

12Q4_Project Attachment_Question 5_Ohio

Ohio Office of Information Technology - DAS

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14 a_Project Attachment_Data Collection

4. Provide any other information or statistics that you think would be useful to NTIA as it assesses your broadband data collection, Validation and publication activities.



Connect Ohio Releases New State Broadband Availability Figures

For Immediate Release
December 12, 2012

Contact: Amanda Murphy
614-214-6755 or amurphy@connectohio.org

Research shows that 97.55% of residents have access to fixed broadband speeds of 3 Mbps download/768 Kbps upload

[Explore New Access Tables](#)

[View the Maps](#)

COLUMBUS – New research unveiled today by Connect Ohio shows that the broadband availability gap in Ohio is shrinking. Currently, 97.55% of Ohio residents have access to fixed broadband speeds of 3 Mbps download/768 Kbps upload; virtually the same percentage (97.7) as in April. However, the number of households with *no* access to any fixed broadband service is now at 64,800, compared to 73,856 households last April.

Nonprofit Connect Ohio has been working since 2008 to ensure that Ohio residents have access to the economic, educational, and quality of life benefits derived from increased broadband access, adoption, and use. Part of that work includes maintaining detailed analysis of broadband availability across the state to support broadband planning efforts.

Among the findings of the new broadband availability research:

- 97.55% of Ohio households can access broadband at advertised speeds of 3Mbps download/768 Kbps upload (excluding mobile and satellite services), which means approximately 113,000 households are in areas eligible for Connect America Fund broadband deployment subsidies.
- Access to broadband speeds of at least 50 Mbps download/1.5 Mbps upload continues to rise, climbing 5% to 3.8 million of Ohio households in six months (excluding mobile and satellite services).
- Broadband at the basic 768 Kbps download/200 Kbps upload tier is available to 98.59% of Ohio households, up from 98.4% last April (excluding mobile and satellite services), leaving approximately 64,800 households unable to connect to basic high-speed Internet.
- In terms of broadband competition, 93.59% of Ohio households have the ability to choose broadband service from two or more non-mobile broadband providers (also excludes satellite providers).

“Ohioans can be proud of the continued network expansion investments of telecommunication, cable, and wireless Internet service providers,” said Stu Johnson, executive director of Connect Ohio. “However, many of our fellow citizens remain on the wrong side of the digital divide. There are currently four Ohio counties with less than 70% fixed broadband coverage and 24 counties with less than 95%, which negatively

impacts opportunities in education, employment, economic development, healthcare, public safety, and overall quality of life. Connect Ohio continues to work toward reaching the goal of broadband access for all Ohioans.”

In April 2012, Connect Ohio released an innovative new broadband mapping tool called [My ConnectView™](#) offering unmatched views of Michigan’s technology landscape. Residents and businesses are encouraged to use the interactive map to find area providers and help validate the data. To report that broadband is not available in a given area, consumers can fill out a [broadband inquiry](#).

Connect Ohio’s research was conducted as part of the State Broadband Initiative (SBI) grant program for Ohio, funded by the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA). The data were gathered in accordance with the requirements of the NTIA. The process begins by contacting all known providers in the state and providing information about the broadband mapping project. Information on broadband service areas is collected from each provider through voluntary participation and is subject to confidentiality protections. The data is then independently verified through engineering studies, site visits, propagation models, and consumer feedback. The FCC is using this data to direct broadband subsidies. More information about the broadband mapping process is provided in the [Broadband Mapping FAQ](#).

#

About Connect Ohio: Connect Ohio, a division of Connected Nation, is a nonprofit, technology-neutral public-private partnership that works with telecommunications providers, business and community leaders, information technology companies, researchers, public agencies, libraries, and universities in an effort to help extend affordable high-speed Internet service to every Ohio household. For more information about what Connect Ohio is doing to accelerate technology in Ohio’s communities, visit <http://www.connectohio.org>.

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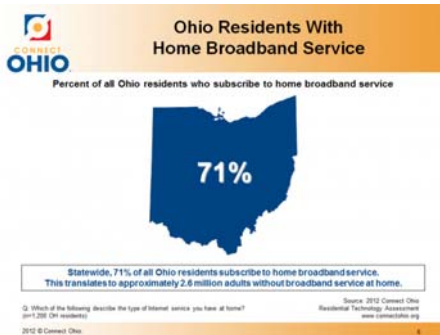
12/21/12

Broadband Adoption among Ohio Households Increased Significantly in 2012

By Lyndsey Kleven

For those using broadband and technology on a daily basis, it is remarkable to think that others are not, yet nearly one third of Ohioans have not adopted this technology. Connect Ohio has conducted a survey of residents from across the state to see if they access broadband, and if so, how they are using it. Findings from the 2012 Residential Technology Assessment show the greatest jump in home broadband adoption, now at 71%, which increased from the 2010 and 2011 results that stayed stagnant around 66%.

"Ohioans can be proud of the continued network expansion investments of telecommunication, cable, and wireless Internet service providers," said Stu Johnson, executive director of Connect Ohio.



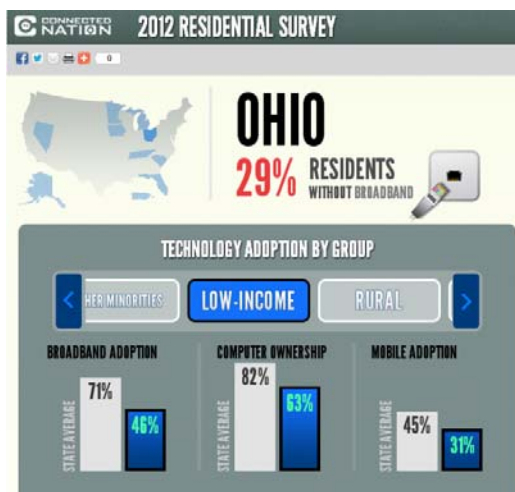
Among the Ohio residents with a home broadband connection, the top reasons for subscribing were the need to conduct business online or that someone in their home needed broadband for school. Other key activities conducted while online were the following: e-mail, researching or purchasing goods or services, online banking or paying bills, online healthcare, applying for jobs, and online classes or research for school work.

While overall broadband adoption is increasing, technology adoption in rural

Appalachian Ohio lags behind the state average. Only 53% of residents in rural Appalachian Ohio subscribe to broadband service. While availability is an issue in this adoption rate— the topography of the Appalachian region creates difficulties for broadband access-- availability only ranks third as a barrier to adoption. The leading barrier is relevance at 38%, followed by cost at 17%, and availability at 13%.

"Many of our fellow citizens remain on the wrong side of the digital divide," said Johnson. "There are currently four Ohio counties with less than 70% fixed broadband coverage and 24 counties with less than 95%, which negatively impacts opportunities in education, employment, economic development, healthcare, public safety, and overall quality of life. Connect Ohio continues to work toward reaching the goal of broadband access for all Ohioans."

The other technology trend that had a significant change was the adoption of mobile broadband usage, increasing to 45%, up from



34% in 2011. The demographic with the highest adoption rate of mobile usage was among African Americans at 56% and the lowest mobile adoption rate was 14% for senior citizens 65 or older.

[Access the finding through our interactive widget \(http://connectohio.org/survey-results/residential\)](http://connectohio.org/survey-results/residential)



Celerity Networks Expands Internet Access to Hundreds of Homes in Millcreek Township

For Immediate Release

November 5, 2012

Contact: Amanda Murphy

614-214-6755 or amurphy@connectohio.org

Celerity Networks' High-Speed Internet Upgrades, Expansion in Union County Helps Unserved Residents Get Connected

COLUMBUS – Celerity Networks, a subsidiary of [Slane Telcom](#), which operates throughout the Columbus area, recently completed an upgrade to its high-speed Internet offerings in Millcreek Township, located in the southern portion of Union County. The upgrades include an expanded service offering to hundreds of previously unserved and underserved homes and businesses.

Millcreek Township Trustee Keith Conroy notified Celerity Networks of the nearly 600 unserved or underserved homes and businesses after Township Trustees surveyed residents for feedback on various topics, including parks, roads, and public safety. In the feedback, many residents noted a lack of Internet access. Conroy contacted Connect Ohio for a list of any nearby Internet providers and was directed to Celerity Networks, which had 40 customers in the area.

"It is critical that residents have broadband access across Millcreek Township," said Conroy. "In today's world, it is required for nearly every working adult to have access to high-speed Internet. Students from elementary to high school need to be connected to school for study guides, critical research, online quizzes, and take-home tests. The demand for high-speed Internet is only growing as it is no longer just used by one computer in a household, but multiple computers, smart phones, entertainment, and medical instruments."

"We estimate that current township coverage is at 30 to 35 percent," said John O'Connor, president of Slane Telcom and its subsidiary companies. "We have already started looking for repeater sites to spread the point-to-fixed-point wireless network to the rest of the township. Celerity Networks will continue to expand its coverage footprint along with its affiliate company, Hardin-Net, which operates to the north of Celerity Networks."

Jocelin Boutet of Ostrander recently received high-speed Internet service from Celerity Networks. She works from home and her only option for Internet prior to the Celerity Network expansion was a mobile wireless air card.

"I couldn't even get to 1 Mbps with the air card or stream video," said Boutet. "When I was on GoTo Meetings, I could watch the PowerPoint, but couldn't connect to audio or voice. I made it work, but I can do so much more now."

For the same monthly cost, Boutet says she now has Internet speeds of 6 Mbps download/1 Mbps upload and is able to manage her nonprofit financial and relationship ministry, [Standing in YHVH's Hand](#), more efficiently.

