**Date:** June 8, 2015

**To:** Broadband Opportunity Council

**From:** C.K. Blandin Foundation, Grand Rapids, MN, on behalf of rural Minnesota communities

**Re:** Response to Request for Input

---

Thank you for the invitation to provide input to the Broadband Opportunity Council.

We applaud your purpose and welcome your resolve to address the reality that Americans without broadband access and the ability to use it are denied equal opportunity to participate fully in American life. Broadband has become the indispensable infrastructure of our age.

As one of only a handful of philanthropies in the nation with a rural focus, for the past 13 years Blandin Foundation has dedicated millions of dollars in grants and programs, plus staff resources, to help rural communities get the broadband they need and acquire the skills to use it. We have focused on driving broadband access and adoption because we recognize that broadband is critical to everything we care about as a foundation.

In this work we have worked in dozens of rural communities with many partners in multiple sectors on broadband adoption programs that have touched thousands of Minnesotans. Our experience includes the implementation of a $4.8 million Broadband Technology Opportunities Program (BTOP) grant under the American Recovery and Reinvestment Act (ARRA), now recognized by NTIA for numerous best practices.

Today Blandin Foundation remains focused on community broadband access and adoption: our Trustees have committed an addition $1.5 million in grant dollars – plus staff time and attention – for this work in 2015-2016. We will continue to apply learning and experience gained from the BTOP-funded work to these ongoing investments.

Our response to the Council's Request for Comment is informed by this experience and aspires to represent the voices of the rural communities we serve. Our comments have been reviewed and endorsed by the foundation's Broadband Strategy Board, a 15-member advisory council that brings a wide range of perspectives and experience to the foundation's work.

Blandin Foundation's key observations and recommendations in response to the Council's Request for Input overall include:

- Eliminating the digital divide that threatens the promise of equal opportunity at the heart of our democratic society is an urgent challenge that must be part of our national agenda. States and communities need the federal government and its resources as a partner in this work.

- Federal policies and programs can and do play an important role in bringing broadband to hard-to-serve communities, and in reversing the growing digital divide. For example, federal investment in broadband access and adoption made available to Minnesota through the American Recovery and Reinvestment Act has made a significant positive difference to rural Minnesota communities' ability to be globally competitive and ensure a high quality of life for their residents. According to the Governor's Broadband Task Force, federal broadband investments in Minnesota through ARRA led to:
    - 61,139 businesses, residences and critical community facilities passed
    - 1,751 miles of middle mile fiber network
    - 1,105 critical community facilities connected
    - 8 new computer centers created
    - 20 computer centers upgraded
    - 60 public access computer sites created*
    - 56,663 new subscribers tied to broadband adoption programs*

  *these numbers come from the Blandin Foundation's final MIRC report
- Partnerships are key to success. The federal government can spur creative partnering by requiring and/or rewarding cross-sector and cross-agency collaboration.
- Broadband access alone is not enough! Investments in people, education and training are essential to achieve meaningful use of the Internet. Community-based broadband literacy and market development efforts can and do help ensure that all Americans can participate fully in our nation's economy and civic and cultural life.

With this experience and context in mind, the Blandin Foundation recommends the following for your consideration:

## Enable, Encourage and Engage in Collaboration

As a major funder of broadband networks through USDA and the FCC, and of technology usage by schools, health care, public safety, natural resources, transportation and other agencies, often in partnership with states and local governments, the federal government should remove barriers and reward collaborative practices. In addition, the federal government should examine how it can be an active participant in collaborative efforts to extend broadband to rural areas by using its own significant purchasing power to spur broadband network deployment. Consideration should be given to both last mile and middle mile projects.

Examples of how this might occur include:

- Enable education networks using Universal Service Funds to collaborate with public and private sector community partners to leverage public sector broadband purchasing for community-wide benefits

- Encourage collaboration through clear rules and project criteria such as those just announced by Secretary Vilsack (Regional Development Priority).
- Engage as a collaborating partner using the federal government's own purchasing power, joining with local and regional initiatives to spur broadband investment and competition.
- Require and/or incentivize federal funding recipients to work collaboratively across sectors and agencies. Continue to support and promote the NTIA-led BroadbandUSA program.
- Promote the use of "dig once" state programs that provide a platform for collaborative investment – now and into the future.

## Support and Spur Rural Broadband Cooperatives

The federal broadband stimulus funding, State of Minnesota broadband funding and CAF programs are all based on a key finding – there is a market failure for broadband development in rural areas. There is insufficient ROI to attract investor-driven private sector investment in rural broadband.

