5th District
Footprint
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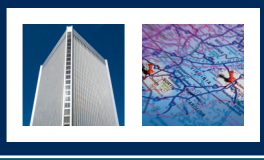

Measuring and Mapping Local Innovation

Innovation is a key factor in economic growth and economic recovery, especially after the recent Great Recession. But for all the attention innovation receives, it can still be a rather fuzzy concept.

The U.S. Economic Development Administration sponsors the Innovation Project, which has created the Innovation Index to measure innovation performance.[1] It is calculated using four component indexes: human capital, economic dynamics, productivity and employment, and economic well-being. Each of these components in turn includes several variables. The first two components are inputs to innovation and measure innovation capacity. The last two are outputs of innovation and reflect the results.

The Innovation Index measures a region's innovation performance relative to the nation. Thus the U.S. as a whole has an index value of 100. The shaded areas on the map show the distribution of Innovation Index values across counties in the Fifth District states. Twelve counties in the Fifth District have an index value of greater than 100, which means they are considered more innovative than the national average. The counties are located in Maryland, North Carolina, Virginia and the District of Columbia.

Areas with high innovation performance tend to be located in or near metropolitan areas. For example, Montgomery County, MD, located in the Washington, DC, metropolitan statistical area (MSA) has the highest Innovation Index value (121). Rural areas tend to have relatively lower Innovation Index values. For example, Lee County, SC, a rural county dominated by farming, has the lowest index value (61) for the Fifth District.[2]

Proximity to research universities also appears to play a role. Montgomery County, VA, has an index value of slightly over 100 despite being located in the rural southwestern corner of the state. The county is home to the Virginia Polytechnic Institute and State University (Virginia Tech).

In terms of regional economic recovery, it is interesting to look at the relationship between innovation performance and unemployment. In some places, we see a strong correlation. For example, Arlington County, VA, had the lowest 2010 unemployment rate in the Fifth District at 4.2 percent and a high Innovation Index value (107).[3] Marion County, SC, had the highest unemployment in the District at 20.7 percent and an overall Innovation Index value of 71. However, the correlation does not hold everywhere in the Fifth District. For example, Madison County, VA, has both a low unemployment rate (6.2 percent) and a low Innovation Index value (66).

The innovation performance of a community represents many components, including an educated labor force, technology-based employment and growth in worker productivity.

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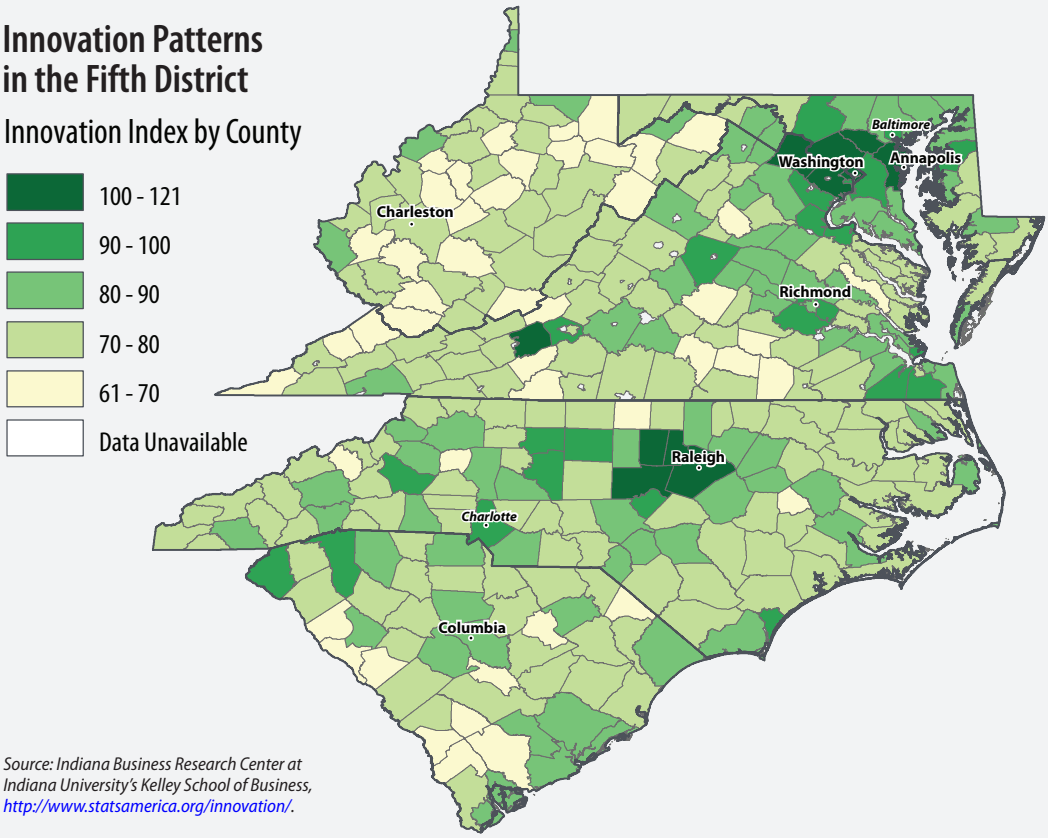
Innovation Patterns in the Fifth District

Innovation Index by County



Source: Indiana Business Research Center at Indiana University's Kelley School of Business, http://www.statsamerica.org/innovation/.

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1. *Indiana Business Research Center. "Innovation in American Regions: Tools for Economic Development." Accessed October 7, 2011. http://www.statsamerica.org/innovation/index.html.*
2. *More than 50 percent of the land area of Lee County, SC, was employed in farming in 2007. See USDA, National Agricultural Statistics Service, 2007 Census of Agriculture.*
3. *The unemployment rate statistics used are for 2010 and from Bureau of Labor Statistics/ Haver Analytics.*