Town of Ashby

Digital Equity Plan

October 2024

Prepared by the Montachusett Regional Planning Commission
On behalf of the town of Ashby

This page left intentionally blank

Table of Contents

1 INTRODUCTION 5

2 DIGITAL EQUITY OVERVIEW 6

3 THE PLANNING PROCESS 14

4 EXISTING CONDITIONS ANALYSIS 17

5 COMMUNITY NEEDS 34

6. VISION, GOALS & ACTIONS 40

7. APPENDIX 50

This project was funded by the Massachusetts Broadband Institute at the MassTech Collaborative under the Municipal Digital Equity Planning Program who's funding was provided by Massachusetts ARPA State Fiscal Recovery Funds.

This page left intentionally blank

1

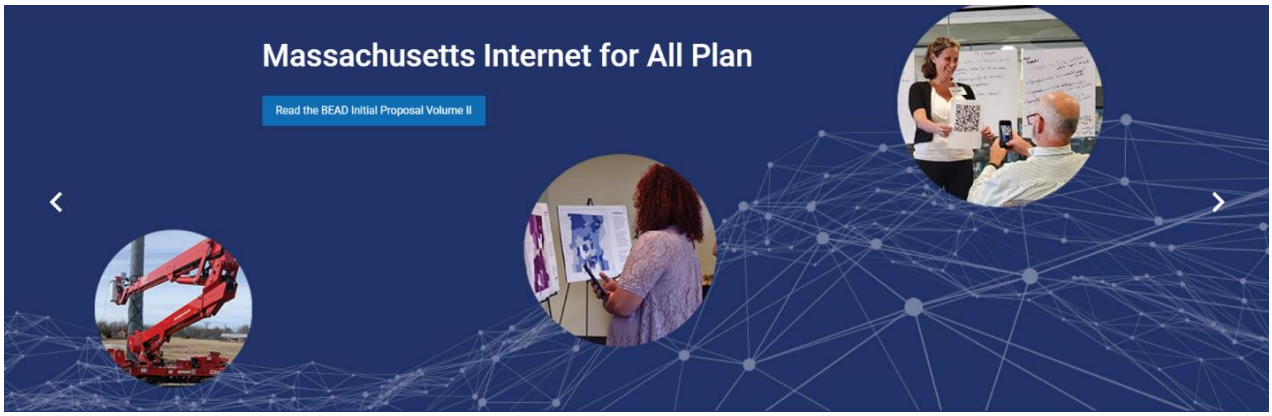
1 Introduction

Municipalities need equitable digital access in changing political, economic, and technological conditions, especially for marginalized populations. This access requires digital equity where all individuals and families are privy to reliable and accessible broadband technologies that serve a wide variety of needs. Without digital equity, there cannot be broader social equity. People of all ages must be able to access online resources to navigate life. This need is increasingly true concerning overlapping life situations like education, health care, employment, personal finances, and political engagement. This need was highlighted because of COVID-19 and has only become more urgent over time, which magnified the essential role of broadband and technology in our lives and the detrimental impacts on communities that cannot fully access and use them.

The Town of Ashby embarked on an approximately eight-month-long planning process to prepare a Digital Equity Plan under the facilitation of the Massachusetts Broadband Institute (MBI) and consultation from Montachusett Regional Planning Commission. (MRPC). This Plan reflects collaboration and community input regarding the digital divide in Ashby and proposes a shared vision for advancing digital equity and inclusion in the Town. This Plan also positions the Town to apply for existing and future state and federal funding and guides decision-making and investments related to services and infrastructure that will increase access, adoption, and internet usage throughout town, with no one left behind.

2

2 DIGITAL EQUITY OVERVIEW



2.1 THE DIGITAL EQUITY ACT OF 2021

The Digital Equity Act was passed by Congress in 2021 as a result of the recognition of the inequities related to access to broadband internet and devices during the COVID 19 pandemic. The Digital Equity Act [47 USC 1721(8)] of 2021[1] calls for the establishment of certain "covered programs" that focus on empowering those most impacted by the digital divide, referred to as "Covered Populations". The term "covered programs" means the State Digital Equity Capacity Grant Program established under section 1723 of the Digital Equity Act and the Digital Equity Competitive Grant Program established under section 1724 of the Act.

The primary intent and purpose of such programs is to increase internet access and the adoption of broadband among covered populations through activities such as those intended to:

- Develop and implement digital inclusion activities that benefit covered populations.
- Facilitate the adoption of broadband by covered populations in order to provide educational and employment opportunities to those populations.
- Implement digital literacy training programs for covered populations that cover basic, advanced, and applied skills other workforce development programs.

[1] https://uscode.house.gov/view.xhtml?hl=false&edition=prelim&req=granuleid%3AUSC-prelim-title47-chapter16-subchapter2

- Make available equipment, instrumentation, networking capability, hardware and software, or digital network technology for broadband services to covered populations at low or no cost.
- Construct, upgrade, expend, or operate new or existing public access computing centers for covered populations through community anchor institutions.
- Undertake any other project and activity that the Assistant Secretary finds to be consistent with the purposes for which the Program is established.

Equity varies across demographic groups based on geographic location, race, age, income, education, and other related factors. Physical, geo-spatial, and socioeconomic challenges and barriers associated with these factors have resulted in noticeable gaps in equity related to broadband access, affordability, and adaptability at local, regional, and national scales. Similarly, broadband service and cost-based gaps also exist at each of these scales and often correlate to the same demographic factors specified above.

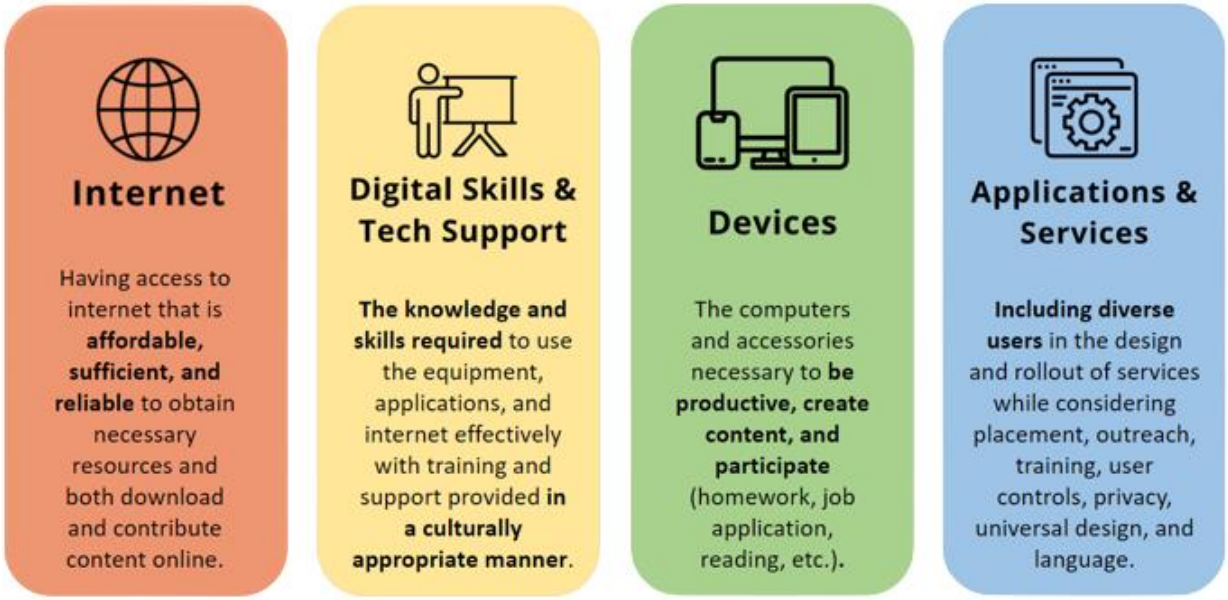
Digital Equity Gaps Impact:

- Social Connectivity
- Workforce Readiness
- Civic Participation
- Healthcare Access
- Educational Opportunities
- Financial Resources

With local and regional partners, in consultation with the Montachusett Regional Planning Commission, under the Massachusetts Broadband Institute's Municipal Digital Equity Planning program, the Town of Ashby participated in a Digital Equity Planning process to better understand the needs of the community. The outcome of the planning process is this Digital Equity Action Plan that will identify the community's vision, and associated goals and implementable actions, to improve broadband internet access, enhance digital equity, and increase digital literacy among residents, businesses, and institutions.

The overall purpose of Digital Equity Planning is to understand the existing conditions around internet access and digital technology, specifically those related to availability, affordability, and adoptability of broadband internet and digital devices with a focus on certain covered populations of the Digital Equity Act.

As with many other small Towns, broadband internet accessibility and connectivity issues currently do exist and are related to various factors, including gaps in reliable internet service, diverse socioeconomic demographics affecting income and opportunity, higher-than average services costs limiting access and affecting affordability, convenient access to affordable devices and technology, gaps in digital literacy and available training or tech-help opportunities, and other general accessibility issues.



