

Digital Equity and Digital Inclusion Plan

Penobscot County Broadband Consortium

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Penobscot County Broadband Consortium Digital Equity and Digital Inclusion Plan

High-speed internet access is widely recognized as a necessity for full participation in today's society. Employers, educators, businesses, healthcare providers, and civic institutions expect people to have access to computers and broadband connectivity. While much of the attention tends to focus on connecting homes to the internet, another serious concern is emerging... how to leverage the internet beyond the typical uses of email and streaming television content. Increasingly, homes that have internet may not be leveraging the full power of that connection and even more concerning, those that are just getting an internet connection, or the 1000s of homes that are still waiting for a connection, may not fully understand the capability and value of an internet connection.

What is Digital Equity and Digital Inclusion?

To address leveraging the internet, communities can adopt a Digital Equity and Digital Inclusion Plan. 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.

Achieving Digital Equity in the Penobscot County Broadband Consortium region requires a Digital Inclusion Plan that includes intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and technology use. Digital Inclusion techniques, strategies and investments must evolve as technology advances.¹

The **National Digital Equity Center** can work with the Penobscot County Broadband Consortium to initiate and execute a Digital Equity and Digital Inclusion Plan.

Digital Inclusion includes:

- Affordable Broadband
- Affordable Equipment
- Digital Literacy Training
- Public Computer Access

Accessible, reliable, and affordable broadband service continues to be out of reach for millions of Americans and thousands of Mainers, many of whom live in low-income, rural households. This gap in adoption of high-speed internet and the lack of skills needed to use broadband-enabled tools in meaningful ways continue to be a lag on the Maine economy. Digital inclusion is a national priority in the United States, and increasingly a priority in Maine.

About the Penobscot County Broadband Consortium

Creating a Digital Equity and Digital Inclusion Plan for the communities located in the Penobscot County Broadband Consortium region begins by analyzing the region's demographics.

The Penobscot County Broadband Consortium demographics² are as follows:

- Population: 18,993 residents and 7,920 households³
- Median Age: 43 years' old
- Population under 19 years old: 4,666 residents, 25% of the population
- Population from 20 to 49 years old: 6,885 residents, 36% of the population

¹ www.digitalinclusion.org/definitions

² <https://en.wikipedia.org/wiki>
<https://www.census.gov/quickfacts/me>

³ Demographic breakdown of each town located in the Penobscot County Broadband Consortium is listed in Appendix A.

- Population from 50 to 69 years old: 5,212 residents, 27% of the population
- Population over 70 years old: 2,230 residents, 12% of the population

In reviewing the data and demographics for the communities located in the Penobscot County Broadband Consortium region, we recommend the following concentrated areas of **Digital Literacy** education and training as priorities:

- ✓ Business Growth & Support
- ✓ Tourism
- ✓ Aging in Place
- ✓ Residential Resources

Small and Home-based Business Growth and Support

The Penobscot County Broadband Consortium has approximately 561 businesses, representing 4,652 employees.⁴ Businesses must keep up with a fast-evolving landscape, a future filled with automation, and artificial intelligence that is accessible for all. Only 53%⁵ of businesses in Maine have an active website. Websites give a business legitimacy, is a marketing channel and an opportunity for e-Commerce.⁶

Recommendation: With the business community, it is important to focus on business growth, development and sustainability, especially as the state and communities age. Employer and employee training might include:

- Industry specific training resources
- Specific training for employees in on-line tools such as QuickBooks, Social Media, Word, Excel and other on-line tools to increase business opportunities
- Website and Domain Email instruction

Small and Home-based Business Resources:

- National Digital Equity Center: <http://digitalequitycenter.org>
- Maine Small Business Development Centers: www.mainesbdc.org
- Welcome ME (Customer Service Training): www.welcomemetraining.com
- Foster Center for Student Innovation <https://umaine.edu/innovation>
- Maine Small Business Development Centers: www.mainesbdc.org
- Top Gun Entrepreneurship Acceleration: www.mced.biz/programs-services/top-gun-program
- Maine Dept. of Labor's Career Center: www.mainecareercenter.gov
- Maine Farm Bureau: www.maine farm bureau.us
- Local Adult & Community Education Programs-
 - RSU 19 Adult Education, Newport: <http://rsu19.maineadulted.org>
 - AOS #94 Adult Education, Dexter: www.aos94.org/schools/adult-education
 - RSU 67 Adult Education, Lincoln: <http://rsu67.maineadulted.org>
 - Orono-Hampden-Old Town Adult Ed Partnership: <http://orono-hampden.maineadulted.org>
- Local Chambers of Commerce-
 - Sebecook Valley Chamber of Commerce, Newport: <https://ourchamber.org>
 - Lincoln Lakes Region Chamber of Commerce, Lincoln: <http://lincolnmechamber.org>
 - Bangor Region Chamber of Commerce, Bangor: www.bangorregion.com