Blandin Foundation has funded numerous broadband feasibility studies that document the gap between the costs of network deployment and the expected cash flows from network operations. Several of these projects have moved forward with ARRA funding; others are now moving forward with State of Minnesota broadband funds. Communities are prepared to participate in these broadband deployment efforts, but need quality partners. Most communities have found that finding willing investor-owned broadband provider partners is a very difficult task.

Broadband cooperatives provide the best broadband services in Minnesota. Started years ago by local community leaders to provide needed rural telephone services, telephone cooperatives have now transformed their copper networks to virtually 100% fiber-to-the-home broadband networks. Starting this investment in their home telephone exchange areas, they have moved into adjacent communities and rural areas due to demand by bandwidth-hungry residents and businesses. Consolidated, Farmers Mutual, Federated, Park Region, Paul Bunyan and West Central are just some of these broadband cooperatives.

Electric cooperatives also provide broadband Internet. Minnesota examples include Arrowhead Electric (FTTH), Mille Lacs Energy and Cooperative Light and Power (fixed wireless) and the Wild Blue satellite consortium. MVTV Cooperative delivers fixed wireless services in Southwest Minnesota, transitioning from their tradition of wireless cable television services. It is interesting to note that Arrowhead Electric follows in the steps of Boreal Access, a cooperative started in Cook County at the dawn of the Internet age to provide dial-up and DSL Internet, thus continuing a tradition of cooperatively provided Internet.

**Why cooperatives?**

- Building a business case for broadband investment in unserved or underserved areas of Minnesota is very challenging for investor-owned providers.
- Cooperatives are member-owned and can be more patient investors with delayed or minimal ROI requirements.
- Community and economic development benefits derived from broadband investments, both the intrinsic values and the increased community sustainability, are highly valued by locally owned cooperatives.
- Establishment of cooperatives may be less objectionable to those who oppose government broadband networks.
- There is an established history of public-private partnerships between government units and cooperatives, such as Arrowhead, CTC, Farmers Mutual, and Federated. Returns from successful partnerships remain in the community.

Though USDA has long supported telephone cooperatives through its traditional loan programs, the conservative nature of the RUS lending policies discourages the formation of new cooperatives seeking to bring broadband services to unserved and underserved rural locations. The federal government should consider new policies to support the creation of new broadband cooperatives.

To address this opportunity, in 2014, Blandin Foundation applied for USDA funding to support the creation of a unique Cooperative Development Center focused on broadband cooperatives. In their comments, the USDA reviewer was not able to make the connection between broadband development and business and economic development. Clearly, this connection exists and a stronger recognition by federal agencies needs to be established.

As CAF2 funding processes are determined, cooperatives should receive special consideration due to the multitude of additional benefits that local ownership brings to a rural area – wealth creation, local control, long term investment perspective, etc.

Use the power of the president's bully pulpit. President Obama's 1/14/15 Cedar Rapids speech in support of local choice in broadband, formally opposing measures that limit the range of options available to communities to spur expanded local broadband infrastructure, including ownership of networks.

## Continue Efforts to Spur Adoption and Increase Sophistication of Use

The Sustainable Broadband Adoption projects funded through BTOP provided strong evidence of the positive impact on individuals and communities from these efforts.

The program the foundation administered with the help of federal ARRA funds has been the subject of numerous evaluations and assessments. In addition to project-affiliated evaluators, our project was one of 27 case study analyses conducted on behalf of NTIA by ASR Analytics, as part of a broader effort to understand the impact of BTOP and BIA projects. One example of the

program's impact, as described in the report: "Networks of businesses have formed to share resources and best practices, supporting innovation in the use of digital tools into the future."

Based on our experience, key elements of successful broadband adoption efforts include:

I. *Communities know best.*
Involve citizens directly in articulating their community's broadband adoption and utilization goals to catalyze long-term engagement needed to increase adoption.

II. *Local Leadership matters.*
Help local broadband champions obtain and use skills to frame issues, build and sustain relationships and mobilize people to build a community's capacity to achieve its broadband goals.

III. *Broadband is not an end in itself.*
It is a means to the higher ends of increased economic vitality and improved quality of life. Framing it this way helps.

IV. *High touch outreach works.*
Effective recruitment strategies are intra-community, hyper-local, and personalized.

Change follows relationship lines.

V. *Peers make great teachers.*
Peer-based learning formats are popular, low cost and easily sustainable tools to build a community's technological savvy.

