0.71$), with higher-density areas associated with higher average rents. In contrast, the relationship between STR density and median home values is not statistically significant ($\chi^2 = 1.89$, $p > .05$), suggesting a weaker or indirect connection. A multiple regression model further shows that STR density is positively associated with rent, though the effect becomes less statistically significant when controlling for median home value, education, and population ($R^2 = 0.62$; model $p < .05$). Additionally, rent levels and home values are strongly related to one another ($\chi^2 = 15.15$, $p < .01$; Cramer's $V = 0.71$), indicating that higher-rent areas tend to also have higher home values. Overall, these findings suggest that STR activity is more directly linked to rental price pressures than to home values, with effects likely influenced by broader neighborhood characteristics. While the results do not establish causation, they highlight the potential role of STR concentration in shaping local housing affordability.

Hypothesis and Analysis

Level of Short-Term Rental Density by Rent Category						
STR_Level			Rent_Level			Total
			1.00	2.00	3.00	
	.00	Count	5	1	2	8
		% within Rent_Level	100.0%	16.7%	50.0%	53.3%
	1.00	Count	0	5	2	7
		% within Rent_Level	0.0%	83.3%	50.0%	46.7%
Total		Count	5	6	4	15
		% within Rent_Level	100.0%	100.0%	100.0%	100.0%

Level of Short-Term Rental Density by Home Value Category						
STR_Level			Home_Level			Total
			1.00	2.00	3.00	
	.00	Count	5	2	1	8
		% within Home_Level	71.4%	33.3%	50.0%	53.3%
	1.00	Count	2	4	1	7
		% within Home_Level	28.6%	66.7%	50.0%	46.7%
Total		Count	7	6	2	15
		% within Home_Level	100.0%	100.0%	100.0%	100.0%

Relationship Between Rent levels and Home Value Levels						
Rent_Level			Home_Level			Total
			1.00	2.00	3.00	
1.00	Count		5	0	0	5
		% within Home_Level	71.4%	0.0%	0.0%	33.3%
2.00	Count		1	5	0	6
		% within Home_Level	14.3%	83.3%	0.0%	40.0%
3.00	Count		1	1	2	4
		% within Home_Level	14.3%	16.7%	100.0%	26.7%
Total	Count		7	6	2	15
		% within Home_Level	100.0%	100.0%	100.0%	100.0%

Hypothesis 1:
ZIP codes with higher short-term rental density will have higher average rent.

$\chi^2 = 7.63$, $p < .05$
Cramer's $V = 0.71$
Strong relationship between STR density and rent levels

Hypothesis 2:
ZIP codes with higher short-term rental density will have higher median home values.

$\chi^2 = 1.89$, $p > .05$
Cramer's $V = 0.36$
No significant relationship between STR density and home values.

Hypothesis 3
The effect of short-term rentals will be stronger for rent than for home values.

$\chi^2 = 15.15$, $p < .01$
Cramer's $V = 0.71$
Strong relationship between rent levels and home values.

Index Construction: STR Density Levels

This index is used to compare housing outcomes across varying levels of STR concentration.

ZIP codes are grouped into levels based on short-term rental density to capture variation across neighborhoods.

Medium STR areas show average rent levels between low and high STR groups.

Level	STR Density Range
Low	0.24 – 3.30
Medium	3.31 – 6.50
High	6.51 – 12.24

Level	STR Density	Description
1	Low	Below median STR density (per 1,000 units)
2	Medium	Around median STR density (per 1,000 units)
3	High	Above median STR density (per 1,000 units)

STR Level	Avg Rent
Low	\$1,405
Medium	~\$1,650
High	\$1,910

Multiple Regression Analysis of Rent

Variable	Coefficient
STR density (per 1,000 units) (per 1,000)	60.01 (29.36)
Median Home Value	0.004 (0.002)
% Bachelor Degree	-6.24 (13.83)
Population	0.006 (0.011)
N	15
R ²	0.62

Notes:
Dependent variable is average rent per ZIP code. Standard errors in parentheses.