## New NTIA Report: *Exploring the Digital Nation-America's Emerging Online Experience*

In the National Telecommunications and Information Administration (NTIA) report released in June, the authors used July 2011 Current Population Survey (CPS) data from the Census Bureau to depict how Americans are connecting to the internet and what activities they are doing online. The data used comes from more than 53,000 households. While there is nearly ubiquitous access to broadband internet speeds of 3 Mbps upload and 768 Kbps download or higher (97.7% of house-holds/98.2% of the population), not every-one has chosen to take advantage of this access. Data from the CPS shows 72 per-cent of all households use the internet and 69 percent of the households use broad-band. Over the years we have seen an in-crease in internet and broadband adoption, but the growth has slowed recently as more people adopt broadband.

People who access the internet use a varie-ty of devices. Even though 76 percent of the households reported having a desktop, laptop, or tablet computer, these devices were not the only ways people connected to the internet. Of those who use the inter-net, 64 percent connected using a desktop, 61 percent reported using a laptop, and 9 percent reported using a tablet. Mobile de-vices such as smart phones were used to connect to the internet by 39 percent of the internet users. Obviously some users con-nected to the internet using multiple devic-es. For all internet users, 54 percent only used a desktop or laptop to connect, 3 per-cent would only use a mobile device to connect, and 39% would use both.

The report highlights some different char-

acteristics of the type of device used to connect, but one difference that stood out was the difference between rural and urban residents. Three percent of urban and rural residents reported using only mobile devic-es to connect to the internet. However, we see a big difference between urban and rural residents in the other two categories. Rural residents connect using a desktop or laptop at a much higher rate than urban residents (61% and 52%, respectively). Urban residents were more likely to use both types of devices at a higher rate than rural residents (41% and 31%, respective-ly).

The CPS data shows 72 percent of all inter-net users 25 years of age and older access the internet every day. Those who access the internet use it for a variety of reasons. The most obvious is personal communica-tions such as email (77%). Other reasons include: general information (66%), finan-cial services (53%), consumer services (52%), entertainment (48%), on-the-go services (33%), job seeking/training (29%), telecommuting (29), healthcare (27%), and educational purposes (23%).

Finally, the report highlights many other characteristics related to income levels, education, age, region, type of connection, as well as characteristics of people using the internet for certain purposes. For exam-ple, people with more education are more likely to research healthcare information using the internet. The report also high-lights differences in rural and urban broad-band adoption across the U.S. as well as state-by-state. Minnesota compares very favorably in broadband adoption rates

within both rural and urban areas. According to CPS, 72 percent of the urban areas and 58 percent of the rural areas in the U.S. have adopted broadband. Minnesota is well above the U.S. numbers with 78.5 percent of the urban areas and 68.9 percent of the rural areas adopting broadband.

*For the complete report please go to http://www.ntia.doc.gov/report/2013/exploring-digital-nation-americas-emerging-online-experience.*

## Minnesota Projects Receive USDA Funding to Enhance Rural Utilities

As the U.S. continues coming out of the recession, the U.S. Department of Agriculture (USDA) is taking a variety of measures in an attempt to strengthen rural economies. Once recent measure announced by Agriculture Secretary Tom Vilsack is the funding of rural electric projects in 16 different states totaling more than $356 million in loans. In the June 12th announcement, Secretary Vilsack stated "USDA funding for rural electric utilities not only improves service to customers, it makes the grid more efficient and reliable and encourage investment, business development and job creation in rural communities". The aim of these projects is to secure affordable electricity for rural residents, which also includes improving the services to Native Americans.

States receiving funding include: Arkansas, Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Minnesota, New Mexico, North Carolina, North Dakota, Oklahoma,

Texas, South Dakota, & Washington. Among these 16 states, 15 projects are being funded by the USDA. Minnesota is receiving funding for four projects with one project being a collaboration between Minnesota and North Dakota. The four projects within Minnesota are listed below as they appear in the announcement:

**Minnesota**

- Beltrami Electric Cooperative, Inc. - $23,070,000. Funds will be used to serve 1,262 customers, build 154 miles of distribution line and make other system improvements. The loan includes $1,154, 611 for smart grid projects and $5,753,582 for improved service to Native American communities.

- The Cooperative Light & Power Association of Lake County - $7,725,000. Funds will be used to serve 357 customers, build 77 miles of distribution line and make other

system improvements. The loan includes $1,170,750 for smart grid projects.

