

Background and Research Question

Affordable housing is a pressing policy issue in Florida. Real median home prices have risen by nearly \$100,000 in the last decade.³ However, prices alone do not encapsulate the entire affordable housing story. A home's neighborhood quality matters. Research suggests that higher crime and vacancy rates in a neighborhood decrease the selling price of its homes.

What role, if any, do homeowner vacancies and crime rates play in the sales price of single-family homes in Leon County, Florida?

Methodology

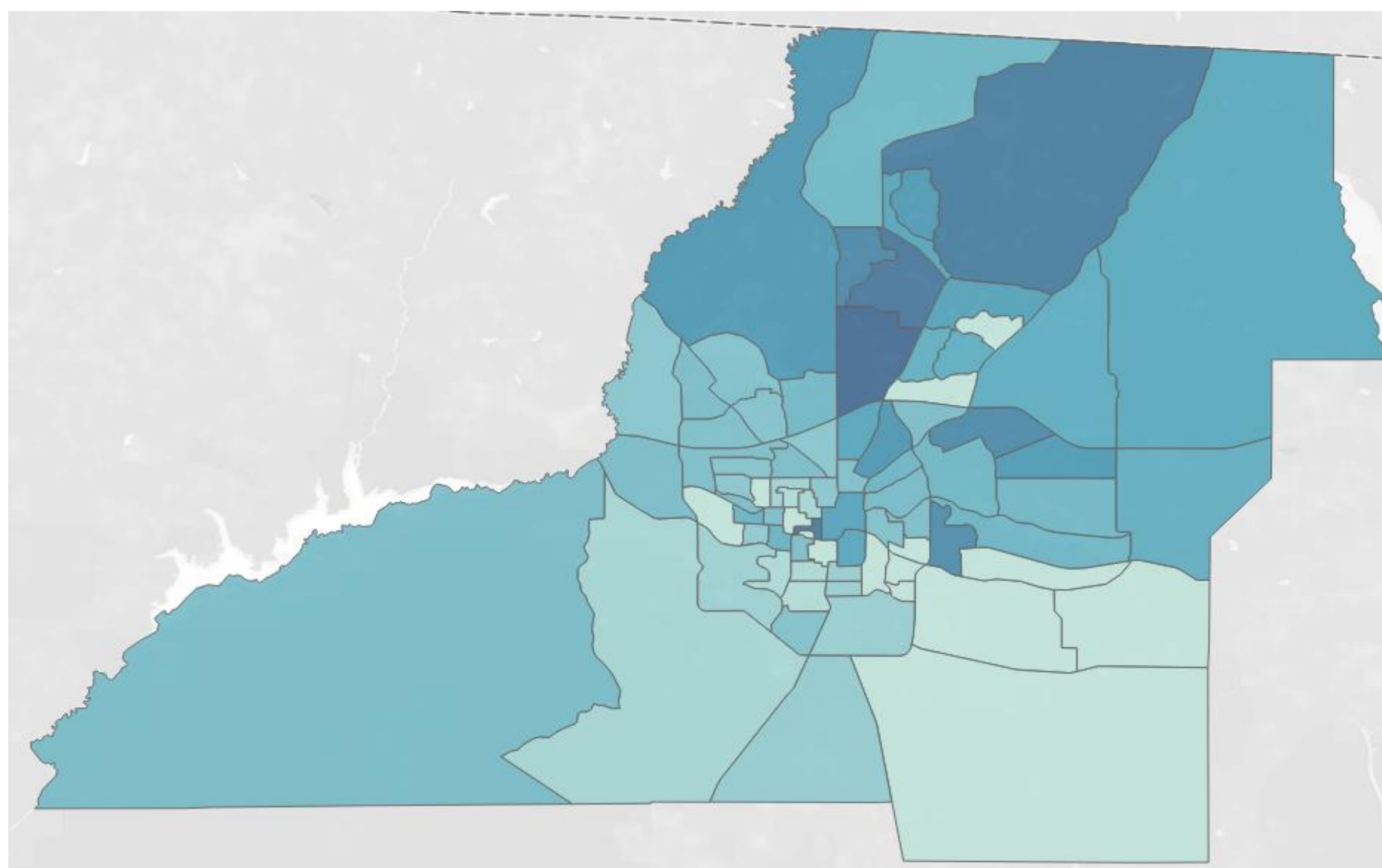


Fig. 1 Average sales price by census tract (darker colors indicates higher average prices)