⁴ <http://www.maine.gov/labor/cwri/qcew1.html>

⁵ <http://www.statisticbrain.com/small-business-website-statistics>

⁶ <https://www.score.org/blog/its-2018-how-can-you-not-have-website-yet>

Tourism

Tourism continues to be one of Maine's leading industries, yet many tourism related businesses are not utilizing many of the modern technology conveniences that potential tourists use. Many in this sector of the economy have recognized the need for a more robust on-line presence, but we find the state's tourism industry, primarily made up of small businesses, lagging in convenient on-line tools that can increase the economic activity across this vital sector of the Maine economy.

Recommendation: Tourism is big business for small business in Maine and exposing the Penobscot County Broadband Consortium's tourism businesses to on-line tools to help this sector of the economy grow is an opportunity for local economic growth.

Training offered can include:

- Website development and enhancement
- Social media training
- Developing apps for tourism related tours or visits

Tourism Resources:

- National Digital Equity Center: <http://digitalequitycenter.org>
- Maine Dept. of Tourism/Visit Maine: <https://visitmaine.com>
- Maine Invites You: www.mainetourism.com/places
- Maine Woods Consortium: <http://www.mainewoodconsortium.org>
- Local Adult & Community Education Programs-
 - RSU 19 Adult Education, Newport: <http://rsu19.maineadulted.org>
 - AOS #94 Adult Education, Dexter: www.aos94.org/schools/adult-education
 - RSU 67 Adult Education, Lincoln: <http://rsu67.maineadulted.org>
 - Orono-Hampden-Old Town Adult Ed Partnership: <http://orono-hampden.maineadulted.org>
- Local Chambers of Commerce-
 - Seabcooke Valley Chamber of Commerce, Newport: <https://ourchamber.org>
 - Lincoln Lakes Region Chamber of Commerce, Lincoln: <http://lincolnmechamber.org>
 - Bangor Region Chamber of Commerce, Bangor: www.bangorregion.com

Aging in Place

With one of the oldest populations in the United States and the rural nature of Maine's population, on-line tools that help older adults remain in their home is essential to quality of life. However, in order to assist this population, emerging technologies, coupled with recognition among our Maine hospitals and national policy makers are essential ingredients to make this a strategic imperative in Maine.

With 39% of the Penobscot County Broadband Consortium's population over 50 years old, current research shows that older adults consistently have lower rates of technology adoption than the public.⁷ There remains a notable digital divide between younger and older Americans. Many residents who are older, less affluent or with lower levels of educational attainment continue to have a distant relationship with digital technology.

Recommendation: Design a program to introduce older adults to the ever-changing world of medical care... right from their home:

- Remote wellness checks
- Vital sign monitoring
- Video-conferencing with your doctor, rural health clinic and other healthcare providers

⁷ <http://www.pewinternet.org/2017/05/17/technology-use-among-seniors>

- On-line tools that help you manage appointments and your records

Aging in Place Resources:

- National Digital Equity Center: <http://digitalequitycenter.org>
- Maine AARP Age-Friendly Communities Program: <https://states.aarp.org/maine-leads-nation-towns-join-age-friendly-network>
- Maine Council on Aging: <http://mainecouncilonaging.org>
- University of Maine Center on Aging: <https://mainecenteronaging.umaine.edu>
- Local healthcare providers, hospitals and organizations including-
 - Eastern Area Agency on Aging, Bangor: www.eaaa.org
 - Northern Light Health, Bangor: <https://northernlighthealth.org>
 - St. Joseph's Hospital, Bangor: www.stjoeshealing.org

Residential Communities

The internet represents a fundamental shift in how Americans connect with one another, gather information and conduct their day-to-day lives. All of us are struggling to keep pace with on-line tools and technologies that can make our lives better. Being confident about the on-line content we consume, understand on-line tools to make our lives easier is important to becoming digitally connected citizens.

