

# Introducing the “Tiny Town” Project

**Lori Hunter**

**Myron Gutmann**

**Stefan Leyk**

**Dylan Connor (ASU)**

**Taylor Jaworski**

**Johannes Uhl**

**Jeremiah Nieves (Univ. of Liverpool)**

**Cyrus Hester**

**Catherine Talbot**

**Siqiao Xie (ASU)**

**Brenda Blanco Soto**



Health, Social, and Demographic Trends in Rural Communities (Project R21-HD0987117)  
Eunice Kennedy Shriver National Institute of Child Health & Human Development

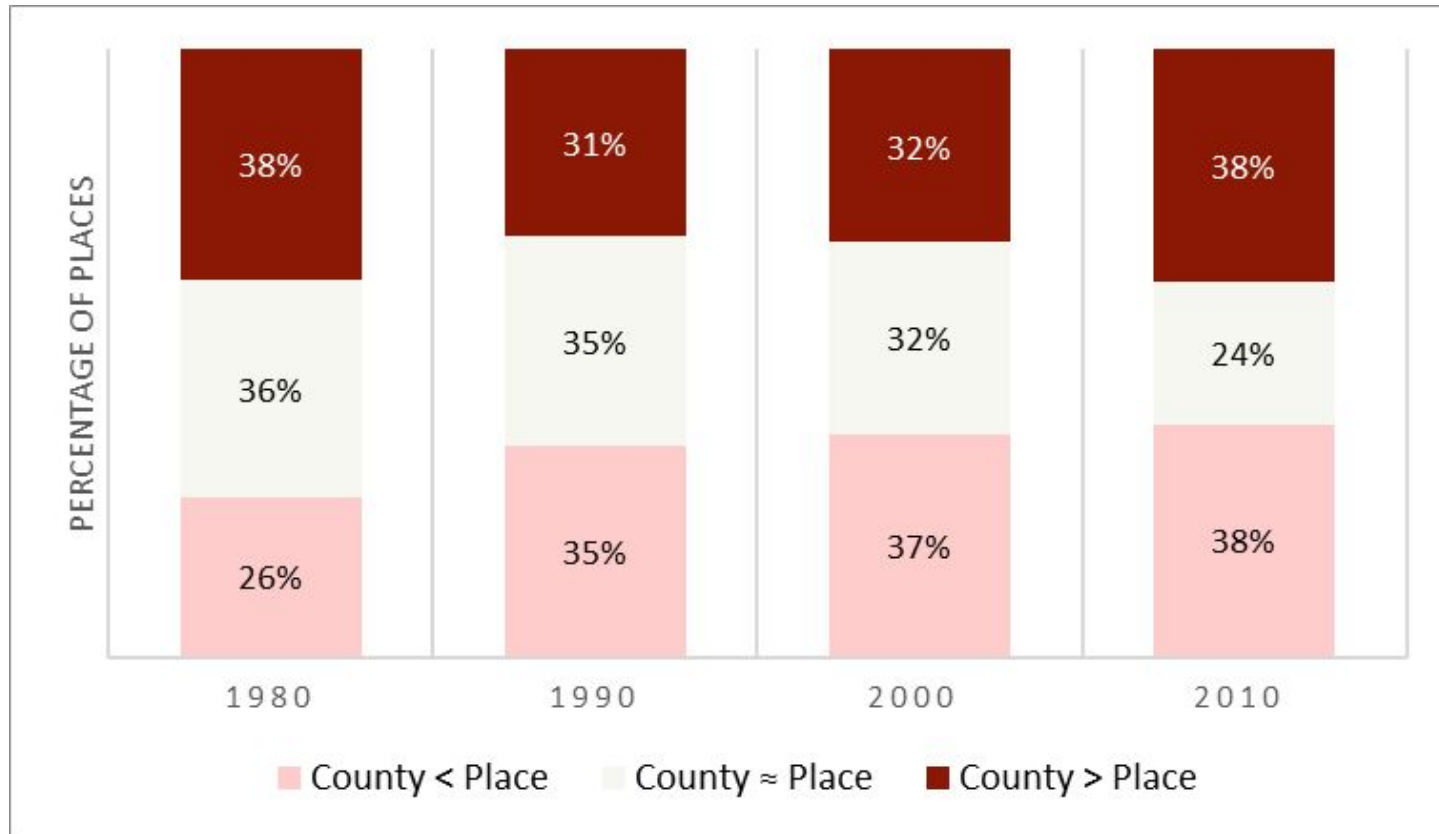
# Motivation



- We know much more about urban spaces
- Much of rural research uses county as analytical unit, or as context
- Smallest of small, <2,500 population
- Three strands of research ...
  - challenges of scale in rural studies
  - trajectories of development in rural places
  - rural health patterns