Graphic Source: https://www.seattle.gov/tech/reports-and-data/about-digital-equity

2.2 COVERED POPULATIONS OF THE DIGITAL EQUITY ACT

Individuals who live in Covered Households

The term "covered household" means a household, the taxable income of which for the most recently completed taxable year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census.

Aging Individuals

The term "aging individual" has the meaning given the term "older individual" in section 102 of the Older Americans Act of 1965 (42 U.S.C. 3002), within which the term "older individual" means an individual who is 60 years of age or older.

Incarcerated Individuals
Inmates at state and county jails and correctional facilities, other than individuals who are incarcerated in a Federal correctional facility. The closest facility to Ashby is the North Central Correctional Institution in Gardner, MA.

Veterans
The term "veteran" has the meaning given the term in section 101 of title 38, United States Code. The term "veteran" means a person who served in the active military, naval, air, or space service, and who was discharged or released therefrom under conditions other than dishonorable.

Individuals with Disabilities
The term "disability" has the meaning given the term in section 3 of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102). The term "disability" means, with respect to an individual-

(A) a physical or mental impairment that substantially limits one or more major life activities of such individual.
(B) a record of such impairment; or
(C) being regarded as having such an impairment

Individuals with a Language Barrier
Individuals with a language barrier, including individuals who—

- Are English learners; and
- Have low levels of literacy

Individuals who are Members of a Racial or Ethnic Minority Group
Racial and ethnic minority groups are groups of people who are underrepresented in a population and may experience discrimination based on their race or ethnicity:

- Race: A term that refers to physical differences that a society considers significant.
- Ethnicity: A term that describes a shared culture.
- Minority group: A term that describes groups that are subordinate or lack power in society, regardless of their skin color or country of origin.

Individuals who Primarily Reside in a Rural Area
The term "rural area" means any area other than –

- A city or town that has a population of greater than 50,000 inhabitants.
- Any urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants; and
- In the case of a grant or direct loan, a city, town, or incorporated area that has a population of greater than 20,000 inhabitants.

2.3 BROADBAND INTERNET ACCESS: AVAILABILITY, AFFORDABILITY, AND ADOPTION

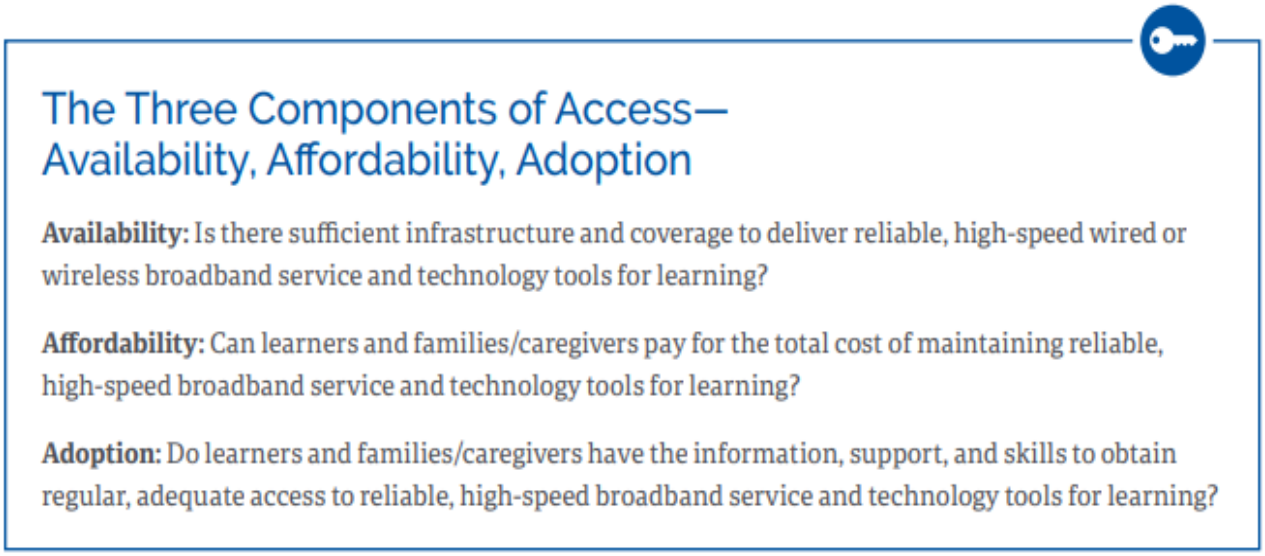
2.3.1 Broadband Access

Internet Availability

According to the U.S. Census Bureau, the digital divide was an omnipresent issue in 2018[2], continued to be an issue in 2019[3], and the factors disproportionately affecting certain segments of the population[4] were exacerbated and highlighted by the COVID-19 pandemic in 2020, resulting in the passage of the Digital Equity Act in 2021.

Prior to the pandemic, most evaluations of internet access and use focused on survey data on internet subscriptions, however, these assessments often failed to consider availability, or whether Internet Service Providers (ISPs) offered service to a given area.

Since passage of the Digital Equity Act, research, evaluations, and investments have attempted to understand and address the digital divide in a more comprehensive and inclusive way, by considering not only internet subscription rates, but actual access to broadband internet services based on measures and metrics of availability, affordability, and adoptability (inclusive of knowledge, skills, abilities, and willingness to adopt internet services, technology, and devices).



While past and recent studies indicated that throughout the nation, most geographic areas had high-speed fixed broadband service available, that service was not universally or equitably

[2] https://www.census.gov/content/dam/Census/library/working-papers/2018/demo/SEHSD-WP2018-12.pdf
[3] https://www.census.gov/content/dam/Census/library/working-papers/2019/demo/sehsd-wp2019-15.pdf
[4] https://www.census.gov/library/stories/2022/05/mapping-digital-equity-in-every-state.html

available among all segments of the population or within certain areas. For example, there were noticeable differences in availability and quality of service (i.e., types of technology, and levels of reliability or speeds), particularly between urban and rural areas, and among factors related to income, race and ethnicity, language and literacy, and geographic areas where percentages of the population represented by those factors were greater. Nationally, some states have high availability throughout, while regionally, availability varies from one county to the next. Locally, even greater variation exists at the Census Tract level, as shown within the U.S. Census Bureau's Digital Equity Act Population Viewer Map, and that variation often correlates to the socio-economic demographic factors referenced above. Income is often an indicator of internet service availability and strongly correlated with affordability and adoptability of service types. However, geography cannot be overlooked when understanding and addressing the Digital Divide, as the rural location of an area is often one of the greatest predictors or limiting factors of internet availability.

Internet availability can be assessed in terms of the number of Internet Service Providers (ISPs) serving and providing direct, connections to the internet at households, businesses, or institutions within a certain location or area. Further, it can be assessed based on the type of internet service provided (e.g., Fiber-optic, Cable, and Fixed Wireless Internet), and the average and maximum speed of that service (i.e., Digital Data Upload & Download Speeds measured in Megabytes per second [Mbps]).

A location, or more specifically, an address, that has "service" access to Broadband Internet service by an ISP is considered a ***Serviceable*** location. According to the Federal Communications Commission (FCC), as of March 14, 2024, the minimum "benchmark" for high-speed fixed broadband internet is now 100 megabits per second download speed and 20 megabits per second upload speed – a four-fold increase from the 25/3 Mbps benchmark set by the FCC in 2015[5]. This new minimum speed benchmark increase is now consistent with standards established by the National Telecommunications and Information Administration (NTIA), Broadband Equity Access and Deployment (BEAD) program and multiple U.S. Universal Service Fund programs. Under these established standards, locations with fixed broadband internet service "that meets or exceeds 100 Mbps download speed and 20 Mbps upload speed", are considered "***Served***". Alternatively, according to the standards set by the NTIA BEAD Program under their Internet for All initiative, addresses "with broadband service below 100 Mbps download speed and 20 Mbps upload speed but higher than 25 Mbps download speed and 3 Mbps upload speed" are considered "***Underserved***". And finally, again, according to the NTIA BEAD standards, any address location without access to any broadband service or "with broadband service below 25 Mbps download speed and 3 Mbps upload speed" is considered "***Unserved***". [6]

[5] FCC News, Office of Media Relations, Press Release dated March 14, 2024: https://docs.fcc.gov/public/attachments/DOC-401205A1.pdf
[6] NTIA BEAD Program, Program Documentation:
https://www.ntia.gov/funding-programs/internet-all/broadband-equity-access-and-deployment-bead-program

2.3.2 Internet Affordability

Thirty-two percent of U.S. households are subscription vulnerable, meaning they are unable to afford and maintain an internet service subscription. This gap leads to differences in learning experiences, as 65 percent of families with income levels below the poverty threshold reported that a lack of access prevented their children from participating in school and completing schoolwork or that their child had no option other than to participate through a mobile device. Among families with income levels below the national median and with access to broadband, 56 percent stated the service was too slow, and among families with home access to a computer, 59 percent stated their device runs too slowly or does not work. Sixty-five percent of families with incomes below the national poverty level, 66 percent of Hispanic parents, 75 percent of families headed by immigrant Hispanic parents, and 56 percent of Black parents with incomes below the national median reported technology-related disruptions to their children's learning.[7] Such figures may also be higher due to underreporting. For example, Spanish-language-dominant Americans are less likely to report having high-speed internet at home.[8]

"A recent study showed that participants who were older, less educated, economically disadvantaged, and from ethnic groups were up to five times less likely to have access to digital health information."

