Digital Equity & Why is Broadband Important?

Amy Huffman
Research and Policy Specialist
Broadband Adoption, Digital Equity, and Inclusion
• High levels of broadband availability are associated with lower total employment

• High levels of broadband adoption in nonmetropolitan counties are *positively* associated with higher numbers of businesses and jobs
Definition: Broadband Adoption

The percentage of the population that subscribes to a broadband service
2017 Broadband Adoption Rates

ADOPTION AT ANY SPEED

- North Carolina: 75.8%
- US: 78.1%

ADOPTION, 25/3

- North Carolina: 52%
- US: 54%
2017 County Broadband Adoption Rates

2017 American Community Survey
Broadband Subscription Rates
- 49 - 57%
- 58 - 65%
- 66 - 73%
- 74 - 81%
- 82 - 90%
Adoption Rates in Upper Coastal Plain COG Counties

- Edgecombe
- Halifax
- Nash
- Northampton
- Wilson

2017
Common Barriers to Broadband Adoption

- Cost
- Access
- Relevancy
- Digital Literacy
Definition: Digital Divide

The Digital Divide refers to the gap between those who have access to technology, the internet, and digital literacy training and those who do not.
Definition: Digital Equity

Digital Equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy. Digital Equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.
Digital Inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies (ICTs).

Digital Inclusion must evolve as technology advances. Digital Inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and use technology.
Definition: Digital Inclusion Cont.

This includes 5 elements:

1. Affordable, robust broadband internet service;
2. Internet-enabled devices that meet the needs of the user;
3. Access to digital literacy training;
4. Quality technical support; and
5. Applications and online content designed to enable and encourage self-sufficiency, participation and collaboration.
Definition: Digital Literacy

Digital Literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.
Definition: Digitally Literate Person

A Digitally Literate Person:

1. **Possesses the variety of skills** – technical and cognitive – **required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats**;

2. **Is able to use diverse technologies appropriately and effectively** to retrieve information, interpret results, and judge the quality of that information;

3. **Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information**;

4. **Uses these skills and the appropriate technology to communicate and collaborate** with peers, colleagues, family, and on occasion, the general public; and

5. **Uses these skills to actively participate in civic society and contribute to a vibrant, informed, and engaged community**.
BIO’s Role in Digital Equity and Inclusion

**Lead**
- Lead the state in digital equity & inclusion work
  - Bring stakeholders together around different topics related to digital equity & inclusion
  - Provide space and time to work together on understanding and addressing those topics

**Convene**
- Convene bring stakeholders to different topics related to digital equity & inclusion
  - Connect groups to each other
  - Connect resources to efforts needing them
  - Connect best practices to those who need them
  - Connect citizens to groups who serve them

**Connect**
- Connect groups to each other
  - Connect resources to efforts needing them
  - Connect best practices to those who need them
  - Connect citizens to groups who serve them

**Champion**
- Advocate for resources from funders and policymakers to support strategies & policies that close the divide
  - Advocate for policies/programs/resources from policymakers & funders to address digital equity & inclusion
  - Champion and highlight the work of partner and stakeholder organizations to our audience
BIO’s Role in Digital Equity and Inclusion Cont.

**Aggregate**
- Aggregate the best ideas and best practices for closing the divide
- Aggregate the data, research, etc. necessary for measuring the divide and benchmarking progress in closing it

**Educate**
- Educate state, policymakers, etc. on digital equity
- Educate state & policymakers on depth of current digital divide
- Educate stakeholders on how to address the digital divide
- Define the issue and create materials/resources for stakeholders and partners to use

**Strategize**
- Design policies to address the digital divide
- Design strategies to address the digital divide
- Design programs to address the digital divide
NC Digital Equity and Inclusion Collaborative

In 2017, BIO Convened Leaders of Organizations Across North Carolina Dedicated to Digital Equity and Inclusion the NCDEIC includes:

- Local Leaders
- Device Refurbishers
- State Agencies
- Non-profits
- MCNC
- Universities
NCDEIC Vision and Mission

Vision Statement:
We envision a North Carolina where all citizens have access to the technologies, digital skills, and opportunities necessary to thrive in today’s society.