Case Study: Leon County, Florida
Median price: \$300K
Median square footage: 2,304 ft²
Home age: 37 years
Median income: \$71,000

- Utilized Leon County tax roll data for sales price, total square footage, year built, and tax district for each single-family home sold in 2022.
- Used QGIS to match each Parcel ID to its census tract, then merged this with ACS and Tallahassee PD data.
- Ran hedonic model on sales price, vacancy, and crime.

Limitations

- Crime data is based on 2010 census tracts.
- Crime rate variables are treated as exogenous.
- Home prices and crime data are from 2022.

Model and Preliminary Results (N=2,584)

$$\ln(\text{saleprice})_i = \beta_0 + \beta_1 \# \text{VacantHomes}_i + \beta_2 \text{CrimeRate}_{xi} + \beta_3 \text{TotalSquareFootage}_i + \beta_4 \text{YearBuilt}_i + \beta_5 \text{TaxDistrict}_i + \beta_6 \text{MedianIncome}_i + \beta_7 \# \text{VacantLots}_i + \beta_8 \text{PopulationDensity}_i + \beta_9 \text{PopulationDensity}^2_i + \beta_{10} \# \text{VacantHomes} * \text{Crime}_{xi} + \varepsilon_i$$

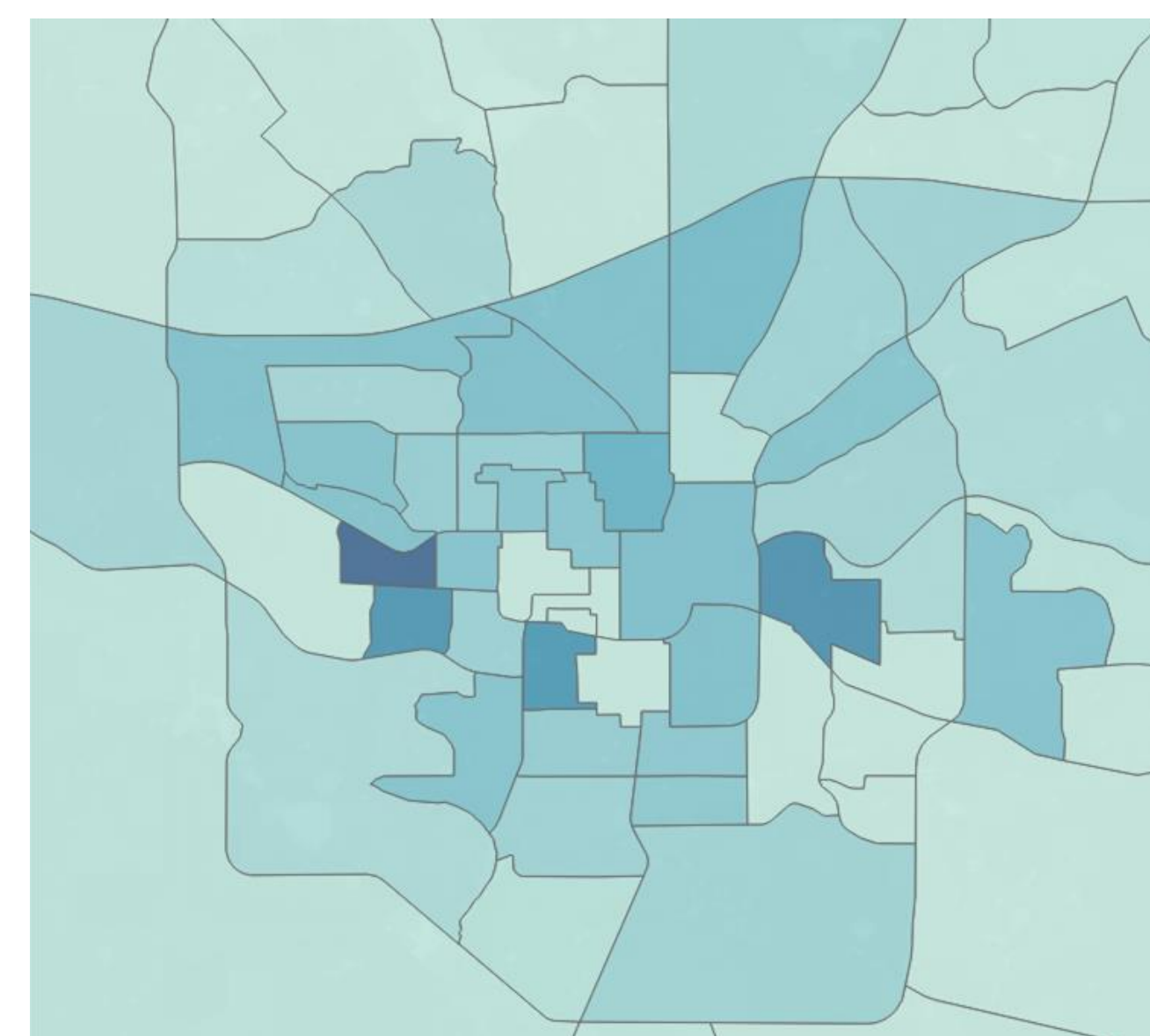


Fig. 2 Property crime rate per 100 residents by census tract (darker color indicates higher rate)