"I'm very pleased Celerity Networks moved into the area," said Boutet. "Their customer service has been wonderful."

[For more information on Celerity Networks](#)

[For more information on Millcreek Township](#)

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About Connect Ohio: Connect Ohio, a division of Connected Nation, Inc., is a leading technology organization committed to bringing affordable high-speed Internet and broadband-enabled resources to all Ohioans. Connect Ohio effectively raises the awareness of the value of broadband and works to improve technology access, adoption, and use through its programs. Connect Ohio is a nonprofit, technology-neutral public-private partnership. For more information about what Connect Ohio is doing to accelerate technology in Ohio's communities, visit <http://www.connectohio.org>. Follow Connect Ohio on [Facebook](#) and [Twitter](#).

About Celerity Networks: Celerity Networks and Hardin-Net are wholly owned subsidiaries of Slane Telcom. Headquartered in Columbus, Ohio, Slane Telcom has developed into an important competitor within the wireless Internet service industry. The company serves the rural and fringe urban markets with reliable and affordable high-speed Internet access and additional products and services that can be delivered over the network. For more information, visit <http://www.slanetelcom.com/>.

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Blog // Connect Ohio

11/14/12

GIS Day 2012: Discovering the World Through GIS

By COH Staff

As we celebrate GIS Day today, it seems fitting that everyone's attention has been on maps recently, especially with the election results last week and the devastation and recovery from superstorm Sandy. Perhaps without realizing it, everyone is taking advantage of the power of GIS. [Geographic Information Systems \(GIS\)](http://www.esri.com/what-is-gis) (<http://www.esri.com/what-is-gis>) allow us to visualize vast amounts of data and information to better understand our physical world, political events, cultural changes, disasters, and much more.

[GIS Day](http://www.gisday.com/) (<http://www.gisday.com/>) celebrates the use of GIS to analyze diverse topics in local, state, federal, and international applications. From the breakdown of presidential votes by county in the recent election to mapping shelters and storm recovery efforts, GIS is applicable in almost all situations. In fact, GIS has come a long way in being present in most news stories, organizational projects, and some corporate daily operations. As we celebrate [50 years of GIS](http://blogs.esri.com/esri/esri-insider/2012/09/07/the-50th-anniversary-of-gis/) (<http://blogs.esri.com/esri/esri-insider/2012/09/07/the-50th-anniversary-of-gis/>) and how far the industry has come, GIS Day offers a forum to showcase the technology and how people are using it to better understand, be more efficient, and make more informed decisions.

[Connected Nation](http://www.connectednation.org/) (<http://www.connectednation.org/>) uses GIS daily as an essential part of our mission to inform and advance the understanding and utilization of broadband services. We collect and process broadband coverage information from Internet service providers and then aggregate that coverage to create a comprehensive display of where broadband is and is not available. The resulting analyses of maximum download speed, density of unserved households, and others are created using GIS to enable decision makers. Additionally, Connected Nation continuously develops and refines tools such as the interactive [My ConnectView™](http://connectohio.org/mapping/_interactive_map_interface/?q=map) (http://connectohio.org/mapping/_interactive_map_interface/?q=map) to share and demonstrate the value GIS has in discovering patterns, finding answers, or asking more detailed questions.

GIS will continue to be an integral part of what Connected Nation does to increase [broadband access, adoption, and use](http://www.connectednation.org/get-connected) (<http://www.connectednation.org/get-connected>). We are currently upgrading the interactive My ConnectView application to incorporate new enhancements and are also developing applications that can be viewed on mobile devices, including Apple and Android smart phones. As GIS looks forward to the next 50 years of technology evolution, Connected Nation will continue to embrace GIS in a concentrated effort to know where resources should be directed. It's the power of GIS that helps us understand the current broadband landscape and use that information to make more efficient decisions, allowing more people the opportunity to realize the benefits of broadband.

14 b_Project Attachment_Capacity Building

5. Attach as a separate document any success stories or best practices you have indentified. Please be as specific as possible

CONNECTED

Connect Ohio Quarterly



**6 Businesses Help 650 Homes,
Businesses in Geauga County Get
Connected**

**2.9 Million Ohioans Take
Advantage of Online Educational
Opportunities**

Members of A.C.E. Inc. complete Every
Citizen Online computer training at
Tuscarawas County Public Library

FALL 2012



A Message from the Executive Director



During the third quarter 2012, Connect Ohio put the spotlight on education and the ways that broadband is providing educational opportunities, including the release of *Broadband and Education: Enriching Ohio's Students through Technology*. This research report examines the impact digital learning is having on all Ohioans. I invite you to take a look at this report and the other great

content provided through our blog during the technology in education campaign, including the following:

- Ohio teachers are taking advantage of Every Citizen Online training in order to keep up with new technology being used in their classrooms.
- Currently, more than 23 Ohio schools have been approved by the Ohio Department of Education to hold online calamity days.
- By the end of the next decade, 57% of all jobs in Ohio will require some education above high school, according to a Georgetown University report. The U.S. Census Bureau shows only 31% of Ohioans 25 years of age and over have an associate's degree or higher.

Broadband provides the opportunity to transform education by enhancing the learning experience, expanding curriculum, capturing better performance data, and reducing administrative overhead. Connect Ohio continues to play a pivotal role in ensuring all Ohio students are on a level playing field, regardless of geographic or economic demographics.

-Stu Johnson, Executive Director

In the Community

In September, Connect Ohio took part in United Way of Central Ohio's Community Care Day. Staff volunteered an afternoon helping the Reach Out and Read program of Nationwide Children's Hospital by sorting nearly 4,000 children's books. The books are used by patients of Nationwide Children's Hospital and their families to encourage families to read together and to prepare children to succeed in school.

For more information on the Reach Out and Read program of Nationwide Children's Hospital, please visit nationwidechildrens.org/reach-out-and-read.



Front: Katie Beaumont, Heather Delany, Kelli Busbey, Lyndsey Kleven. Back: Tyler Slentz, Benj Foor

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Connect Ohio Quarterly

Table of Contents

A.C.E. Inc. Provides Every Citizen Online to Educate Members on Technology.....	3
6 Local Businesses Help 650 Homes, Businesses in Geauga County Get Connected.....	4
Two Connect Appalachia Broadband Task Force Expansion Projects Underway	5
2.9 Million Ohioans Take Advantage of Online Educational Opportunities.....	6
Connect Ohio Participates in U.S. Senator's Rural Broadband Discussion.....	6
ECO All Star Facility Awardee: Rhodes State College.....	7
Broadband Hero Awardee.....	8

Connect Ohio is a nonprofit, technology-neutral public-private partnership committed to bringing affordable high-speed Internet and broadband-enabled resources to all Ohioans. Connect Ohio effectively raises the awareness of the value of broadband and works to improve technology **access**, **adoption**, and **use** through its programs.

For more information about what Connect Ohio is doing to accelerate technology in Ohio's communities, visit: www.connectohio.org.



A.C.E. Inc. Provides Every Citizen Online to Educate Members on Technology

Advocacy, Choices, and Empowerment (ACE), Inc. is a wellness and recovery center for people who live with mental illness that aims to improve their quality of life through educational services and opportunity for community involvement. ACE, Inc. has now joined with Tuscarawas County Public Library on Connect Ohio's Every Citizen Online (ECO) computer and Internet training program. ACE saw the ECO program as a great fit for educating its members on computers and bring them up-to-date with technology.

"We thought ECO fit really well with what we're trying to do with our folks," said Todd Little, executive director of ACE, Inc. "We try to do things that help them to develop normal lives, and being that it's the twenty-first century, everyone is on the computer. A lot of our folks have never had the opportunity to work on a computer, or set up an e-mail account."

According to Little, the ACE clubhouse (recovery center) is equipped with a computer lab that gets minimal use; the computers are primarily for playing games, if the members can even use them at all.

"We're hoping that they are going to be able to utilize the computers that we have a little bit better," said Little. "For the participants that have been coming (to ECO training), I have seen a change in their attitudes. They look at the Internet, computers, and technology differently, so I think that it's been a really positive thing."

Jeffrey Edwards, ACE member and ECO participant, had used computers when he took a course at a vocational school, but said after taking ECO, he actually learned more about computers.

"There are a lot of different things you can learn on a computer that you couldn't learn anywhere else," said Edwards. "For the first time, I've learned how to use e-mail. I've also learned how to turn the computer off and on and how to search for things. I think it's a very good class and I have a fantastic instructor."

The classes start by teaching ACE students how to turn the computer on and off. Other topics covered range from backing out of problem situations, closing out of unfamiliar screens, and getting on the Internet to conduct searches.

Janet Miller, a member of ACE program, took the training because she was interested in keeping in touch with out of town family members. Miller never had her own e-mail address and was excited to learn through ECO.

"I'd like to learn more about how to get a hold of my kids and keep in contact through a webcam," said Miller. "I'd like to use the Internet to search for recipes, play games, and find news. I'd like to do the classes over again to learn more for myself."

www.connectohio.org



Watch the video on our YouTube channel:
[YouTube.com/OhioBroadband](https://www.youtube.com/OhioBroadband)

6 Local Businesses Help 650 Homes, Businesses in Geauga County Get Connected

Troy Township in Geauga County is made up of 871 total households, half of which had no access to high-speed broadband as of just a few months ago. CUE Band, LLC recently held a ribbon cutting event marking the availability of township-wide broadband access. CUE Band's WiMAX expansion project extends high-speed Internet access to 650 homes and businesses, with more than 400 of these locations previously unserved with Internet service.

