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White House Broadband Opportunity Council members,

Please accept the attached letter in response to the Broadband Opportunity Council Request for Comments. It is my pleasure to submit this on behalf of Washington State University.

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Members of the White House Broadband Opportunity Council:

Washington State University Extension's Division of Governmental Studies & Services (WSU DGSS) is pleased to have this opportunity to respond to the Council's request for comments about broadband, a critical infrastructure to meet the needs of our citizens and remain competitive in the networked, global economy. We applaud the actions to date by public, private, and non-profit sector entities and believe that collectively we must continue efforts to increase broadband awareness, access, and adoption.

WSU DGSS is currently providing [FirstNet](#) outreach, education, and surveying for our state's effort, [OneNet of Washington](#). Our staff has a long history of supporting digital technology initiatives. In the early 1990s, while part of our state's Energy Office, we led one of the first telecommuting demonstration research projects in the country. We have an international reputation for our efforts in rural telework.

In recent years, WSU DGSS worked closely with the NTIA State Broadband Initiative (SBI) funded [Washington State Broadband Office](#) serving on the statewide broadband advisory council and as a resource for local and regional efforts across our state. It was our privilege to provide technical assistance on five SBI funded Local Technology Planning Team projects in Washington State. In partnership with local WSU extension staff and regional economic development organizations, our approach was locally-led, working to expand local broadband expertise while increasing broadband access and use. Local stakeholders actively participating on our teams included economic development, education, government, nonprofits, and telecommunications providers. The local planning process developed during these projects is a replicable model available for use by other communities. This document is divided into the following three sections that include highlights from these projects along with recommended **actions**, many of which were developed with land-grant university extension partners across the US:

1. Leverage and Expand Broadband Infrastructure Deployment
2. Invest in Broadband Adoption and Use Programs
3. Support Research to Inform Broadband Program and Policy Decisions

Our extension service colleagues in multiple states have been involved in similar activities, thanks primarily to ARRA funds. As an active member of the land-grant extension broadband network, the Rural Telecommunications Congress, Association for Commuter Transportation Telework Council, Affiliated Tribes of Northwest Indians Technology and Energy Committee, and decades of digital technology experience, please accept the following comments.

1. Leverage and Expand Broadband Infrastructure Deployment

Q2 How can the federal government promote the coordination and use of federally-funded broadband assets?

Q8 What inconsistencies 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?

Q11 Should the federal government promote the implementation of federally-funded broadband projects to coincide with other federally-funded infrastructure projects?

Q13 What changes in Executive Branch agency regulations or program requirements could incentivize last mile investments in rural areas and sparsely populated, remote parts of the country?

Q20 What can the federal government do to make it easier for state, local and tribal governments or organizations to access funding for broadband?

The [Expanding Broadband Deployment and Adoption by Addressing Regulatory Barriers and Encouraging Investment and Training Presidential Memorandum](#) identified an action item to create a “comprehensive survey of Federal programs, including the allocated funding amounts, that currently support or could reasonably be modified to support broadband deployment and adoption...”, this will help expand the list of available resources for broadband access and adoption. Given our global, digital world, federal agencies must think “outside the traditional federal funding box” and see the opportunities, actually the necessity, to incorporate support of broadband-related efforts into an extremely wide variety of projects. Digital technology is that integrated into everything we do.

Time and time again, through our extension efforts, small rural communities indicate a high level of frustration when realizing that broadband infrastructure runs through their communities yet they cannot have access to it. In other words, lack of last-mile connectivity still exists. This is a major issue since lack of broadband infrastructure is proven to undermine economic development competitiveness.

There is a “silo” situation occurring within the federal government related to broadband resources. For an organization or a community to build and use broadband, it often requires numerous funding resources through multiple organizations. For example, separate funding may be available and needed for each phase of a project (planning, middle mile, last mile, equipment, training, and ongoing monthly service fees). This creates confusion and results in disjointed responses from communities, especially those small, rural places with the greatest need and the least capacity to complete complex federal grant and loan applications. In Washington we have worked to address this through [community](#) and [business surveys](#), developing a [Making the Business Case for Communities worksheet](#), mapping of assets, holding technology team meetings with resource providers, and [other local activities](#).

Obstacles also arise due to inconsistency of definitions (broadband, rural, etc.) across agencies, making it difficult to be successful in securing the necessary funds to build and use broadband services. That the Federal Communications Commission (FCC), one of the major funders and regulators of broadband in our nation, is not a member of this Council is a serious disconnect.