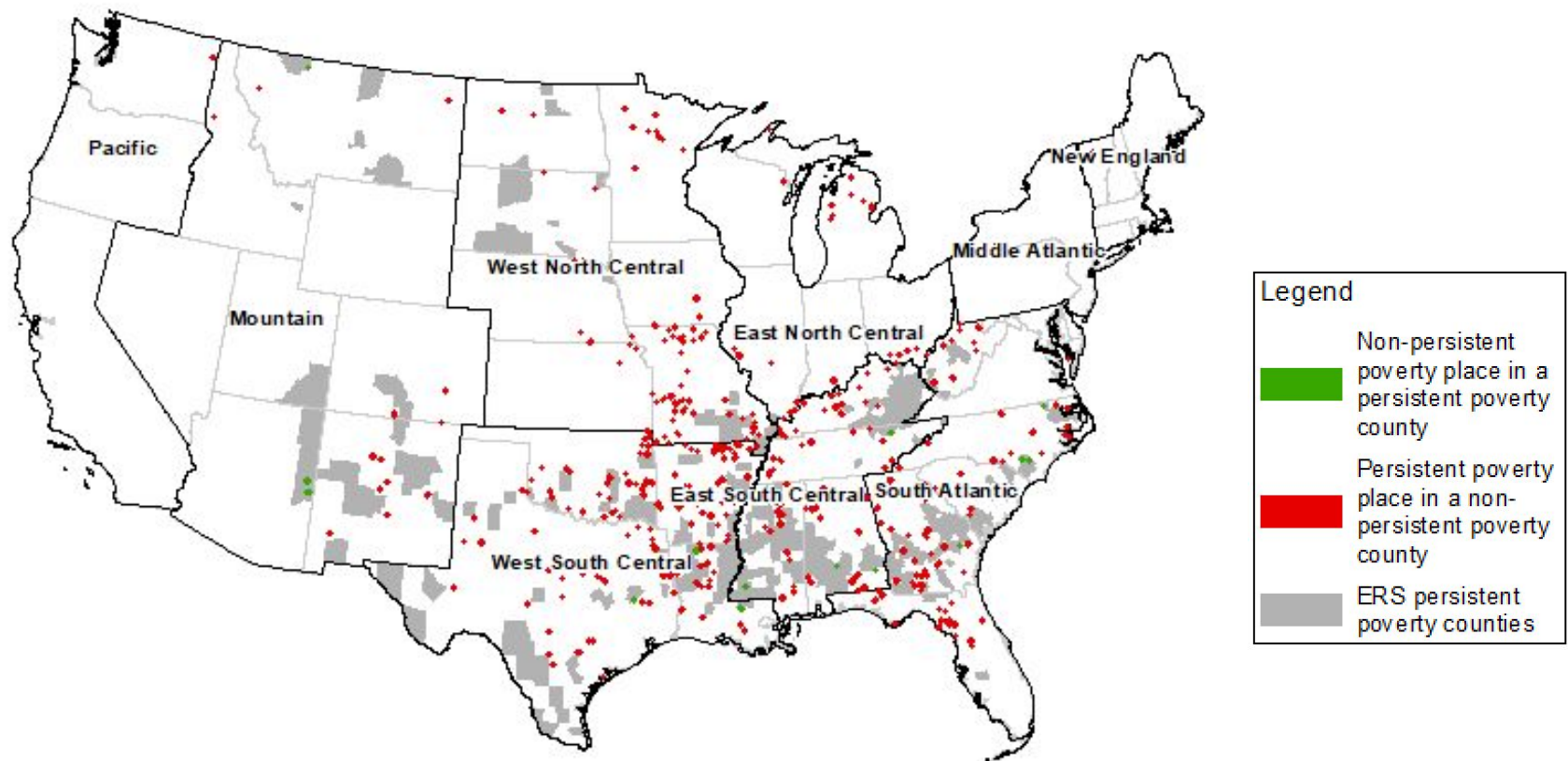
# 1) Challenges of Scale: Spatial Mismatch