Redwood Electric Cooperative - $6,000,000. Funds will be used to serve 81 customers, build 49 miles of distribution line and make other system improvements. The loan amount includes $38,000 for smart grid projects.

**North Dakota and Minnesota**

- Minnkota Power Cooperative, Inc. - $54,522,000. Funds will be used to build 104 miles of transmission line, a new substation, nine switching stations and make other system improvements. The loan includes $4,685,000 for smart grid projects.

*For more information on other projects funded by the USDA please go to http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2013/06/0125.xml.*

## DEED: Minnesota Business Services Firms are Optimistic about the Economy

This past April and May, DEED's Office of Analysis and Evaluation surveyed 237 randomly selected business services firms (which includes law firms, public relations firms, engineering, and accounting consultants) to determine the extent these particular firms were optimistic about the state of the economy. When comparing sales revenues from the previous four quarters with expected sales revenues in the next four quarters, respondents were more optimistic

revenues would stay the same or increase in the next four quarters (77%) even though 70 percent of the respondents observed increases or the same sales revenues over the past four quarters.

Some other interesting statistics include: 83 percent of respondents reported employment levels maintained or increased over the past four quarters, 85 percent expect to maintain employment levels or hire more em-

ployees over the next four quarters, 62 percent experienced the same or higher profits over the past four quarters and 75 percent believe they will maintain or increase profit levels over the next four quarters.

*For the full report please go to http://www.positivelyminnesota.com/Data_Publications/Data/Research_Reports/Business_Services_Industry_Conditions.aspx*

## 2012-2013 Local Area Unemployment Statistics and Current Employment Situation

After seasonal adjustments, unemployment in May rose from 7.5 percent to 7.6 percent in the U.S. and remained steady at 5.3 percent in Minnesota. Unemployment claims in May dropped 1,590 to 18,845 when compared to April. Over the year unemployment claims dropped 5.9 percent when compared to May 2012.

Minnesota employers added 8,400 jobs in May. Leisure/Hospitality (2,900), Government (2,800), Professional/Business Services (2,000), Education/Health Services (1,800), Other Services (1,100), Construction (1,000), Manufacturing (100), and Financial Activities (100) industries posted job gains in May. Trade/Transportation/Utilities (-2,600), Information (-700) and Mining/Logging (-100) industries posted job losses in May.

Minnesota is back up to 1.6 percent growth with 43,300 additional jobs over the past year. The 1.6 percent growth in Minnesota is back to U.S. growth rate of 1.6 percent for the last 12 months.

All of the EDRs' unemployment rates dropped in May. Unemployment numbers for the EDRs are NOT seasonally adjusted.
*Go to the DEED website;*
*www.positivelyminnesota.com to view*
*more employment and wage statistics.*



**Minnesota Economic Development Regions**
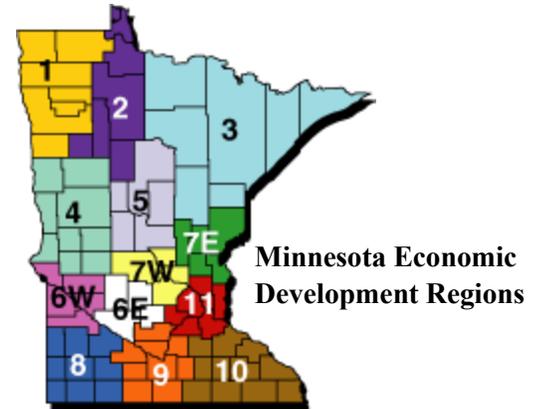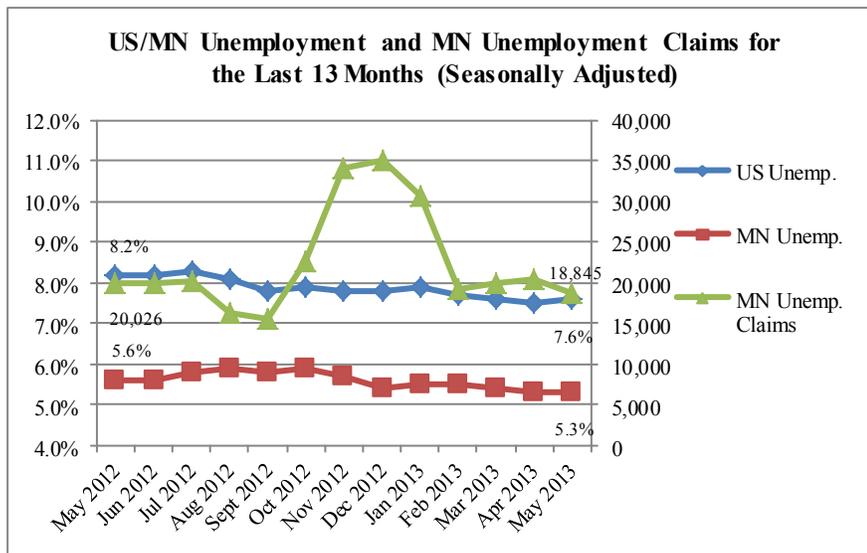
### 2012-2013 Minnesota Unemployment by Economic Development Region (Not Seasonally Adjusted)

