The Scope of Rural Economic Research Supported by AFRI Competitive Programs

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National Institute of Food and Agriculture

Session: Land Grant Universities and Rural Development: Are We Using All the Tools in Our Toolboxes?

Agricultural & Applied Economics Association Conference
Washington, DC
August 6, 2018
Assessing NIFA support for Rural Economic Development Research

• Look at number and type of research efforts associated with funding mechanism
• Evaluate areas of research or topics addressed
• Focus on "discretionary" research, i.e., AFRI based research calls
• Looks at topics addressed
• Future directions
NIFA Map of Science –

• Array of ~75,000+ NIFA supported research, ~2000-2017

• Each project is represented by a dot

• Proximity/nearness of dots reflect relationship among research efforts

• Science map involves modeling “topics” or “concepts” associated with the collection or corpus of research documents
AFRI and Formula Projects Locations on NIFA Map of Science, 2009-2017 (Funding Mechanisms)
Rural Economic Development Research Supported by NIFA

Comparison of topics addressed by AFRI and Formula-based projects

Formula Funded Projects, 2009-2017

RURAL ECONOMIC DEVELOPMENT BUSINESS EMPLOYMENT ECONOMIC BUSINESSES MARKETS LABOR LOCAL ECONOMY

RESILIENCE COMMUNITY COMMUNITIES RESILIENT NATURAL DATA RESILIENCY FACTORS POLICY VULNERABLE

DATA DEMAND MODELS ESTIMATE ECONOMETRIC MODEL PRICE POLICY EFFECTS DECISIONS

SURVEY SURVEYS ATTITUDES PERCEPTIONS SAMPLE DATA CONDUCTED QUESTIONNAIRE INTERVIEWS MAIL

POPULATION DEMOGRAPHIC ETHNIC CENSUS HISPANIC UNITED STATES MIGRATION DATA RACE LEVEL

RURAL COMMUNITIES COMMUNITY RURAL COMMUNITIES LOCAL ECONOMIC RESIDENTS RURAL AREAS SOCIAL AMERICA

ECONOMIC IMPACTS OUTPUT ECONOMIC IMPACTS ECONOMIC IMPACT REGIONAL MODEL INPUT IMPACT LEVEL

INTERVIEWS QUALITATIVE INTERVIEW STRUCTURED DATA QUANTITATIVE FOCUS GROUPS DEPTH ANALYSIS FINDINGS

COMMUNITY COMMUNITIES LOCAL ORGANIZATIONS BUILDING COMMUNITY BASED CAPACITY BUILD PROCESS PARTICIPATION

VARIABLES REGRESSION DATA ANALYSIS ANALYSES LINEAR STATISTICAL MODELS VARIABLE LOGISTIC

INCREASED YEARS INCREASE INCREASING GROWING UNITED STATES DECADES GREATER CURRENT DECLINE

SOCIAL FOOD SYSTEMS CASE STUDIES FOOD SYSTEM AGRICULTURE CASE STUDY IDENTIFY INSTITUTIONAL RELATIONSHIPS IMPACTS

RECREATION TOURISM AREAS VISITORS VISITOR NATURE RECREATIONAL RESOURCE MANAGERS OUTDOOR RECREATION

AFRI Projects Concepts, 2010-2017

RURAL ECONOMIC DEVELOPMENT BUSINESS EMPLOYMENT ECONOMIC BUSINESSES MARKETS LABOR...

RURAL COMMUNITIES COMMUNITY RURAL COMMUNITIES LOCAL ECONOMIC RESIDENTS...

SURVEY SURVEYS ATTITUDES PERCEPTIONS SAMPLE DATA CONDUCTED QUESTIONNAIRE INTERVIEWS MAIL

COMMUNITY COMMUNITIES LOCAL ORGANIZATIONS BUILDING COMMUNITY BASED CAPACITY BUILD...

INTERVIEWS QUALITATIVE INTERVIEW STRUCTURED DATA QUANTITATIVE FOCUS GROUPS DEPTH ANALYSIS...

TEAM ONLINE EVALUATION FACE NATIONAL PROJECT MEMBERS CONFERENCE WEBINARS CONTENT

SOCIAL FOOD SYSTEMS CASE STUDIES FOOD SYSTEM AGRICULTURE CASE STUDY IDENTIFY INSTITUTIONAL...

STAKEHOLDERS STAKEHOLDER ADVISORY INPUT GROUPS PLANNING GROUP TEAM COMMITTEE EXTENSION

INITIATIVE GRANT UNIVERSITY RESOURCES SUPPORT PARTNERSHIPS PARTNERSHIP LAND BUILD FUNDING

FOOD COMMUNITY GARDEN HEALTHY LOCAL FOOD LOW INCOME RESIDENTS GARDENS ACCESS LOCAL

CONSUMERS CONSUMER FOOD RETAIL PRODUCTS PRODUCT PURCHASE MARKET MARKETING STORE

POPULATION DEMOGRAPHIC ETHNIC CENSUS HISPANIC UNITED STATES MIGRATION DATA RACE LEVEL
Support for Rural Economic Research is Shifting

- AFRI support has become the dominate source of support.
- Since 2013 the total number of projects has been increasing
- With the AFRI share increasing as Formula share declines.
- From 2009 to 2012 Formula projects dominated as AFRI was developing foothold
- Decline in Formula number is consistent with gradual decline in Formula support in Fed Budget
AFRI Agricultural Economics & Rural Communities (AERC) research funding shares

• Economic research in rural development has maintained a significant share in AERC funding

• Rural Development research funding averages 26%

• Small Mid-sized farms is 33%

• Economics, markets & Trade 25%

• Environmental and Natural Resource Economics 15%
General upward trend in funding of Rural Development research

- Driven in part by an increase proposals in the field, and
- An increase in overall funding for AERC research
What did we ask for?
AFRI – Agricultural Economics & Rural Communities – Innovations for Rural Entrepreneurs and Communities

Request For Applications - Research priorities (nonexclusive)

- **Economic Development** -- Improve the understanding of the factors and conditions that enhance economic opportunities for rural areas and businesses...

