Broadband Assistance Drives Job Growth

An innovative program in Pennsylvania leveraged stimulus funds to drive broadband deployment, adoption and use. Small and mid-sized businesses flourished.

By Masha Zager / *Broadband Communities*

Pennsylvania was among the first U.S. states to recognize that broadband was necessary for a strong economy. As early as 2004, the state passed a law requiring incumbent phone companies to enable universal broadband service (defined at that time as 1.5 Mbps down/128 Kbps up) by 2015. The law also funded broadband mapping and school broadband deployment, and it allowed communities that aggregated demand to petition service providers for earlier broadband deployment.

The program was effective. The state map was in place in 2006, and each succeeding year showed improvements in school connectivity and overall broadband availability. When the broadband stimulus program arrived in 2009, "Comparatively, we were in a pretty good position," says Sue Suleski, director of strategic initiatives for the Pennsylvania Department of Community and Economic Development (DCED).

HARNESSING THE STIMULUS PROGRAM

Unlike states that were just beginning to focus on broadband issues, Pennsylvania harnessed the stimulus program to make significant strides. With funding from the National Telecommunications and Information Administration (NTIA), it enhanced its broadband maps, upgraded its wireless public safety network and created a statewide, public-private research and education network.

In addition, it used about $3 million to launch the Broadband Technical Assistance Program, which aimed to help businesses and community anchor institutions adopt and use broadband. To meet the NTIA's mandate for quick economic results, the DCED considered how it could use its existing programs to make an impact.

Suleski says, "Partnership is important. We're an enabler, but progress is going to happen on the ground in communities. So we were very fortunate to have a robust economic development network to plug into, including industrial resource centers, Manufacturing Extension Partnership centers, Ben Franklin Technology Partners, local development districts, economic development corporations, you name it. … We leveraged our existing model [for working with these partners] of providing assistance to clients, handholding along the way and measuring the impact – that's something we do every day."

Though the partnership model was consistent across the board, Suleski says, the agency didn't want a "cookie cutter" approach to assistance. Rather, it asked partners to engage with individual businesses and anchor institutions to discover what would help each one overcome barriers to broadband access, adoption and use. The partners were to offer recommendations that were easy and practical to follow and, if appropriate, provide money (so-called microgrants) or technically trained

interns to help implement the recommendations. About 119 microgrants were awarded in all.

The DCED selected 20 partners for the program, and the partners in turn reached out to 600 businesses and nonprofits and 300 libraries. "Essentially, they developed customized checklists and an interviewing process, assessed the clients' current utilization, and laid out ways to improve their utilization," Suleski explains.

For some businesses, the major barrier was a lack of good options for internet access. Suleski tells the story of a guest lodge that tried to market itself as a conference center although it had access only to satellite broadband. After a guest watching YouTube videos maxed out the satellite data cap, bringing down the reservation system, the owners realized they needed a better solution before they could appeal to conference planners. The technical assistance program helped them identify a more suitable provider.

In other cases, companies needed technical help to create websites, implement e-commerce or improve communication among their locations. Libraries needed help offering public access to the internet – and deciding how much access they should provide.

MANUFACTURING IS COOL

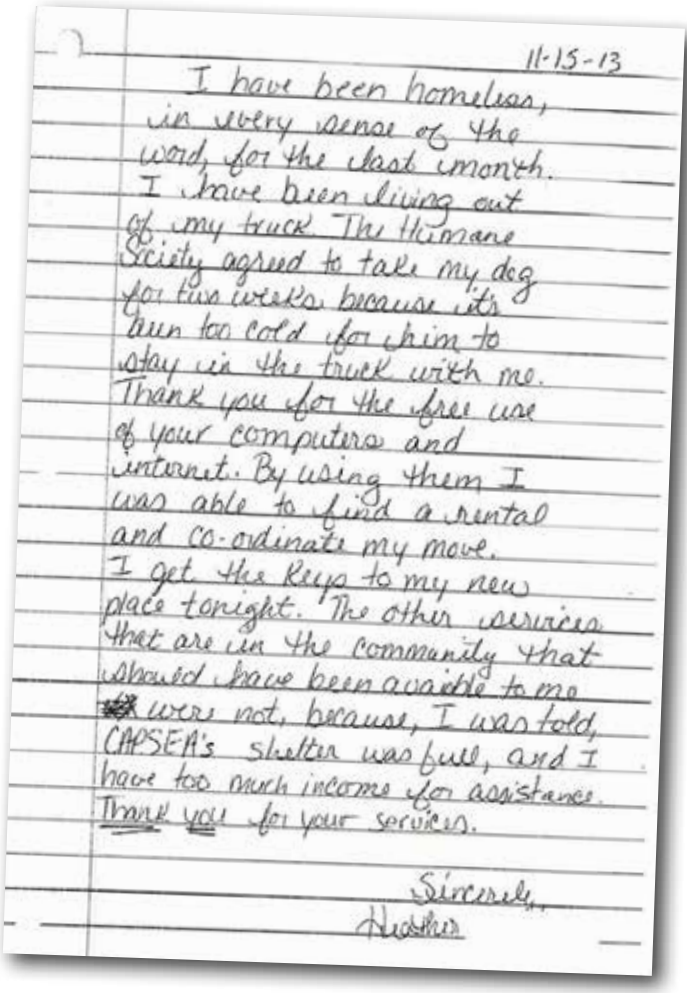
One of the technical assistance partners was MANTEC, an industrial resource center that supports small and mid-sized manufacturers in south central Pennsylvania and helps them progress toward advanced manufacturing technologies. Even after the NTIA grant period, MANTEC continues to perform digital assessments for companies and develop customized implementation plans regarding broadband.

