

Estimating Quality of Life

with county-level Census data

The Center on Rural Innovation

Mapping & Data Analytics



WHO WE ARE:

The Center on Rural Innovation

Our Commitments

- Supporting rural communities
- Producing publicly available data on rural areas
- Advancing rural economic prosperity



QUALITY OF LIFE AND RURAL COMMUNITIES

Beyond economic concerns:

Quality of Life:

- Measures community assets **beyond** economic indicators
- **Complements** economic outlook
- **Rarely** considered
- **Supplements** sparse data on rural



ESTIMATING QUALITY OF LIFE

Markets can reveal preferences for locations and for amenities

- Households are willing to pay higher housing prices
- Forego higher wages to live in areas with higher **quality of life**



DATA: QUALITY OF LIFE & RURAL AREAS

Original method

(Rosen 1979; Roback 1982; Albouy 2008)

- Individual-level (Micro-level)
- Metropolitan areas
- Failed to include **rural**

“The success of cities hinges more and more on cities’ role as centers of consumption”

(Glaeser, Kolko, Saiz 2001)

DATA: QUALITY OF LIFE & RURAL AREAS

NHGISdecennial: 1980 - 2000

ACS5-year averages: 2010 - 2023

Updates to measure:

- County-level data (aggregated)
- County characteristics
- Allows for estimation of **all counties over time**

Census data utilized:

- NHGISdecennial
 - 1980; 1990; 2000
- American Community Survey
 - 2010; 2015; 2020; 2023

County characteristics:

- Median home values (mhv)
- Median household income (mhi)
- Other population & location characteristics

METHODOLOGY

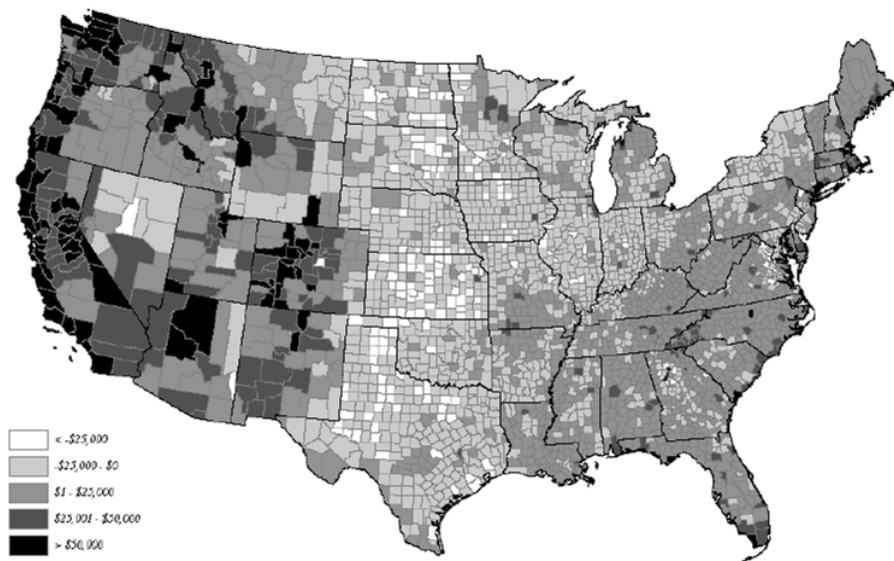
- Previous research developed a **general amenity** value for all counties

Carruthers & Mulligan (2006); Glaeser, Kolko, & Saiz (2001)

$$\ln(mhv_i) = \alpha_1 + \alpha_2 \ln(mhi_i) + \varepsilon_i$$

- Our measure includes **county characteristics**
- County Characteristics allow for greater prediction of QoL measure

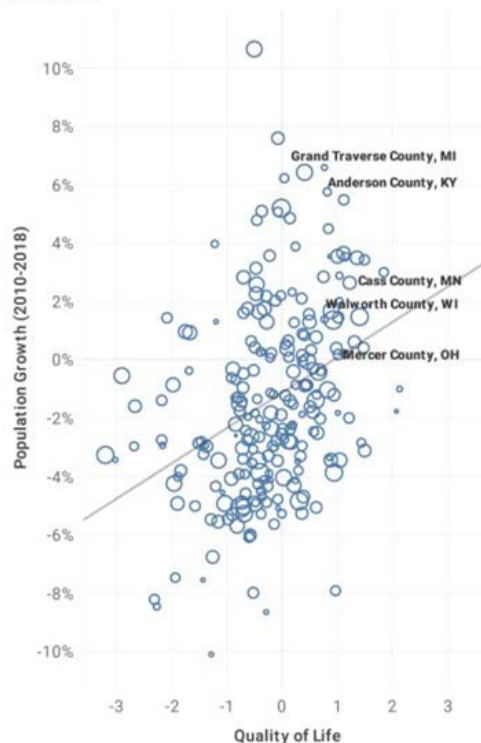
$$\ln(mhv_i) = \beta_0 + \beta_1 \ln(mhi_i) + \beta_j X_{ij} + \theta_i + \varepsilon_i$$



