

Overcoming the Rural Data Deficit to Improve Quality of Life and Community Services in Smart & Connected Small Communities

Kimberly Zarecor (PI)¹, Biswa Das (Co-PI)¹, David J. Peters (Co-PI)¹, Susan Vanderplas (Co-PI)², Zhengyuan Zhu (Co-PI)¹

¹Iowa State University, ²University of Nebraska-Lincoln

IRG-2, FY2020

ACTIVITIES

- **pilot workshops** using curriculum developed by the team in communities including rural city/town, church, and university
- conference panels for the **Iowa League of Cities** in 2023 and 2024 (accepted)
- validating a **statistical model** that uses public data to estimate some subjective quality-of-life (QoL) indicators
- **visualization techniques** to allow longitudinal and peer comparisons for communities on QoL measures
- design studios working with small communities to use **community arts** to build social capital
- publications in **peer-reviewed** journals in progress

RESEARCH QUESTION

How can rural communities protect and stabilize quality of life even as populations continue to shrink?

Strategies:

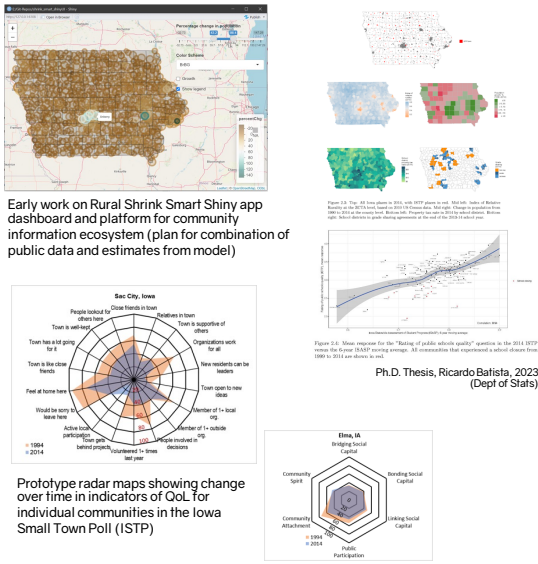
- adapt to this new normal and reject growth as a single indicator of community well-being
- focus on increasing social capital and feelings of belonging to retain people in a community and be attractive to newcomers
- encourage people to participate by identifying talents and creating low barrier to entry opportunities
- share community stories and use data to identify areas for improvement



NEXT STEPS

- **data dashboard** in development with components from the statistical model, quantitative sociological data analysis, and Shiny app written in R
- pilot additional **curriculum modules** with communities and at workshops
- graphic design and content in preparation for an open-access publication, **The Field Guide to Rural Smart Shrinkage**
- continue to share knowledge and collect **success stories** from small towns about QoL initiatives that demonstrate what is possible even as populations shrink
- peer-reviewed journal **publications**
- post-award **sustainability** of results and data tools

DATA VISUALIZATION



CURRICULUM DEVELOPMENT

Acknowledge the Good

reject deficit thinking

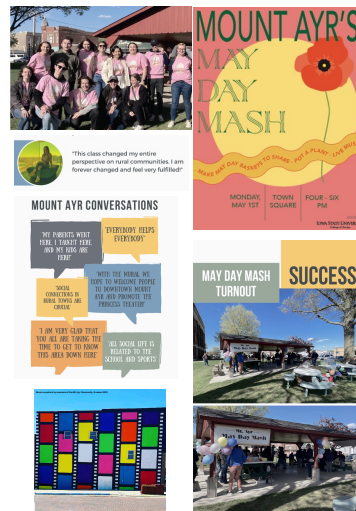
Belonging Through Bridging

relationships matter and everyone can participate

The How Matters

be intentional in how you participate

Design Studio, Mt. Ayr, IA (Spring 2023)



BROADER IMPACTS

- media coverage about rural quality of life (QoL) and embracing low/no growth as a new normal that is not a problem to solve
- removing stigma from conversations about population loss
- disseminating knowledge about small town QoL around the Midwest and internationally
- training students in STEM including women and URM in REU, Masters, and Ph.D. programs
- bringing attention, validation, and new ideas to small and rural towns that are rarely featured in academic research
- developing data tools for small and rural places

Examples of post-event evaluations