VI. *Cross-community communication is key.*
Signage, local media support, and aligned social media are effective low-cost ways to spur and sustain energy and excitement for community projects.

We recommend the following:

- NTIA continue in its convening role and continue to create and maintain aggregated on-line "best practice" resources.
- Provide funding for competitive, community-based broadband adoption efforts, ala more BIA/BTOP. Recognize and resource public libraries to offer public access and training.
- Show thought leadership on the importance of affordable access and digital literacy for all. Call on Americans and the industry to make addressing the digital divide a national imperative.
- Recognize that equipping digitally excluded people requires computers, connectivity and training. Our strategic partner – PCs for People – finds that more than 80% of new computer users will keep their broadband subscription after a discounted trial period.

## A. Overarching Questions

1. *How can the federal government promote best practices in broadband deployment and adoption?*

   Blandin Foundation's ability to work with rural communities on both deployment and adoption was greatly enhanced via the BTOP grant received via ARRA funding. This funding encouraged the foundation to engage in productive and innovative partnerships in a new ways. Our collaborative efforts were extremely productive; many of these partnerships continue today in our ongoing work.

   It is clear that deployment in high cost areas cannot rely on market mechanisms alone. No matter how high the expected take rates, the nature of the geography and demographics will stymie investment. NTIA and USDA should develop funding mechanisms that include the possibility of funding for new and existing broadband providers, especially those with local ownership structures, whether investor, cooperative or local units of government, or some combination thereof. Minnesota has many communities/counties/partnerships that have done their homework, have been stimulating market demand and simply cannot make the business case to obtain financing for broadband deployment. We know that this investment still needs to occur; we need to create and fund mechanisms to make it happen and the federal government is best positioned to do so.

   NTIA should continue its expanding role in creating, collecting and maintaining aggregated on-line best practices resources. With this centralized data and resource base, organizations like Blandin Foundation can direct community stakeholders to these resources and free us and others like us from the significant burden of doing this work ourselves.

   President Obama's January 14, 2015 presentation in Cedar Falls was a call to action that would put us on the right path. Continued advocacy from the Office of the President and the federal government will help to educate state and local leaders on this critical topic. Broadband deployment and digital literacy are national issues critical to our future competitiveness.

2. *How can the federal government best promote the coordination and use of federally-funded broadband assets?*

   In our work at the Blandin Foundation, we see that the nature of federal funding often requires network segregation rather than cooperation and collaboration. Federal resources that fund broadband networks should require or, at a minimum, incentivize federal funding recipients to work collaboratively across sectors and agencies.

Consider a block grant approach engaging state governments to enable them to plan multi-year collaborative efforts across health, education and government network investments, with or without private sector partners.

Continue to support and promote the NTIA-led BroadbandUSA program.

3. *What federal resolutions and/or statutes can be modernized or adapted to promote broadband deployment and adoption?*

   Blandin Foundation believes that broadband is now essential to everything in which the Foundation is engaged – community leadership, economic vitality, social inclusion; the federal government should recognize this as well with its leadership role in housing, education, infrastructure development and health care. Federal agencies should review all of their funding programs to incorporate considerations of broadband deployment and use.

4. *As the federal government transitions to providing more services on line, what should the government do to provide information and training to those who have not adopted broadband? What should the federal government do to make reasonable accommodation for those without access to broadband?*

   Blandin Foundation has seen and documented the benefits of organizations increasing their use of technologies to improve services and cut costs. As the opportunity to get more value from a broadband connection increases, more people will obtain the skills and prioritize their resources to get online. We have seen the value of digital inclusion and adoption efforts being led and implemented at the community level. The federal government should provide funding for competitive, community-based broadband adoption efforts, ala more BIA/BTOP. For those without broadband access the federal government should expand the resources available to public libraries and other public entities to offer public access and training.

5. *How can the federal government best collaborate with stakeholders (state, local, and tribal governments, philanthropic entities, industry, trade associations, consumer organizations, etc.) to promote broadband adoption and deployment?*

   Blandin Foundation recommends that there be a cross-sector effort to promote BTOP and other federal broadband program best practices using these various agencies' communication tools.