- **Health Care** -- Access to health care and insurance including research on rural medical care and treatment delivery strategies

- **Food Security** -- Examine the socioeconomic determinants of household and community food security

- **Food Systems** -- Examine approaches to expanding local and regional food systems, such as through food hubs and intermediated markets; identify strategies for scaling up...

- **Infrastructure** -- Examine transportation, energy, health and other infrastructure-related decisions and their implications for rural communities...

- **Broadband** -- Examine the private and public returns to expanding broadband infrastructure into rural areas...

- **Entrepreneurship** -- Examine self-employment/non-farm proprietorship and explore the factors that spur the growth and survival of these entrepreneurial efforts or that contribute to their demise...
What did we get?
“Topics” revealed from project text

- region project programs policy communities strategies opportunities based support african address wealth
- rural research data community communities resilience analysis areas education results knowledge access
- local agricultural entrepreneurship land agritourism youth small forest products survey integrated social
- food farmers sustainability businesses systems project business area extension markets market sustainable
- rural research transportation economics public service enhance issues including population conference elderly
- extension agriculture industry farm innovation state objectives production quality states health assess
- economic development communities community project regional climate challenges develop related program goal
What did we get?

- Visualization of topics addressed and their connectedness
# Exemplars of projects associated with topics

<table>
<thead>
<tr>
<th>Topics and projects</th>
<th>Primary Topic</th>
<th>Secondary Topic</th>
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<tbody>
<tr>
<td><strong>(1) region project programs policy communities strategies opportunities based support african address wealth</strong></td>
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<tr>
<td>• The Farm Bill as an Asset Building Tool within the Black Belt Region</td>
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<td>• Securing the Land for Agricultural and Community Development: Addressing Heir Property as an Asset Building Strategy</td>
<td>1</td>
<td>3</td>
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<tr>
<td><strong>(2) rural research data community communities resilience analysis areas education results knowledge access</strong></td>
<td></td>
<td></td>
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<tr>
<td>• Mapping Economic Opportunity in Rural America: Mining Big Data for Decision Making in Business Development</td>
<td>2</td>
<td>6</td>
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<tr>
<td>• Big data, economics, and rural economies: facilitating innovation and economic opportunities in rural communities</td>
<td>2</td>
<td>5</td>
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<tr>
<td><strong>(3) local agricultural entrepreneurship land agritourism youth small forest products survey integrated social</strong></td>
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<tr>
<td>• Strengthening local food systems through children: The role of agritourism in agricultural literacy and purchasing behaviors of local foods</td>
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<td>4</td>
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<tr>
<td>• Millions of Acres, Billions of Trees: Social and Economic Impacts of Timberland Sales by the Forest Products Industry in Alabama</td>
<td>3</td>
<td>6</td>
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<tr>
<td><strong>(4) food farmers sustainability businesses systems project business area extension markets market sustainable</strong></td>
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<td>• Sustainable Rural Development Using the Area Sector Analysis Process</td>
<td>4</td>
<td>7</td>
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<tr>
<td>• Business Strategies for New and Existing Rural Grocery Stores: Roles of Local Foods, Institutional Sales, and Community Food Assessment</td>
<td>4</td>
<td>2</td>
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Exemplars of projects associated with topics, *cont.*

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<td>(5) rural research transportation economics public service enhance issues including population conference elderly</td>
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<tr>
<td>• Great Recession, Fiscal Stress and Demographic Transformation: Implications for Rural Service Delivery and Multi-Generational Planning</td>
<td>5</td>
<td>72%</td>
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<tr>
<td>(6) extension agriculture industry farm innovation state objectives production quality states health assess</td>
<td></td>
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<tr>
<td>• Industry clusters and the location of agriculture: Establishing a theoretical base for economic development practice</td>
<td>6</td>
<td>42%</td>
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<tr>
<td>• Linking Health Care Reform and Economic Development in the Agriculture Sector</td>
<td>6</td>
<td>30%</td>
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<td>(7) economic development communities community project regional climate challenges develop related program goal</td>
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<td>• Collective Action in Rural Communities: Mapping Opportunities for Cooperative Conversion and Start-up</td>
<td>7</td>
<td>39%</td>
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<td>• Resilience of Rural Community to Climate Change and Extreme Events</td>
<td>7</td>
<td>58%</td>
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<tr>
<td>• Rural Entrepreneurship in the Wine Industry: Identifying Success Factors Among Small and Medium Sized Wineries in Emerging Cool Climate Region</td>
<td>7</td>
<td>52%</td>
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Future Directions

• Topic modeling project text/data provides insights into extant body of research

• Insights from you and other sources help point research directions

• Juxtaposing current supported topics/projects with suggested directions and priorities informs future Request for Application topics

• Hint – tell me you ideas!
Thank you,
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