Gauga County Commissioners and Troy Township Trustees worked collaboratively for months to get Internet service to the area. A series of community meetings held by township trustees helped fuel the immediate need for a solution.

"We entered into an agreement with CUE Band to provide the last mile of service to our residents; this created a public/private solution to an issue that was hampering our business bottom line and our residents from accessing the Internet," said Geauga County Commissioner Tracy Jamison. "Understanding that broadband is needed for economic development, the county decided to see if we could leverage our 800 MHz radio network to provide broadband service to our residents and businesses. To do so, we needed a partner with an ISP that could provide the last mile of service to the community."

Hundreds of potential subscribers voiced their interest in having Internet service. With the demand for service apparent, funding was the only barrier left to overcome.

The Founders Club, which is made up of 6 local businesses, provided the initial capital needed to begin this expansion effort by pre-paying for broadband service and donating land for tower equipment.

"The Founders Club members are all paying 24 months in advance and will receive 30 months of service in return," said David Weddell, CEO of CUE Band. "It is a way for us to raise upfront capital to make a project work. We want to really give them credit for stepping up as founders for their community because without them, it would not be possible for us to build out in the area."

"One of the reasons Troy Chemical (Founders Club member) donated the land for the communication tower was to facilitate broadband access to this area," said Lee Imhof, Troy Chemical's president. "Today's world runs on the Internet. Thanks to CUE Band, the new broadband service is bringing great value to our community, current businesses, and future business."

According to CUE Band, the company plans to extend access to hundreds of additional unserved and underserved homes by the end of 2012 over and above the initial deployment of wireless Internet completed to 8 sites.

This last mile expansion project is rather unique, as Geauga County is ahead of the state average in both percentage of residents who access the Internet (at 88% above the state average of 82%) and residents with home broadband service subscriptions (at 72%, above the state average of 66%), according to Connect Ohio's 2011 Residential Technology Assessment for Geauga County.



Left to Right: Tracy Jamison, Geauga County Commissioner; Lee Imhof, President, Troy Chemical; Mary Samide, Geauga County Commissioner; Jerry Mitchell, President, Troy Township Trustees; David Weddell, CEO, CUE Band; Stu Johnson, Executive Director, Connect Ohio

"For residents and businesses, having an Internet connection is extremely important in today's economic climate," said Geauga County Commissioner Tracy Jamison. "The Geauga County Board of Commissioners' were very pleased to be able to create a public/private partnership with CUE Band to be able to deliver Internet services to the businesses and residents of Troy Township. We have already heard great stories regarding productivity for our businesses and educational opportunities for the students in Troy. It is our hope to expand this model to other areas of Geauga County in the near future."

The Founders Club includes Ken's Auto Body, Inc., Lone Wolf Transportation, Troy Chemical, Troy Manufacturing, Veterinary Specialty Services, LLC, Equine Specialty Hospital, and Welshfield Inn.

Two High Priority Connect Appalachia Broadband Task Force Expansion Projects Underway

The Connect Appalachia Broadband Initiative (CABI) Task Force is elated with the recent developments of broadband expansion in Washington and Carroll counties. These projects were of high priority for the Task Force, as more than 8,500 homes and businesses are unserved in these areas. Earlier in the year, the Task Force was able to help secure funding aid to move both expansion projects forward.

In late August, Washington County Commissioners and representatives from the Internet service provider Smart Networks signed an agreement to sub-lease space on nearly a dozen Ohio MARCS (Multi-Agency Radio Communication Systems) towers located throughout the county for wireless Internet service equipment use. This agreement marked a vital step toward making countywide broadband access a reality.

"One of my goals as Director of the Governor's Office of Appalachia is to get the region up to the national standard of broadband connectivity," said Jason Wilson. "Along with the project in Carroll County, this agreement moves us closer to that goal. It also is an example of how partnerships and collaboration can improve the lives of those living in Ohio's Appalachian region, as well as create opportunities for economic and community development."

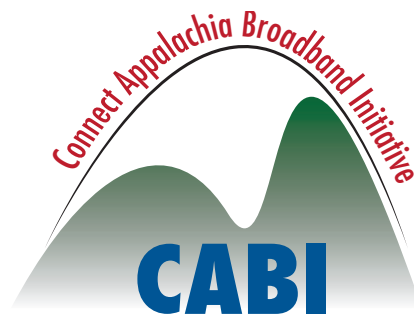
According to Smart Networks, thousands of homes and businesses currently unserved and underserved will have broadband access by the end of this year with the initial deployment of wireless Internet equipment to MARCS tower sights. The company's overall goal is to have the countywide expansion project, including deployment of equipment to a total of 11 tower sights, completed by the end of 2013.

At September's CABI meeting, Connect Ohio's technical outreach staff presented additional counties in need of and ready for expansion projects that the Task Force can focus on next.

"The projects in Washington and Carroll counties, combined with Frontier's recent expansion in Scioto County and Southern Ohio Communications' service installment in Adams County, demonstrates tremendous impact in bridging the digital divide in Appalachian Ohio," said Stu Johnson, executive director of Connect Ohio. "Progress will continue as CABI embarks on the future broadband projects presented to us."



CABI Meeting September 19, 2012



Washington County
Commissioners,
Smart Networks Sign Broadband
Expansion Agreement
August 23, 2012
Marietta Ohio

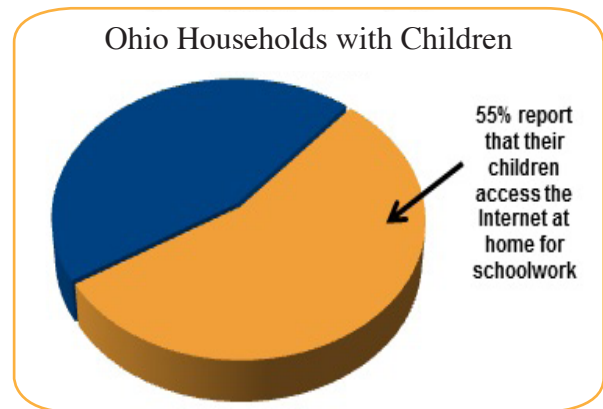
2.9 Million Ohioans Take Advantage of Online Educational Opportunities

Broadband plays a significant role in the incorporation of technology into education. Today, an individual can learn from virtually anywhere. Online classes, or e-Learning, is an increasingly popular educational option because of the flexibility, accessibility, and convenience it affords. Connect Ohio's 2011 Residential Technology Assessment shows that approximately 2.9 million adults in Ohio use the Internet to take online classes or conduct research for schoolwork.

As part of our mission to increase broadband access, adoption, and use, Connect Ohio has produced the report *Broadband and Education: Enriching Ohio's Students through Technology* to examine the impact digital learning is having on all Ohioans. The report takes a close look at Ohio e-Learning by age, income, geography, and legacy, as well as digital educational opportunities for Ohio K-12 schooling.

"For the majority of households, children lead the charge in technology adoption, creating pressure on our schools to stay ahead of constant advancements to meet the seemingly limitless demand of students," said Stu Johnson, executive

director of Connect Ohio. "Broadband Internet provides the opportunity to transform education by using technology to enhance the learning experience and expand curriculum while capturing better performance data and reducing administrative overhead. Connect Ohio intends to play a pivotal role in ensuring that all Ohio students are on a level playing field, regardless of geographic or economic demographics."



continued on next page

Connect Ohio Participates in U.S. Senator's Rural Broadband Discussion

Connect Ohio recently took part in a rural broadband roundtable discussion led by U.S. Senator Sherrod Brown. Horizon Telecom hosted the event at its offices in Chillicothe, Ohio. Area business owners and community representatives were in attendance, including broadband providers Smart Networks, CUE Band LLC, and Horizon Telecom, as well as the mayor of Chillicothe and Ross County Commissioners.

Senator Brown discussed the importance of federal and local partnerships in order to assist communities in need of broadband expansion. A roundtable discussion between guests highlighted key successes and barriers to broadband availability with collaborative idea sharing on how to continue effective high-speed Internet access growth.

Read more on our blog: connectohio.org/blog



Senator Sherrod Brown, center, discussed rural broadband availability and use at a roundtable discussion September 25, 2012 in Chillicothe.

2.9 Million Ohioans Take Advantage of Online Educational Opportunities

continued from previous page

Internet Users	
State Average	40 %
Age	
Age 18-24	57 %
Age 25-34	50 %
Age 35-44	54 %
Age 45 and older	27 %
Annual Household Income	
Less than \$25,000	41 %
\$25,000-\$49,999	42 %
\$50,000-\$74,999	40 %
\$75,000 or more	49 %
Race/Ethnicity	
Caucasian	39 %
Minority	51 %
Education	
No college education	30 %
College education	47 %
Gender	
Male	39 %
Female	42 %
Rural Status	
Rural	32 %
Urban and Suburban	42 %

Percent of Ohio Internet Users who are e-Learners, by Demographic

Some key findings from the report include the following:

- Only 41% of low-income Ohio Internet users are going online for school. The use of e-Learning is highest among Ohio Internet users who make \$75,000 or more.
- Over one-half (51%) of minority Internet users in Ohio go online to conduct digital learning, compared to only 39% of their Caucasian counterparts.
- Only 32% of rural Ohio Internet users go online for education, a significantly lower percentage than the 42% of those in urban and suburban parts of the state.
- One in ten (10%, or approximately 237,000) Ohioans who access the Internet via a cell phone are using these devices for e-Learning.
- Nearly 1.5 million Ohio children are using the Internet at home for schoolwork. However, nearly one in four households with children do not have broadband in Ohio, meaning that there are over 618,000 children in the state who are not able to access the Internet for their schoolwork at home.
- Parental education impacts children's use of home Internet for schoolwork. Of households with children where the parents go online for e-Learning, 71% report they have children who are also using the Internet for schoolwork, significantly higher than the 55% of households with children where parents are not e-Learners.