Place-county mismatch: Poverty (1980-2010)



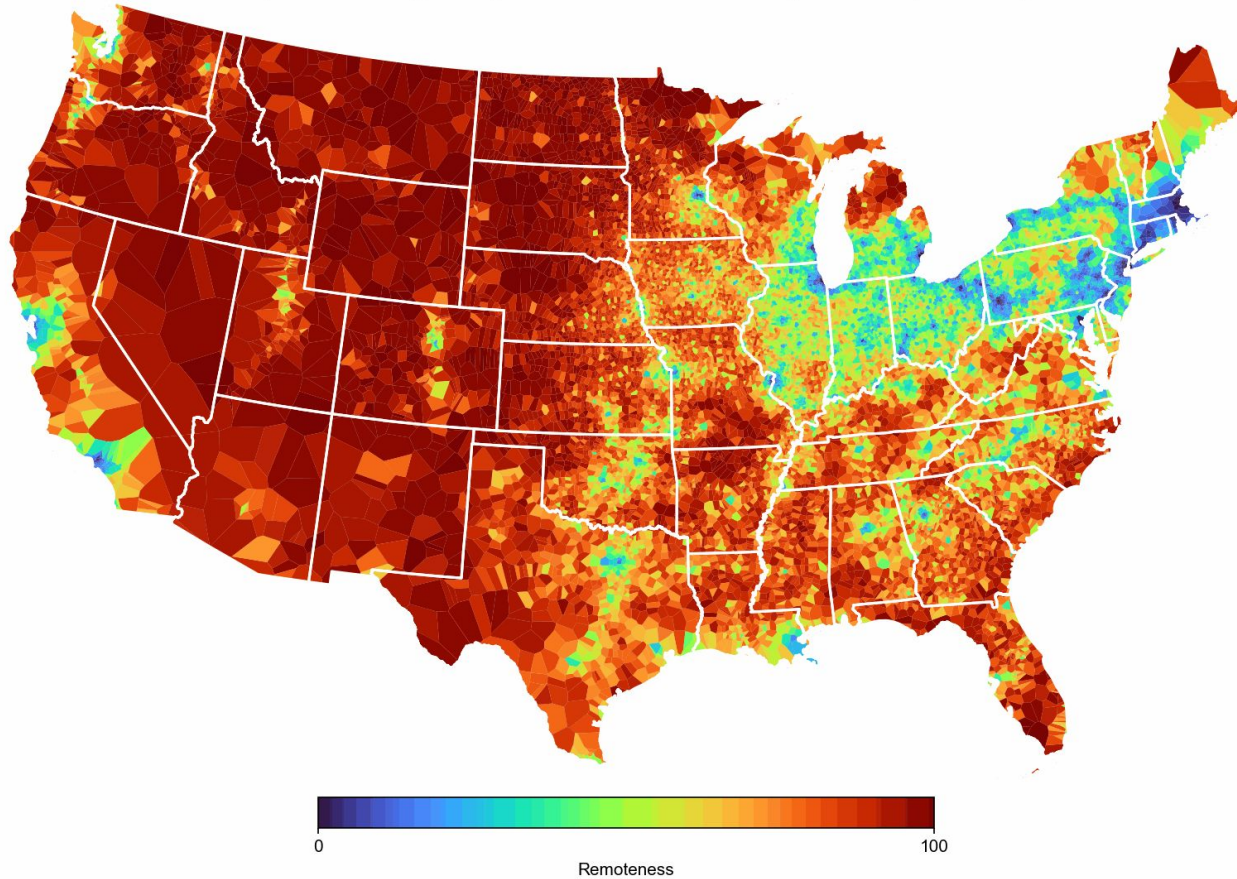
# 1) Challenges of Scale: Spatial Mismatch