| Date | EDR1 | EDR2 | EDR3 | EDR4 | EDR5 | EDR6E | EDR6W | EDR7E | EDR7W | EDR8 | EDR9 | EDR10 | EDR11 |
|------|------|------|------|------|------|-------|-------|-------|-------|------|------|-------|-------|
| **May 2012** | 4.8% | 7.0% | 6.4% | 4.2% | 6.1% | 5.5% | 4.6% | 6.8% | 5.3% | 4.0% | 5.0% | 4.9% | 5.2% |
| **Jun 2012** | 5.1% | 7.6% | 7.0% | 4.7% | 6.6% | 6.1% | 5.2% | 7.0% | 5.7% | 4.7% | 5.5% | 5.5% | 5.8% |
| **Jul 2012** | 5.2% | 7.8% | 7.1% | 4.7% | 6.6% | 6.2% | 5.2% | 6.9% | 5.8% | 5.1% | 5.7% | 5.6% | 5.9% |
| **Aug 2012** | 4.8% | 7.1% | 6.7% | 4.4% | 6.3% | 5.8% | 4.9% | 6.6% | 5.5% | 4.5% | 5.3% | 5.3% | 5.7% |
| **Sept 2012** | 4.3% | 6.5% | 6.2% | 4.1% | 6.0% | 5.3% | 4.4% | 6.2% | 5.2% | 4.2% | 4.9% | 4.8% | 5.4% |
| **Oct 2012** | 4.1% | 6.7% | 6.1% | 4.1% | 6.2% | 5.3% | 4.4% | 6.2% | 5.1% | 4.7% | 4.9% | 4.8% | 5.3% |
| **Nov 2012** | 4.5% | 7.1% | 6.5% | 4.1% | 6.9% | 5.4% | 4.2% | 6.5% | 5.1% | 3.9% | 4.6% | 4.5% | 4.9% |
| **Dec 2012** | 5.7% | 8.1% | 6.9% | 5.2% | 8.1% | 6.1% | 5.4% | 7.9% | 6% | 4.2% | 5.2% | 4.9% | 5% |
| **Jan 2013** | 8.1% | 10.1% | 8.4% | 6.7% | 10.2% | 7.9% | 7.4% | 10% | 7.6% | 5.8% | 6.7% | 6.2% | 5.8% |
| **Feb 2013** | 7.1% | 9.2% | 7.7% | 6.1% | 9.3% | 7.3% | 6.5% | 9% | 6.9% | 5.4% | 6.1% | 5.8% | 5.3% |
| **Mar 2013** | 7.1% | 9.2% | 7.5% | 6% | 9% | 7.1% | 6.4% | 9% | 6.6% | 5.2% | 5.9% | 5.5% | 5.1% |
| **Apr 2013** | 6.5% | 8.7% | 7.1% | 5.3% | 7.9% | 6.1% | 5.7% | 8.1% | 6% | 4.7% | 5.4% | 5% | 4.8% |
| **May 2013** | 4.6% | 7.1% | 6.7% | 4.1% | 6.3% | 5.1% | 4.9% | 6.4% | 5% | 4% | 4.7% | 4.6% | 4.7% |

## USDA Announces Funding Opportunity through Distance Learning and Telemedicine Program for FY 2013

The Rural Utilities Service of the U.S. Department of Agriculture has announced $17,531,000 is available for fiscal year 2013 through the Distance Learning and Telemedicine program. "The Distance Learning and Telemedicine Loan and Grant Program (DLT) is designed specifically to meet the educational and health care needs of rural America. Through loans, grants and loan/grant combinations, advanced telecommunications technologies provide enhanced learning and health care opportunities for rural residents."

