The Role of Community Capital in Rural Renewal

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1. About Us: Rural Renewal & the Research Team

2. Background: The Community Capitals Framework

3. This Study: Where, What, Why, and How?

4. Study Findings

5. Implications & Extension Programming
The OSU Rural Renewal Initiative (RRI)

• **Mission**: to catalyze the renewal of rural communities and places in Oklahoma and beyond through interdisciplinary research, student mobilization, and community engagement.

• **Activities** to support interdisciplinary research:
  • funding seed grant projects seeking to improve the lives of people in rural communities
  • providing them with trained student research scholars to lead community-engaged and participative research
  • hosting an annual Rural Renewal Symposium to raise awareness of rural research needs and foster a network of collaborating faculty, students and community leaders

• **Vision**: a future with hope-filled, evidence-based rural renewal movements growing in every state and nation
**Research Team**

- **Raquel Taylor**: Ph.D. Student in Agricultural Leadership, Education, and Communications, University of Nebraska

- **Andrew Van Leuven**: Assistant Professor of Agricultural Economics & Extension Specialist in Rural Development, Oklahoma State University

- **Shane Robinson**: Professor of Agricultural Education & Associate Director of Institute for Teaching and Learning Excellence, Oklahoma State University
Overview

- The community capitals framework evaluates community development efforts by assessing existing assets and examining capital investment within a community.
- The framework offers a promising alternative strategy for rural communities with limited high-dollar development opportunities, focusing on incremental approaches to slow down economic decline and achieve sustainable renewal.
- The study utilizes publicly available data sources to quantify each type of capital across 1,400+ counties in 17 states.
- OLS regression models are employed to estimate the relationship between community capital levels and county economic growth—job creation, population growth, and income growth—from 2010 to 2019.
- The results provide insights for rural counties to (re)focus their approach to community economic development.
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Community Capitals Framework

• “Offers a way to analyze community and economic development efforts from a systems perspective by identifying the assets in each capital (stock), the types of capital invested (flow), the interaction among the capitals, and the resulting impacts across capitals’.

  • natural capital
  • cultural capital
  • human capital
  • social capital
  • political capital
  • financial capital
  • built capital

• Each type of capital has been theorized and studied long before the “community capitals framework,” but rural sociologists Emery & Flora were the first to combine them all and study them in terms of systems.
Basic System Structure

Inflow

Stock

Outflow
Natural Capital

- Assets that are located in a particular geographic place, not man-made

- **Examples**: weather, geographic isolation, natural resources/amenities, and natural beauty

- Subject to residents & visitors’ preferences ("beauty" is subjective)

- Natural capital is not always a positive asset: aspects of the natural environment are key enablers or constraints of how the built environment was developed
Cultural Capital

• Traditions and customs that are unique to a given place or community (often shaped by its natural capital)

• Examples: language, food, artistic & creative expression, heritage, celebrations

• Unique culture can be an attractive feature of a community, yet culture can also isolate or repel potential visitors
Human Capital

- The skills, experience, and knowledge of those within a community, as well as the capacity of those institutions that contribute to increases in local skills, experience, and knowledge.

- People can invest in their own human capital (public and higher education); firms can invest in the human capital of their workers (training, etc.)

- Public health and cultural norms (such as loyalty and punctuality) both play a significant role in the value of human capital, as sick/injured or lazy workers are not as productive.
Social Capital

- Social capital is the glue—the relationships among people who live and work in a particular society—that holds civic life together (Putnam, 2000)

- **The strength of weak ties** (Granovetter, 1973):
  - *Strong ties*: close friends typically move in the same circles as us...thus, their information “overlaps considerably with what we already know.”
  - *Weak ties*: our mere acquaintances receive more novel information because they interact with different circles.

- Entrepreneurs require social capital in order to fulfill their vision or business ventures; community economic developers can help them tap into relevant networks.
Political Capital

- Access to and reputation with larger political “players” such as higher level (county, state, or federal) elected officials or bureaucrats.

- Political capital also refers to the ability of people to “find their own voice and to engage” in the civic sphere.

- Government is geographically defined: spending needs to happen somewhere. Places with political capital usually happen to find themselves as beneficiaries of federal expenditures.
Financial Capital

- Financial resources available to invest in business creation, support civic & social entrepreneurship, and

- Interacts with social capital to help match entrepreneurs with willing investors (the "character loan" of old)

- Also consists of a communities capacity to raise funds for necessary local expenditures, such as infrastructure improvements and other economic development strategies
Built Capital

• Simply refers to the built environment of the community

• **Examples**: housing stock, infrastructure, telecommunications and utilities, buildings

• Three key dimensions
  
  • **Functionality**: how well does it work? will it need replacing soon?
  
  • **Distinctiveness**: does it look identical to other nearby communities?
  
  • **Sense of Place**: are the buildings, landmarks, and infrastructure integrated neatly into the urban fabric? do streetscapes they provide pedestrians with a sense of “completeness” or enclosure?
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WHERE? The Study Area

[Map of the study area showing states and regions with different markers for state types: Adjacent to Oklahoma, Oklahoma, Secondary Adjacency.]
Study Objectives

• Quantitatively assess the various types of capital—built, cultural, financial, human, natural, political, and social—across all counties within and adjacent to the Southern Great Plains.

• Explore the correlation between capital levels and economic vitality, primarily measured through job growth.
WHY? Motivation for the Study

- Rural areas face a wide range of challenges related to food, education, employment, healthcare access, etc.

- Struggling communities may already possess valuable assets that can contribute to their own economic revitalization, even if they are currently unaware of this potential.

- Better understanding the relationship between community capital interact and local economic outcomes → **recognize and harness their existing assets** to counteract decline.