Place-county mismatch: Persistent poverty counties and places



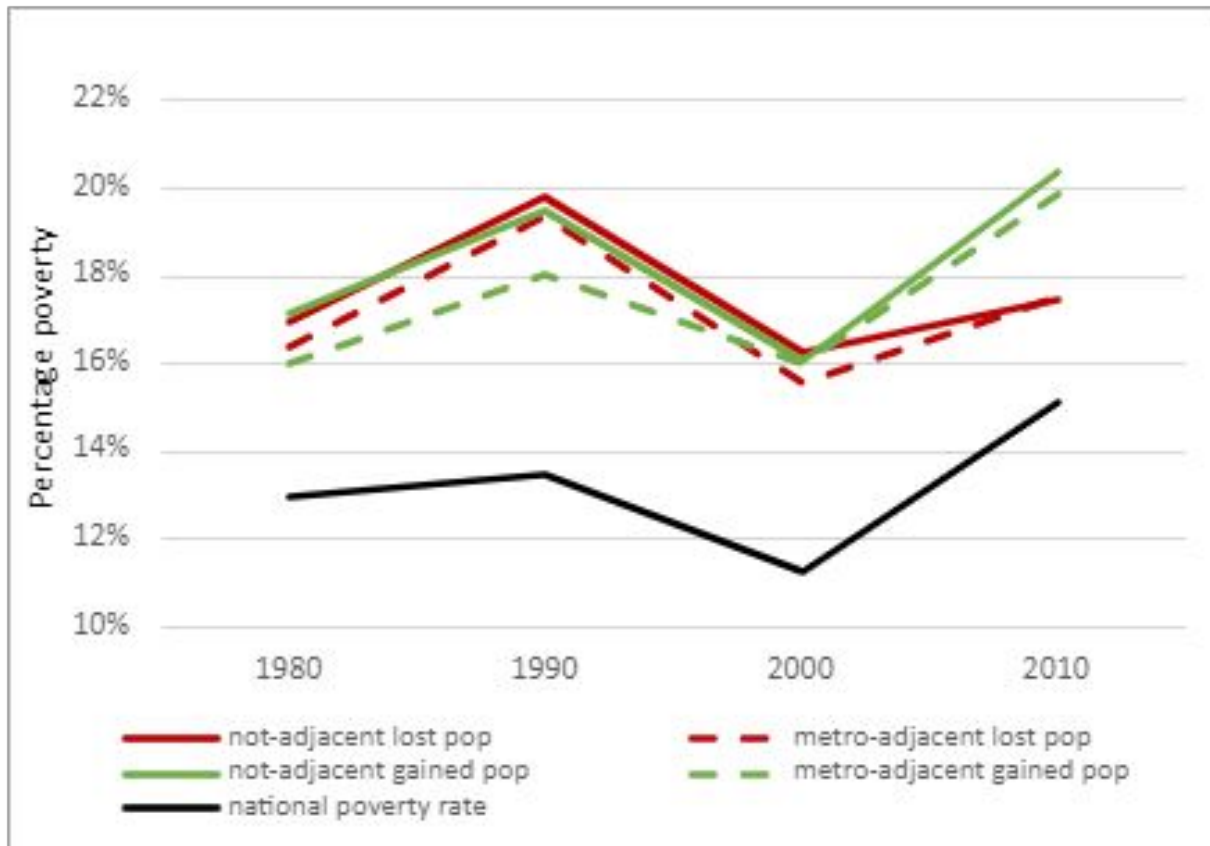
# 1) Challenges of Scale: Remoteness Index

Equal weights, scaled across years (1930)



