

## INTRODUCTION & MOTIVATION

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Housing affordability has become an increasingly important issue, as rising housing costs place pressure on household budgets and limit access to stable housing. While statewide indicators provide a broad view of affordability trends, housing conditions often vary substantially across local areas.

This analysis examines housing affordability across Ohio counties from 2019 to 2023 using U.S. Census American Community Survey (ACS) data. Key indicators include median household income, median gross rent, median home value, and rent-to-income ratios.

The project was developed as an independent analytical case study, motivated by volunteer experience related to housing affordability in Sandusky County. The goal is to illustrate how county-level data can be used to identify spatial patterns and changes in housing affordability over time.

## STATEWIDE HOUSING AFFORDABILITY TRENDS

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### ***2.1 Overview of Statewide Affordability Levels***

Across the 2019–2023 period, Ohio exhibits a moderate average rent-to-income ratio of approximately 16%, indicating that, at the statewide level, median rental costs remain below commonly cited affordability stress thresholds. Average median household income across counties is approximately \$61,000, while average median gross rent is about \$796 per month and average median home value is roughly \$155,000.

While these aggregate figures suggest relative affordability at the state level, they mask substantial variation across counties, which becomes evident when examining distributions and county-level metrics.

### ***2.2 Rent Growth and Income Offsetting Effects***

Statewide trends show a steady increase in median gross rent over time, with particularly pronounced growth after 2020. Average rents rise from the mid-\$700 range in 2019 to nearly \$900 by 2023, reflecting sustained upward pressure on housing costs.

In contrast, the average rent-to-income ratio declines modestly over the same period, falling from approximately 16% in 2019 to about 15% in 2023. This divergence suggests that income growth, at least on average, has been sufficient to offset rising rents at the statewide level. However, this aggregate trend does not imply uniform relief across counties.

### ***2.3 County-Level Dispersion in Housing Cost Pressure***

The distribution of rent burden across counties reveals considerable dispersion, with rent-to-income ratios ranging from roughly 12% to 23%. Several counties consistently appear at the upper end of the distribution, indicating localized affordability pressure even as statewide averages remain stable.

Notably, the maximum county-level rent-to-income ratio remains elevated throughout the period, fluctuating between about 20% and 23%. Although this maximum declines slightly by 2023, certain counties, e.g. Athens experience persistent housing cost stress relative to income across the years.

### ***2.4 Relationship Between Income and Rent Burden***

The scatterplot indicates substantial variation in housing cost levels across counties even among counties with similar median household incomes. Most counties cluster in a mid-income band, yet their housing cost values span a wide range, suggesting that income differences alone do not fully account for cross-county variation in housing costs. A small number of higher-income counties appear as outliers with correspondingly higher cost levels, reinforcing that affordability conditions vary materially by county and are shaped by local housing-market factors beyond income.

This pattern underscores the importance of county-level analysis, as statewide or even regional averages may obscure localized affordability challenges.

### ***2.5 Spatial Patterns in Affordability***

The rent burden map uses a sequential scale where blue represents lower rent-to-income ratios and red represents higher ratios. Most counties appear in green-to-yellow tones, indicating broadly low-to-moderate rent burden across much of Ohio.

Counties with comparatively higher rent burden (orange-to-red tones) are scattered across the state rather than concentrated in a single geographic region. Similarly, counties with the lowest rent burden (blue tones) are also geographically dispersed. This pattern suggests that elevated or reduced rent burden is not driven by a single regional factor but instead reflects localized county-level conditions.

### ***Key takeaway***

Taken together, the statewide indicators suggest that while Ohio appears broadly affordable on average, housing affordability pressures vary meaningfully at the county level. Rising rents, combined with persistent high rent burdens in certain counties, indicate that localized affordability challenges persist even in the presence of relatively stable statewide averages.

## **COUNTY-LEVEL COMPARISON AND SANDUSKY COUNTY IN CONTEXT**

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### ***3.1 Sandusky County's Rent Burden Trajectory***

Sandusky County's rent-to-income ratio follows a distinct but moderate trajectory over the 2019–2023 period. The ratio remains relatively stable from 2019 to 2020, followed by a noticeable decline through 2022, before increasing slightly in 2023.

The lowest point occurs around 2022, suggesting a period in which income growth outpaced rent growth more strongly than in prior years. The subsequent increase in 2023 indicates a partial reversal of this trend, though Sandusky County's rent burden remains close to the regional average.

### ***3.2 Sandusky County Relative to Neighbors***

When viewed alongside neighboring counties, Sandusky County:

- Does not consistently rank among the highest rent-burden counties (unlike Erie County prior to 2023)
- Does not remain at the lowest end of the distribution (as Huron County does)
- Instead occupies a middle position across the years

This positioning suggests that Sandusky County's housing affordability experience is representative of broader regional dynamics, rather than being driven by extreme local conditions.