- As a practical matter, a quantitative measurement and econometric analysis of community capital is warranted. Highlights how well the theory matches up with the empirical (on-the-ground) reality.
HOW? The Study Approach

- Identify between 2 and 5 variables that match well with the conceptual definition of each type of capital (example: “Number of Arts Venues, Museums, & Historical Sites” as a cultural capital variable)

- Generate an index for each capital type

- Use basic ordinary least squares (OLS) regression to model the relationship between each capital and economic growth (measured in terms of % change in employment, 2010–19)
## Community Capital Index Variables

<table>
<thead>
<tr>
<th>Type of Capital</th>
<th>Variable Description</th>
<th>Variable Source</th>
<th>Which is Better?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built</td>
<td>Linear Mileage of Roadways in County</td>
<td>Census TIGER</td>
<td>Higher</td>
</tr>
<tr>
<td>Built</td>
<td>Median Age of Housing Stock</td>
<td>ACS</td>
<td>Lower</td>
</tr>
<tr>
<td>Built</td>
<td>Route Miles of Freight Railroad</td>
<td>BTS County Transportation Profiles</td>
<td>Higher</td>
</tr>
<tr>
<td>Built</td>
<td>Primary and Commercial Airports</td>
<td>BTS County Transportation Profiles</td>
<td>Higher</td>
</tr>
<tr>
<td>Cultural</td>
<td>Number of Arts Venues, Museums, &amp; Historical Sites</td>
<td>Data Axle</td>
<td>Higher</td>
</tr>
<tr>
<td>Cultural</td>
<td>Percent of Minority and Non-English Speakers</td>
<td>ACS</td>
<td>Higher</td>
</tr>
<tr>
<td>Cultural</td>
<td>Percent of Family Units</td>
<td>ACS</td>
<td>Higher</td>
</tr>
<tr>
<td>Financial</td>
<td>Number of Financial Institutions</td>
<td>FDIC</td>
<td>Higher</td>
</tr>
<tr>
<td>Financial</td>
<td>Municipal Debt-asset Ratio</td>
<td>Census Survey of Local Government Finance</td>
<td>Lower</td>
</tr>
<tr>
<td>Financial</td>
<td>CRA Small Business Loan Originations</td>
<td>FFIEC</td>
<td>Higher</td>
</tr>
<tr>
<td>Human</td>
<td>Average High School Test Scores</td>
<td>Stanford Education Data Archive</td>
<td>Higher</td>
</tr>
<tr>
<td>Human</td>
<td>Percent With Bachelors or Higher</td>
<td>ACS</td>
<td>Higher</td>
</tr>
<tr>
<td>Human</td>
<td>Percent of Adults Medically Uninsured</td>
<td>CDC BRFSS</td>
<td>Lower</td>
</tr>
<tr>
<td>Natural</td>
<td>Irrigated Agricultural Land Acres</td>
<td>USDA-NASS</td>
<td>Higher</td>
</tr>
<tr>
<td>Natural</td>
<td>Natural Amenities Scale</td>
<td>USDA ERS</td>
<td>Higher</td>
</tr>
<tr>
<td>Political</td>
<td>Voter Registration Levels</td>
<td>Census</td>
<td>Higher</td>
</tr>
<tr>
<td>Political</td>
<td>Number of Political Donors</td>
<td>FEC</td>
<td>Higher</td>
</tr>
<tr>
<td>Political</td>
<td>Census Response Rate</td>
<td>Census</td>
<td>Higher</td>
</tr>
<tr>
<td>Social</td>
<td>Social Capital Index</td>
<td>PSU/NERC RD</td>
<td>Higher</td>
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Cultural Capital Index
Financial Capital Index
Political Capital Index
Community Capital Index Maps: Iowa
Main Results

• Built capital, cultural capital, financial capital, and human capital all positively associated with employment growth (2010–19)

• Natural capital and political capital *not statistically associated* with employment growth

• Social capital *negatively* associated with employment growth; rurality also had a negative association with employment growth
Additional Findings

- When we broke our model into specific subsets of counties—metro counties only, nonmetro only, and farm-dependent only—we saw that the negative relationship between social capital and job growth only applies to metropolitan counties.
- In nonmetro counties, social capital had a strong & positive statistical association with job growth. In farm-dependent counties, the relationship between the two was not significant.
- Natural capital is negatively associated with employment growth in the metro-only subset (insignificant otherwise).
- Finally, we looked at two additional outcome variables—pct. change in population and pct. change in per-capita income (both 2010–19). Not much difference from the original model except social capital was positively associated with income growth.
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Discussion & Implications — So What?

- Social capital is a mixed bag! Much more valuable resource in rural communities than in metropolitan areas.
- Despite mixed findings, no evidence to suggest communities should ever stop developing community capitals. Rather, this study shows some areas where community development efforts can be best targeted.
- Lack of statistically significant evidence for farm-dependent counties. Larger # of observations might help future research.
- Political capital not significant (but we unfortunately cannot measure the most relevant aspect of political capital!)
- “Goodness of fit” stats ($R^2$) indicated that the stock of community capitals explained about 35% of the variation in job growth and over 58% of employment growth. A good chunk of this variation is thus attributable to “something else” (that we’re not measuring)
Extension Programming Application(s)

- Extension is strongly embedded in every county and well-positioned to provide additional resources and raise awareness about the influence of community capitals on rural economic renewal.

- Communities can be provided with a tailored report of their county’s strengths and weaknesses with respect to community capital. This data can be regularly updated when possible.

- Programming may be designed around instructing rural community members how to conduct an inventory of their community capitals, complementing the study’s findings with more nuanced qualitative measures.

- I want to know what else you think would make for good Extension programming around this topic!
Thank You!

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