## 2) Trajectories of Development in Rural Places: Community Capitals

*Poverty rate by population trajectory and county metro adjacency*



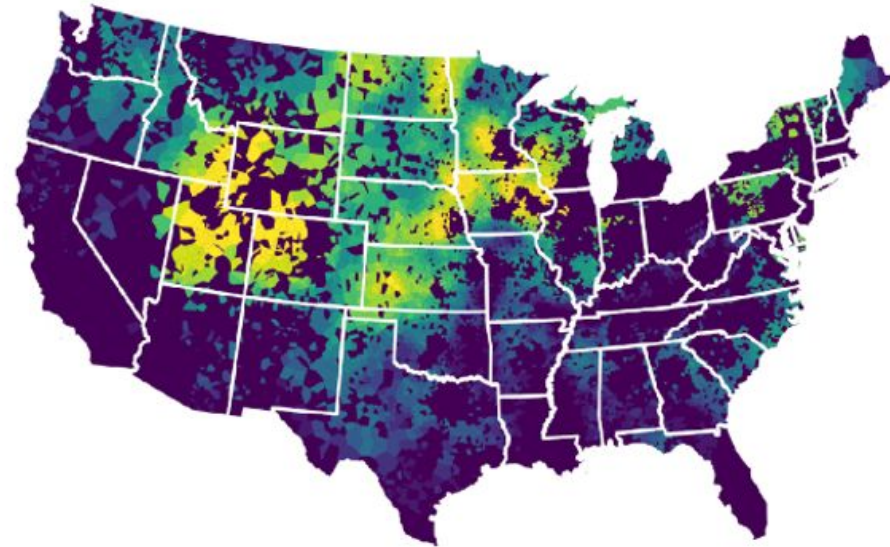
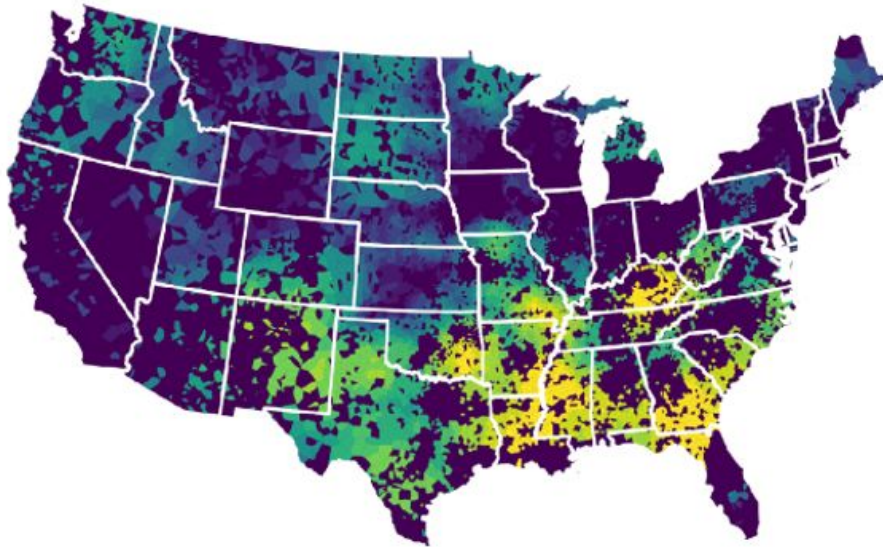