ECO All-Star Facility Award Presented to Rhodes State College

The ECO All-Star Facility award was presented to April Sybert, Rhodes State College ECO coordinator, during Connect Ohio's quarterly Technology Association meeting held in Columbus July 20, 2012.

Connect Ohio ECO staff choose the ECO All-Star Facility awardee based on meeting various program "hallmarks of excellence". These include the number of participants at the facility's locations, ECO program survey completion rate, creative promotional and community partnerships, and the level of engagement of facility coordinators in the ECO program.

Rhodes State College is a public, state-assisted institution of higher learning with a workforce, economic development, and continuing education division. The college has trained more than 400 ECO students and is currently averaging a notable 25-35 trained participants a month on its main campus. Rhodes State College uses creative promotional and community partnerships to assist in awareness and local success of the program.

Congratulations Rhodes State College, keep up the great work!



April Sybert, Rhodes State College
Stu Johnson, Connect Ohio

Find us on social networking sites



www.twitter.com/ConnectOH



www.facebook.com/connectohio



www.youtube.com/OhioBroadband

Broadband Hero Awardee: Luke McDaniel

Luke McDaniel, of Meigs County, was honored as Connect Ohio's Summer 2012 Broadband Hero awardee. McDaniel was recognized by Connect Ohio Executive Director Stu Johnson at the state quarterly Technology Association Meeting Friday, July 20, in Columbus, for his efforts in bringing attention to the need for high-speed Internet access to the volunteer fire department in Bashan.

In 2010, the volunteer fire department in Bashan, Ohio had dial-up Internet access, which wasn't sufficient to meet the needs of the firefighters. According to McDaniel, the Internet capabilities were not functional and were like having no service at all.

"Three (firefighters) lost their fire certification because they had no Internet here and the state certification had to be completed online," said McDaniel during a 2011 interview with Connect Ohio. McDaniel is a former volunteer firefighter of the department.

McDaniel approached New Era Broadband, LLC. looking for a solution. According to David Hannum, of New Era Broadband, the company had recently expanded to nearby McKenzie Ridge, but because Bashan was in a low-lying area, the town was not able to receive the Internet signal. Through a collaborative effort between Connect Ohio's technical outreach staff, a partial grant from the Governor's Office of Appalachia, the Meigs County Community Investment Corporation, New Era Broadband, and a few Bashan residents willing to have trees removed or equipment mounted on their property, Hannum was able to relay the Wi-Fi signal from one of its access points nearby to a receiver atop the fire department's building. The relay system has worked well for the fire department for the past two years and also offers high-speed Internet access to a handful of nearby homes.

"Now, we can communicate with the State. Our firefighters are in compliance and staying in touch," said McDaniel.

New Era Broadband is currently in the midst of upgrading services in the Bashan area, giving direct connection to the nearby access point and faster speeds of connectivity. This new system will continue to service the fire department, as well as the homes in the community that desire service, which is about fifteen residences.

"The foresight and efforts of the residents of Bashan allowed them to have connectivity some two and a half years sooner than they would have been able to," said Hannum.



Broadband Hero Awardee July 2012
Luke McDaniel, Meigs County

Kleven, Lyndsey

From: Connect Ohio <amurphy=connectohio.org@cmail1.com> on behalf of Connect Ohio <amurphy@connectohio.org>
Sent: Thursday, November 01, 2012 9:15 AM
To: Kleven, Lyndsey
Subject: October eNewsletter

If you are unable to see the message below [click here](#) to view.



➤ Connect Ohio's eNewsletter, October 2012

➤ Featuring: Technology Association Meeting,
Broadband and Education Research Paper,
Last Mile Progress, Every Citizen Online



Technology Association Meeting

2012 Quarter 3 Updates

[View the Webcast of the Technology Association Meeting](#)

Connect Ohio's quarterly Technology Association meeting was held Friday, October 26, in Columbus at the Vern Riffe Center.

Highlights of the meeting included a technology in education panel comprised of top education professionals who presented and answered questions on the use of high-speed Internet and technology across all education institutions.



Technology in Education Panelists:

- **Moderator: Joy Padgett**, former State Senator
- **Jim Petro**, Chancellor, Ohio Board of Regents
- **Linda Kenworthy**, Business Development Manager, Intel Americas
- **Barbara Boyd**, President, Learning Circle Education Services
- **Casey Wright**, Principal, Nordon High School
- **Wes Weaver**, Principal, Licking Valley High School

[View the panelist full bios](#)

Free Google Workshop: Growing Your Business Online

In partnership with the Ohio Telecommunications Association, Telecommunications Association of Michigan, Connect Michigan, and Connect Ohio, Google - the world's online search leader - will conduct its Growing Your Business Online Workshop on Wednesday, November 7th, 2012 and Thursday, November 8th, 2012 at the Great Lakes Technology Showcase in the SeaGate Convention Center in Toledo, Ohio. [Learn More](#)





New this month at Connect Ohio:

Broadband and Education:
Enriching Ohio's Students
through Technology:

[Download](#)

Quarterly Publications

Quarterly Progress Report:

[Download](#)

Connected Newsletter:

[Download](#)

We are moving!

As of November 1, our new address will be

**51 Jefferson Ave, Suite 100, Columbus, Ohio
43215**

Connect Ohio Names Lee Imhof as Broadband Hero

Geauga County Business Owner Aids in Last Mile Expansion,
650 Residences Now Have High-Speed Access



Lee Imhof, of Geauga County, has been selected as Connect Ohio's newest Broadband Hero awardee. Imhof was recognized for the efforts of his company, Troy Chemical, investing in a high-speed Internet expansion project throughout the county.

Imhof and five other local business owners have formed a public/private partnership with CUE Band, a startup wireless provider. The business owners have opted to pay upfront for a high-speed connection for three years, in order to provide the initial capital needed to begin the expansion efforts. In addition to prepaying for service, Troy Chemical donated the land for the communication tower.

[Read more about Imhof's story](#)

[Read more about CUE Band's expansion](#)

Every Citizen Online Update

All-Star Facility Award Presented to Tuscarawas County Public Library

Connect Ohio has named Tuscarawas County Public Library an Every Citizen Online (ECO) All-Star Facility. Connect Ohio ECO staff choose the ECO All-Star Facility awardee based on meeting various program 'hallmarks of excellence'.

The ECO All-Star Facility award was presented to the Library's director, Michelle McMorrow Ramsell, and ECO liaison for the library, Rachel Rothacher, by executive director Stu Johnson during Connect Ohio's quarterly Technology Association



Meeting.

**[Read more about Tuscarawas
County Public
Library's accomplishments](#)**

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From: Connect Ohio <amurphy=connectohio.org@createsend1.com> on behalf of Connect Ohio <amurphy@connectohio.org>
Sent: Friday, November 30, 2012 12:17 PM
To: Kleven, Lyndsey
Subject: Connect Ohio November eNewsletter
Categories: Createsend Items

If you are unable to see the message below [click here](#) to view.



➔ Connect Ohio's eNewsletter, November 2012

Featuring: Connect Appalachia Last Mile
➔ Progress, Nonprofit IT Creativity Awardee,
Every Citizen Online

Connect Appalachia Broadband Task Force Celebrates Internet Deployment in Washington County

Ribbon Cutting Event Celebrates Smart Networks' Countywide
Expansion Plans

On Thursday, November 29, a ceremonious ribbon-cutting event took place in Marietta, marking the initial deployment of countywide broadband access to the many unserved and underserved homes and businesses in the area. The Washington County Commissioners, representatives from Smart Networks, members of the Connect Appalachia Broadband Task Force, representatives from Connect Ohio, and other community stakeholders convened at Knights of Columbus Hall for the event.





Smart Networks has already deployed wireless Internet equipment to two towers located in Marietta, which has the potential to service up to 4,000 addresses. Currently, 6,000 homes and businesses in the area do not have access to high-speed Internet, and this existing digital divide has an effect on education, economic development, and public safety.

- [View the press release](#)
- [Watch video of the ribbon cutting](#)
- [View video interviews with Washington County residents](#)

” *It is great to see the work of the Connect Appalachia Broadband Task Force getting more Appalachian Ohioans broadband access. Working together and working smart can change and improve lives, all while making the county more competitive for economic development and in a position for job creation.*

Jason Wilson, director of the Governor's Office of Appalachia

Give the Gift of Connectivity this Season!



- Sign your loved one up for free [online training](#)
- [Buy refurbished computer](#) starting at \$119-- a gift that's good for the environment and helps local nonprofits further bridge the digital divide
- [Order broadband](#) for just \$10/month* or visit our [Get Broadband](#) page to explore other special offers in your area

and devices in more communities.

*low-cost broadband may not be available in all areas

GroundWork Group has Selected Connect Ohio as a 2012 Nonprofit IT Creativity Awardee

We are honored to have the opportunity to receive the Nonprofit Creativity Award for Community Engagement! Thank you [GroundWork group](#), and congratulations to all of the other great nonprofit organizations involved.

[Learn more about the 2012 Nonprofit IT Creativity Awards](#)

[Watch Connect Ohio's finalist video](#)



Every Citizen Online Update



More than **30,000** adults have already participated in the Every Citizen Online (ECO) training since it launched. Over **1,500 computers** have been distributed to our more than **250 locations**

open to any Ohio adult!

[More information about ECO](#)

[Find an ECO training facility](#)

We Have Moved!