Any organization that provides education and medical care through telecommunications are eligible to apply for these funds. This includes corporations, partnerships, Indian tribes (or tribal organization), state/local governments, and private for-profit or not-for-profit corporations. Individuals are not eligible to apply.

Currently, 100 percent grant applications are being accepted. Applicants are required to provide a 15 percent match. Awards may range from $50,000 to $500,000. All applications are due no later than August 12, 2013.

Funds from this program may be used in a variety of ways. Applicants may use funds to acquire equipment, hardware, software, or other facilities that further their DLT services. They may also use funds for instructional programming as well as technical assistance for using eligible equipment.

*For more information please go to* [http://www.rurdev.usda.gov/UTP_DLT.html](http://www.rurdev.usda.gov/UTP_DLT.html). *The 2013 Notice of Funding Availability and other resources for this program are located at* [http://www.rurdev.usda.gov/UTP_DLTResources.html](http://www.rurdev.usda.gov/UTP_DLTResources.html).

## FTTH Council Provides Outline for Becoming a Fiber-Friendly Community

Within rural areas, it is very difficult for communities to get access to broadband internet connections. As the recent paper highlighting the challenges facing rural broadband access by Balholff and Williams stated, with universal service funding reform occurring some areas will not receive enough federal funding to support the expenses of terrestrial voice or broadband. This will leave states and local areas to make decisions on how to fund these services.

The Fiber-to-the-Home Council Americas "is a non-profit association consisting of companies and organizations that deliver video, Internet and/or voice services over high-bandwidth, next-generation, direct fiber optic connections - as well as companies that manufacture FTTH products and others involved in planning and building FTTH networks". At a conference in Kansas City, the Fiber-to-the-Home Council Americas provided an outline on how to become a fiber friendly community. This outline identifies processes that can help a community attain a fiber network as efficiently and cheap as possible.

The first steps include enlisting community and local government leadership and support. Communities looking to develop a fiber network should develop a clear broadband plan with deadlines to achieve certain goals. The community should also include key community stakeholders and local government personnel during throughout the process.

The second set of steps includes getting the appropriate permits and approval to begin developing the network. It is often during this stage that costly delays occur. To prevent these costly delays they first suggest getting "guaranteed response deadlines" for permit applications. They also suggest allowing use of the innovative construction techniques available that could not only speed up the construction process, but also be cheaper and less invasive. Finally, they suggest local governments avoid "must build" requirements when approving the development process.

The third set of steps includes using existing infrastructure when developing a network. Providing developers with available infrastructure is a good way to reduce costs and allow a project to be completed more efficiently. As well as making it clear what infrastructure is already available, local governments should also use existing easements and right-of-ways they control available

for the development. There are also steps that can be taken to use existing poles to run fiber across a community. Local governments can make this process go smoother by making sure the approval for using existing poles is done quickly, coordinating "maintenance" of the poles with the "make-ready" work so all work can be done at once, and allow prospective attachers to perform the "make-ready" work themselves.

Finally, communities can take steps to reduce future costs by improving existing infrastructure. First space could be made on existing poles where attachers could be added in the future. Second, when conducting maintenance, the community could install fiber conduits with enough space for any future networks. This will save money with smaller construction costs. Finally, the community could use building

codes and development plans as a way to encourage fiber deployments.

*For the entire paper please go to [http://www.ftthcouncil.org/p/bl/et/blogid=2&blogaid=214.](http://www.ftthcouncil.org/p/bl/et/blogid=2&blogaid=214.)*

## Current Challenges Facing Rural Broadband Services

On November 18th, 2011 the Federal Communications Commission (FCC) released Transformation Order FCC 11-161 which "comprehensively reforms and modernizes the universal service and intercarrier compensation systems to ensure that robust, affordable voice and broadband service, both fixed and mobile, are available to Americans throughout the nation". While the aim of this transformation order is to establish accountability for those receiving federal funding discussed in FCC 11-161, some believe it may have an impact on establishing and maintaining broadband service within rural areas.

