RUPRI Spatial Analytics Initiative
Conceptual Framework and Plan of Work

How do public investments in rural regions increase the prosperity, security and equity of the nation?

Introduction
In an increasingly uncertain world, linkages between urban and rural places are becoming more obvious, and the boundaries more blurred. Much of the critical infrastructure that is the key to our nation’s future livelihood resides in our rural regions. However, our capacity to support and sustain these lynchpins of American society are vulnerable, as nonmetropolitan populations continue to decline and shrinking federal resources concentrate investments in urban areas. A post-recession period of relatively faster GDP growth in non-metropolitan America is simultaneously occurring, largely concentrated in the extractive industry sectors. It is important to understand how these economic dynamics are influencing our country’s future and the role our strategic, yet scarce, public resources play in that future. How do public investments in rural regions increase the prosperity, security and equity of our nation?

Below are the central components of a three-year RUPRI Spatial Analytics Initiative, designed to address these critical policy questions.

Prosperity
Economic growth is a primary goal of any nation. Recent rhetoric implies that to the engines of overall growth in the U.S. are largely located in metropolitan areas. While metropolitan areas do account for much economic productivity, it is important to note that these urban areas are part of regional systems that include rural geographies. However, there has been little research to show the contributions of the rural periphery to the metropolitan cores, or of rural regional economies to overall national growth. How do public investments in rural areas increase the economic growth of both rural and urban areas?

Products / Deliverables:

- Identify contributions to productivity of rural peripheries to their metropolitan cores. (6-12 months)
- Identify non-metropolitan regional economic productivity and the contribution of nonmetropolitan economies to overall metropolitan growth. Identify which areas are matching or out-performing the metropolitan areas, and which areas continue to lag national growth rates. (1-2 years)
- Further identify how federal investments in rural regions contribute to gains in urban productivity as well as urban regional investments leading to a rural renaissance. (2-3 years)
Security
The current presidential policy directive on critical infrastructure security and resilience\(^1\) identified 16 key critical infrastructure sectors. The policy directive identifies strategies to strengthen critical infrastructure security and resilience, including enabling information exchange of baseline data, and integration and analysis to provide decision support to decisions regarding this critical infrastructure. A review of these sectors highlights the influence of place on the ability to deliver key returns to the country, as well as the economic constraints on investments relative to risk and economic productivity. Rural places serve as a major supplier and steward of these critical infrastructure assets. *How do rural regions contribute to the security and resiliency of the nation?*

Products/Deliverables
- Evaluate the joint impact of critical infrastructure sectors on a representative rural/urban region, including regional economic vulnerability, capacity, and linkages to the national economy. (12-18 months)
- Develop an understanding of the benefits that accrue to urban regions as a result of a more distributed system of critical infrastructure. (1-2 years)
- Evaluate tradeoffs of regional and national resource investments on public sector critical infrastructure in rural regions. (2-3 years)

Equity
Traditional measures of well-being are focused on personal income, and fail to capture the underlying distribution of benefits to investment and its impact on economic growth. A new accounting framework that measures multiple forms of wealth and capital provides an important lens through which to view the impacts of both private and public sector investments. Because of the unique economic bases of rural areas, the relationship between growth and distribution of wealth and income is not well understood. It is important that we discover how rural policy affects the distribution of wealth, and how this distribution affects incentives, efficiency and growth of rural economies. *How does the distribution of opportunity and wealth affect the performance of rural economies?*

Products/Deliverables
- Evaluate the impacts on poverty and wealth dynamics of USDA investments in persistent poverty regions. (6-12 months)
- Using the new wealth accounting framework, evaluate the relative economic productivity of a subset of rural regions from joint investments by local, state and federal sources in key public sector assets. (1-2 years)
- Apply the wealth accounting framework to regions currently experiencing unprecedented economic growth in extractive industry sectors, and evaluate the distribution of benefits within these regions. (2-3 years)