Actions:

- Broadly share the results of this Council’s comprehensive survey of federal programs.
- Create a comprehensive, updatable list or database of broadband-related funding sources possibly building on a [resource list](#) developed through ARRA State Broadband Initiative funds for [Local Technology Planning Team \(LTPT\) projects](#).
- Develop resources – flowcharts or other tools to help communities or organizations follow the steps necessary to create a business case and secure funds to build, equip, and use broadband.

- Provide technical assistance through regional partners at locations where stakeholders from unserved and underserved areas can easily participate. WSU DGSS and the Affiliated Tribes of NW Indians (ATNI) partnered with USDA on two successful examples of this approach – the USDA "Making Communities Better with Broadband" workshop and tour held in Washington State on January 27-29, 2015 and the subsequent session, [USDA RUS Affiliated Tribes of NW Indians USDA Grants and Programs to Support Tribal Technology Community Development](#) workshop at the 2015 mid-year ATNI conference. These efforts included sharing of success stories, site visits, and one-on-one sessions with national office staff. It is important to note that federal agencies should not rely on webinars which require significant bandwidth to announce funding opportunities and provide technical assistance.
- Develop innovative mechanisms that leverage middle mile infrastructure. Mechanisms that involve state/local governments and/or smaller Internet service providers as well as larger providers must be developed to fully leverage this infrastructure that may otherwise remain idle. Federal incentives to foster lease agreements between state/local governments and/or smaller and larger Internet service providers can perhaps be a component of this mechanism.
- Enact policies that encourage partnerships that share existing infrastructure resources, such as underutilized network capacity or towers. This could include fair and equitable access to excess capacity of broadband infrastructure developed with primary use by road, rail, ARRA funded middle mile build outs, federal agency operations and programs.
- Require FirstNet to design and build a truly nationwide network by filling the infrastructure gaps in unserved and underserved regions. In addition, when not required for public safety communications, allow excess capacity to be used by public and private sector organizations.
- Adopt common definitions (broadband, speed, rural, etc.) across all agencies to allow for consistency and coordination of broadband construction and use.
- Revise eligibility criteria to build or enhance broadband infrastructure in unserved or underserved areas. Funding opportunities exist such as the USDA Community Connect grants that could have a larger impact if eligibility criteria were revised, specifically existing broadband service in the area of interest. Another revision that could be considered is a distinction between wired and wireless availability.
- Increase broadband infrastructure funding for USDA Community Connect grants and other agency programs.
- Require federal agencies to build steps into infrastructure projects to incorporate deployment of broadband or conduit as a cost saving and efficiency measure.
- Include the FCC as an active member of this Council.

2. Invest in Broadband Adoption and Use Programs

Q1 How can the federal government promote best practices in broadband deployment and adoption? What resources are most useful to communities? What actions would be most helpful to communities seeking to improve broadband availability and use?

Q4 As the federal Government transitions to delivering more services online, what should government do to provide information and training to those who have not adopted broadband? What should the federal government do to make reasonable accommodations to those without access to broadband?

Q5 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?

Q7 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?

Q16 What federal programs within the Executive Branch should allow the use of funding for broadband adoption, but do not do so now?

Q21 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?

Q23 How can the federal government make broadband technologies more available and relevant for vulnerable populations?

While access and affordability remain significant barriers, broadband education and adoption is equally if not a larger issue. The university-led research studies, [“How much does broadband infrastructure matter?”](#) and [“Broadband’s contribution to economic growth in rural areas: Moving towards a causal relationship”](#) have found adoption rather than availability to have a larger impact on decreasing the digital divide between urban and rural areas. Additional funds for awareness and educational efforts will allow the continuation of extension programs that provide train-the-trainer as well as direct technical assistance to audiences including residents, entrepreneurs, small business owners, and local governments.

These funds will also allow the continuation of successful partnerships between extension services and public libraries, other Community Anchor Institutions (CAI), and organizations like the Rural Telecommunications Congress and its members, as well as, tribal associations, all of which are dedicated to increasing broadband availability and use. Since this is a complex and monumental task, collaborative efforts are already underway and have proven to be effective and efficient in increasing awareness and knowledge. Sharing **rural** lessons learned and best practices from ARRA funded projects would be a tremendous resource. Three examples of replicable WSU Extension broadband adoption activities include a [technology expo in a town of 5000](#), a [Gadget Garage](#) providing hands-on opportunities to test drive the latest technology, and [Washington Rural Pathways to Prosperity](#), a statewide economic development conference that simultaneously distributed keynote presentations to 18 sites across the state.