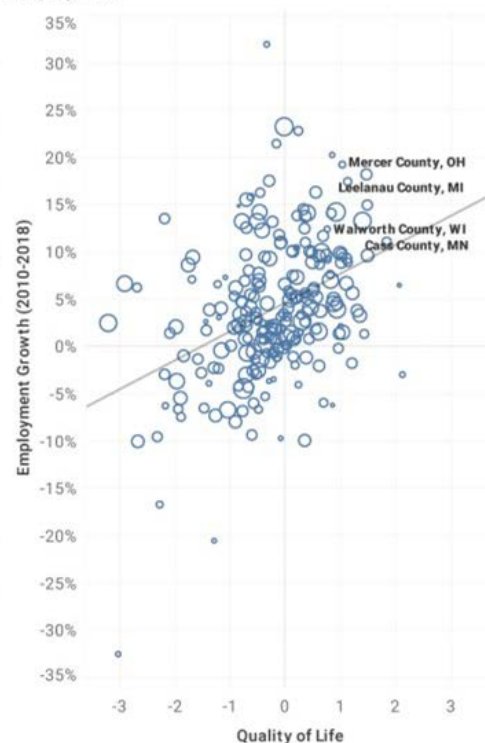
WHY IS QUALITY OF LIFE IMPORTANT?

- Matters for:
 - Population growth
 - Employment growth
 - Entrepreneurship
- Especially true for:
 - Rural communities

Population



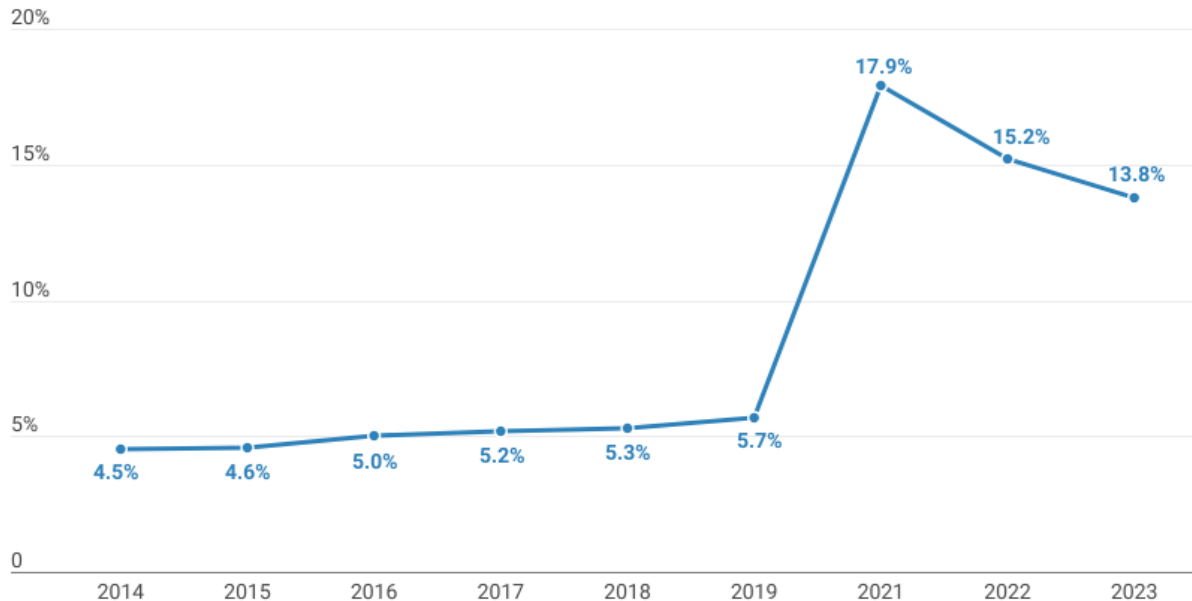
Employment



WHY IS QUALITY OF LIFE IMPORTANT?

- Matters for:
 - Population growth
 - Employment growth
 - Entrepreneurship
- Especially true for:
 - Rural communities
 - Rise of remote work

U.S. Evolution of Remote Workers Share 2014-2023



* The 1-Year estimate is not available for 2020

Key Takeaways

- Estimate Quality of Life across U.S. (1980 - 2023)
- Salient for rural areas
- **Generalizable** comparisons of U.S. economy & living standards
- Puts **rural** back into policy discussion



Thank you

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