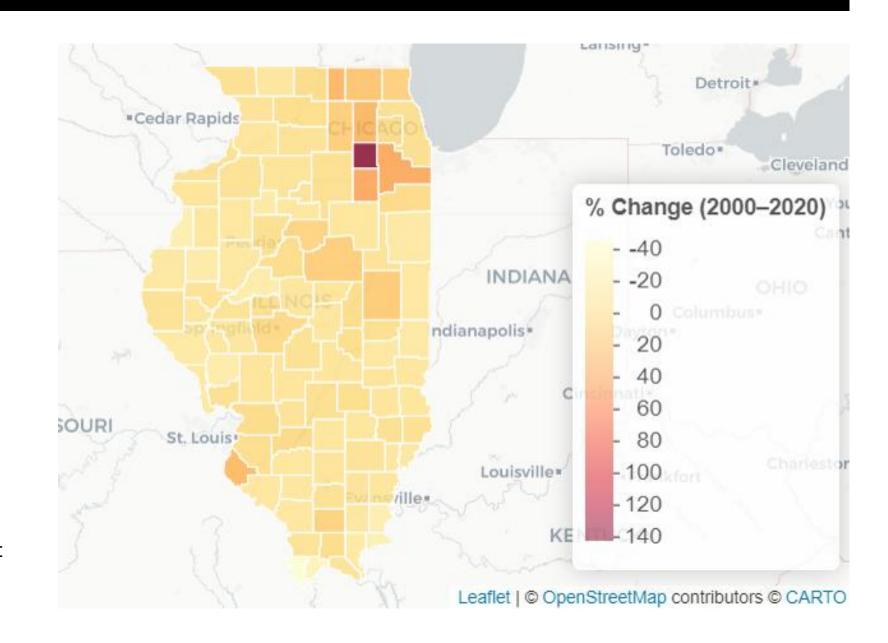
Rural and Urban
Disparities in Housing
Affordability and
Population Trends in
Illinois

By: Adithya Asokan and Shuja Waraich

Mentor: Prof. Andrew Leahy

What's Happening Across Illinois

- "Illinois has 102 counties yet their futures are diverging."
- "Some counties are growing fast, others are shrinking and aging."
- "Rural counties like Gallatin and Alexander had the fastest decline per 1,000 residents."



What Are We Asking?

- How has population changed in rural vs. urban counties?
- How does housing affordability relate to this change?
- Are economic pressures (like unemployment) driving these patterns?

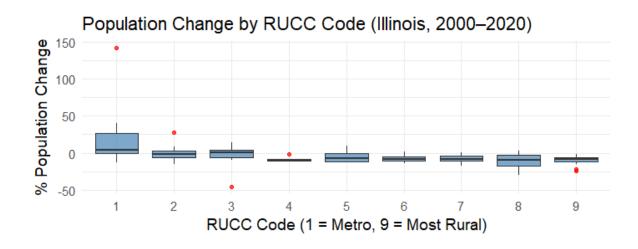
How We Studied It

- Data: U.S. Census (2000–2020), ACS 2020 5-Year Estimates
- Tools: R, TidyCensus, Leaflet, ggplot2
- Metrics:
 - Population Change (%)Affordability Ratio = Home Value / Household Income
 - RUCC metro/nonmetro codes
 - Unemployment Rate (%)

What We Already Knew

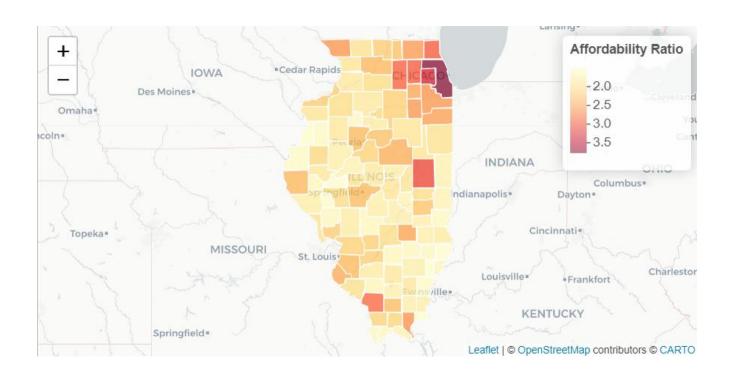
- Rural counties nationwide face depopulation and aging.
- "Population decline is the most constant trend affecting rural Illinois" (Governor's Rural Affairs Council, 2022)
- Affordable housing ≠ accessible housing.
- "49% of rural renters are cost-burdened" (Housing Assistance Council, 2023)
- RUCC codes provide standard rural-urban definitions.
- "Only 3 of 62 non-metro Illinois counties grew since 2000 (Gov. Rural Affairs Council, 2022)"
- "Rural youth aged 18–24 are ~70,000× more likely to move than adults aged 50+ (IIRA, 2021)
- "Rural counties build few new homes due to low returns and high farmland value (U of I FarmDoc, 2024)"

Rurality and Decline: RUCC Code Comparison



- Population loss increases steadily with rurality
- Metro counties (RUCC 1–3) show more growth or stability
- Very rural counties (RUCC 7–9) consistently decline

Where is Housing Least Affordable?