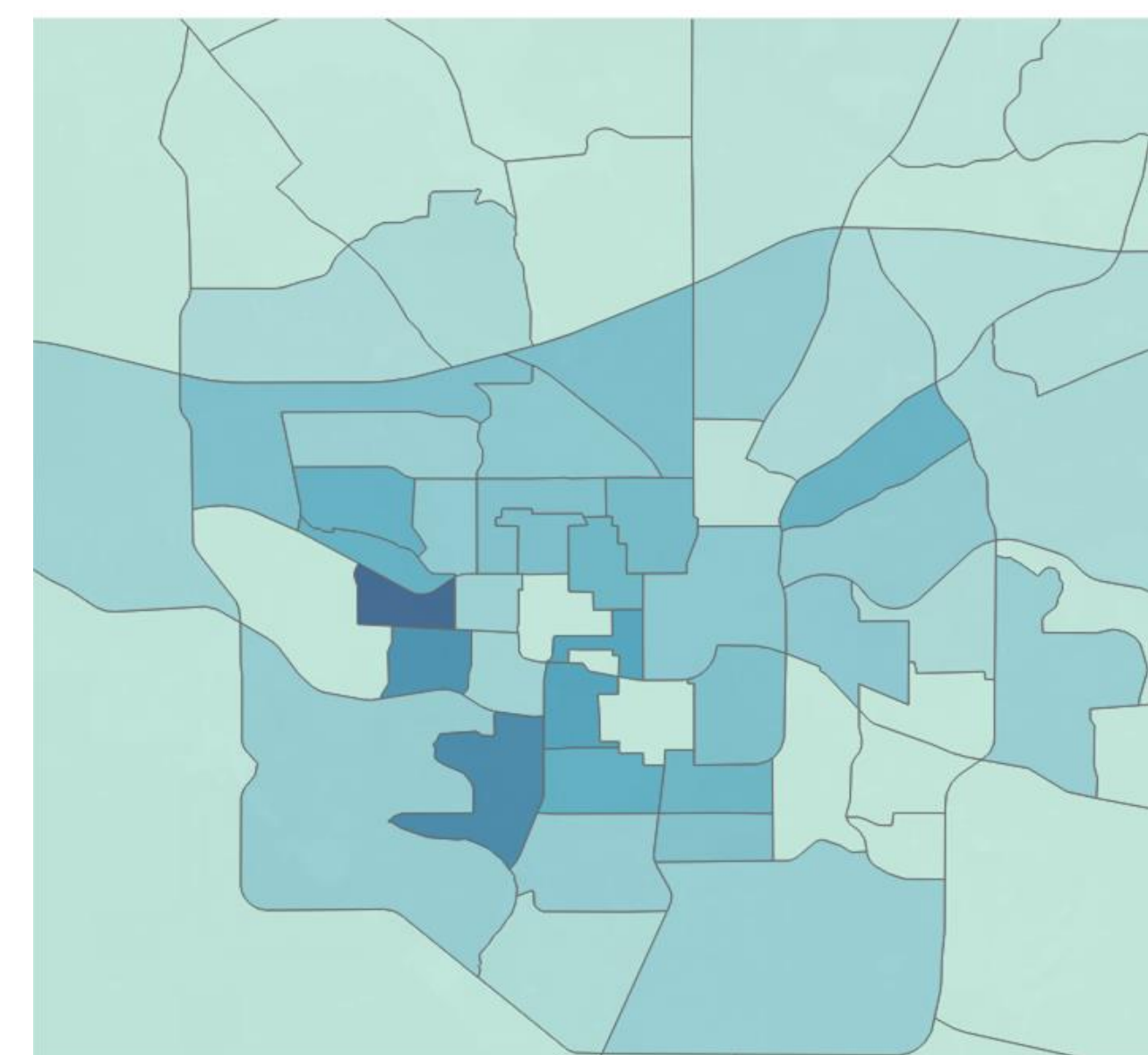


Fig. 3 Violent crime rate per 100 residents by census tract (darker color indicates higher rate)

Descriptive Statistics

- 93 homeowner vacancies per census tract, with a maximum of 287 in census tract 20.07
- 2 violent crimes per 100 residents, with a maximum of 19.25
- 4 property crimes per 100 residents, with a maximum of 34.69
- 0.86 correlation between property and violent crime rates

Model 1

Home prices, on average, are lower in neighborhoods where homeowner vacancies and violent crime rates are higher, controlling for other factors. However, property crime is associated with higher home prices. Literature suggests this finding is likely due to both the underreporting of property crimes in poor areas and the targeting of high-income neighborhoods.

Model 2

The effect of homeowner vacancies on sale price might depend on crime rates.

Table 1: Log-Level OLS Results for Hedonic Price Models

Variables	Model 1 (No Interactions) Coefficient (Std. Error)	Model 2 (Interactions) Coefficient (Std. Error)
# Vacant Homes	-.0003876** (.0001444)	-.0006574** (.000189)
Property Crime Rate	.0266408*** (.0042614)	.0067411 (.0067234)
Violent Crime Rate	-.0441706*** (.0085292)	.025074 (.0136883)
Total Square Footage	.0003312*** (.0000104)	.0003298*** (.0000103)
Tax District	-.0937347*** (.0179765)	-.0895038*** (.018745)
