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Practical Approaches and Proposed Strategies for Measuring Selected Aspects of Community-Based Broadband Deployment and Use

Lisandra R. Carmichael, Florida State University
Charles R. McClure, Florida State University
Lauren H. Mandel, University of Rhode Island
Marcia A. Mardis, Florida State University

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A PROPOSED BROADBAND READINESS INDEX FOR CAI LEADERS

① MEASUREMENT CONFUSION

Studies of rural Florida community anchor institutions (CAIs) have concluded that existing national measurement practices for broadband penetration, adoption, and impact are often poorly defined, confusing, or inadequate to inform decisions about community broadband deployment and adoption. As a result, local broadband initiatives may be hindered by "measurement confusion."

Broadband measurements may be hindering local officials understanding of broadband adoption in their communities.

② COMMUNITY ANCHOR INSTITUTIONS (CAI)

Examples of CAIs include:

Without accurate community-based deployment and measurement information, community leaders will find it quite difficult to justify costs and applications or show the impact that high-speed broadband has on a community's health, education, economy, and overall quality of life.

③ BRI CRITERIA

1. The ability to change ISP
This is a critical situational factor affecting whether a CAI can adopt a broadband connection through a newly built middle mile or last mile network, fiber-to-the-premise, broadband over power line, or other higher-speed technology.

2. Available & Trained IT staff
Trained staff in CAIs enable other staff to focus on their own tasks, provide administration with a reliable reference for CAI capabilities and needs, and research new applications.

3. Existence & quality of internal network
It is a major determining factor in its capability to adopt and fully utilize a broadband connection.

4. Age of network & desktop equipment
It has an impact on CAI's ability to fully utilize a broadband connection.

5. Sufficient funding
Funding for IT can be a problem for CAIs which note they are barely able to cover current costs and break contracts, or pay more for higher connection speeds or service quality.

6. Administrative leadership
They must justify costs to boards and other governing bodies, staff, and clientele.

7. Existence & quality of IT plan
It is needed to enable a CAI to track past technology policy and equipment decisions and provides a reliable reference to administrators.

8. Adminsitrative & staff interest in new technology applications
Facilitate new and improved service delivery methods.

9. Demand from service population
Demand for innovative, high-quality services is a critical component for justifying any change in service delivery methods or allocating funding towards new technology.

SOME FACTORS CONTRIBUTING TO MEASUREMENT CONFUSION:

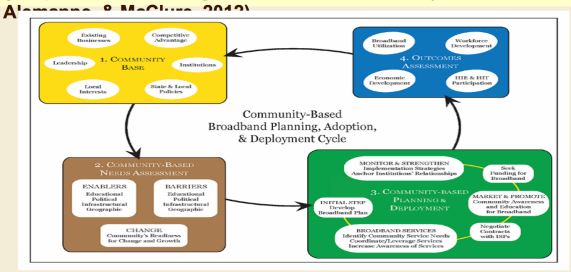
SPEED
Different speed test using different methodologies. "Speed is the most commonly cited metric for characterizing the quality of broadband offereings" (Bauer, Clark, & Lehr, 2010).

USE PATTERNS
Broadband adoption is measured by per capita or per housebold by different organizations, this may yield different adoption rates.

DATA COLLECTION
FCC use of Form 477 as reported by ISPs: it is widely accepted that these data are flawed, often misinterpreted, and insufficient for understanding the market for high speed internet services.

THE INSTITUTE STUDIES:

The Information Use Management & Policy Institute conducted two concurrent needs assessments of broadband connectivity for the North Florida Broadband Authority and the Florida Rural Broadband Alliance projects in rural Florida. These projects shared a primary goal of bringing middle mile broadband infrastructure to Florida's three Rural Areas of Critical Economic Concern. Each project included needs assessment, benchmarking, and onsite diagnostics; and employed a multi-method approach that included web-based surveys, focus groups, and onsite diagnostics at selected CAIs (Mandel, A'[illegible] & McClure, 2013).



The BRI is proposed as a strategic approach to improve successful community based broadband measurement, adoption, and deployment. It is intended to be practical, easy to use, comparable across different communities, and understandable to local decision makers. Indicators of broadband applications include: the availability of numerous service options, trends in use of e-government services, telemedicine, distance learning, other broadband-enabled applications, and impacts on the community.

NEXT STEPS
The Institute is seeking partnerships among rural Florida communities to field test the BRI.