

## Faster and Stronger

High-speed Internet access is allowing rural Kentucky to stay in the economic-development game

By ANN CARRNS

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For Jeff Herron, high-speed Internet access is one of the keys to his business success. And the key to his high-speed Internet access is a local nonprofit.

Mr. Herron runs a real-estate and document-retrieval firm in Falmouth, Ky., a rural area near the Ohio border where bad weather often makes roads impassable. He says the recent arrival of fast, affordable Internet service in surrounding Pendleton County means his employees can work at home when wintry weather leaves them stranded, sometimes for days at a time.

### THE JOURNAL REPORT

- See the complete [Economic Development](#) report.

Mr. Herron says his enterprise owes its success, in part, to ConnectKentucky, a nonprofit with a roughly \$2 million annual budget that has worked for the past four years to expand the availability and use of broadband Internet connections in the state's rural areas. According to ConnectKentucky, 95% of the state's households can now buy high-speed Internet service, up from 60% in 2004.

ConnectKentucky's efforts, funded 90% by the state and 10% by private businesses and foundations, show how public-private partnerships, as well as a willingness by local governments to work with less-established telecommunications providers, can drive increased access to high-speed Internet service and spur economic development.

Kentucky's plans to use the Internet to improve education and health care couldn't be realized until the state achieved more basic benchmarks, such as wider broadband availability and use, says Brian Mefford, who was a legislative adviser to then-Gov. Ernie Fletcher before becoming ConnectKentucky's chief executive officer in 2004. "We needed a more nuts-and-bolts approach," he says.

### Laying the Groundwork

ConnectKentucky originally was part of a small nonprofit that aimed to help businesses and governments use information technology to become more competitive. Under Mr. Mefford's leadership, ConnectKentucky's primary mission became expanding broadband access and use.

### LIFE IN THE FAST LANE

- **The Problem:** Kentucky couldn't use the Web to improve its economy until it expanded access to fast Internet service.

## From the 28jul08 *Wall Street Journal*

- **The Economic Game Plan:** A nonprofit, ConnectKentucky, helped local governments team up with broadband providers willing to expand in rural areas.
- **The Results So Far:** An increase in the number of households using fast Internet service has resulted in about 63,000 new or retained jobs, ConnectKentucky says.

Its first step was to persuade about 80 broadband providers -- from large telephone companies such as BellSouth and its successor, [AT&T Inc.](#), to small municipal cable providers -- to share information about broadband penetration. ConnectKentucky created interactive maps that showed broadband coverage along with population density, allowing providers to spot gaps in service in areas where there was likely demand. That helped providers identify areas where it made economic sense to expand.

Then, it organized committees of volunteers from local governments, schools and businesses in each of the state's 120 counties to identify what benefits broadband service would bring to the community and to explain those benefits to the public. Regional coordinators for ConnectKentucky helped local governments establish their own Web sites and draft requests for proposals from broadband providers.

ConnectKentucky also launched a program called "No Child Left Offline" to distribute computers donated by the state and companies such as [Microsoft Corp.](#) and [Lexmark International Inc.](#) to schoolchildren from poor homes. Roughly 2,000 computers have been distributed, and the dozen counties participating in the program have shown a much higher increase in broadband adoption than those that don't participate.

"It's a real boots-on-the-ground approach," says Lawrence Spiwak, president of the Phoenix Center for Advanced Legal & Economic Policy Studies, a Washington nonprofit group that studies broad public-policy issues.

The percentage of households using high-speed Internet service in Kentucky has risen to 44% from 24% over the past three years, according to a September 2007 survey by ConnectKentucky.

Without the concerted effort to increase usage, the "natural" rate of adoption in Kentucky would have been 37% at the end of 2007, based on national growth trends, a study by ConnectKentucky found. The extra seven percentage points of growth equates to roughly 297,000 more individuals accessing broadband than normally would have been expected, it says.

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ConnectKentucky

Based on a formula developed at the Brookings Institution to measure the economic benefits of broadband service, ConnectKentucky estimates its efforts have resulted in about 63,000 new or retained jobs. In particular, the group's analysis of federal Bureau of Labor Statistics data shows that Kentucky experienced a 3.1% increase in information-technology jobs over the two years ending in December 2006, compared with growth of 0.1% nationally.

"That's a dramatic gain," says Mark McElroy, chief operating officer of Connected Nation, a ConnectKentucky spinoff that was created to replicate the broadband program in other states. (Mr. Mefford is now CEO of Connected Nation.)

Mr. McElroy cites as an example the Geek Squad's computer-repair facility in Bullitt County, Ky., near Louisville, which employs more than 500 people.

Job growth in more rural areas, like much of Pendleton County, has been more incremental. But Henry Bertram, the county's judge executive, says the broadband program is crucial to Pendleton, where traditional efforts to attract industry have been hindered by the county's lack of direct interstate access and its windy roads.

"It's already helping," he says of the county's recently expanded broadband service. "We haven't opened a plant with 20 or 30 people working there, no, but every day somebody decides to start working at home." He estimates about 100 work-at-home jobs have been created so far.

Not that expanding broadband availability was easy. "It was a slow and painful process," recalls Mr. Herron, one of the volunteers on Pendleton County's broadband leadership team. He says satellite service was available but too costly in an area with many poor households: It typically required several hundred dollars in initial set-up fees, plus as much as \$80 to \$100 in monthly fees. It often was too slow for the heavy document-retrieval work his business required, so he was eager to help find faster, cheaper alternatives, he says.

Pendleton's team sought broadband-expansion proposals from a handful of large telephone providers. But their proposals required the installation of expensive infrastructure at a cost of as much as a half million dollars in some cases. The county determined it wouldn't be able to fund its portion of the cost.

"Pendleton is a small county and it doesn't have that kind of money," Mr. Herron says.

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So ConnectKentucky put the county in touch with smaller providers who were providing fast Internet service elsewhere using less-costly, "fixed" wireless systems. Fixed-wireless systems work by sending signals from transmitters installed on towers -- such as existing water towers or even grain silos -- to receivers located in a customer's home or business. Because they don't require extensive infrastructure, such systems have been especially useful in ConnectKentucky's effort to reach rural areas.

The county decided to work with Blue One Communications Inc., a small Internet service provider based in Lexington, Ky. The county invested about \$8,000 in the fixed-wireless system, says Mr. Bertram, and promised to help Blue One obtain permission from water districts and private property owners to install equipment on water towers in the county.

In 2006, Blue One launched a pilot program in Pendleton with 30 customers and began signing up the general public in early 2007. The basic service costs less than \$30 per month and offers speeds comparable with the fast Internet service provided by big telephone companies, says Mr. Herron, whose company contributes to his employees' subscription fees.

"I don't know that we would have found Blue One without ConnectKentucky," he says.

The service currently has about 200 subscribers in Pendleton. It hasn't all been smooth sailing, according to Mr. Bertram. Blue One struggled to quickly meet the pent-up demand for broadband service, frustrating some potential customers, he says. In addition, some landowners balked at the idea of giving a for-profit company free access to their property to install transmitters and related equipment, so setting up the system was more difficult than the county predicted. Officials at Blue One didn't return repeated calls seeking comment.

Still, for Pendleton County residents like Greg Wolfe, a computer programmer and cattle farmer, the Blue One service has been a blessing. After the Cincinnati bank where he was working downsized, he landed a work-at-home job for a Houston-based banking-services company. He says dial-up Internet service was useless to him because of the nature of his work, and satellite was too expensive. Part of the Blue One pilot program, he pays about \$40 a month for Internet access.

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