   Blandin Foundation also recommends that the federal government sponsor research into broadband deployment and adoption, such as:

   a) Gain a better understanding the relationship between the broadband business/delivery model and adoption rates. Some communities are served by

municipal providers; others by cooperatives; others by commercial vendors. Assuming prices are equalized, are there any systematic relationships between these models and adoption rates in rural areas?

b) Are there studies to identify rural communities where adoption of high-speed Internet is well-above the statistically-expected levels to better understand why? In other words, what additional community factors have a large impact on community adoption rates?

c) Better understand the relationship between adoption of broadband, business development, business growth and community development in rural communities. Some rural areas seem to capitalize well on their local broadband investments and others, less so. Are there studies that help us better understand this relationship; and if not, can they be initiated?

d) We know that price is a big factor in adoption decisions, but are there pricing models (not just lower prices) that support higher adoption rates?

**B. Addressing Regulatory Barriers to Broadband Deployment, Competition and Adoption**

6. *What regulatory barriers exist within the agencies of the Executive Branch to the deployment of broadband infrastructure?*

USDA broadband finance programs are structured to avoid risk; they require three years of financials. In some rural communities, the financing of start-up broadband providers, especially with local ownership through a cooperative model, should be allowed.

Blandin Foundation has heard from many providers that federal environmental review and permitting is costly both in finance and time, especially in terms of streams and wetlands, and especially on federal lands.

Federal wage standards have also been identified as an issue where federal job classifications to do not match the reality of telecommunications infrastructure construction. Workers are placed in job classifications of much higher skill and pay more applicable to electricity, thus adding significantly to wage costs.

7. *What federal programs should allow the use of funding for the deployment of broadband infrastructure or promotion of broadband adoption but do not do so now?*

USDA RD and EDA project dollars should be made more explicitly available for economic development projects. Open access broadband facilities should be encouraged or required wherever sewer, water and other utility projects are financed.

8. *What inconsistences exist in federal interpretation and application of procedures, requirements, and policies by Executive Branch agencies related to broadband*

*deployment and/or adoption, and how could these be reconciled? One example is the variance in broadband speed definitions.*

One year ago, Blandin Foundation applied for USDA funding to create a Cooperative Development Center focused on broadband. The agency reviewer scored the project quite low based on their perception that "broad band [*sic*] is interesting, but is not tied to business development." This indicates a significant lack of knowledge of the critical nature of broadband and the way that broadband cooperatives could play a significant and positive role in the economic development of a community or region. As USDA currently funds millions of dollars annually to rural broadband providers, clearly the overall agency believes in the economic development value of broadband; the reviewer was not on the same page.

9. *Are there specific regulations within the agencies of the Executive Branch that impede or restrict competition for broadband service, where residents have either no option or just one option? If so, what modifications could agencies make to promote competition in the broadband marketplace?*

10. *Are there federal policies or regulations within the Executive Branch that create barriers for communities or entities to share federally-funded broadband assets or networks with other non-federally funded networks?*

    School districts are fiercely afraid to enter into collaborative network arrangements due to fears of violating Universal Service Fund regulations. As a result, they avoid becoming engaged in community broadband initiatives. As connectivity to students' homes is a driving force behind community broadband initiatives, especially with connectivity-based education trends, the absence of the school district is a major barrier.

11. *Should the federal government promote the implementation of federally-funded broadband projects to coincide with other federally-funded infrastructure projects? For example, coordinating a broadband construction project funded by USDA with a road excavation funded by DOT?*

    Encouraging "dig once" makes sense in selected areas, especially when railroad crossings, bridge crossings and environmentally sensitive areas are involved. A federal mechanism to fund conduit installation with long-term and patient cost-recovery mechanisms could be especially positive.

**C. Promoting Public and Private Investment in Broadband**

12. *How can communities / regions incentivize service providers to offer broadband services, either wired or wireless, in rural and remote areas? What can the federal government do to help encourage provides to serve rural areas?*

13. *What change in Executive and agency regulations or program requirements could incentivize last mile investments in rural areas and sparsely populated, remote parts of the country?*

    Enable public sector health care dollars to be used for rural telemedicine thus spurring an increase in the value of the rural telecommunications network. Provide distance education dollars so that students in remote areas can get home broadband access.

14. *What changes in executive brand agency regulations or program requirements would improve coordination of federal programs that help communities leverage the economic benefits offered by broadband?*

    Support the creation of a broadband-focused Cooperative Development Center.

15. *How can Executive Branch agencies incentivize new entrants into the market by lowering regulatory or policy barriers?*

    Blandin Foundation believes that the cooperative model offers the best, most sustainable model of broadband deployment in rural, underserved areas. USDA requires three years of financial data before a provider can obtain a loan. This barrier is a huge barrier to the formation of new broadband cooperatives.

