

# Harnessing Technological Innovation



## NC1100 “Innovations in Agriculture” Project

Led by the North Central Regional Center, the multistate “Innovations in Agriculture” project (NC1100) plays a key role in fostering innovation adoption and creation across the North Central region. One key objective of the project is to connect university developed technology, rural and agricultural firms, and research and development funding such as from the Small Business Innovation Research (SBIR) program. In May 2017, a pilot connected University of Wisconsin aquaculture researchers to a Blue Ridge fish hatchery in North Carolina, and this new collaboration is pursuing a Phase I SBIR award with coaching from NCRCRD affiliate Dr. John Mann. Building on these efforts, project members John Mann, C.Y. Wang, Scott Loveridge, Martin Kinney, and Mike Ladisch are preparing a Research Coordination Network NSF proposal that will connect groups of researchers and industry on new collaborations focused on innovation and rural development. The idea of the proposed Research Coordination Network is to incorporate the faculty-firm/industry collaborations and researchers, industry leaders, and government entities interested in these collaborations into a broader network.

The NC1100 team also continues its work on a USDA Agriculture and Food Research Initiative competitive grant awarded in 2016. One aspect of the project includes members partnering with the USDA’s Economic Research Service to conduct additional analysis of a 10,000 firm national survey of innovation practices. Preliminary analysis led to a new effort to evaluate the impact of the USDA SBIR program as well as other agency-managed programs (e.g., National Science Foundation, Department of Defense, and National Institute of Health). Results of this evaluation are the first known attempt to compare the influence of different agency-managed SBIR programs on rural and urban firm innovation. This effort is complemented by Dr. Mann’s other USDA SBIR program activities related to: 1) the national-level extension effort to encourage and increase the quality and quantity of USDA SBIR applications—especially among women and minority owned firms; 2) phase I and II USDA SBIR panel reviews; and 3) firm/faculty SBIR coaching.

## Tribal College Researcher Matching Project Underway

Small and medium sized Land-Grant universities (LGU), which include many 1994 and 1890 institutions, are often at a disadvantage relative to larger LGUs in terms of networking resources and/or the opportunity to specialize in emerging research. Such obstacles act as deterrents for faculty from these institutions interested in participating in and/or leading research projects. At the same time, this same faculty can provide invaluable experience and expertise on important and emerging research topics. This year, NCRCRD affiliate John Mann and John Phillips of the American Indian Higher Education Consortium are facilitating new collaborations between researchers at 1994 and 1862 LGUs. The primary goal is to improve communication and expand existing networks in ways that cut across geographies and university size/types to increase opportunities for these faculty and improve the quality of research produced by the academy. The project is establishing a peer network of faculty researchers from a diverse group of LGUs, including 1994, 1890, and 1862, to engage via information and communication technologies, encouraging and facilitating future research collaborations. The team began initial interviews with potential participants in 2018. The idea was to incorporate in-depth interviews and the “fast-pitch” platform, to identify and encourage new collaborative opportunities for researchers.

## Regional Innovations: Success Stories

Stronger Economies Together (SET) enables multi-county regions to work together in developing and implementing an economic development blueprint that strategically builds on their current and emerging economic strengths. One example of how this initiative harnessed innovation is in the Western Oklahoma I-40 Region, which tested the feasibility of drying canola in a peanut trailer, thus reducing the risk of high-moisture canola shattering. The success of this innovation is estimated to add \$78 per acre of harvested canola to the sale price at a cost of only \$6 per acre to dry. Launched in 2010 by USDA Rural Development and the nation’s four

RRDCs and their LGU partners, SET is in more than 100 regions in 32 states, and participating regions have been able to access over \$200 in supportive funding for every \$1 invested in the program nationally. <http://srdc.msstate.edu/set/>

### **Small Business Innovation Research Training Initiative**

The RRDCs, with leadership from the Western Rural Development Center, are coordinating a national project in partnership with the U.S. Department of Agriculture's SBIR program, National Institute for Food and Agriculture and Dawnbreaker. This program will provide outreach, training, and technical assistance for individuals desiring to write proposals for SBIR grants. A curriculum will be developed and delivered in face-to-face meetings in eight pilot states. The goal is to increase awareness and understanding of the SBIR program, improve the quality of proposals, help participants understand how to apply for SBIR grants, increase participation by minorities, women and other underserved populations, and help successful applicants manage their awards.

### **Innovation, Competitiveness, and Economic Prosperity in Rural Areas**

The Northeast Center has received a new grant to examine the role of innovation in supporting entrepreneurship and small business competitiveness in rural areas. This builds on a long history of research on the causes and economy-wide effects of rural entrepreneurship. In addition, the NE Center has developed a new measure of latent innovation that suggests higher levels of such activity in many rural areas than was previously recognized.

### **Business Innovation in Rural Areas**

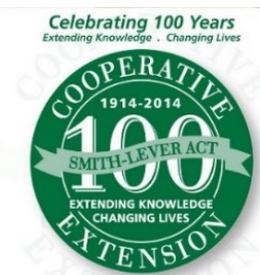
In 2016, with funding from the USDA Economic Research Service (ERS), the Northeast Center established an award program that provided three research teams with access to a new data set to explore ways in which business innovation is happening in rural areas, and its impact on rural communities and regional economies. Members from each team presented their findings in two special sessions co-organized with ERS at the North American Meetings of the Regional Science Association. Papers will be made available on the NERCRD website. <http://aese.psu.edu/nercrd/news/2016/recipients-of-rural-innovation-grants-program-announced>.

### **Southern Local & Regional Foods Initiative (SERA 47)**

The Southern Center is providing leadership to a team of research and Cooperative Extension Service specialists to strengthen support for local and regional food systems efforts. A survey of the regional needs has been complete, and teams are actively developing work teams around the top issues, designing a resource bank as a "go-to" spot for finding research and Cooperative Extension Service resources, developing common measures and tools, and examining different models for how Cooperative Extension Service has invested in this work.

### **Rural Broadband and Infrastructure**

The Northeast Center helped the USDA Economic Research Service and Farm Foundation to organize a conference to evaluate the economic impacts of infrastructure investments, including broadband, highways, bridges, etc. We are also working with federal agencies and private entities to identify opportunities for increasing broadband availability in rural communities. These groups include the National Association of County Organizations and the National Association of Development Organizations. We are also conducting research on the benefits of broadband availability for small business growth.



**Regional Rural Development Centers:** [www.rrdc.info](http://www.rrdc.info)



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