## 2) Trajectories of Development in Rural Places: Sequence Analysis

*Spatial patterns of sequences*

**T1. High persistent poverty, young**

**T2. Prosperous and ageing**



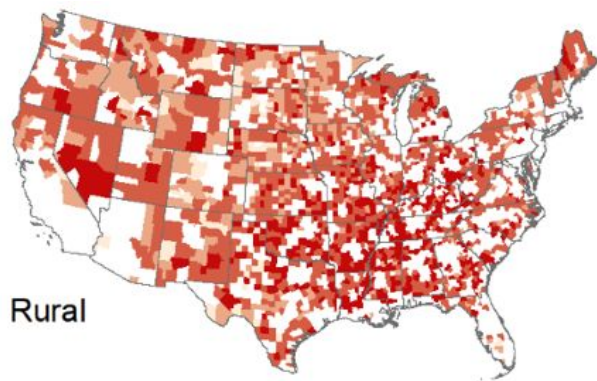
*Local concentration of trajectory*

Low



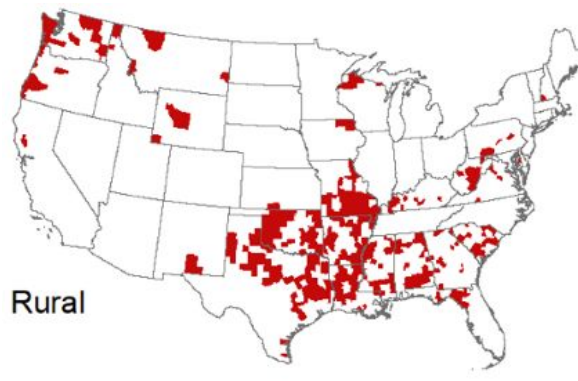
High

# 3) Rural Health Patterns: Elderly & Extreme Events



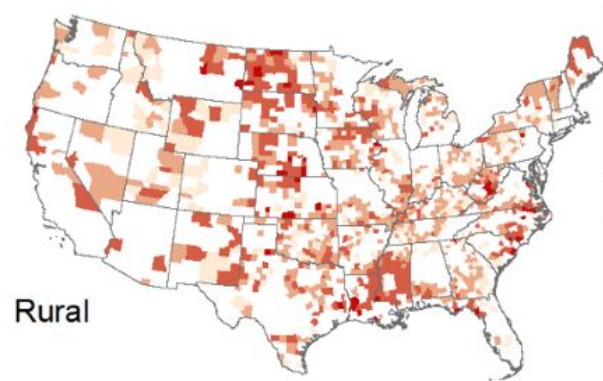
Rural

Age-adjusted mortality  
(65+) - 2016



Rural

Federally declared  
disasters in 2016 (FEMA)



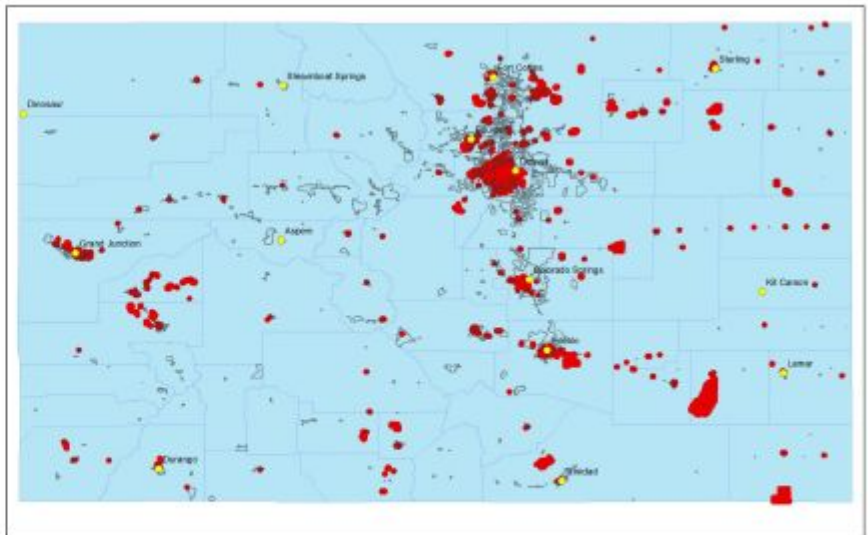
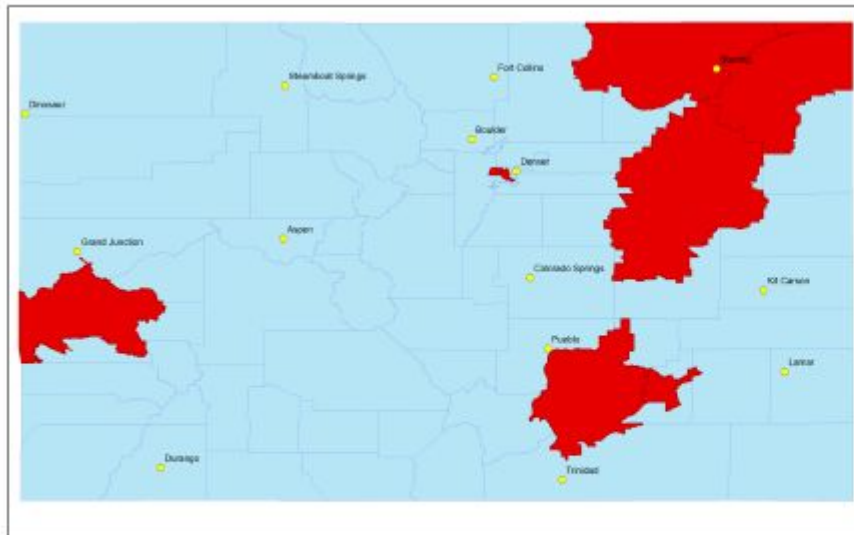
Rural