"An older adult in a rural area is 1.6 times more likely to lack in-home internet service."

"Access and affordability are only two parts of the equation to help older adults get connected. The third component is to make sure that seniors know how to use technology and feel comfortable doing so."

National Council on Aging

Perhaps the biggest loss to internet affordability was ending the Affordable Connectivity Program (ACP). To better understand the program's impact, the FCC surveyed ACP recipients in December 2023. According to the survey, 77% of respondents say losing their ACP benefit would disrupt critical aspects of their lives by making them change their plan or drop internet service entirely. Approximately three-fourths report using their internet service for work, health care appointments, job applications and schoolwork. Finally, when

[7] Johnson, M., Bashay, M., Bergson-Shilcock, A., Richardson, M., & DeRenzis, B. (2019). *The roadmap for racial equity.* National Skills Coalition. https:// nationalskillscoalition.org/resource/publications/the-roadmap-for-racial-equity/
[8] Johnson, M., Bashay, M., Bergson-Shilcock, A., Richardson, M., & DeRenzis, B. (2019). *The roadmap for racial equity.* National Skills Coalition. https:// nationalskillscoalition.org/resource/publications/the-roadmap-for-racial-equity/

asked how losing their ACP benefit would affect them, many say they would need to cut other basic expenses such as food or gas if they had to pay $30 more out of pocket for their internet. Others say they would drop their internet service. [9]

2.3.3. Internet Adoption

Digital connectivity is a combined measure of people accessing and utilizing the internet (particularly broadband internet) and digital devices at home. Some factors that can be assessed to "measure" digital connectivity are: Average Household Size, Percentage of the Population Working from Home, Percentage of Households with Digital Computing Devices, Percentage of Households with Internet, Percentage of Households with Broadband Internet (defined as download/upload speeds above 100/20 Mbps, and Broadband Internet Usage vs. Availability (percentage of households which have a Broadband Internet connection to their home that actually subscribe to a Broadband Internet Service).

Of the estimated 15–16 million K-12 learners who have insufficient broadband access or access to devices to support learning at home, approximately 6 million face adoption barriers apart from availability and affordability. Learners who have immigrated to the U.S. and learners from multilingual homes face unique challenges in getting connected and engaging with learning once connected. Credit checks or deposits to get a subscription and digital literacy gaps further inhibit receiving low-cost coverage.

Children with disabilities, who disproportionately live in low-income households, experience additional technology barriers, such as outdated equipment, inaccessible online platforms and course materials, and a lack of in-person support to engage with technology tools for learning. Even with high technology usage in the classroom, few professional learning opportunities for effective technology use in instruction are provided to educators. The National Center for Education Statistics has found that on average, educators working with low-income and rural learners are the least likely to receive access to training on effective technology use in instruction. Combined, these barriers further contribute to the digital divide.[10]

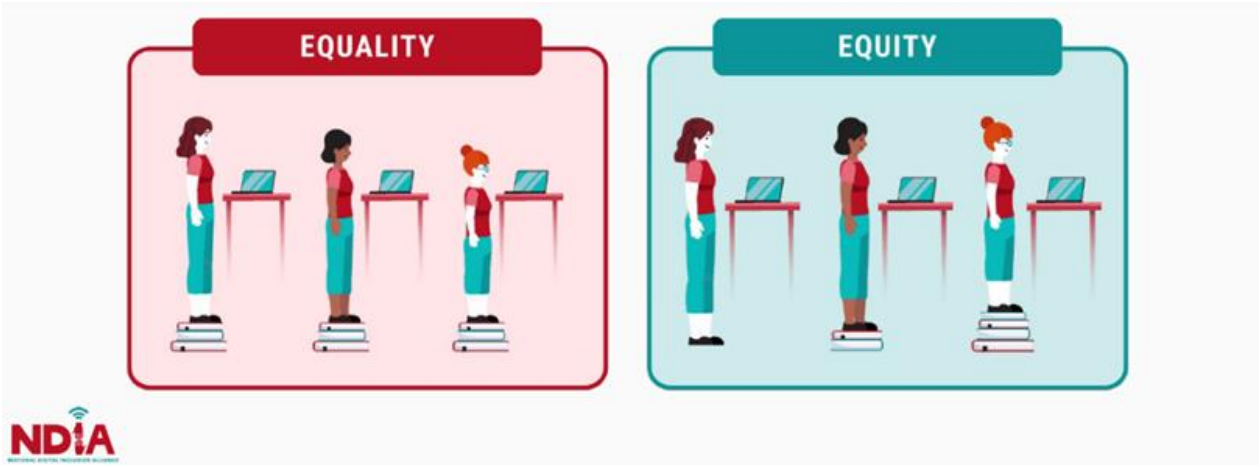
2.4 THE GOAL: DIGITAL EQUITY

The goal of addressing the digital divide through digital inclusion initiatives within a community is to help all individuals and groups within the community to participate and aid in 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,**

[9] https://www.ncsl.org/state-legislatures-news/details/without-federal-program-whats-the-outlook-for-affordable-broadband

[10] U.S. Department of Education, Office of Educational Technology, *Advancing Digital Equity for All: Community-Based Recommendations for Developing Effective Digital Equity Plans to Close the Digital Divide and Enable Technology-Empowered Learning*, Washington, DC, 2022.

facilitating lifelong learning and access to essential services." The three pillars of digital equity work that are the focus of this plan are **digital literacy**, **device access**, and **internet access**. By boosting internet service subscriber numbers, resolving infrastructure problems, increasing the number of opportunities for digital literacy training, and easing access to suitable devices, communities can promote digital equity.



3

3 DIGITAL EQUITY PLANNING PROCESS

The Digital Equity Core Team Working Group (the Committee) is a team of municipal and community organization staff with a stake in providing information and technology resources throughout Ashby. The Committee includes representatives from Town Hall, the Ashby Free Public Library, the Ashby Senior Center, and the North Middlesex Regional School District (NMRSD). With MRPC, the Committee provided guidance and oversight on developing the Plan and relayed community sentiment and Digital Equity needs.

3.1 DIGITAL EQUITY CORE TEAM WORKING GROUP

The Digital Equity Core Working Group and project stakeholders provided valuable input, relayed comments from residents, and participated in meetings throughout the Digital Equity planning process.

DIGITAL EQUITY CORE WORKING GROUP

1. Jeannie Lindquist, Planning Board Chair
2. Alan Pease, Planning Board Member
3. Heather Perry, Ashby Free Public Library Director
4. April-Lynn Forest, Ashby Senior Center
5. Elizabeth Wood, Land Use Agent
6. Jeremy Hamond, Technology Department Operations Director, North Middlesex Regional School District

Photo courtesy of MRPC

The Digital Equity Core Team Working Group met on:

- February 28, 2024, March 27, 2024, November 13, 2024

Presentation of the Final Draft Plan was given to the Ashby Selectboard on December 4, 2024. A public comment period began on November 13th following the Planning Board/Core Group presentation of the Plan and ended December 20, 2024. The Selectboard voted to approve the Plan pending further comments, on December 10, 2024.

3.2 PUBLIC ENGAGEMENT

The Digital Equity planning process included several community members, town officials, and stakeholders that allowed the Town to distribute information to the public regarding Digital Equity planning activities and the statewide survey. The process also gathered critical input that

helped to develop the goals and recommendations in this Plan. The Plan relied heavily on information collected through various means as outlined in the following sections.

Statewide Digital Equity Survey

At regular intervals in 2023 and 2024, emails were distributed, and announcements were made at MRPC meetings and events to encourage everyone in our region to fill out the statewide digital equity survey. In addition, paper surveys and collection boxes were provided in the following locations in Ashby:

- The Town Hall
- The Senior Center
- Ashby Free Public Library

Survey results are discussed in greater detail in Section 6 of this plan.

3.3 STAKEHOLDER ENGAGEMENT

On February 28, 2024, the MRPC team met with the Planning Board and others from the town to kick off the project and discuss the Digital Equity planning process and gather stakeholder information. A presentation was given describing the Digital Equity Act, what digital equity is, and how the process would unfold. A small list of stakeholders was provided with a questionnaire and were scheduled for interviews. The following is a list of organizations and individuals who were interviewed by MRPC staff.