Connect Ohio is now located at:

**51 Jefferson Ave, Suite
100, Columbus, Ohio
43215**

in the historic nonprofit [Jefferson Center!](#)

Join us at our new office for a

Holiday Open House

Friday, December 14, 2 p.m. -
5 p.m.

[RSVP/More Info](#)



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Kleven, Lyndsey

From: Connect Ohio <amurphy=connectohio.org@createsend4.com> on behalf of Connect Ohio <amurphy@connectohio.org>
Sent: Wednesday, December 19, 2012 3:27 PM
To: Kleven, Lyndsey
Subject: Connect Ohio December eNewsletter - Preview
Categories: Createsend Items

If you are unable to see the message below [click here](#) to view.



- Connect Ohio's eNewsletter, December 2012
- Featuring: Every Citizen Online Partnerships, New State Broadband Availability Figures



This holiday, we wish you & yours a season of love, hope, &

giving.



Our Connected Nation family is celebrating the season of giving with acts of kindness. Join us & tell your story on our Facebook & Twitter pages [#seasonofgiving](#).

A message from Executive Director Stu Johnson:

It has been an incredible year for Connect Ohio, thanks to your support. The latest Ohio broadband stats show an overall decrease in households with no access to any fixed broadband service compared to April 2012.

The Connect Appalachia Broadband Initiative (CABI) Task Force was instrumental in reducing unserved households specifically in Appalachian Ohio by 20,000 since October 2011.

In cooperation with the Foundation for Appalachian Ohio, the CABI Fund has been created to elicit contributions to provide training, computers, and discounted Internet service to low-income Appalachian families. Details on the fund will be announced in early 2013.

The Every Citizen Online (ECO) program continues to provide necessary free basic computer and Internet training to more than 30,000 Ohio adults at more than 250 locations.

From our Connect Ohio family to yours, have a Merry Christmas and Happy New Year!

~Stu Johnson

[Read Stu Johnson's full Executive Director Letter](#)



Give the Gift of Connectivity this Season

- Sign your loved one up for free [online training](#)
- Buy a [refurbished computer](#) starting at \$119-- a gift that's good for the environment and helps local nonprofits further bridge the digital divide
- [Order broadband](#) for just \$10/month* or visit our [Get Broadband](#) page to explore other special offers in your area

Your purchases help the [Every Citizen Online](#) program provide training and devices in more communities.

*low-cost broadband may not be available in all areas

Richland Correctional Institution ECO Training: Reintegration Platform

Richland Correctional Institution (RCI) is a rehabilitation and correctional institution located in Mansfield, Ohio, housing just over 2,500 inmates who hold up to medium security status. The facility was sanctioned as a rehabilitation institution with the focus of giving inmates meaningful activities for 8 hours a day.



RCI partnered with Connect Ohio to offer the Every Citizen Online (ECO) basic computer training course to its inmates, to provide them with the computer skills they need to be successfully reintegrated into society.

[Read More](#)

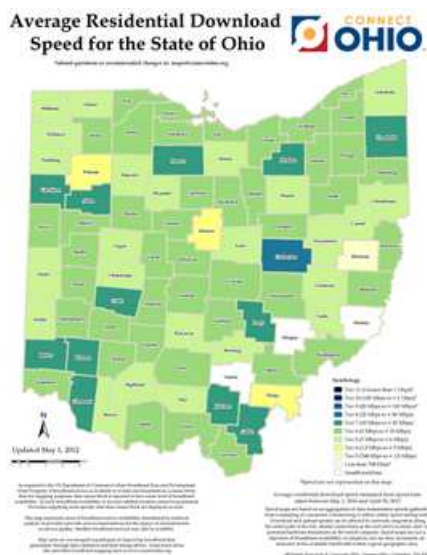
“There is the Internet portion, explaining e-mail and how the Internet works, some of the younger guys know that stuff, but a lot of the older population guys have been incarcerated long enough that they have never seen that.”

Matt Williams, infrastructure specialist for Richland Correctional Institution

Connect Ohio Releases New State Broadband Availability Figures

In December 2012, Connect Ohio released new broadband availability data showing that the gap in availability continues to shrink, making way for more adoption and use of the technology throughout the state.

Currently, 97.55% of Ohio residents have access to fixed broadband speeds of 3 Mbps download/768 Kbps upload; virtually the same percentage (97.7) as in April. However, the number of households with no access to any fixed broadband service is now at 64,800, compared to 73,856 households last April.



[Explore New Access Tables](#)

[View the Maps](#)

Happy Holidays!

Our office will be closed on the following days: December 24, 25, 31, & January 1

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Ohio Broadband and Education Report Released at Connect Ohio Technology Association Meeting

For Immediate Release
October 29, 2012

Contact: Amanda Murphy
614-214-6755 or amurphy@connectohio.org

*Meeting Included Technology in Education Discussion With
Chancellor Petro, Former Senator Padgett, Intel*

[Access the Report](#)

[Watch the Broadband in Technology Discussion](#)

COLUMBUS – On Friday, October 26, at the Vern Riffe Center in Columbus, Connect Ohio hosted the 2012 third quarter state Technology Association Meeting with 107 stakeholders, state educators, broadband providers, technology companies, and library and community representatives in attendance, including attendees throughout the nation via webcast.

Connect Ohio presented key findings from its most recent research report *Broadband and Education: Enriching Ohio's Students through Technology*, including:

- Approximately 2.9 million adults in Ohio use the Internet to take online classes or conduct research for schoolwork.
- Over one-half (51%) of minority Internet users in Ohio go online to conduct digital learning, compared to only 39% of their Caucasian counterparts.
- Nearly 1.5 million Ohio children are using the Internet at home for schoolwork. However, nearly one in four households with children do not have broadband in Ohio, meaning that there are over 618,000 children in the state who are not able to access the Internet for their schoolwork at home.

The meeting included a technology in education panel discussion on how broadband is vital to Ohio's classrooms today and for the future.

Technology in Education Panelists

- **Barbara Boyd**, President, Learning Circle Education Services
- **Linda Kenworthy**, Business Development Manager, Intel Americas
- **Moderator: Joy Padgett**, former State Senator
- **Jim Petro**, Chancellor, Ohio Board of Regents
- **Wes Weaver**, Principal, Licking Valley High School
- **Casey Wright**, Principal, Nordon High School

At the meeting, Connect Ohio recognized Lee Imhof of Geauga County with a Broadband Hero Award. Imhof was selected based on the efforts of his company, [Troy Chemical](#), in being a key stakeholder in a high-speed Internet expansion project throughout Troy Township. To read more on this story, visit <http://connectohio.org/broadband-hero/lee-imhof>.

Tuscarawas County Public Library was recognized as Connect Ohio's [Every Citizen Online](#) All-Star Facility awardee for its dedication and engagement to the program, helping Ohio adults receive free basic computer and Internet training. Read more on this story at <http://connectohio.org/blog/post/every-citizen-online-all-star-facility-award-presented-tuscarawas-county-public-library>.

View the webcast: <http://connectednation.adobeconnect.com/p7eyicivrr7/>

#

About Connect Ohio: Connect Ohio, a division of Connected Nation, is a nonprofit, technology-neutral public-private partnership that works with telecommunications providers, business and community leaders, information technology companies, researchers, public agencies, libraries, and universities in an effort to help extend affordable high-speed Internet service to every Ohio household. For more information about what Connect Ohio is doing to accelerate technology in Ohio's communities, visit <http://www.connectohio.org>.

Follow Connect Ohio on [Facebook](#) and [Twitter](#).



Broadband and Education: Enriching Ohio's Students through Technology

September 2012

By the end of the next decade, 57% of all jobs in Ohio (approximately 3.3 million jobs) will require some education above high school.¹ Currently, though, only 31% of Ohioans 25 years and over have an associate's degree or higher.² A 2012 Brookings Institute report found that advertised job openings in large metropolitan areas across the nation require more education than what most adults have attained.³ Finding methods to narrow the education gap in Ohio will be important to making the state and its residents economically competitive in the next decade.

Technology can be a key component of widening education options, improving educational attainment levels in Ohio, and helping make the state economically competitive. Both nationally and at the state level, the use of technology itself in education has become a priority. The National Education Technology Plan aims to apply the technologies used in our personal and professional lives to the entire education system.⁴ In Ohio, Governor John Kasich has supported the expansion of digital learning by "defining its use and creating standards for blended learning environments."⁵ A recent survey by the Leading Education by Advancing Digital (LEAD) Commission found that approximately 74% of teachers and 82% of parents believe that it is very important for schools to make good use of technology in education. Both parents and teachers believe that technology can improve education by assisting students in becoming more engaged in learning; providing flexible, individualized, and hands-on learning opportunities; and better connecting the classroom to the real world.⁶

Broadband plays a significant role in the incorporation of technology into education. The LEAD Commission's survey discussed above reports that 60% of teachers and 63% of parents believe that high-speed Internet provides students a big advantage in school.⁷ It can facilitate e-Learning and the development of online content for classes. It can also enhance communication between teachers, parents, schools, and students. The National Broadband Plan includes recommendations to improve school and library connectivity, accelerate online learning, and personalize learning and improve decision-making with electronic educational records and financial data transparency.⁸

In its 2011 Residential Technology Assessment, Connect Ohio examined how broadband is enabling Ohioans to be better educated. The results of this analysis show that digital learning is important to helping students achieve their educational goals.