Per-capita property loss  
in 2016 (SHELDUS)



# 3) Rural Health: Detailed Mortality Patterns

Mortality hot-spots based on LISA analysis at coarse and finer scales



 High-High

 Places

# Next Steps

- Historical extensions
- RDC
- Migration
- Environment



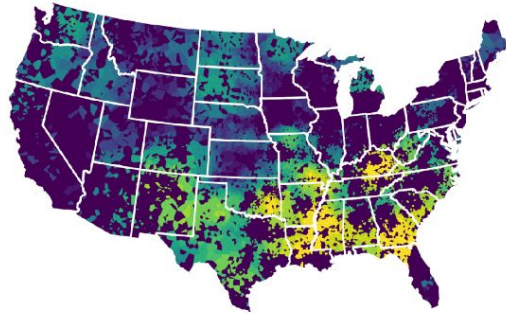
# Thank-you!



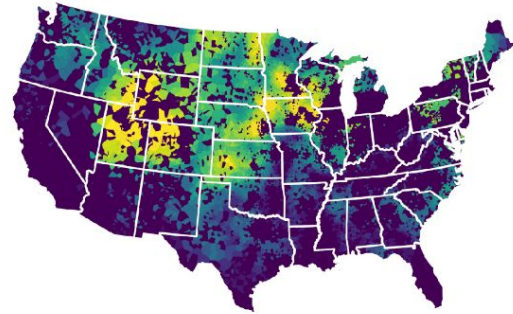
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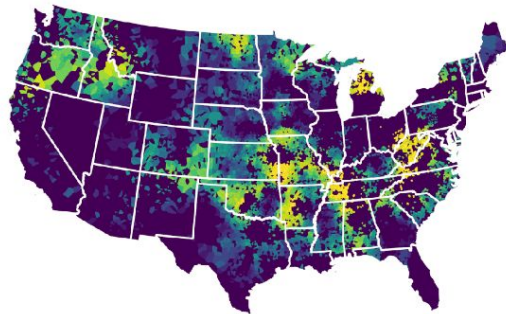
**T1. High persistent poverty, young**



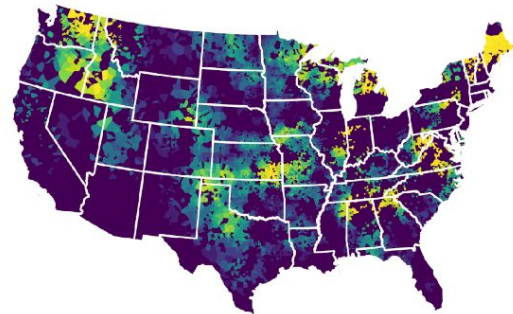
**T2. Prosperous and ageing**



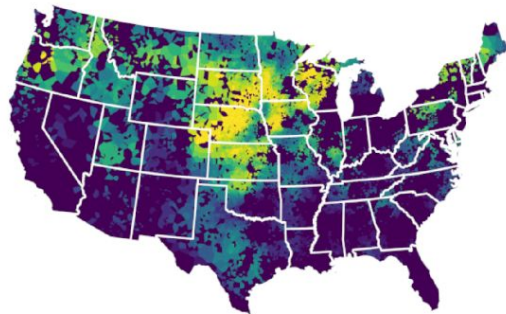
**T3. Post-2000 rise in poverty**



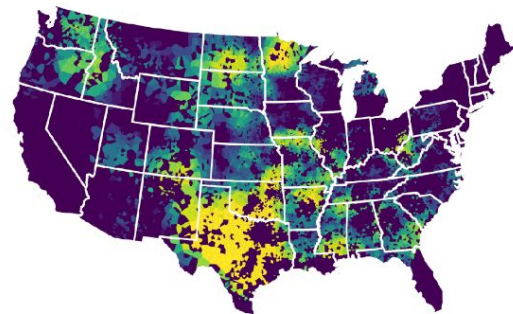
**T4. Post-2000 rise & decline in poverty**



