INTRODUCING

A NEW SERIES FOCUSED ON KENTUCKY

IMPACT

COMPARATIVE ADVANTAGE

INDICATORS

STAKEHOLDERS

What is an Entrepreneurial Ecosystem?

"Ecosystem" has become a catch phrase for almost every professional community. Ecosystems are closed systems where every part is dependent on and provides for every other part of the system.

An entrepreneurial ecosystem is no different. The right environment must surround a business in order for it to thrive. A community of great thinkers and inventors will need adequate funding and resources to thrive and make an impact. Likewise, funders won't take notice of exceptional new science without the presence of ideas and businesses to invest in.

Though this seems like a simple concept, ensuring that our region has all the components needed is a complex process. Kentucky has many of the assets needed for a thriving entrepreneurial ecosystem. However, there are pieces that are either missing or underdeveloped.

Last year, the state of Kentucky entered into a partnership with the Massachusetts Institute of Technology's (MIT) Regional Entrepreneurship Acceleration Program (REAP). Through the MIT REAP process, we are exploring the various elements of the ecosystem in our state.
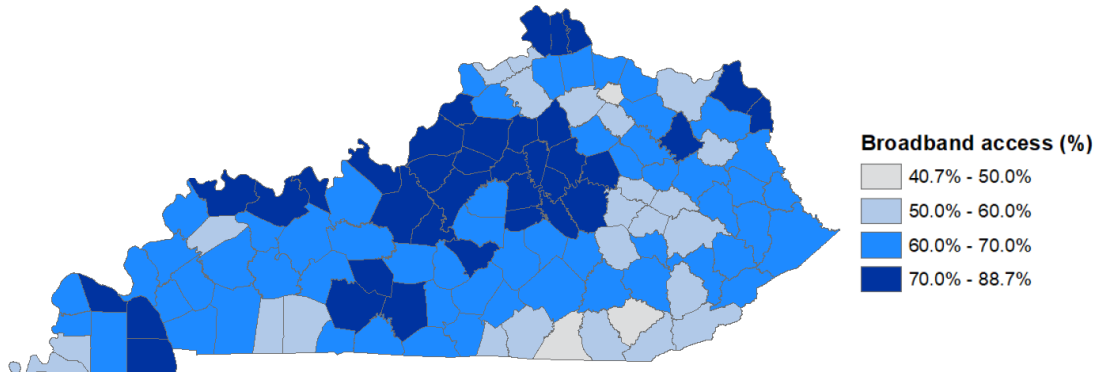
Visit MIT's Regional Entrepreneurship Acceleration Program website to learn more about the Kentucky REAP team and the work we are doing.

MIT REAP KENTUCKY

Our New Series: Translating Kentucky's Entrepreneurial Ecosystem

In the coming months, we will be providing an overview of various stakeholders and indicators needed for an ecosystem. Some of the series will review the various **stakeholder** groups that are necessary. From government entities who provide policy and initiatives to spur growth, to risk-capital investors who provide the funding to help develop enterprises. From corporations who provide research and development and often serve as a first customer for investors, to higher education institutions that provide academic research, leadership and rigor to the pursuit of intellectual property that could be commercialized. And, at the center of it all, the entrepreneurs who risk much to create new businesses.

We will also explore various **indicators** needed to grow our ecosystem. Infrastructure, mindset, education, capital access, and customer demand are some of the many facets of an ecosystem.

Ecosystems, though, are not all the same. The needs of a business designed to scale rapidly in a global market are not necessarily the same needs of a business intended to serve local or even regional economies. In the coming issues of this series, some indicators and stakeholders play a more critical role to those innovation-driven enterprises.

To what end? CEDIK has created this series to share data and information that can help individuals and organizations in their impact on Kentucky's entrepreneurial environment. Every month we will introduce the audience to a new element for the ecosystem.

TRANSLATING **KENTUCKY'S**
ENTREPRENEURIAL ECOSYSTEM

IMPACT
COMPARATIVE ADVANTAGE
INDICATORS
STAKEHOLDERS

INDICATOR
Broadband
Access

FALL 2019

Source: U.S. Census/2013-2017 ACS

Broadband access (%)
- 40.7% - 50.0%
- 50.0% - 60.0%
- 60.0% - 70.0%
- 70.0% - 88.7%

Image 1. Percent of population with access to broadband.

What do we know about broadband access?

Access to internet is crucial for today's economic activity because it fosters increased productivity, improved business operations, increased healthcare and educational opportunities, and a more competitive entrepreneurship environment (USDA). Though more than 90% of the U.S. population has access to internet (FCC), for a business to thrive, it needs more than that – it needs reliable and affordable high-speed internet.

In general, one of the fastest internet options is **broadband**, which stands for "broad bandwidth" and is defined as internet connection with a download speed of at least 25 Mbps (megabits per second) and an upload speed of at least 3 Mbps (FCC).

Broadband comes in several high-speed transmission forms, such as DSL (digital subscriber line), cable modem, fiber optic, wireless and satellite.

Nationally, access to internet of any type ranges between 87%-100%, and broadband access ranges between 53%-85%. The Kentucky average for broadband access is 72.9% (Census Bureau). However, there are significant differences at county level as illustrated in Image 1 above.

Why does broadband access matter?

Broadband has become a term so ubiquitous that we no longer really register its significance. The reality is that in the span of one generation, broadband is just as important to a community's infrastructure as is clean water, electricity, and roads.

The same holds true here in Kentucky. Communities can use strong broadband access as a motivation to attract entrepreneurs, or use the development of stronger infrastructure to keep the talent they have.

For highly scalable businesses, fast and reliable connectivity to global markets is a must. Consider the companies that have grown rapidly over the past decade (e.g., Amazon, eBay, Uber). They all share a dependence on high speed internet.

Even those businesses whose models are not based around connectivity, they often require internet to operate.

Business functions like buying, selling, communicating, and data storage are now almost entirely dependent on internet.

Kentucky's entrepreneurs, generally speaking, have access to higher speed internet as compared to the rest of the population. Still, there are significant pockets of the state (see Image above for specific areas) where internet access is limited and connection speeds may be lower.

At the community level, what is at stake if there is limited access to broadband? Oftentimes, infrastructure is a crucial consideration for business location. A business community may struggle to support themselves on local commerce alone, and lacking high speed internet, may not be able to compete with businesses that do have access. As Kentucky's entrepreneurial ecosystem develops, there is an opportunity for communities to be proactive in supporting local businesses through policies that enable broadband expansion.

UK **College of Agriculture, Food and Environment**
Community and Economic Development Initiative of Kentucky

Additional KY Digital Divide County Data Profiles available at cedik.ca.uky.edu