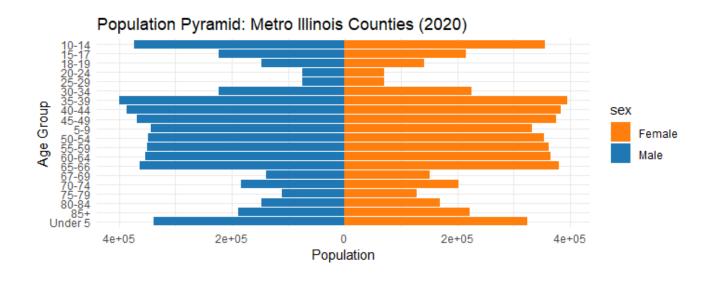
- "Affordable housing gap in metro Chicago: 120,000 units (City of Chicago DOH, 2020)"
- Metro counties like Cook, DuPage,
 Lake have highest affordability ratios
- Rural counties may appear affordable, but low incomes distort the picture
- Illinois lacks ~294,000 affordable rental units statewide (NLIHC, 2023)
- Chicago alone has a 120,000-unit affordable housing gap (City DOH, 2020)
- Many rural counties suffer from old housing stock and low turnover (White, U of I, 2024)
- Housing cost burden affects nearly half of rural renters (HAC, 2023)

Do High Housing Costs Push People Out?



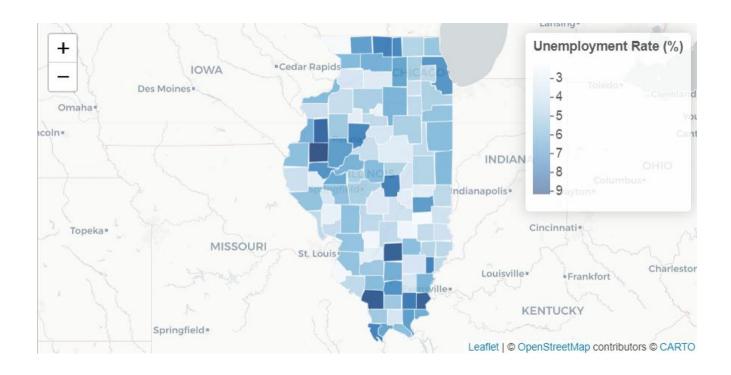
- Metro areas retain a larger workingage population (20–44)
- Rural counties skew older, with fewer young adults remaining
- Youth outmigration is a major factor in rural population loss(IIRA, 2021; USDA ERS, 2010)
- Urban areas offer education, jobs, and housing diversity(Cromartie et al., USDA)
- Aging populations in rural areas strain local services and housing supply

Metro Areas Have Younger Populations



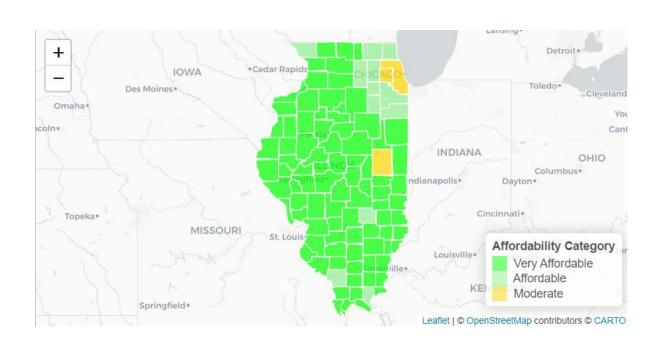
- Metro counties have strong workingage presence, especially 25–44
- Rural areas lose young adults, leading to accelerated aging
- Youth outmigration contributes to population and labor force decline
- Urban areas attract younger populations via jobs and education access

Where Are Jobs Scarce?



- Highest unemployment rates are concentrated in Southern and Western Illinois
- These counties often align with RUCC
 7–9 (nonmetro/rural)
- Job scarcity contributes to outmigration and housing decline
- Persistent unemployment correlates with population loss and poverty

Categorizing Housing Affordability



- Most counties fall in the "Affordable" to "Moderate" range
- Metro counties (Cook, DuPage, Lake) show high stress levels
- Rural counties appear affordable but struggle with low incomes and limited housing supply
- Affordability ≠ Accessibility especially where housing options are aging or scarce

Conclusion

- Metro counties are growing but becoming less affordable.
- Most rural counties are affordable but declining and aging.
- No single factor explains these trends it's affordability, opportunity, and demographics combined.

Data Sources

- U.S. Census Bureau
 - Decennial Census (2000, 2010, 2020)
 - American Community Survey (ACS) 5-Year Estimates (2020)
- USDA Economic Research Service
 - 2013 Rural-Urban Continuum Codes (RUCC)
- Housing Assistance Council
 - Rural housing affordability and cost-burden reports (2023)
- Illinois Department of Employment Security
 - Local Area Unemployment Statistics (LAUS)
- Illinois Institute for Rural Affairs (IIRA)
 - Youth migration patterns and rural demographic trends
- City of Chicago Department of Housing
 - Affordable housing gap report (2020)