John Lloyd, president and CEO of MANTEC, says, "Technology is changing at a breakneck pace, and many manufacturers are not keeping up with it. We are creating awareness of that change and helping them take advantage of it." MANTEC's smart manufacturing lab demonstrates robotics and 3D printing to manufacturing companies and students, generating enthusiasm from both parties.

To help develop the skilled industrial workforce of the future, the agency also participates in a program called "What's So Cool About Manufacturing?" in which teams of eighth-graders are sent to manufacturing plants with action camcorders to create videos. (The Harley-Davidson motorcycle plant in York, Pennsylvania, is a perennial favorite of the student visitors.) Last year, the video contest from the program garnered 58,000 votes on YouTube.

Lloyd says the best way to help small manufacturers – whether their problems involve broadband, succession plans or enterprise resource planning – is to build a relationship with the CEO, assess the company's needs and identify its pain points. "We don't go in with the idea that they need this or that," he says. "We assess the current condition, get the vision of the CEO on where the company should be in three to five years, do a gap analysis, and lead the company through a series of projects to get it there."

Most manufacturers already use some information technology, but frequently their systems are disjointed and obsolete. MANTEC's projects often involve migrating these systems onto cloud-based platforms in which all processes, from shop-floor control to resource planning, inventory, sales, marketing and accounting, are seamlessly integrated.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I have been homeless, in every sense of the word, for the last month. I have been living out of my truck. The Humane Society agreed to take my dog for two weeks because it's been too cold for him to stay in the truck with me. Thank you for the free use of your computers and internet. By using them I was able to find a rental and co-ordinate my move. I get the keys to my new place tonight. The other services that are in the community that should have been available to me were not, because, I was told, CAPSEA's shelter was full, and I have too much income for assistance. Thank you for your services.

Sincerely,
Heather

A Pennsylvania resident's letter to a library that benefited from the Broadband Technical Assistance Program shows how important broadband is for getting people back into the workforce.

Such systems are generally easier to manage and use than older, siloed systems. They require much less investment in computer hardware and IT staff, and they often pay for themselves quickly in terms of inventory reductions, production efficiencies and increased sales. However, they require reliable broadband access.

Another MANTEC case, described on its website, involved helping a company implement a cloud-based education portal to educate service technicians about problem resolution in the field. The system helped the company generate new and retained sales that amounted to more than 10 times the technology investment, and three new people were hired as a result.

THE STUDENT CONNECTION

The Pennsylvania Technical Assistance Program (PennTAP), which is part of Pennsylvania State University, was another partner on the NTIA grant program but no longer works on broadband issues; most of its current efforts involve helping manufacturers become more energy efficient and innovative. For the NTIA program, PennTAP targeted small businesses,

nonmanufacturers and community anchor institutions throughout Pennsylvania. It worked with nearly 100 companies to assess their broadband needs and help them apply for funding for broadband-related microgrants. Microgrants were applied to such needs as upgrading equipment, building or improving websites, and protecting the security of customer data.

PennTAP also provided 44 student interns to businesses throughout Pennsylvania. "The students were integral to the program," says Tanna Pugh, director of PennTAP. "It's a win-win situation." Client companies benefited from young, enthusiastic, tech-savvy workers who knew about subjects such as search engine optimization, social media marketing and e-commerce. Students got experiential learning, and 10 of them received offers of permanent jobs from the companies they helped.

Pugh says that even in the broadband age, the importance of sending interns to work on-site with the client companies can't be overstated. "So many people want to do things from afar," she says, "but there's still a need to get out there and work locally. … Relationships need to be built. The students need to understand the companies."

PROGRAM RESULTS

Pennsylvania's Broadband Technical Assistance Program paid off handsomely. Every dollar of federal money generated $6 of private investment, and the program achieved $103.2 million in increased business revenues or cost savings. Close to 1,500 jobs were created or retained, and 134 libraries enhanced their public access facilities.

However, though Pennsylvania's broadband initiatives put the state in a better position, the target continues to move. Today's definition of broadband is far higher than 1.5 Mbps, and there are many new broadband applications that businesses should be adopting. About 800,000 households still lack internet access at the speeds considered necessary today. Sheri Collins, deputy secretary for technology and innovation at the DCED, says, "There's still work to do. Governor Wolf has put a strong emphasis on trying to tackle broadband issues, especially in the 52 counties considered rural. … After talking with businesspeople, parents and students who were having a hard time connecting, he recognizes the need for better, faster, more affordable internet access." One of today's challenges, she says, is coordinating all the state agencies to make sure they all are "marching to the same beat" in developing a broadband strategy. ❖

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