Year Built	.0057261*** (.0005432)	.0057449*** (.0005558)
Median Income	.00000276*** (.000000353)	.00000296*** (.000000384)
# Vacant Lots	-.0000406 (.0001344)	-.0000358 (.0001395)
Population Density	.0000441* (.0000184)	.0000278 (.0000187)
Population Density ²	-.000000353*** (.0000000244)	-.000000005 (0.0000000259)
Constant	.1937052 (1.075203)	.1794819 (1.100108)
Violent Crime Rate * Vacant Homes		-.0005576*** (.0001001)
Property Crime Rate * Vacant Homes		.0002125** (.0000715)
R ²	.5769	.5855

N = 2,584. Note: standard errors are robust. *P < .05. **P < .01. ***P < .001. Model 2 controls for total crime and an interaction between total crime and vacancies.

Policy Implications and Future Research

Florida legislators should consider the relationship between crime, vacancies, and housing affordability when curating policy, due to their apparent interconnectedness.

- Shortening or eliminating permitting processes for home remodeling and repair could expedite renovation and decrease vacancies.
- Tighter enforcement of nuisance laws could improve the appearance of vacant homes.

Future research should investigate whether high levels of violent/property crime and homeowner vacancies in undesirable areas increase home prices in safe and attractive neighborhoods.

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References