Integration of broadband adoption support within programs offered by all 25 member agencies of this Council and the FCC provides the potential to exponentially increase and strengthen broadband use. Incorporation of broadband adoption within offerings of these agencies will leverage previous broadband investments, infuse new, critically needed funding, and result in innovation that supports economic opportunity and community vitality.

Actions:

- Broadly share the results of this Council’s comprehensive survey of federal programs that support increasing broadband adoption (awareness, education, and use).
- Create a comprehensive, updatable list or database of broadband adoption funding sources to support increased broadband awareness and use.
- Develop requirements for interagency communications and coordination of resources to support broadband adoption.
- Advocate for [telework](#) and other digital applications that increase use of, and the demand for, broadband infrastructure. These uses also reduce employer expenses, provide new job

opportunities for rural residents, seniors and the disabled, resulting in expansion of the labor pool for employers and economic diversification where traditional industries are on the decline.

- Increase broadband awareness and education program funding to provide training and assistance to ensure usage of previous and future broadband infrastructure investments.
- Continue funding of a train-the-trainer model where extension agents work with CAIs to develop trained and motivated peer mentors to act as business coaches to quickly match the best applications to specific individual and business needs. Empower nonprofits to serve as additional adoption and utilization leaders and trainers at the local and regional level, including staff of Chambers of Commerce and Small Business Development Centers. Continued funding of CAIs, nonprofits, and regional partners can provide public access locations, equipment, and technical assistance to increase broadband awareness, education, and utilization.
- Leverage successful relationships of intermediary organizations (university extension, Rural Telecommunications Congress, Affiliated Tribes of Northwest Indians, private sector firms, etc.) that already have local working agreements and a proven track record of helping increase broadband adoption.
- Fund projects that encourage use of mobile, video, and innovative technologies or approaches like crowdsourcing to connect resources to users, solve problems, increase skills, and grow jobs.
- Promote and expand successful programs such as [Mississippi e-BEAT](#), the [Alaska Native Innovation Incubator](#), and various [National e-Commerce Extension Initiatives](#) which are replicable, customizable, and scalable to any size community.
- Continue to share best practices and success stories through resources such as the [University of Wisconsin Extension video broadband case studies](#), [2013 NTIA Broadband Adoption Toolkit](#), and the [FCC Low-Income Broadband Pilot Program](#).

3. Support Research to Inform Broadband Program and Policy Decisions

Q 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?

Q 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?

Q29 What additional research should the government conduct to promote broadband deployment, adoption, and competition?

The National Broadband Map Initiative is a first great step towards compiling critical broadband-related data. However, more efforts are needed to validate current information and collect additional data in order to conduct research on the impacts of broadband, especially in rural communities. Though an opportunity exists for the existing broadband service data to be validated by USDA field agents when applying for the Community Connect grant for example, many communities are not aware of this or believe it is too cumbersome to proceed. More worrisome, some communities do not qualify due to inaccurate information. Some of the additional data needs include cost of broadband (as granular as possible) and household and business Internet uses. The US Census has started to publish some computer and broadband adoption figures but these are only available at the state level and are not always accurate for some populations (i.e. tribes). County-level data would be ideal.

Recent research has shown that broadband [impacts](#) rural jobs and [income](#) and that broadband adoption [explains](#) half of the urban-rural digital divide. This research would not have been possible without data

from the National Broadband Map. However, broadband applications and its impacts change quickly and research must continue. A Washington [broadband impact report](#) completed following ARRA funding efforts was out of date within months of being published as a local telecommunications provider deployed additional infrastructure in Klickitat and Skamania counties. Improved data sources are critical to continue timely research that in turn can inform policymakers and community stakeholders.

Tremendous efforts have been made by the federal government to compile and standardize broadband-related information that ten years ago was not available. We commend this and ask that the Council continue to encourage this, making data gathering a priority. Since most of the ARRA funding was awarded for broadband availability, the next logical step is to focus on broadband adoption. As discussed above, the extension service network across the country can be one of many mechanisms through which broadband adoption efforts can be implemented.

Actions:

- Continue to track and authenticate broadband access and adoption progress. Existing broadband information obtained from the National Broadband Map, which is incumbent carrier self-reported raising concerns of its validity, is good data but more efforts need to be made to improve this data and expand information, specifically cost of broadband.
- Increase funding for broadband deployment and adoption program research.

On behalf of WSU DGSS, thank you for the opportunity to submit comments about broadband needs and opportunities in our country. I look forward to following the progress of the Council and would welcome the chance to support its efforts in the future. If I can answer any questions about these Broadband Opportunity Council comments, extension broadband efforts, or I am able to help in any way, please contact me.

With appreciation,

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