Among the findings from this survey:

- Approximately **2.9 million** Ohio Internet users (40%) go online for educational purposes.
- Rural Ohioans with Internet access are **significantly less likely** to conduct digital learning compared to Internet users living in urban or suburban counties in Ohio.
- Over **one-half (51%)** of minority Internet users in Ohio go online to conduct digital learning, compared to only 39% of their Caucasian counterparts.
- One in ten (**10%, or approximately 237,000**) Ohioans who access the Internet via a cell phone are using these devices for e-Learning.
- Nearly **1.5 million** Ohio children are using the Internet at home for schoolwork. However, nearly one in four households with children do not have broadband in Ohio, meaning that there are over 618,000 children in the state who are not able to access the Internet for their schoolwork at home.
- Parental education impacts children's use of home Internet for schoolwork. Of households with children where the parents themselves go online for e-Learning, **71%** report they have children who are also using the Internet for schoolwork, significantly higher than the 55% of households with children where parents are not e-Learners.

1 Georgetown University, <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/midwest-challenge.pdf>

2 U.S. Census, Educational Attainment, 2006-2010 American Community Survey 5-Year Estimates, <http://factfinder2.census.gov>.

3 Metropolitan Policy Program at Brookings, Education, Job Openings, and Unemployment in Metropolitan America, <http://www.brookings.edu/~media/Research/Files/Papers/2012/8/29%20education%20gap%20rothwell/29%20education%20gap%20rothwell.pdf>

4 U.S. Department of Education, National Education Technology Plan 2010, <http://www.ed.gov/technology/netp-2010>

5 Ohio's 21st Century Education & Workforce Plan, http://governor.ohio.gov/Portals/0/pdf/MBR/FINAL%20Education%20Workforce_ON-LINE%20VERSION.pdf

6 LEAD Commission, August 2012, *Parents' and Teachers' Attitudes and Opinions On Technology in Education*, <http://www.leadcommission.org/sites/default/files/LEAD%20Poll%20Deck.pdf>

7 Ibid.

8 Federal Communications Commission, *National Broadband Plan*, <http://www.broadband.gov/plan/executive-summary/>

Ohio e-Learners

Broadband has increasingly become a tool that can help Ohioans improve their educational attainment. More and more Ohio students are using the Internet for higher education. According to a report published by the Ohio Board of Regents, between the fall of 2008 and the fall of 2009, enrollment in higher education distance learning courses in the state increased by over 25%, significantly more than the 12% enrollment growth in the entire university system of Ohio during the same time period.⁹ Of those students enrolled in distance learning, 60.5% were community and technical college students, while the remaining students were enrolled at university campuses or regional branch colleges.¹⁰ There are 436 degrees and certificates available to students at a distance in Ohio, the largest percentage of which are associates degrees (36%).¹¹

Connect Ohio research on e-Learners sheds more light on how adults are using the Internet to further their education. Approximately 2.9 million Internet users in Ohio (40%) are using this technology to take online classes or conduct research for schoolwork. Of Ohioans who access the Internet via their cell phones, 237,000 (10%) are using these devices for e-Learning applications. While this represents a large portion of Ohio's population that is using the Internet for education, the percentage of Ohio e-Learners is significantly less than the average for all states surveyed by Connected Nation in 2011 (Figure 1).¹²

While a large number of Ohio Internet users are using e-Learning tools, further research indicates that not every Ohioan is taking advantage of this opportunity at the same rate. Connect Ohio's analysis shows who in the state is using the Internet for educational purposes (Table 1).

Younger Ohioans are more likely to take advantage of the Internet for their educations. Nearly 57% of Ohio Internet users age 18 to 24 go online for education. Use of e-Learning applications drops off sharply after the age of 45 in Ohio, with only 27% of Internet users in that age range using e-Learning applications.

Low-income Ohioans who may have the most to gain by improving their educations and gaining a better foothold in the job market are not fully benefiting from e-Learning opportunities. Only 41% of low-income Ohio Internet users (those with annual household incomes below \$25,000) are going online for school. This equates to over 1.5 million low-income Ohioans who are not using the Internet to expand their educational opportunities. In fact, the use of e-Learning is the highest among Ohio Internet users who make \$75,000 or more. Almost one-half of Internet users in this income bracket (49%) use e-Learning applications, a significantly higher percentage than the state average.

Figure 1.

Percent of Internet Users who Are e-Learners

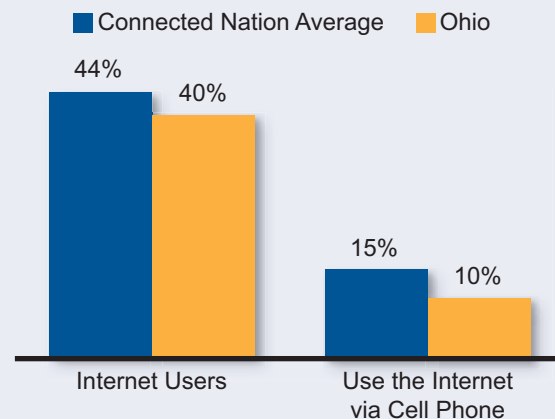


Table 1.

Percent of Ohio Internet Users who Are e-Learners by Demographics

	Internet Users
State Average	40%
Age	
Age 18-24	57%
Age 25-34	50%
Age 35-44	54%
Age 45 and older	27%
Annual Household Income	
Less than \$25,000	41%
\$25,000-\$49,999	42%
\$50,000-\$74,999	40%
\$75,000 or more	49%
Race/Ethnicity	
Caucasian	39%
Minority	51%
Education	
No college education	30%
College education	47%
Gender	
Male	39%
Female	42%

⁹ Ohio Board of Regents, Distance Learning Report, http://www.ohiolearns.org/sites/default/files/oln_pdfs/Distance_Learning_Report.pdf

¹⁰ Ibid.

¹¹ Ibid.

¹² Connected Nation conducted similar surveys in ten states in 2011: Alaska, Florida, Iowa, Michigan, Minnesota, Nevada, Ohio, South Carolina, Tennessee, and Texas, <http://connectohio.org/survey-results/residential>

In Ohio, minority Internet users are significantly more likely to go online for education than Caucasian Internet users. Over one-half of minority Internet users in Ohio (51%) go online for e-Learning, compared to only 39% of their Caucasian counterparts.

Not surprisingly, Ohio Internet users with some college education are significantly more likely to go online for schoolwork. Almost one-half (47%) use the Internet to take online classes or conduct research for school, compared to only 30% of Internet users with no college education. For these Ohio Internet users that are pursuing or have achieved higher education degrees, the Internet is a crucial educational instrument.

Female Ohio Internet users are slightly more likely to go online for e-Learning applications than males. Statewide, 42% of women who use the Internet are going online for educational purposes in the state.

K-12 Education and the Internet

Computers and the Internet are not only tools for adult e-Learners in Ohio; they also provide educational opportunities for Ohio children. In a recent report published by the Evergreen Education Group, Ohio was ranked second in K-12 online school enrollments, with 31,000 students enrolled in a full-time online school.¹³ Across the state of Ohio, there are 27 online, or “e-Community” schools, with 22 serving students in grades K-12. Enrollment has increased in these schools by 15% in a two-year period (between the 2008-2009 and 2010-2011 school years).¹⁴ Additionally, recent state legislation lifted a moratorium on the opening of new K-12 e-Schools in the state and called for, among other provisions, the development of operational standards, an online clearinghouse of digital courses, and the creation of a Digital Learning Task Force that will develop strategies to expand digital learning to help students customize their educations, provide cost savings to the state, and meets the economic needs of Ohio.¹⁵ Three new “blended learning” schools opened in the 2012-2013 school year; these schools will allow students to take classes in both traditional classrooms and online.¹⁶ In 2012, Nordon High School in northeastern Ohio began a program that will allow students to take classes completely online and lend them a laptop computer. The program is available to all Nordon High School students, home school students, and students enrolled in online charter schools throughout the state. It also provides opportunities for traditional students to take online elective courses and access resources to retake classes they have not passed.¹⁷

Many schools across both Ohio and the nation are not only trying to encourage online learning, but also are encouraging increasing the use of technology in the classroom. Bring Your Own Technology/Device (BYOT/D) programs in some school districts have students bringing their own laptops or other computing devices to school for use in class, while the school provides devices to students who do not own them. This is a popular program that helps schools fund increased technology use in the classroom and may provide more individualized instruction opportunities for students. One-to-one computing programs require one computer per teacher and student, which schools can provide or begin a BYOT/D program to facilitate. A one-to-one program has been implemented at Licking Valley High School in Newark, Ohio in the 2012-2013 school year. This program will allow teachers to incorporate videos, document sharing, and blogs in classroom activities.¹⁸ Such programs may help equalize technology and education opportunities for students who do not have Internet access or a computer at home.¹⁹

13 State Impact, “Ohio #2 in Online School Enrollment”, <http://stateimpact.npr.org/ohio/2012/03/23/ohio-2-in-online-school-enrollment/>

14 Evergreen Education Group, *Keeping Pace with K-12 Online Learning*, <http://kpk12.com/cms/wp-content/uploads/KeepingPace2011.pdf>
15 Ibid.