Organization/Department/Board	Date Completed	Staff	Questionnaire Completed
Library	5/28/2024	H Perry	Y
School Dept	10/4/24	J Hamond	Y
Senior Center Director	5/30/24	AL Forest	Y
Council on Aging President	9/15/24	P VanHillo	Y
Wachusett District Veteran's Services	6/12/24	C Hasselmann	Y
Luk, LLC	8/19/24	E McMillian	Y

3.4 FOCUS GROUP MEETINGS

The MRPC team conducted focus group meetings to discuss the needs of the covered populations within the respective organization's mission.

Focus Group Meetings	Date	Covered Population or Focus Group
Wachusett District Veteran's Services	6/12/24	Rural/Low Income, Minority, Non-English, Disability, Veteran, Aging Population
Council on Aging Senior Luncheon	9/18/24	Rural/Low Income, Aging Population

4

4 EXISTING CONDITIONS ANALYSIS

The following existing conditions analysis evaluates certain aspects of the Town of Ashby's population demographics with specific regard to the eight (8) Covered Populations of the Digital Equity Act. The analysis highlights vulnerabilities and inequities regarding internet access relative to availability, affordability, and adoptability – the three pillars of digital equitability and broadband internet accessibility. The analysis leads to an assessment of community needs through information gathered during targeted outreach to interested stakeholders, covered populations, and local digital equity champions, including core team meetings, focus group meetings, stakeholder questionnaires and interviews, and local and regional responses to the Statewide Digital Equity Survey.

4.1 EXISTING CONDITIONS OVERVIEW

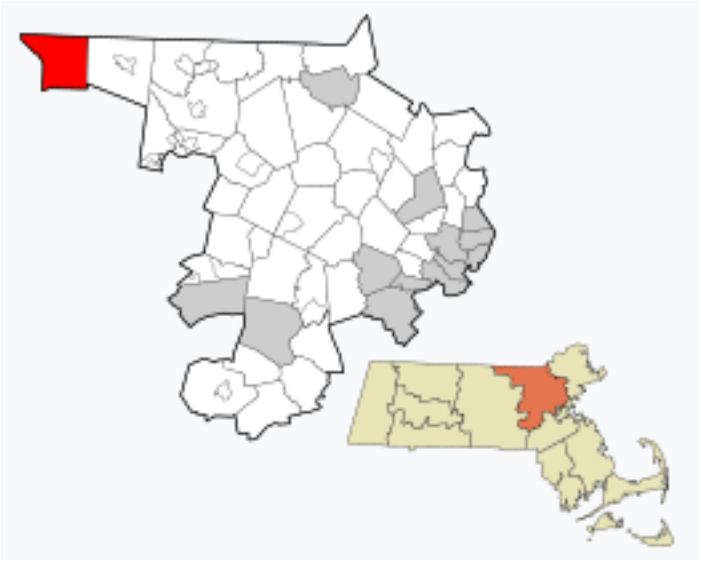
Establishing comprehensive and inclusive existing conditions, through a robust community outreach and stakeholder engagement process, allows for the development of a Digital Equity Plan that includes a set of meaningful, community guided recommendations that will best address the needs of those it is intended to serve. In addition to providing information about available broadband internet services and devices, the analysis also identifies and evaluates certain barriers and challenges experienced by people, especially covered populations, relative to broadband internet service accessibility or availability, adoption, and affordability. Further, it assesses not only those people with access to, or using such services or devices, but also those portions of the populations without access or use of, or otherwise lacking fixed broadband services, computers or other internet-connected digital devices. It aims to better understand the barriers and challenges of populations not using the internet, and populations not using a device. Sometimes those challenges or barriers extend beyond access or affordability, and at times are related to a person's willingness to adopt such technology (services and devices, alike), rather than their ability or accessibility.

Much of the data for this analysis was obtained from input from the Digital Equity Planning Core Team members, stakeholder interviews, focus group meetings, the Massachusetts Broadband Institute (MBI) survey results, FCC Data, other local and regional data and information, including the Massachusetts Division of Local Services' Data Analytics and Resources Bureau, and US Census data.

4.2 COMMUNITY PROFILE

Demographic trends in a community can impact local internet service demand and technology support needs. Understanding Ashby's demographic profile, socioeconomic indicators and covered populations are critical in adequate planning for digital equity.

Town of Ashby



Located in the far northwest corner of Middlesex County in north central Massachusetts on State Routes 119 and 31, Ashby falls on the border with New Hampshire, 49 miles west of Boston and 32 miles north of Worcester. It has an area of 24.2 square miles and is characterized by rugged, hilly terrain interspersed with gently rolling open fields, woodlands, stream corridors, and wetlands. The town was originally agrarian, but in the mid-19th century began to harness its fast-flowing streams for water powered manufacturing. Although agriculture has declined over the years as it has throughout New England, the residents of Ashby still look to their agricultural roots as part of their definition of the town.

Ashby currently has a population of 3,193 according to the 2020 U.S. Census; an increase of 38% from 2,311 persons in the 1980 U.S. Census, but Ashby still maintains its rural character. The Town's median household income is $105,750 (2022 ACS), about 11% less than Middlesex County's median household income of $118,800 (2022 ACS) and about 11% more than the State's median household income of $94,488 (2022 ACS). Over 2.9% of residents in the town live below the poverty line, which is lower than the Worcester County average of 8.2% and lower than the State average of 10.4% (2022 ACS). The median age in Ashby is 51.6 and 31.5% of the total population is greater than 60 years of age. This is much higher than the median age in the County (39.3 years) and the State (40.3 years)[11]. The 2022 unemployment rate in Ashby was estimated at 3.1% of those over the age of 25, with 41.5% of the population over 25 having a bachelor's degree or higher.[12] Ashby belongs to the North Middlesex Regional School District and contains

[11] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Tables DP05, S0102, S1701, S1811, and S1901; Accessed various dates 3/1/24-6/25/24.

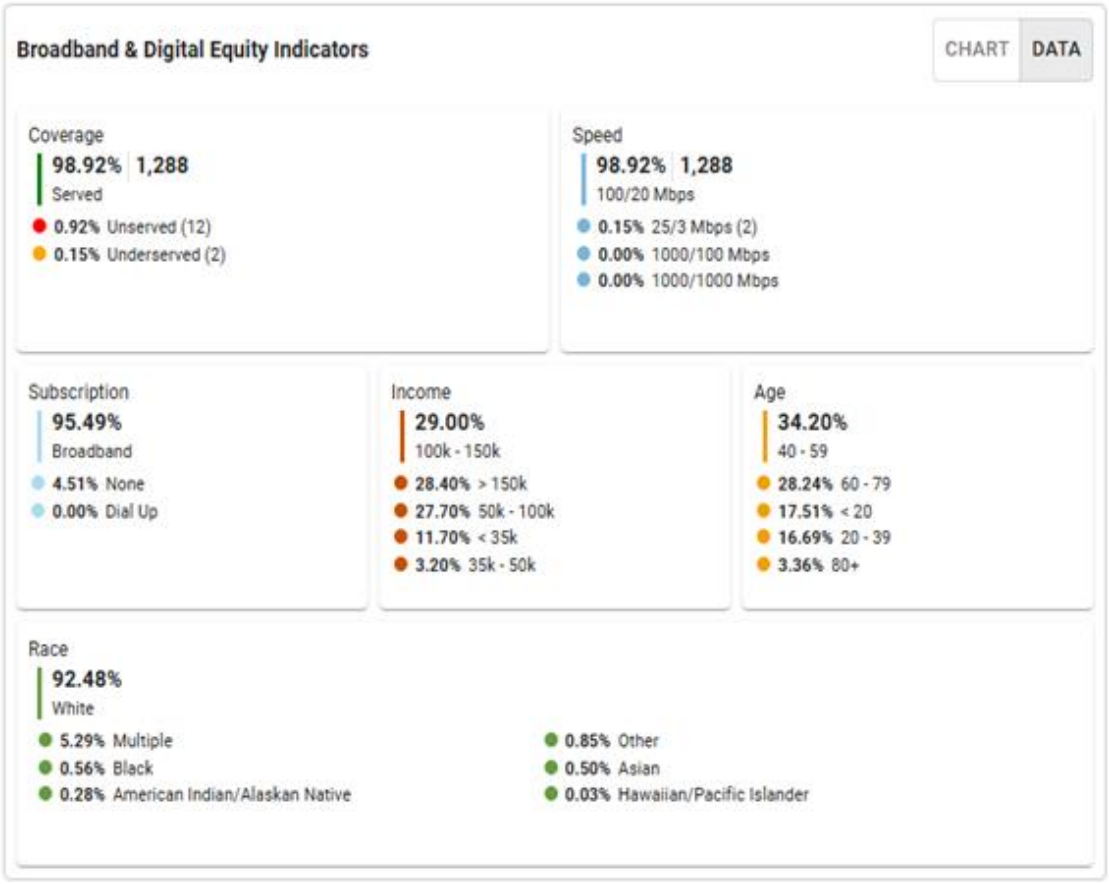
[12] MA Department of Economic Research, Labor Force and Unemployment Data, https://www.mass.gov/orgs/department-of-economic-research, Accessed 6/13/24.

within its boundaries the Ashby Elementary School serving students in grades K-4. Ashby middle and high school students attend in Townsend once they reach grade 5.