Recommendation: What we have found is that all of us, regardless of our educational background, pay scale, demographics or economic background, are struggling to keep pace with the rate of change in technology. Communities can support their residents by offering the following topics:

- Cord Cutting- do you really need all of those channels?
- Smart Home- tools for a 21st Century home
- Distant learning- at your pace and in your time
- Digital Literacy- improved computer skills and navigation
- Understanding the on-line content you consume

Small and Home-based Business Resources:

- National Digital Equity Center: <http://digitalequitycenter.org>
- Local Adult & Community Education Programs-
 - RSU 19 Adult Education, Newport: <http://rsu19.maineadulted.org>
 - AOS #94 Adult Education, Dexter: www.aos94.org/schools/adult-education
 - RSU 67 Adult Education, Lincoln: <http://rsu67.maineadulted.org>
 - Orono-Hampden-Old Town Adult Ed Partnership: <http://orono-hampden.maineadulted.org>

Community Advocates

There are many communities across the country where digital inclusion efforts take the form of collaborations and partnerships as well as freestanding programs. A community can assist in many ways to promote affordable broadband access, affordable equipment, digital literacy classes and public computer access for their residents and businesses. One effective way is to identify and engage volunteers to be Community Advocates.

Community Advocates raise the profile of Digital Equity and Digital Inclusion for their communities' media, opinion leaders and the public. They can also bring a range of interested parties and organizations together in one room, set the stage for community participants to understand each other's perspectives, share information and strategic insights and discover opportunities for new working relationships, including collaborations and partnerships. The National Digital Equity Center believes the work of Community Advocates cannot be understated and are a critical ingredient to a robust and effective Digital Equity and Digital Inclusion effort.

The Penobscot County Broadband Consortium can fully engage and support their residents in becoming a Digital Equity community. The Benton Foundation, www.benton.org, commissioned a report, “Digital Inclusion and Meaningful Broadband Adoption Initiatives”⁸ that shows understanding Digital Inclusion and Meaningful Adoption Initiatives can create a model of meaningful broadband adoption for all citizens.

Promoting Digital Literacy Classes

In rural communities, time, distance, travel is a barrier to educational attainment; holding classes that are in accessible locations that are familiar, and welcoming, will increase participation. Geographic coverage throughout the designated service area ensures strong, widespread participation and good, measurable impacts. Community Advocates can work with local libraries, schools, community centers, and town offices as places to hold digital literacy classes. This is an ideal way to engage a community in supporting digital equity and digital inclusion efforts.

Community Advocates can assist in promoting Computer Skills Training /Digital Literacy Training as they play a critical role in technology and workforce development skills. Digital Literacy is the ability to use information and communication technologies to find, evaluate, create, and communicate information. The goals of Digital Literacy program are not just to offer classes, but also to require outcomes that address both cognitive and technical skills as defined below:

- Possesses the variety of skills – technical and cognitive – required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats;
- Is able to use diverse technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information;
- Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information;
- Uses these skills and the appropriate technology to communicate and collaborate with peers, colleagues, family, and on occasion, the general public; and
- Uses these skills to actively participate in civic society and contribute to a vibrant, informed, and engaged community.

Recommendation: Offer Digital Literacy Classes - The **National Digital Equity Center** can work with the Penobscot County Broadband Consortium to customize and tailor a variety of classroom experiences centered on Digital Literacy and based on the goals of the state and local communities.

Beyond the four concentrated areas of focus (Aging in Place, Business Growth & Support, Residential Resources and Tourism) recommended, the **National Digital Equity Center** offers a host of digital literacy classes that address a variety of specific needs of business, older adults, introduction to new technology and more. Based on our extensive experience, below are the most requested digital literacy classes:

- Introduction to Computer
- Windows 7, 10
- Internet Safety
- Microsoft Word
- Microsoft Excel
- Microsoft Outlook
- Microsoft Publisher
- Microsoft PowerPoint
- QuickBooks
- Photoshop

⁸ www.benton.org/sites/default/files/broadbandinclusion.pdf

- Social Media including Facebook for Business & Individuals, Twitter, etc.
- WordPress
- Video Streaming
- iPad
- Gmail, Google Docs, etc.
- Dropbox

Digital Literacy Resources:

- National Digital Equity Center: <http://digitalequitycenter.org>
- Local Adult & Community Education Programs-
 - RSU 19 Adult Education, Newport: <http://rsu19.maineadulted.org>
 - AOS #94 Adult Education, Dexter: www.aos94.org/schools/adult-education
 - RSU 67 Adult Education, Lincoln: <http://rsu67.maineadulted.org>
 - Orono-Hampden-Old Town Adult Ed Partnership: <http://orono-hampden.maineadulted.org>

In addition to **Digital Literacy**, Digital Inclusion Plans include the following components:

Advocating for Affordable Internet

Cost continues to be a major barrier to broadband adoption. Successful interventions will need to address “ability to pay” rather than “willingness to pay”.