The gauge indicator reinforces this observation, showing an average rent-to-income ratio of approximately 15% for Sandusky County and the neighboring county group. This value aligns closely with the statewide average, indicating that Sandusky County's rental affordability is broadly representative of its surrounding region.

### **3.3 *Income and Rent Levels in Regional Context***

The scatterplot comparing average median household income and average median gross rent shows a clear positive association across Sandusky County and its neighboring counties: counties with higher median incomes tend to have higher median rents.

Sandusky County appears at the lower range of this distribution. Correspondingly, its median gross rent is also lower than that of higher-income neighbors.

This positioning indicates that Sandusky County's rent burden is driven by balanced income and rent levels, rather than unusually high rents or unusually low incomes.

Importantly, Sandusky County does not appear as an outlier in this relationship. Its position closely follows the general income-rent pattern observed across the surrounding region.

#### ***Summary Interpretation***

Taken together, the county comparison indicates that Sandusky County's housing affordability profile is consistent with regional patterns. Rent burden levels, income trends, and temporal changes closely mirror those of neighboring counties, implying that affordability pressures are shaped by regional economic and housing market conditions rather than isolated local factors.

## **SANDUSKY COUNTY DEEP DIVE**

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### **4.1 *Sandusky County Relative to Ohio Benchmarks***

When benchmarked against statewide reference points, Sandusky County's rent-to-income ratio consistently falls below the Ohio average and well below the 75th percentile

of Ohio counties. In 2023, Sandusky County's rent burden is approximately 15%, compared to an Ohio average near 16% and a 75th percentile value near 17%.

This positioning indicates that Sandusky County does not experience elevated rent burden relative to most counties in Ohio. Instead, it sits comfortably below higher-burden benchmarks, suggesting comparatively moderate affordability pressure at the state level.

#### **4.2 Statewide Ranking Context**

Sandusky County's statewide rent burden rank of 50 – 58 over the years places it close to the middle of Ohio counties. This rank reinforces the benchmark comparison, confirming that Sandusky County is neither among the highest-burden nor the lowest-burden counties statewide.

Being near the median indicates that Sandusky County's affordability profile is broadly representative of typical Ohio county conditions rather than reflecting extreme housing cost stress or exceptional affordability.

#### **4.3 Stability of Relative Position Over Time**

The categorical position chart shows that Sandusky County remains consistently within the middle 50% of Ohio counties from 2019 through 2023. There is no transition into either the high-burden (top 25%) or low-burden (bottom 25%) categories during this period.

This stability suggests that Sandusky County's relative affordability position within Ohio has been structurally consistent, even as statewide housing costs and incomes have changed over time.

#### **4.4 Rent Burden Gap Relative to Ohio Average**

The rent burden gap between Sandusky County and the Ohio average remains negative across all years, indicating that Sandusky County's rent-to-income ratio is consistently lower than the statewide mean.

Although the gap narrows slightly by 2023, Sandusky County continues to maintain a modest affordability advantage relative to the Ohio average. This trend suggests gradual convergence rather than reversal, with Sandusky County remaining slightly more affordable than the state as a whole.

### ***Summary Interpretation***

Taken together, these indicators show that Sandusky County's housing affordability is moderate, stable, and aligned with statewide norms. While not among the most affordable counties in Ohio, it also does not exhibit elevated rent burden relative to either state averages or higher-burden benchmarks.

This deep-dive confirms that Sandusky County's housing affordability challenges, where present, are unlikely to be driven by unusually high rent burden, but instead reflect broader statewide housing and income dynamics.

## **IMPLICATIONS**

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This analysis highlights the importance of examining housing affordability at multiple geographic scales. While statewide averages suggest relatively moderate rent burden across Ohio, county-level and benchmarked views reveal meaningful variation in affordability experiences that are not apparent from aggregate indicators alone.

Across the 2019–2023 period, rising rents have been partially offset by income growth at the state level, resulting in relatively stable average rent-to-income ratios. However, persistent differences across counties indicate that affordability pressures are shaped by localized conditions rather than uniform statewide trends.

The county comparison and Sandusky County deep dive illustrate how benchmark-based analysis provides additional context beyond raw ratios. Sandusky County consistently remains below statewide average and upper-percentile rent burden benchmarks, ranking near the middle of Ohio counties and maintaining a stable relative position over time. This suggests that its housing affordability challenges align closely with broader state dynamics rather than reflecting exceptional local stress.

From an analytical perspective, these findings underscore the value of combining descriptive metrics, temporal trends, spatial views, and benchmark comparisons to assess housing affordability. Such an approach enables more nuanced interpretation than single-point indicators and supports data-driven evaluation of affordability conditions at both the county and regional levels.