4.3 ASSESSING DIGITAL EQUITY IN ASHBY

A high percentage of Ashby's households currently subscribe to internet service. According to the U.S. Census, 95.5% of Ashby's households in 2022 reported having a broadband internet subscription. This percentage follows a steady increase in local subscribership over the previous five years from 87.3% in 2017[13]. People relied on web-based platforms for employment, education, social interaction, and access to essential services and information when the COVID-19 pandemic struck the country in 2020, coinciding with this increase. According to the Broadband Coverage Map, Ashby's Broadband & Digital Equity Indicators are shown in Figure 1.

Figure 1: Broadband and Digital Equity Indicators, Ashby



There are 1,302 serviceable locations with two underserved and 12 unserved[14]. These locations are on the outskirts of town or at the end of dead-end roads.

[13] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Tables DP05, S0102, S1701, S1811, and S1901; Accessed various dates 3/1/24-6/25/24.

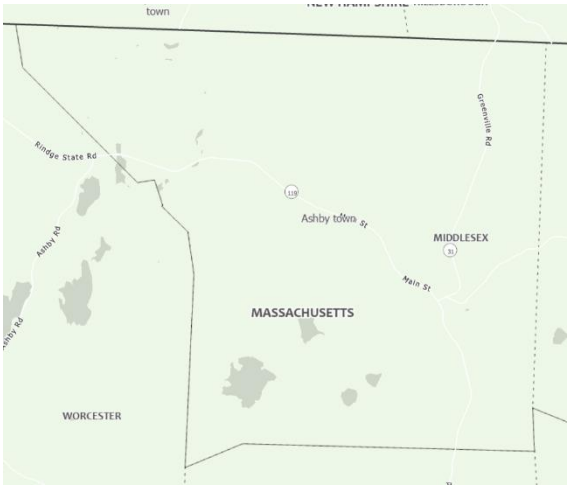
[14] Massachusetts Broadband Map: https://mapping.massbroadband.org/map (Accessed July 9, 2024.)

Population Lacking Fixed Broadband

Internet Service Providers (ISP) supply subscribers with services for accessing, utilizing, and participating on the Internet. Although over 12 households in Ashby still do not have internet service, the majority of households in the town do. However, the reliability and speed of the service exacerbate Ashby's problems with internet service accessibility and cost.

As can be seen in Figures 2 and 3, less than 2.5% of Ashby's population lack fixed Broadband and less than 7% lack a computer or Broadband.

Figure 2: Population Lacking Fixed Broadband - Ashby



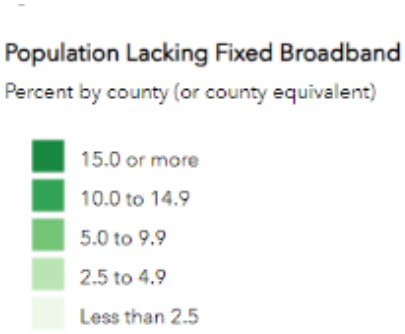
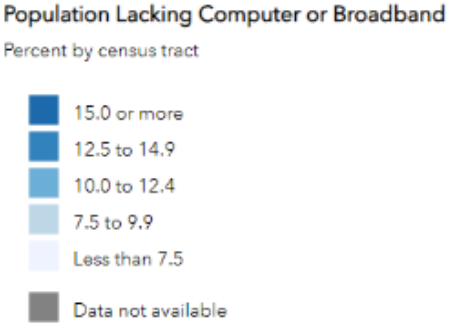
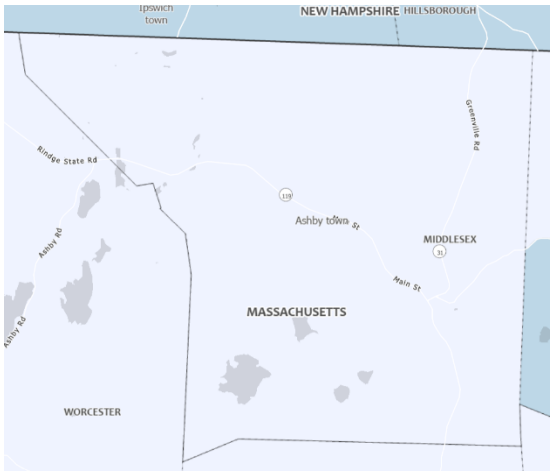


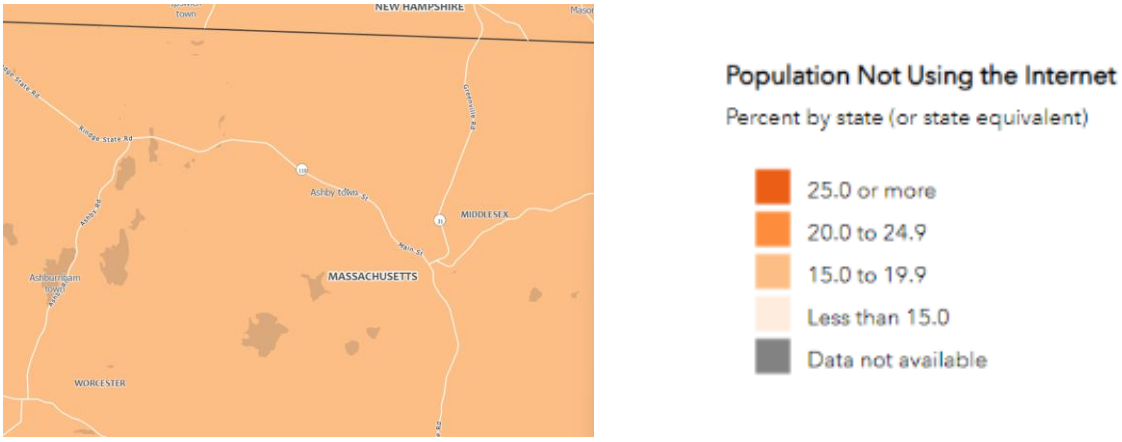
Figure 3: Population Lacking Computer Broadband - Ashby





As can be seen in Figure 4 below, 15-19.9% of residents are not using the internet. In Ashby, this is mostly seniors who don't see the need for the internet.

Figure 4: Population Not Using the Internet



Access in the School

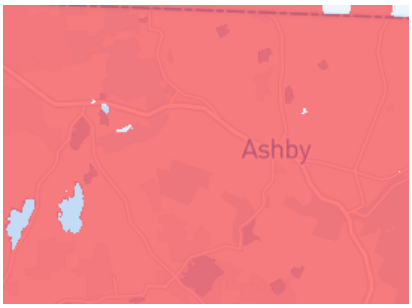
The Technology Operations Director at the North Middlesex Regional School District states that wi-fi is available in all buildings owned by the district for use by instructors, staff, and students. In Ashby in particular, with the age and design of the building, administrators and faculty have complained about connectivity problems in some of the rooms. During the pandemic, the Director states only one hot spot was provided for students. Although students can use the district's wi-fi in the classroom, the quality and accessibility of their home internet service determines how much technology they can use at home.

Service Availability

Figure 5 below from Comcast shows the coverage of fiber as only being in the center of town and slightly south. The Comcast cable service coverage is shown in Figure 6 and suggests that the town has nearly 100% coverage, but interviews with stakeholders and focus groups suggest otherwise. Speed and reliability are barriers mentioned in every interview and focus group discussion.