16 State Impact, “Ohio, Now With 28 New Charter Schools”, <http://stateimpact.npr.org/ohio/2012/09/07/ohio-now-with-28-new-charter-schools/>

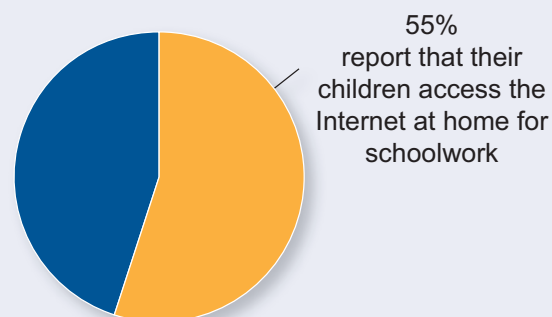
17 The-News-Leader.com, *Schools now offer high school online*, <http://www.the-news-leader.com/news/article/5213399>

18 Newark Advocate, “New program provides netbooks for every Licking Valley High School student”, http://www.newarkadvocate.com/article/20120824/NEWS01/208240303/Program-provides-netbooks-all-Valley-high-schoolers?nclick_check=1

19 U.S. Department of Commerce and National Telecommunications and Information Administration, “Mobile Technology in Schools K-12 Affinity Group Presentation”, August 7, 2012.

Connect Ohio research shows that the Internet plays an important role for children who can access it. Approximately 55% of parents with children in the household report that their children access the Internet at home for schoolwork (Figure 2), on par with the average of 55% among states surveyed by Connected Nation in 2011. This represents nearly 1.5 million children in Ohio who are using the Internet for education at home. However, nearly one in four Ohio households with children do not have broadband, meaning that there are over 618,000 children in the state who are not able to access the Internet for their schoolwork at home.

Figure 2.
Ohio Households with Children



In homes where the head of household is 35 or older, children are significantly more likely to use the Internet for schoolwork than households where the head is under 35 (Table 2).

Children's use of home Internet service for schoolwork does increase with household income level. In only 34% of low-income households, parents report that children use the Internet at home for school, compared to 61% of households with annual incomes greater than \$25,000.

There are no significant differences between minority households and non-minority households in terms of how children use home Internet service for education. Like their parents, many minority children in Ohio are utilizing the Internet for their education.

Parental educational experiences are an indicator of whether children will utilize the Internet for their educations. Approximately 61% of parents with at least some college education have children that use the Internet at home for schoolwork, a significantly higher percentage than the 45% of those with no college education.

Parental e-Learning experiences have an even greater impact. Of households with children where the parents themselves go online at home for e-Learning, 71% report that their children also use the Internet for schoolwork, significantly higher than the 55% of households with children where parents are not e-Learners (Figure 3). Expanding the use of the Internet and technology in K-12 education may be a matter of educating both parents and children.

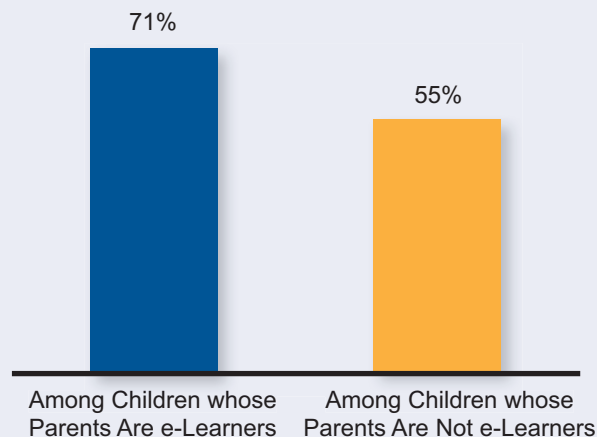
Table 2.

Percent of Households by Demographic whose Children Use Home Internet Service for Schoolwork

	Households with Children
State Average	55%
Age	
Age 18-34	34%
Age 35 and older	71%
Annual Household Income	
Less than \$25,000	34%
\$25,000 or more	61%
Race/Ethnicity	
Caucasian	51%
Minority	56%
Education	
No college education	45%
College education	61%

Figure 3.

Percentage of Households with Children that Use Home Internet Service for Schoolwork



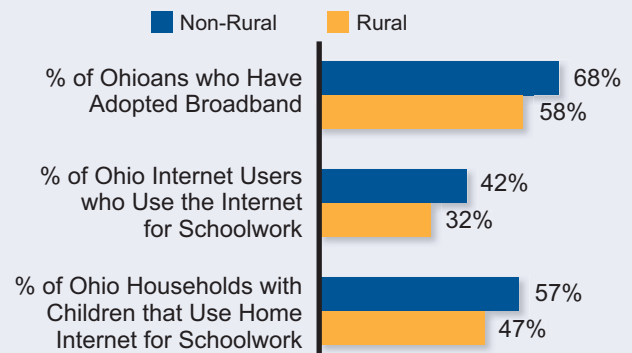
Education and Technology Use in Rural Ohio

Rural communities are often only served by one broadband provider and have slower Internet connections than non-rural communities.^{20,21} This truism is reflected in Ohio, where almost 11% of rural residents cannot access home broadband service that is capable of streaming classroom lectures in standard-definition video, compared to only 0.1% of residents in non-rural areas.²² About 9% of rural residents across the United States cite availability as the main reason they do not have high-speed Internet, in contrast to only 1% of urban residents.²³

In Ohio, this digital divide has had an impact on the adoption and use of technology for educational purposes in rural portions of the state. Only 58% of rural Ohioans have adopted broadband at home, compared to 68% of urban and suburban Ohioans (Figure 4). Additionally, only 32% of rural Ohio Internet users go online for education, a significantly lower percentage than the 42% of Ohio Internet users who go online for education in urban and suburban parts of the state. This means that almost 1.3 million Ohioans in rural areas are missing out on the educational opportunities that Internet can provide. Rural Ohio households with children are also less likely to report that their children use home Internet service for schoolwork than those in non-rural parts of the state, again indicating that rural areas may have much to gain from increased broadband access and online education application use.

Figure 4.

Rural Ohio Use of Technology for Education



²⁰ ICF International, "Broadband and Rural Education: An Examination of the Challenges, Opportunities, and Support Structures that Impact Broadband and Rural Education", http://icfi.academia.edu/CaitlinHowley/Papers/1790013/Broadband_and_Rural_Education_An_Examination_of_the_Challenges_Opportunities_and_Support_Structures_that_Impact_Broadband_and_Rural_Education

²¹ Approximately 16% of rural residents in the United States do not have access in their homes to broadband service with download speeds of at least 3 Mbps and upload speeds of at least 768 Kbps, compared to only 0.3% of residents in non-rural areas (National Broadband Map, "Broadband Availability in Urban vs. Rural Areas", <http://www.broadbandmap.gov/download/Broadband%20Availability%20in%20Rural%20vs%20Urban%20Areas.pdf>

²² Required speeds based on FCC estimates that broadband speeds of 4 Mbps download/768 Kbps upload are needed to stream standard definition video (Federal Communications Commission, National Broadband Plan, <http://download.broadband.gov/plan/national-broadband-plan-chapter-3-current-state-of-the-broadband-ecosystem.pdf> and residential availability of broadband service at speeds of at least 3 Mbps download/768 Kbps upload (National Broadband Map, "Broadband Availability in Urban vs. Rural Areas", <http://www.broadbandmap.gov/download/Broadband%20Availability%20in%20Rural%20vs%20Urban%20Areas.pdf>

²³ National Telecommunications & Information Administration, "Digital Nation: Expanding Internet Usage", http://www.ntia.doc.gov/files/ntia/publications/ntia_internet_use_report_february_2011.pdf

Many geographically-isolated parts of the state may not have higher education institutions located nearby, and many rural K-12 education institutes rely on bus transportation that makes it difficult for students to stay late or arrive early to complete school work on site.²⁴ Increasing broadband adoption and technology use for education could assist in providing rural students access to a wider variety of courses, virtual schools, and collaborative learning opportunities outside of their immediate communities.²⁵

How Ohio is Integrating Technology and Learning

The state of Ohio has made the use of technology a priority at all levels of education. There are a variety of e-Learning options to both higher education and K-12 students in the state, and the Internet has become a valuable tool in improving access to these options. This emphasis on getting technology into the classrooms has resulted in several successful initiatives.

OhioLearns is a website targeted to any Ohioan who is interested in distance or e-Learning at the college level.²⁶ The website provides a catalog of online courses, degrees, and certificates available in Ohio and provides assistance to institutions that wish to assess their web-based services and to students enrolled in traditional colleges or universities who are interested in online tutoring. iLearnOhio is a website administered by the Ohio Resource Center, in collaboration with the College of Education and Human Ecology at The Ohio State University and the Ohio Board of Regents.²⁷ It is a virtual clearinghouse of online courses offered to Ohio students in grades K-12 with the goal of providing all Ohio students access to high-quality distance learning courses. These resources are intended to assist all Ohioans in harnessing the power of broadband to become better educated.

Digital literacy programs may also have an impact on increasing the use of technology for education in Ohio. A 2012 survey of Cleveland and Akron parents showed that nearly three out of four (73%) who had completed a digital training program said that the program had increased their ability to engage with their child's school teachers and learning.²⁸ Additionally, 80% of parents that completed the training reported that children now completed homework, schoolwork, or class projects using their home broadband service.²⁹

By becoming more digitally literate, parents can help educate their children not only about technology usage, but also online safety and etiquette. Connect Ohio's Every Citizen Online (ECO) program is aimed at increasing broadband adoption and digital literacy throughout the state. This program provides residents of Ohio six hours of free basic training sessions on computers, the Internet, and the benefits of using the Internet. Training is offered at more than 300 locations throughout the state, including libraries, community colleges, community action councils, Goodwill locations, YMCAs, workforce development centers, and other community anchor institutions. More than 26,000 Ohioans have taken advantage of the ECO program since it began in January 2011.³⁰

Conclusions

Broadband has the capability of making education a reality for a broad spectrum of Ohioans. Currently, approximately 2.9 million Ohio adults are using the Internet for educational purposes, and nearly 1.5 million Ohio children are using their home Internet service for schoolwork. However, there are many demographic groups that are not fully utilizing the educational opportunities available via technology. Increasing broadband availability and adoption among these groups, paired with improving digital literacy and awareness of online education applications, may open the door to more educational opportunities.