**T5: Stable medium income, old**



**T6. Small, declining poverty, ageing**



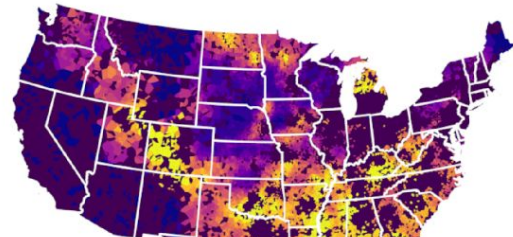
*Local concentration of trajectory*

Low  High

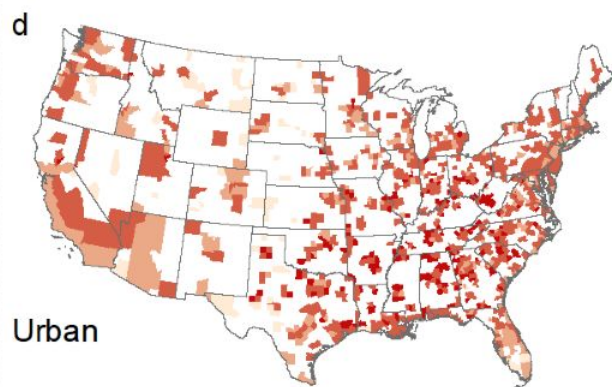
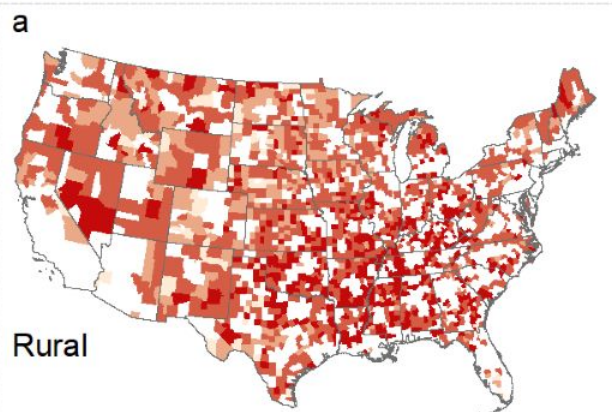
*Shannon index of diversity*

Low  High

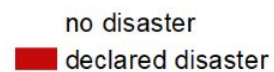
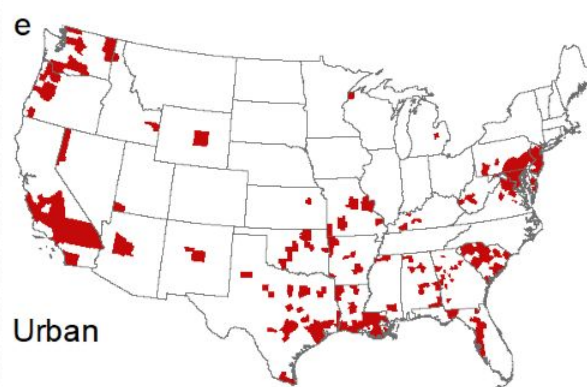
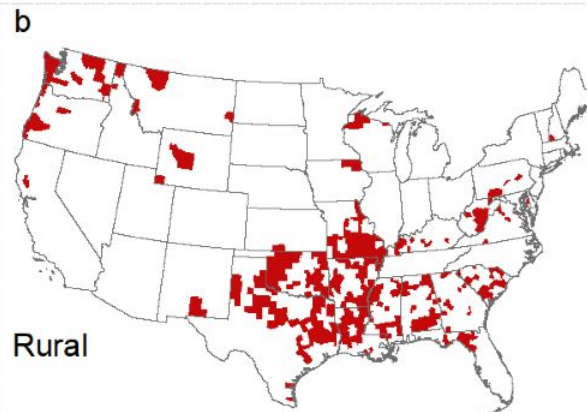
**Local diversity of trajectories**



Mortality Rates (65+)



Federally Declared Disasters



Per Capita Loss (USD)