Figure 5: Comcast Service Area-Fiber – Ashby

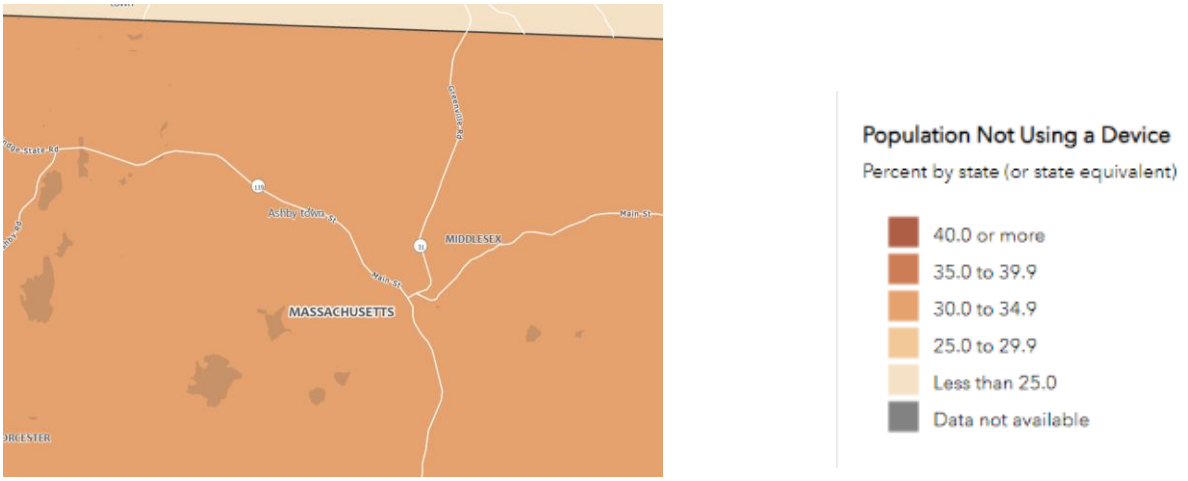
Figure 6: Comcast Service Area Cable – Ashby



Device Access

There are many kinds of devices that can be used to access the internet and facilitate social interaction, work, and education. These devices include computers, tablets, and cell phones, and each have advantages and disadvantages for the user. Although cellular phones are among the most portable web-based devices with a long battery life and several connection options, they cannot take the place of a computer in terms of functionality. Tablets have a long battery life and offer accessibility features, but they cannot make phone calls without a cellular data plan. Both desktop and laptop computers come with plenty of storage and are essential for a variety of tasks and uses. Of these three devices, computers are the most expensive and have the shortest battery life. Figure 7 below shows that 30-35% of Ashby residents do not use a device.

Figure 7: Population Not Using a Device:



According to the U.S. Census, 92% (1,142) of Ashby's households in 2022 reported having a desktop or laptop computer, 92% (1,140) reported having one or more smartphones, and 75% (937) reported having a tablet or other portable wireless computer[15]. However, while a high percentage of Ashby's residents report having a computer, there is potential to improve community awareness of publicly accessible devices in Ashby, existing programs supporting device access, and how to enroll. Additional opportunities exist to provide digital literacy training, however, the Library and Senior Center report needing additional devices and better internet for the training to be effective. Fifty-six households are reported to have no internet subscription.

Cybersecurity

Cybersecurity vulnerabilities affect everyone. To prevent scams and fraudulent attacks, digital literacy is paramount. By using security software and personal safeguards, one can achieve a state of protection against illegal or unauthorized use of data, known as cybersecurity. For all age groups, businesses, and municipal operations, cybersecurity is essential. **Seventy-four percent** of Ashby respondents to the MBI statewide survey said they are most worried about their data

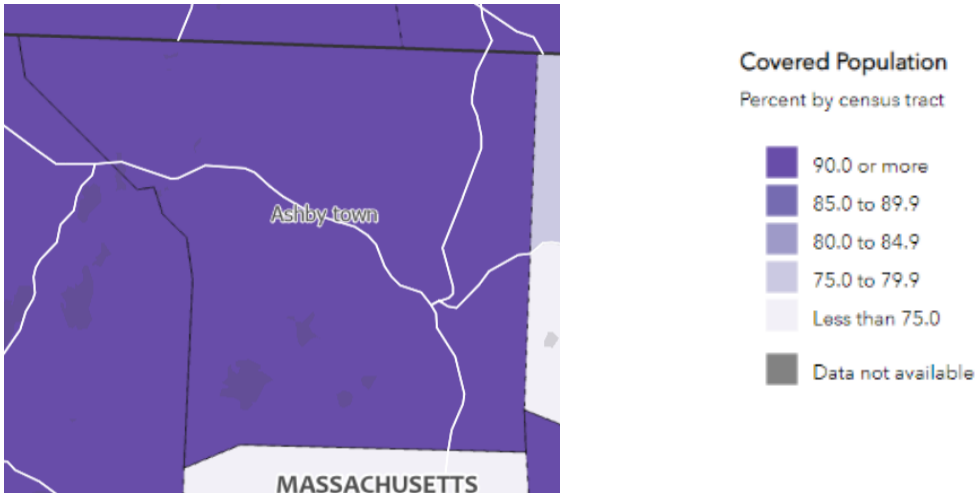
[15] Source: U.S. Census Bureau, 2018-2022 American Community Survey 5-Year Estimates, Table 2801

being stolen or used without permission, with **72 percent** indicating they are "Very concerned" or “Somewhat concerned” about internet safety.

4.4 COVERED POPULATIONS

The Digital Equity Act Population Viewer[16] includes five (5) layers depicting pertinent information to determine existing conditions and needs concerning digital equity in Ashby. The town of Ashby is considered a covered population as it is defined as a rural community where individuals primarily live in rural areas. However, within town there are individuals who qualify under multiple covered population groups. The following outlines those groups.

Figure 8: Covered Populations:



Economically disadvantaged

According to town officials, economic barriers have exacerbated challenges in accessing digital literacy training, internet service enrollment, and participation in education, business development, and government services and programs. As noted, 2.9% of all people in Ashby live below the poverty line. Through digital equity stakeholder interviews, leaders in local institutions and organizations, including the Ashby Free Public Library, the Ashby Senior Center, the Ashby Council on Aging Director, and the school district noted their need to address barriers by providing access to internet services, devices, and digital literacy education. Ashby, as a small rural community with over 95% of their tax revenue from residential property taxes, struggles with budgeting for town services. This limits the services each department can provide to its residents. The Library Director is unable to afford high-speed internet access and has the lowest business level of service in the building. This limits access to the internet for her, her staff, and patrons of the library. The Director has applied for many grants, some successful and others not.

[16] Digital Equity Act Population Viewer; https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42, Accessed 6/14/24.

Ashby Elementary School is part of the North Middlesex Regional School District which reports 36% of the students at Ashby Elementary School as low income. The Ashby school has an enrollment of 151 students, with 54 students described as low income[17].

Environmental Justices Areas[18]

Environmental justice means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment. Ashby does not have any EJ communities within its boundaries.

Aging individuals

Ashby has a growing population of residents over 60 years of age, with 32% of the population over 60, compared to Middlesex County at 23% and the State at 25%[19]. In an interview with the Ashby Council on Aging President, she noted the number of senior citizens she serves per year is approximately 900. With a population of 1,007 seniors, almost one third of Ashby residents are over 60 years and the Senior Center serves most of them. The Director, who admittedly is not very digitally literate, noted that some seniors ask for help with devices and navigation on the internet and she feels unsure of how to help them, but mostly the seniors say they are not interested in the internet or devices or learning about them. There is no public access to the internet or public devices at the Center but there is one computer and if asked, the Director will allow access to the internet. A definite need within the Town is for digital literacy training and expanded advocacy for Ashby's senior population in areas such as device usage, navigation of common software platforms, education of scams and security, and general computer skills, as well as how to access a public meeting via an online platform such as Zoom or Teams.

Internet and device access are crucial for seniors to access telemedicine and other online services, whether they are aware of it or not. For patients of all ages, as well as older adults who have mobility or transportation limitations, that makes it difficult for them to visit healthcare providers' offices, telemedicine, the provision of healthcare remotely using information and communications technology—offers a convenient means of accessing healthcare services. There are currently barriers to healthcare access in the Town that affect residents of all ages. More advocacy and equity in healthcare access are required, especially considering the growing popularity of web-based platforms for providing communications.

Vulnerable populations, such as senior residents, are impacted by barriers to healthcare access because they lack consistent access to suitable devices and internet services, and most

[17] https://profiles.doe.mass.edu/; Accessed 6/17/24
[18] https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations
[19] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Tables DP05, S0102, S1701, S1811, and S1901; Accessed various dates 3/1/24-6/25/24.

importantly the knowledge necessary to use these resources and the comfort of safety and security.

Veterans

Ashby's Veteran population is 4.6% of the population over 18 years, or approximately 124 residents[20]. The Ashby American Legion Post 361 is located on New Ipswich Road and provides several community events for veterans and residents. The Legion Building accommodates the physically challenged with parking lot and building accessibility available. However, they currently do not offer any digital literacy resources or devices. The Veteran's Agent for Ashby is part of a consortium of Ashby, Ashburnham, Gardner, Princeton, and Westminster with their offices located in Gardner at the Montachusett Veteran's Outreach Center (MVOC) at 95 Pleasant Street. This site services over 700 Veteran's annually, some of which reside in Ashby. Internet services are available for free to veterans, but no computers or computer classes are offered. The MVOC is a Community Anchor Institution. The Agent states barriers for veterans are lack of knowledge of how to use devices, not having devices, not being able to afford internet or not seeing the need for internet, and Veterans who do have internet choose the cheapest access. In addition, older veterans are susceptible to scams and are skeptical of the safety and security of the internet. Ashby's website has a link on the Veteran's Agent webpage that directs veterans to inmyarea/military.com which provides resources for veterans to obtain discounted devices, internet access, and digital literacy services at reduced costs.