The following providers have programs that offer low-cost broadband:

- Consolidated Communications: www.fairpoint.com/home/residential/phone/lifeline.html
- Spectrum: <https://callforaction.org/spectrum-internet-assist>
- Other providers may offer low-cost broadband

Other options:

- Penobscot County Broadband Consortium Technology Fund: A fund ~could~ be established to offer a discount to low-income families to address broadband adoption and take-rate

Affordable Equipment Assessment

Low-cost or free computers are often just as important as having access to low-cost or free internet options, particularly for people in low-income communities. The following organizations are good resources for obtaining low-cost equipment:

- PC's for Maine: www.pcsformaine.org
- Goodwill's “Good Tech” Program: <https://goodwillnne.org/stores/goodtech>

Public Computer Access

Increasing Public Computer Access allows residents to access technology in places in which they feel comfortable and supported is essential. If a business or resident cannot afford equipment or an internet subscription, and if broadband is not available at their location, Public Computer Access is essential. The following libraries have free public Wi-Fi and computers available for public use:

- Stewart Free Library, Corinna: https://corinna.govoffice.com/index.asp?SEC=24D7BEFD-1849-405E-80B2-DD448FBC9C2F&Type=B_BASIC
- Abbot Memorial Library, Dexter: www.abbott-library.com
- Lincoln Memorial Library, Lincoln: <https://lincolmaine.org/library>
- Newport Public Library-Newport Cultural Center, Newport: www.newportculturalcenter.org

Conclusion

The four components of Digital Inclusion (Affordable Computers, Affordable Broadband, Digital Literacy and Public Computer Access) form the four pillars of a strong Digital Equity and Digital Inclusion Plan for the state and its citizens to more deeply appreciate and operate in the Digital Economy. Taken together, the positive impacts address the basic idea of fairness and digital equity for all. The state can be a positive role model, not just for the citizens of Maine, but for other states.

Key Takeaways:

- Digital Literacy is much more than delivering classes, it's about ensuring a deeper cognitive understanding of the material that can be applied to a participant's everyday life
- A comprehensive program requires all four components
- Multiple Digital Literacy providers of services must be coordinated at the local, regional and state level

The **National Digital Equity Center** is a recognized leader across Maine and the United States for creating, funding and executing digital equity and inclusion work and stands ready to assist Penobscot County Broadband Consortium to implement a customized Digital Equity and Digital Inclusion Plan.

About the National Digital Equity Center

The Axiom Education & Training Center, a 501c3 non-profit, has established itself as a nationally recognized Digital Equity, Digital Inclusion and Digital Literacy expert, and established the **National Digital Equity Center** program in September 2017.

The **National Digital Equity Center** provides communities with the expertise needed to mobilize broadband technologies through digital inclusion, literacy efforts, education, resource planning, funding research, leveraging infrastructure, and stakeholder engagement. Over 9,000 residents and 1,000 businesses have received digital literacy training at more than 50 locations in Maine.

In October 2018, the **National Digital Equity Center** launched its "**Maine Digital Inclusion Initiative**" with a goal of closing the digital divide across Maine.

Maine Digital Inclusion Initiative

The **Maine Digital Inclusion Initiative** program will expand digital literacy services to traditionally underserved populations and providing job training/employment-related education and technology training to older adults. The program will place two AmeriCorps Volunteers and/or Digital Literacy Instructors, in each of Maine's 16 counties.

The **National Digital Equity Center** is engaging 16 full-time AmeriCorps volunteers, and 16 Digital Literacy Instructors to provide digital literacy instruction to over 30,000 adult learners over the next three years throughout Maine.

The University of Maine System is a collaborative partner and will host an office—or "regional hub"—on each of its seven campuses that will serve as service sites for the AmeriCorps members and staff. Another project partner is the Maine State Library who is coordinating many of the 227 local libraries throughout Maine as learning center sites. The **National Digital Equity Center's** goal is to collaborate with Adult Education programs, Older Adult/Healthcare agencies, and Economic Development organizations to create a highly impactful and meaningful program to help citizens better understand the value and power of an internet connection.

Digital Literacy assessment and skills training offered under the **Maine Digital Inclusion Initiative** will play a critical role in technology and workforce skills development that will increase employability of program participants, improve their job-seeking skills, and create a more highly skilled, job-ready workforce across Maine. The program

will also help older adults “age in place” by offering classes and workshops on how to use technology tools that will help them remain in their homes, as they grow older.

Program participants will receive personalized support along a scaffold learning path that leads to life-long learning and the skills and resources to continue growth along their individual trajectories. They will also experience far-reaching meaningful impacts through use of internet resources.