Mission Statement:
To foster collaboration among digital equity and inclusion leaders to bridge the digital divide in North Carolina.
“The Homework Gap is the cruelest problem we have, but I think it is in our power to fix.”

Federal Communications Commissioner, Jessica Rosenworcel
Pilot Homework Gap Survey

- State level data
- Consulted with Previous Surveys/Experts
- 17 Questions
- English & Spanish
- Distributed Online and some paper
Count of Survey Participants by Zip Code
Survey Respondents without Access
Quantifying the Homework Gap

Surveyed households with no internet access at home: 10%
Surveyed households with internet access at home: 90%

“Very Comfortable” Respondents:
- Parent’s comfort level using digital devices for work: 67%
- Student’s comfort level using digital devices for homework: 55%

67% of those without internet access cite cost as the primary reason.
# Addressing the Homework Gap through Libraries

## New Grant
- $250,000 from Institute of Museum & Library Services
- Awarded to BIO/DIT + State Library
- 2 year grant

## Homework Gap
- Grant will fund pilot to test holistic model of closing homework gap through local libraries
- Will produce Toolkit with best practices for addressing homework gap through libraries

## Details
- Creates new position: Digital Inclusion Librarian
- Provides hotspots, digital literacy training for participants
- Partner with one library system in Y1, expand to (up to) 3 others in Y2
Next Steps to Close the Homework Gap in NC

Summarize

Full Report Release

Implement

Implement Policies & Programs

Research

Add Survey Questions to Existing Surveys
Upcoming Digital Equity Projects

‘Device Day’
- Establish annual “Device Day” to highlight need for devices to close digital divide
- Purpose: to educate, public & businesses on digital divide, device refurbishing

Highlight Low-Cost Offers
- Offer Locator Tool
- Highlights existing low-cost offers
- Assists citizens in identifying low-cost offers
- Encourages providers to offer low-cost offers

Digital Literacy & Adoption Days
- Establish annual “Digital Literacy” and “Broadband Adoption” days to highlight need for digital literacy and ability to afford broadband as means to close the digital divide
- Most likely between January & August 2019

Net Inclusion 2019
- April 1st-3rd, 2018 in Charlotte, NC
- Great way to learn more about digital equity best practices from experts and peers
Broadband Benefits
How Broadband Impacts Your Daily Life
Broadband and Education

Opportunities
- Personalized Learning
- Immersive Technologies
  - Augmented Reality (AR) and Virtual Reality (VR)
  - Skills based training
  - Soft skills training
- 3D Printing, robots, AI, etc.
- Online educational resources
  - Apps
  - Khan Academy, etc.

Challenges
- Homework Gap
- Teacher Training
- Device management
- Funding
- Speed of technology evolution
- Screen time
Broadband and Healthcare

Opportunities

- Telehealth
  - Video
  - Store & Forward
  - Remote Patient Monitoring
  - mHealth
- Digital Health
  - Electronic Health Records
- Rural healthcare delivery
- Healthcare IoT or (Internet of Medical Things)

Challenges

- Insurance/Reimbursement
- Policy
- Provider & patient training
- Complicated nature of healthcare industry
Counties without a Mental Health HPMA Designation

HPMA Designations derived from North Carolina Department of Health and Human Services data current as of January 5, 2018.


Note: A provider that reports deployment of a particular technology and bandwidth in a census block may not necessarily offer that service everywhere in the block.
Broadband and Economic Development

Opportunities

• Growth of Entrepreneurial Ventures and Ecosystem
• Small Businesses with Tools to Grow and Increase Impact
• Business Location Selection and Retention
• New Workforce Development Opportunities Telework
• Smart Cities
• Positive Impacts to Quality of Life

Challenges

• Funding
• Coordination
• Rapid technology evolution
Public Safety and Broadband

Opportunities

• “Connected Responder”
  • Quick Response
  • Better Informed
• Data Sharing Between:
  • Departments
  • Local, County, State and Federal entities
• Increased Communication Methods
• Trainings

Challenges

• Policy
• Governance
• Standardization
• Funding
• Laws/Public Policy
• Perception