Individuals with a disability

Ashby's disability population makes up 8.0% of the total population or about 250 residents, which is less than Middlesex County (10.4%) and the State (12.6%) disabled persons. Of those, 1.4% have a reported hearing difficulty, 0.2% reported as visually impaired, 1.2% reported a cognitive difficulty, 5.2% reported having ambulatory difficulties, 2.4% reported to have self-care difficulty, and 4.0% reported independent living difficulty[21]. The Ashby Elementary School reports 17 students with disabilities[22].

Individuals with a language barrier

Ashby has approximately 111 residents who speak languages other than English at home, but they also speak English very well. Eighty-one residents speak other Indo-European languages, four speak Indian or Pacific Islander languages, and 26 residents speak other languages at

[20] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Table S2101; Accessed 3/15/24.
[21] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Table S1810, Accessed 3/15/24.
[22] https://profiles.doe.mass.edu/; Accessed 6/17/24

home[23]. The school district reports three students as English learners and former English learners[24].

4.5 INTERNET AVAILABILITY AND CONNECTEDNESS

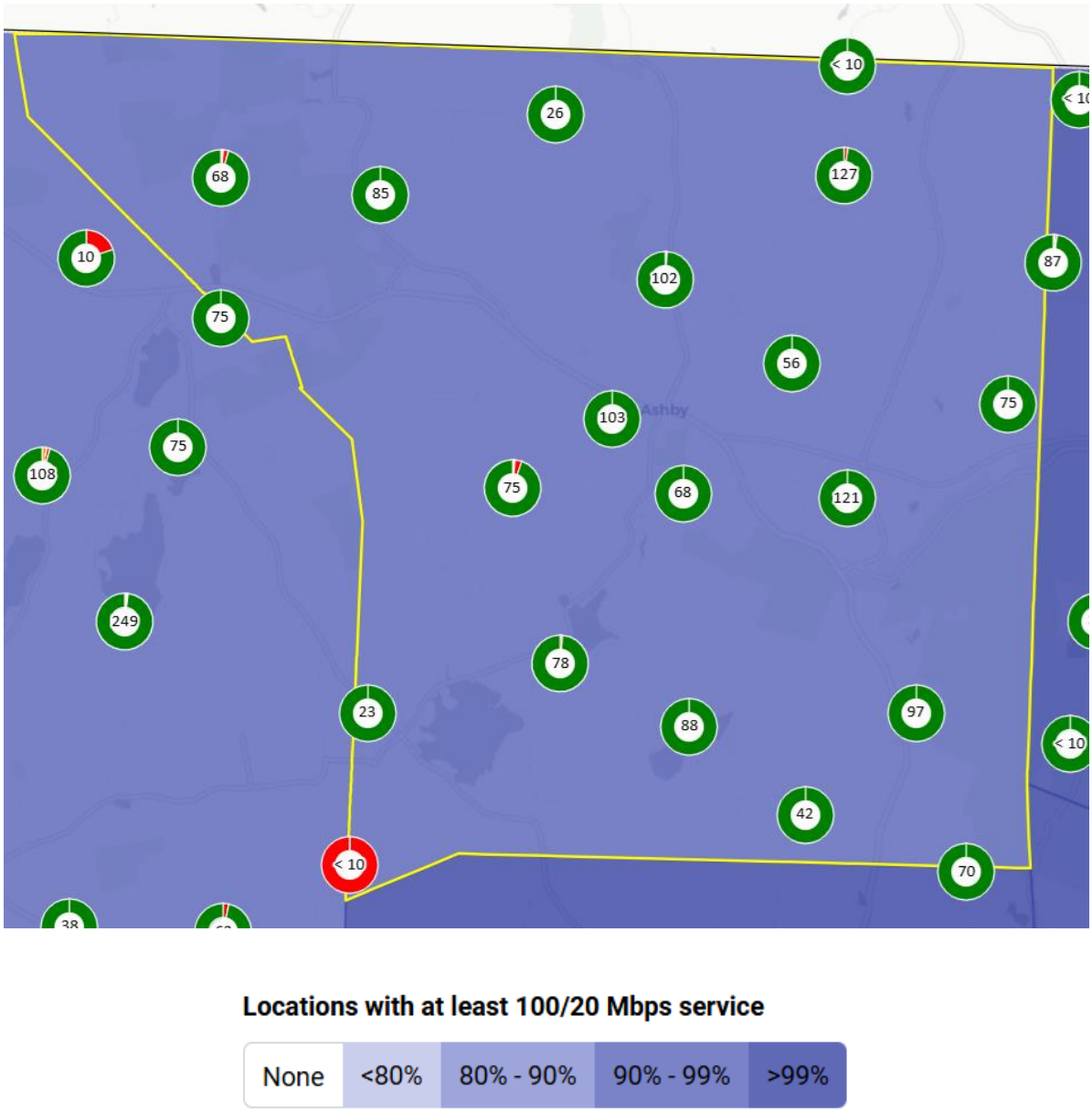
In October 2022, MBI completed the first statewide Broadband Serviceable Location (BSL) dataset to support broadband mapping and analysis in Massachusetts. BSLs are locations where wired (cable or fiber) or fixed wireless broadband service can or has been installed. The public version of the Massachusetts Broadband Map is part of an ongoing program to accurately map fixed broadband availability for each home, business and other serviceable locations in the Commonwealth of Massachusetts. It shows individual broadband serviceable locations throughout the Commonwealth that are unserved or underserved.

According to the Massachusetts Broadband Map the Town of Ashby has 1,302 Serviceable Locations, of which 1,274 (97.8%) are classified as "Served", two (2; 0.15%) are classified as "Underserved", and 12 (0.92%) are classified as "Unserved". Figure 8 shows the total distribution of serviceable locations, relative to their status as Served, Underserved, or Unserved.[25]

This space left intentionally blank

[23] U.S. Census Bureau, American Community Survey 5-year estimates (2017-2022); Table DP02, Accessed 3/15/24.
[24] https://profiles.doe.mass.edu/; Accessed 6/17/24
[25] https://mapping.massbroadband.org/map?zoom=13&center=-7993700%2C5262212&selection=2501701955&level=Towns%2FCities

Figure 9: Broadband Coverage Map, Ashby, MA



Regarding Internet Availability, Ashby has four (4) primary Internet Service Providers (ISP), as described by the ISP Report for Ashby, as shown within Table 1 below. Cable, Fiber, and Fixed Wireless internet are available, and satellite internet may also be available from various providers such as Dish, DirectTV, HughesNet, Viasat, and Starlink.[26]

[26] ISP Reports. 2024 in Ashby, MA https://ispreports.org/internet-service-providers-01431/; Accessed July 2024.

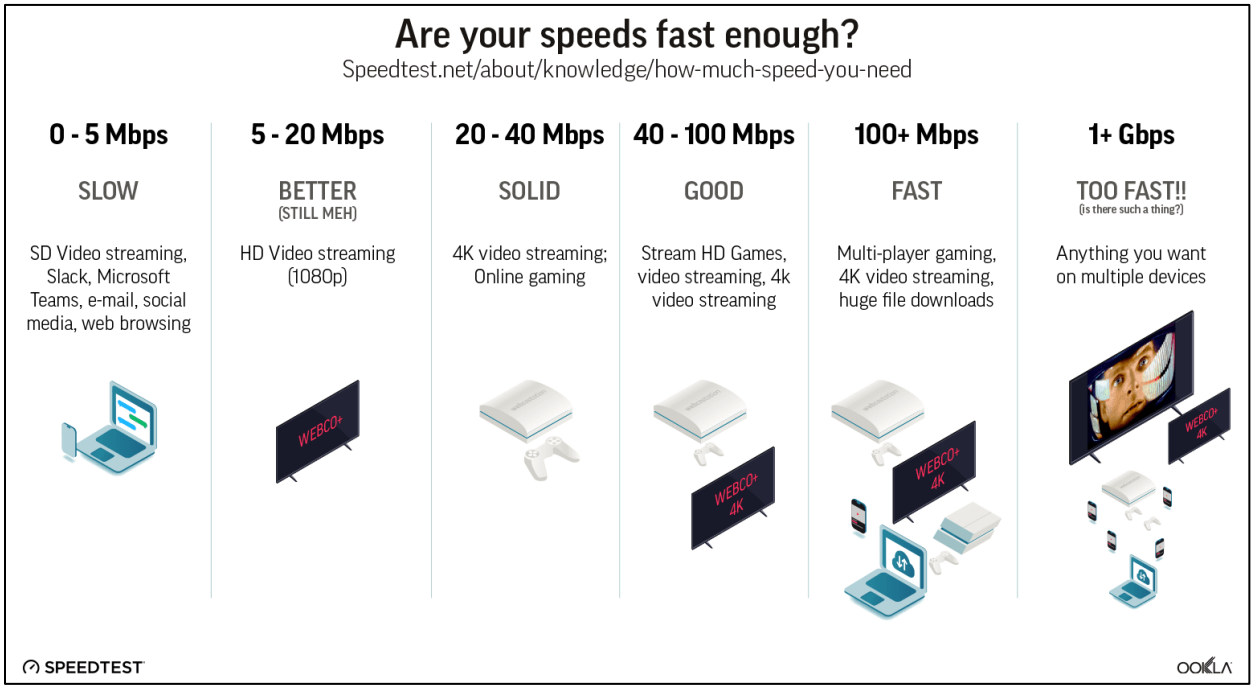
A good rule of thumb is that download speeds of at least 100 Mbps and upload speeds of 10 Mbps are widely considered fast enough to handle most online activities. Table 1 depicts the average download speeds available in Ashby by provider.