Some areas of impact will be education, financial stability, improved health, reduced isolation and increased communication, improved access to information, and increased civic participation. In addition to gaining digital literacy, formerly socially isolated participants will develop relationships with other peers they can rely on for assistance. Among older adults, this reduces the occurrence of depression, and negative health affects over time.

Through volunteer engagement, communities will benefit from a more highly skilled workforce to help grow the local economy and perpetuate creation of economic opportunity. Innovation and technology throughout the state will be leveraged to significantly improve the lives of Mainers. The project will be one of the first statewide Digital Equity and Digital Inclusion programs in the country and may be replicated as a model for other states.

For more information, contact the **National Digital Equity Center** at info@digitalequitycenter.org or 207-259-5010.

**Appendix A
Town Demographics**

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|---------------------------|-----------------------|------------------|
| Corinna | 2198 | 926 | 39.46 |
| Age Demographics: | | | |
| Under 19 years | 547 | 25% | |
| Ages 20-49 | 773 | 35% | |
| Ages 50-69 | 617 | 28% | |
| Over 70 | 261 | 12% | |
| | <hr/> | | |
| | 2198 | 100% | |
| Median Age | 43 | | |
| # of businesses | 33 | | |

https://en.wikipedia.org/wiki/Corinna,_Maine
https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml
<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|---------------------------|-----------------------|------------------|
| Dexter | 3895 | 1651 | 37.16 |
| Age Demographics: | | | |
| Under 19 years | 916 | 24% | |
| Ages 20-49 | 1360 | 35% | |
| Ages 50-69 | 1110 | 28% | |
| Over 70 | 509 | 13% | |
| | <hr/> | | |
| | 3895 | 100% | |
| Median Age | 44.8 | | |
| # of businesses | 89 | | |

https://en.wikipedia.org/wiki/Dexter,_Maine
https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml
<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|---------------------------|-----------------------|------------------|
| Howland | 1241 | 523 | 35.62 |
| Age Demographics: | | | |
| Under 19 years | 270 | 22% | |
| Ages 20-49 | 438 | 35% | |
| Ages 50-69 | 350 | 28% | |
| Over 70 | 183 | 15% | |
| | <hr/> | | |
| | 1241 | 100% | |

| | |
|-----------------|------|
| Median Age | 45.5 |
| # of businesses | 25 |

https://en.wikipedia.org/wiki/Howland,_Maine

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|----------------|------------|-----------|
| Lincoln | 5085 | 2045 | 74.65 |
| Age Demographics: | | | |
| Under 19 years | 1331 | 26% | |
| Ages 20-49 | 1789 | 35% | |
| Ages 50-69 | 1344 | 26% | |
| Over 70 | 621 | 12% | |
| | <hr/> | <hr/> | |
| | 5085 | 100% | |
| Median Age | 42.3 | | |
| # of businesses | 210 | | |

https://en.wikipedia.org/wiki/Lincoln,_Maine

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|----------------|------------|-----------|
| Newport | 3275 | 1410 | 36.97 |
| Age Demographics: | | | |
| Under 19 years | 801 | 24% | |
| Ages 20-49 | 1247 | 38% | |
| Ages 50-69 | 883 | 27% | |
| Over 70 | 344 | 11% | |
| | <hr/> | <hr/> | |
| | 3275 | 100% | |
| Median Age | 42.6 | | |
| # of businesses | 150 | | |

https://en.wikipedia.org/wiki/Newport,_Maine

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|----------------|------------|-----------|
| Plymouth | 1380 | 537 | 31.05 |
| Age Demographics: | | | |
| Under 19 years | 369 | 27% | |

| | | |
|-----------------|-------|------|
| Ages 20-49 | 543 | 39% |
| Ages 50-69 | 373 | 27% |
| Over 70 | 95 | 7% |
| | <hr/> | |
| | 1380 | 100% |
| Median Age | 41 | |
| # of businesses | 22 | |

https://en.wikipedia.org/wiki/Plymouth,_Maine

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

<http://www.maine.gov/labor/cwri/qcew1.html>

| | # of Residents | # of Homes | Sq. Miles |
|--------------------------|-------------------|---------------|-----------|
| Veazie | 1919 | 828 | 3.22 |
| Age Demographics: | | | |
| Under 19 years | 432 | 23% | |
| Ages 20-49 | 735 | 38% | |
| Ages 50-69 | 535 | 28% | |
| Over 70 | 217 | 11% | |
| | <hr/> | | |
| | 1919 | 100% | |
| Median Age | 43.4 | | |
| # of businesses | 32 | | |

https://en.wikipedia.org/wiki/Veazie,_Maine

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

<http://www.maine.gov/labor/cwri/qcew1.html>