**D. Promoting Broadband Adoption**

16. *What federal programs within the Executive Branch should allow the use of funding for broadband adoption, but do not do so now?*

17. *Typical barriers to broadband adoption include cost, relevance, and training. How can these be addressed by regulatory changes by Executive Branch agencies?*

**E. Issues Related to State, Local, and Tribal Governments**

18. *What barriers exist at the state, local, and/or tribal level to broadband deployment and adoption? How can the federal government work with and incentivize state, local, and tribal governments to remove these barriers?*

19. *What federal barriers do state, local, and tribal governments confront as they seek to promote broadband deployment and adoption in their communities?*

20. *What can the federal government do to make it easier for state, local, and tribal governments or organizations to access funding for broadband?*

21. *How can the federal government support state, local, and tribal efforts to promote and/or invest in broadband networks and promote broadband adoption? For example, what type of capacity-building or technical assistance is needed?*

    Support the creation of a broadband-focused Cooperative Development Center.

**F. Issues Related to Vulnerable Communities and Communities with Limited or No Broadband**

*22. How can specific regulatory policies within the Executive Branch agencies be altered to remove or reduce barriers that prevent vulnerable populations from accessing and using broadband technologies? Vulnerable populations might include, but are not limited to, veterans, seniors, minorities, people with disabilities, at-risk youth, low-income individuals and families, and the unemployed?*

Use NAID certified, computer recycling/refurbishing non-profits like PCs for People (www.pcsforpeople.com) to distribute computers to vulnerable communities as a first step to digital inclusion. Partner with job training/social service agencies/schools and broadband providers to provide training and low-cost connectivity to low-income families.

*23. How can the federal government make broadband technologies more available and relevant for vulnerable populations?*

Create client service processes that are online based, but relatively uncomplicated as a gateway to the broader use of technology by vulnerable populations. They will quickly understand the value of avoiding long bus rides, lines and other challenges that they face in receiving government services now.

Expand lifeline for broadband.

**G. Issues Specific to Rural Areas**

*24. What federal regulatory barriers can Executive Branch agencies alter to improve broadband access and adoption in rural areas?*

Timely and costly environmental review of relatively simple telecommunications infrastructure improvements on federal lands.

Create appropriate job classifications to have them more closely reflect the reality of the jobs performed in terms of skill required and hazardous duty.

*25. Would spurring competition to offer broadband service in rural areas expand availability and, if so, what specific actions could Executive Branch agencies take in furtherance of this goal?*

Most rural areas would prefer one quality, reasonably priced, sustainable network, to multiple, competing mediocre networks that will not deliver the bandwidth necessary in today and tomorrow's economy. If existing incumbent providers will not/cannot provide service, an orderly succession plan to enable a new provider to provide modern services should be put in place. Many communities beg for better services from their incumbent but get little response until a new provider (public, private or public-private partnership) begins to deploy. Then the incumbent invests to make the new entrant unsuccessful. This is the worst possible model.

*26. Because the predominant areas with limited or no broadband service tend to be rural, what specific provisions should Executive Branch agencies consider to facilitate broadband deployment and adoption in such rural areas?*

Support the creation of flexible, "patient" financial tools for deployment. Facilitate active community-based adoption strategies.

**H. Measuring Broadband Availability, Adoption, and Speeds**

*27. What information about existing broadband services should the Executive Branch collect to inform decisions about broadband investment, deployment, and adoption? How often should this information be updated?*

Make much more effective use of FCC Form 477 to understand and publicize existing broadband services.

*28. Are there gaps in the level or reliability of broadband-related information gathered by other entities that need to be filled by Executive Branch data collection efforts?*

*29. What additional research should the government conduct to promote broadband deployment, adoption, and competition?*

Blandin Foundation recommends that the federal government sponsor research into broadband deployment and adoption, such as:

a) Gain a better understanding of the relationship between the broadband business/delivery model and adoption rates. Some communities are served by municipal providers; others by cooperatives; others by commercial vendors. Assuming prices are equalized, are there any systematic relationships between these models and adoption rates in rural areas?

b) Are there studies to identify rural communities where adoption of high-speed Internet is well above the statistically-expected levels to better understand why? In other words, what additional community factors have a large impact on community adoption rates?

c) Better understand the relationship between adoption of broadband, business development, business growth and community development in rural communities. Some rural areas seem to capitalize well on their local broadband investments and others, less so. Are there studies that help us better understand this relationship; and if not, can they be initiated?

d) We know that price is a big factor in adoption decisions, but are there pricing models (not just lower prices) that support higher adoption rates?

*30. How might the federal government encourage innovation in broadband deployment, adoption, and competition?*