²⁴ ICF International, Ibid.

²⁵ ICF International, Ibid.

²⁶ OhioLearns, <http://www.ohiolearns.org/ohiolearns>

²⁷ iLearnOhio, <http://www.ilearnohio.org/>

²⁸ One Community, *Connect Your Community K-12 Digital Literacy Survey*, <http://www.connectcommunity.org/wp-content/uploads/2012/06/CYC-K-12-parent-survey-summary-May-2012.pdf>

²⁹ Ibid.

³⁰ <http://connectohio.org/every-citizen-online>

Methodology and Definitions

Between March 8 and March 29, 2011, Connect Ohio conducted a random digit dial telephone survey of 1,201 adults across the state. Of the 1,201 respondents randomly contacted statewide, 201 were called on their cellular phones, and 1,000 were contacted via landline telephone. On average, each survey took approximately 11 minutes to complete. Data were collected by Thoroughbred Research Group in Louisville, KY. The results of this survey have been compared to similar surveys that Connected Nation conducted across ten states in 2011 (Alaska, Florida, Iowa, Michigan, Minnesota, Nevada, Ohio, South Carolina, Tennessee, and Texas). This research was designed to measure technology adoption trends and the awareness of available broadband service.

Internet users are defined as respondents who answered “yes” when asked “Do you subscribe to the Internet at home?” and answered “every day, several times per week, or once per week or less” when asked “How often, if ever, do you go online from home?” or who answered “yes” when asked “Do you use the Internet from any locations outside of your own home?”

Respondents who access the Internet via cell phone are defined as those who answered “yes” when asked “Is your cell phone capable of accessing the Internet” and answered “every day, several times per week, or once per week or less” when asked “How often, if ever, do you go online using your cell phone?”

Multiple attempts were made to each working telephone number on different days of the week and at different times of the day to increase the likelihood of contacting a potential respondent. To ensure a representative sample, quotas were set by age, gender, and census area of residence (rural or non-rural), and the results were weighted to coincide with 2010 United States Census population figures. For the purpose of setting quotas and weighting, “rural” respondents are defined as living in a census area that is not a part of a Metropolitan Statistical Area (MSA), as designated by the United States Office of Management and Budget. Weighting and design consultation were provided by Lucidity Research.

Surveys were conducted by Thoroughbred Research Group. Based on the effective sample size, the margin of error = $\pm 3.03\%$ at a 95% level of confidence for the statewide survey of 2011. As with any survey, question wording and the practical challenges of data collection may introduce an element of error or bias that is not reflected in this margin of error.



Appendix A:

Select Sample Sizes

	Connected Nation Average (n)	2011 Ohio (n)
Total	12,004	1,201
Internet use at home or someplace else	9,555	953
Access the Internet via Cell Phone	3,573	318
Have Children at Home	4,158	431

Demographic Categories	2011 Ohio (n)	Ohio Internet Users (n)	Ohio Households with Children (n)
Rural	401	305	145
Non-Rural	800	648	286
Age 18-24	77	69	31
Age 25-34	237	215	157
Age 35-44	213	190	141
Age 45 and older	674	479	102
Households with Annual Incomes Less than \$25,000	267	149	75
Households with Annual Incomes \$25,000- \$49,999	280	238	112
Households with Annual Incomes \$50,000- \$74,999	178	165	68
Households with Annual Incomes \$75,000 or more	239	235	120
Caucasian	980	786	347
Black, or African American	93	74	38
Other Minorities	53	43	30
No college education	513	330	152
At least some college education	653	597	272
Female	626	490	220
Male	575	463	211

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Blog // Connect Ohio

11/07/12

Connect Ohio, Governor's Office of Appalachia Present at Community Development Conference


By Amanda Murphy



On November 7, 2012, Connect Ohio had the opportunity to present at the 2012 Community Development Conference at Salt Fork State Park Lodge and Conference Center in Cambridge. Stu Johnson, executive director for Connect Ohio, alongside Jason Wilson, director of the Governor's Office of Appalachia, gave attendees an update on the Connect Appalachia Broadband Task Force, which continues making great strides in helping Appalachian Ohio get connected. Johnson and Wilson also made an exciting announcement regarding the upcoming formation of the Task Force's fund, which will immediately begin spurring broadband access, adoption, and use throughout the Appalachian region. Details about the announcement will be released very soon!






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Blog // Connect Ohio

 11/13/12

Free Google Resources for Growing Your Business Online

By Amanda Murphy



In partnership with Connect Michigan, Connect Ohio, Ohio Telecommunications Association, and Telecommunications Association of Michigan, Google - the world's online search leader - conducted two free *Growing Your Business Online* workshops last week at the [Great Lakes Technology Showcase](http://www.greatlakestechshow.com/) (<http://www.greatlakestechshow.com/>) in Toledo, Ohio. Both workshops had full attendance and participants received tips and information for utilizing Google resources to increase, monitor, and maintain their business' web presence.



Many of Google's resources are free and available online at Google.com.

Below is a list of topics covered during the workshops and links to some of Google's free online tools:

Search Engine Optimization (SEO)

Webmaster Tools – find out how Google sees your site: <http://www.google.com/webmasters/> (<http://www.google.com/webmasters/>)

Tips to promote a website

e-Mail, social media, and online recommendations

Search Engine Marketing (SEM)

Pay-Per-Click (PPM) – Google offers two options

1. Google AdWords: <http://www.google.com/adwords> (<http://www.google.com/adwords>)
2. Google AdWords Express: <http://www.google.com/adwords/express/> (<http://www.google.com/adwords/express/>)

Building an online community

Google+ Pages for businesses: <http://www.google.com/+business/>

[\(http://www.google.com/+business/\)](http://www.google.com/+business/)

The +1 Button – how it works and adding it to your site:

<https://developers.google.com/+plugins/+1button/> (<https://developers.google.com/+plugins/+1button/>)

Google Analytics and Insights

Find out how visitors find your website and what they do on your site: <http://google.com/analytics> (<http://google.com/analytics>)

See what people are searching for and what is trending on Google: <http://www.google.com/trends/> (<http://www.google.com/trends/>)

Going Mobile

Make sure your site works on mobile devices. Test your site: <http://www.howtogomo.com/> (<http://www.howtogomo.com/>)

Google Apps

Google offers free and paid online office productivity tools that allow you to take your work with you: <http://www.google.com/enterprise/apps/business/> (<http://www.google.com/enterprise/apps/business/>)

[View additional photos from the workshop and the Connect Michigan and Connect Ohio teams at the Great Lakes Technology Showcase in Toledo. \(http://www.flickr.com/photos/connectednation/8167434551/in/set-72157628291102511\)](http://www.flickr.com/photos/connectednation/8167434551/in/set-72157628291102511)



14 b_Project Attachment_Technical Assistance

5. Attach a separate document any success stories or best practices you have identified. Please be as specific as possible.



Ribbon Cutting Event Celebrates Internet Deployment for Washington County

Completed Expansion Project will Give Broadband Access to Thousands of Unserved and Underserved Ohioans

For Immediate Release
November 29, 2012

Contact: Amanda Murphy
614-214-6755 or amurphy@connectohio.org

MARIETTA – Representatives from Smart Networks, along with Washington County Commissioners, representatives from Connect Ohio, and members of the Connect Appalachia Broadband Task Force, held a ceremonious ribbon-cutting event November 29, 2012, in Marietta. The event celebrated the initial deployment of countywide broadband access to the many unserved and underserved homes and businesses throughout Washington County. Smart Networks has already deployed wireless Internet equipment to two towers located in Marietta, which has the potential to service up to 4,000 addresses. The next tower sites to receive wireless Internet equipment are Beverly, Macksburg, and Quincy Hill. These deployments will give service to thousands of additional county residents.

"We have many customers in the queue that are being installed every day, both residential and business," said Chad Henson, COO of Smart Networks. "We are pushing to install as many each week as possible, which is currently about 30 new customers each week."

Smart Networks' broadband service deployment is helping to bridge an existing digital divide for Washington County residents. Currently, 6,000 homes and businesses in the area do not have access to high-speed Internet and this existing digital divide has an effect on education, economic development, and public safety. [View video interviews detailing these effects here.](#)

"It is great to see the work of the Connect Appalachia Broadband Task Force come to pass, getting more Appalachian Ohioans broadband access," said Jason Wilson, director of the Governor's Office of Appalachia. "Today is proof that working together and working smart can change lives and improve opportunities for residents. This announcement also makes the county more competitive for economic development and in a position for job creation."

"If we want to promote economic development throughout Ohio, we need to ensure that businesses have broadband access," said U.S. Senator Sherrod Brown. "Ohio's rural communities have been overlooked for too long, but this expansion has bridged the digital divide for Appalachian Ohio small businesses. Smart Networks will close the final link to provide broadband for Washington County — promoting economic growth and improving the competitiveness of southeast Ohio. This is an investment in the future of our state."

###

Connect Ohio, a division of Connected Nation, is a leading technology organization committed to bringing affordable high-speed Internet and broadband-enabled resources to all Ohioans. Connect Ohio effectively raises the awareness of the value of broadband and works to improve technology access, adoption, and use through its programs. Connect Ohio is a nonprofit, technology-neutral public-private partnership. For more information about what Connect Ohio is doing to accelerate technology in Ohio's communities, visit <http://www.connectohio.org>. Follow Connect Ohio on [Facebook](#) and [Twitter](#).