

The Internet in kentucky: Life in the slow lane for many

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The Internet has become an important source of information for employment, health, news, entertainment, and shopping. And while many of these activities can be easily performed with a basic level of broadband speed, an increasing number of applications and activities—like distance learning—require high-speed broadband to perform adequately. Research and analysis conducted by the University of Kentucky College of Communication and Information and the Gatton College of Business and Economics' Center for Business and Economic Research (CBER) show that only a handful of Kentucky counties, which include about one-half of the state's population, are nationally competitive with respect to high-speed Internet infrastructure and utilization.

Over the last decade the percentage of Kentucky households with high-speed Internet—[broadband](#)—has increased from 13 percent to 67 percent, and the percentage of Kentucky households with access to a basic level of broadband is about 95 percent. Unfortunately a basic level of [broadband speed](#) is not sufficient for many important applications. According to a study sponsored by the U.S. Small Business Administration, distance learning, for example, requires a minimum 25 mbps download speed for an "ok" experience and 50 mbps for a "good" experience. While federal data show that 82 percent of U.S. households have access to at least 25 mbps, only about 61 percent of Kentucky households have access to this speed.

The University of Kentucky researchers used a statistical model to

estimate the percentage of households in each county having high-speed broadband Internet in their home. They combined these estimates with government figures on the extent of the high-speed [broadband infrastructure](#) to categorize each of Kentucky's 120 counties into one of four groups: Nationally Competitive, On the Cusp, Frustrated Surfers, and the Information Highway Slow Lane.

There are 18 "Nationally Competitive" counties. These counties have download speeds and high-speed Internet utilization rates that are equal to or greater than the U.S. average. The next group of 24 counties is "On the Cusp," with at least 50 percent of the households having access to 25 mbps. Comprising the "Frustrated Surfers" category are 33 counties where less than 50 percent of the [households](#) have access to at least 25 mbps. Finally, the largest category, "Information Highway Slow Lane," is comprised of the 45 counties without 25 mbps download capability. Over 85 percent of the 102 counties that are not "Nationally Competitive" have household broadband rates below the U.S. average.

Recent proposals by the Kentucky Council on Postsecondary Education for improving access to high-speed Internet in Kentucky include the creation of "E-Learning Centers," which would be places like schools, libraries, and nonprofits where individuals would have after-hours access to the Internet. Providing free access at E-Learning Centers would overcome the cost barrier, but the researchers' results show there are important education as well as income barriers to household broadband adoption. The independent effect of education is significant—Kentuckians with at least a bachelor's degree are 1.3 times more likely to have broadband at home than those with a high school diploma, 79 percent compared to 60 percent.

"The Council's Rural Access Work Group explored the causes of perennially low educational attainment in rural areas and found that many counties struggling with low educational attainment, high

unemployment, and poverty are the same counties without adequate access to high-speed Internet access," said Bob King, president of the Council on Postsecondary Education. "Expanding access to high-speed Internet would bring high quality educational resources to areas of the state that are in greatest need of elevating the employability of its residents. It would, without question, be a 'game changer' for thousands of Kentuckians."

According to Dan O'Hair, dean of the College of Communication and Information, "improving Kentucky's innovation capacity and economic prosperity in the Information Age will be partially determined by the extent to which our broadband infrastructure and Internet utilization is not just nationally competitive—but internationally competitive."

More information: cber.uky.edu/

Provided by University of Kentucky

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