Michael Balhoff and Bradley Williams discuss some of the challenges rural areas will face as a result of FCC 11-161 in their paper titled *State USF White Paper: New Rural Investment Challenges* released last month. Balhoff and Williams outline how rural areas could be adversely impacted by these changes, especially if state governments aren't prepared to analyze their current policies, budgets, and be willing to supplement changing federal funding levels. To frame their discussion, the authors focus on three

concepts. First, "customer network-based services have always been the goal of universal service. Second, they make the distinction between subsidies (which aid a struggling carrier/sector) and support. Providing support is what federal funding has done for carriers to get them into "high-cost regions" (i.e. rural areas). Finally, should larger carriers receive support to get them in "high-cost regions"?

The authors estimate large price-cap carriers in rural areas could lose 85-90 percent of their support by 2020 and smaller carriers could lose up to 35 percent. With this decrease in support funding high-cost regions other investments will go down as well. Rural investment is down sharply for a couple of reasons. First, with less support funding, lenders are more cautious in making investments in rural-area carriers. Second, carriers are not in a hurry to obtain more loans "because the companies are gravely concerned about their ability to repay debt". This is evident in how Rural Utilities Service (RUS) loans that are usually fully utilized were not used as much in 2012. Borrowers in 2012 only used 11.6 percent of an availa-

ble $690 million and only 9.4 percent of another $736 million in available RUS loan programs.

The biggest issue the authors address is the possibility these changes in the USF will not only affect small carriers, but also larger carriers who cannot justify investing in rural areas because of the high-costs involved. According to the authors, "AT&T-the largest wireline carrier in the U.S.-has stated that it cannot justify investing in 25% of its landline network because of high costs, presumably without support from USF". This could affect terrestrial and 911 services in rural areas if service carriers cannot or will not meet the mandates of the new order to receive USF and states do not act to supplement USF.

*For the FCC Transformation Order for the USF and ICC released November 18th, 2011 please go to [http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-161A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-161A1.pdf). For the complete white paper please go to [http://www.balhoffrowe.com/pdf/BW%20State%20USF%20White%20Paper%20June%202013.pdf](http://www.balhoffrowe.com/pdf/BW%20State%20USF%20White%20Paper%20June%202013.pdf).*

## NTIA Broadband Brief: *Broadband Availability Beyond the Rural/Urban Divide*

It is commonly know that urban areas generally have more broadband availability than rural areas. A recent report from the National Telecommunications and Information Administration (NTIA) breaks down this rural/urban divide even further. The authors separated broadband speeds into 7 categories and even separated rural and urban areas down further into 5 categories. Broadband speeds are separated into the following categories: 3 to 5.9 Mbps, 6 to 19.9 Mbps, 10 to 24.9 Mbps, 25 to 49.9 Mbps, 50 to 99.9 Mbps, 100 to 999.9 Mbps, and 1 Gbps or greater. Urban and rural areas are broken down further by residents per square mile (RPSM). Rural areas are broken down further in to the following categories: exurbs (37 RPSM) and very rural (11 RPSM). Urban areas are broken down into the following categories: central cities (2,754 RPSM), suburbs (1,970RPSM), and small towns (1,447 RPSM).

What they found is the disparity in broadband availability within rural an urban areas increases as speed increase. This is true not only for wireline services, but also wireless services. When you further break down rural and urban areas, the authors show evidence there is a difference in broadband availability. When examining the three categories of urban areas, there is a disparity in availability as broadband speed increases. Central cities and suburbs have similar broadband availability regardless of speed. However, small towns have similar broadband availability to the other two groups with speeds between 3 Mbps and 6 Mbps, but drop further than the other two categories with 10 Mbps and a much more extreme drop off between 10 Mbps and 25 Mbps. Small towns resemble exurbs in broadband availability at speeds of 25 Mbps and higher. Finally, when you look at very rural areas compared to exurbs, very rural areas have much less broadband availability than exurbs (especially as you get to speeds greater than 25 Mbps).

*For the full report please go to http://www.ntia.doc.gov/report/2013/broadband-availability-beyond-ruralurban-divide.*

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*The EDA Center at the University of Minnesota, Crookston is one of more than 40 university centers nationwide, supported by the Economic Development Administration, U.S. Department of Commerce.*

*We conduct applied research, provide direct technical assistance and deliver educational programs development agencies that support the economy of economically-distressed rural communities throughout Minnesota.*

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