Table 1: Internet Availability and Download Speeds in Ashby, MA[27]

Provider	Connection	Availability	Average Download Speed	Maximum Download Speed
Xfinity	Cable	100%	1,200 Mbps	1,200 Mbps
T-Mobile	Fixed Wireless	100%	50 Mbps	100 Mbps
Verizon	Fixed Wireless	18%	50 Mbps	50 Mbps
Verizon	Fiber	12.8%	940 Mbps	940 Mbps
EarthLink	Fiber	12.8%	940 Mbps	940 Mbps

Further illustrating the internet download speeds required to perform certain activities, Figure 10 shows those activities and speeds.

Figure 10 Required Upload Speeds:



Regarding digital connectivity, Ashby is comparable to statewide and national averages with slightly more households with internet and broadband, working from home, and using devices, as shown within Table 2, below. One major variation from statewide and national averages is the

[27] ISP Reports. 2024 in Ashby, MA https://ispreports.org/internet-service-providers-01431/; Accessed July 2024.

availability of Fiber-optic infrastructure. Fiber-optic, which can handle greater bandwidth and provide higher speeds, has only 13% availability in Ashby while the state and country have significantly higher rates, with each over 55% availability.[28]

ISP reports create a Digital Connectivity Index (DCI) and Report Card for every city, county, zip code, and state in the United States using data collected by the US Census Bureau. These relevant indicators allow us to assess every location for the level of demand there is for a robust and well-built internet infrastructure. Ashby's Digital Connectivity rating at 80/100 is slightly higher than the MA state score of 75/100, and both the Town and State have higher levels of broadband access than the United States as a whole. Ashby's relatively low ISP rating of a C- could be improved by increased fiber-optic availability.[29]

Table 2: Connectivity Index in Ashby, MA

Ashby Digital Connectivity Index = 80/100			
Metric or Measure of Connectivity	**Ashby**	**Massachusetts**	**USA**
Average Household Size	2.6	2.5	2.7
Work from Home Percent	15%	15%	12%
Households with Devices	96%	95%	94%
Households with Internet	95%	91%	89%
Households with Broadband Internet	83%	81%	73%
Broadband Internet Usage vs. Availability	83%	82%	74%
Fiber-optic Availability	13.15%	55.92%	58.45%
Source: ISP Reports (https://ispreports.org/) accessed July 2024.			

The shift to remote work brought about by COVID-19 has significantly increased the demand for higher internet speeds and greater bandwidth, of which may be improved in Ashby through an expansion of fiber-optic infrastructure. The widespread adoption of supplementary "work-from-home" applications such as online messaging and video chatting services resulted in a need for more devices and robust broadband. The popularity of these resources is not limited to the remote work setting, as traditional office workplaces have become reliant on the heightened communication capabilities they provide. This change underscores the importance of reliable internet connectivity in today's work environment, wherever it may be.

Since late 2022, national demand for Artificial Intelligence (AI) programs has increased exponentially, along with the subsequent demand and need for faster, more widely available broadband internet connectivity. The upward trend of these bandwidth-intensive internet uses will continue and require that communities increase their digital infrastructure to accommodate. With population growth, higher demand for broadband internet, and an increase in high

[28] See footnote 26.

[29] See footnote 26.

bandwidth internet uses, improvement to infrastructure could better provide for existing and future populations.

4.6 CRITICAL DIGITAL ASSETS & COMMUNINTY ANCHOR INSTITUTIONS

Critical Digital Assets and Community Anchor Institutions are essential public resources for emergency personnel, residents, students, workers, and visitors to access internet services and devices outside their homes and for the effective and efficient administration of government and civic life. The following outlines Ashby's digital assets and institutions and their current role in the availability of digital equity resources and the provision of public internet and digital literacy programs and services.

4.6.1 Critical Digital Assets

The term "Critical Digital Asset" means a digital computer, communication system, or network that is a component of a critical Information System, including assets that perform Safety-Sensitive and/or Emergency Planning (SSEP) functions. Such assets (facilities- and systems-based infrastructure) are often critical to emergency response and public safety and provide support to protect, serve, or administer important government and public safety functions. Critical Digital Assets sometimes provide a pathway to other critical systems or a support system asset whose failure or compromise could result in a threat to public safety. A listing of the primary Critical Digital Assets for Ashby is shown in Table 3:

Table 3: Critical Digital Assets in Ashby, MA

Critical Digital Assets - Ashby		
Facility Type	**Organization**	**Location**
Town Hall	Ashby Administration	895 Main Street
Public Safety	Police/Fire/EMS	1093 Main Street
Public Service	Department of Public Works Garage	92 Breed Road
School/Shelter	Ashby Elementary School	911 Main Street
Public Service	Ashby Free Public Library	812 Main Street

4.6.2 Community Anchor Institutions

The term "Community Anchor Institution" as defined within the Digital Equity Act of 2021 means a public school, a library, a medical or healthcare provider, a community college or other institution of higher education, a state library agency, and any other nonprofit or governmental community support organization. Below in Table 4 is a list of the primary Community Anchor Institutions located within the Town of Ashby.

Table 4: Community Anchor Institutions in Ashby, MA

Community Anchor Institutions - Ashby		
Facility Type	**Organization**	**Location**
Library	Ashby Free Public Library	812 Main Street
Public School	Ashby Elementary School	911 Main Street
Senior Center	Council on Aging	895 Main Street

4.6.3 Digital Equity Hubs

Digital equity hubs are critical public resources for residents, students, and employees to access internet services and devices outside their homes. The following outlines the community institutions and their current role in the availability of digital equity resources.

Ashby Free Public Library

The Ashby Free Public Library is a hub of activity in Ashby, providing public access to computers and the internet. The physical structure of the library (concrete and brick) prevents the wi-fi from working in some areas of the building. The Director was able to invest in three Wi-Fi extenders, but it remains to be seen as a viable fix for the poor internet connection upstairs. The Director also implemented hot spot programs during the pandemic, attempted to train members in digital literacy, wrote grants for the library, and updated technology. However, hotspots were seldom used, the turnout for digital literacy is low, there were issues being accepted for many of the grants, and the library budget is a constraint when trying to purchase new and improved technology. Mentioned several times during the interview with the Director was how little money there was to get new computers, hire additional staff, or get a faster more reliable internet connection. While the Library's hotspots alone do not address the Town's divide in broadband access, these devices offer residents, employees, and students reliable and free Wi-Fi access. The Director is also looking into e-rate discounted tech services (Fall Deadline). Additionally, the library is understaffed with only two part-time personnel, so the Director is requesting additional funding for potentially one more staff member.

The Library Director expressed the need to offer computer literacy classes, faster internet speed and a more reliable internet service. Some Ashby residents are not digitally literate for a variety of reasons such as general distrust of the internet, lack of affordable options, and unreliability. Digital literacy training continues to be a struggle in the town due to a lack of understanding and distrust.

The Ashby Senior Center

The Ashby Senior Center, located within Town Hall provides many services to the community. The mission of the Ashby Council on Aging, located in the Senior Center, is "to enhance the quality of life of Ashby senior residents, by offering services that strive to promote each person's independence and healthy, successful aging". The Center has no computers that are available for those who know how to use them but does provide free wi-fi services for those that have their own devices. The Director of the Council on Aging admits to not being very digitally literate and doesn't see the need for computers and digital literacy classes at the Center as she claims that seniors are distrustful and don't see a need for the internet. The Director feels the best place for those activities is the library. With the library's barriers, it seems logical to have two places in town for residents to learn about and use the internet and devices.

Ashby Public Schools

The Ashby Elementary School serves individuals or families of low-income households, minority groups and individuals with a language barrier – including English learners. While primarily serving students, the school system sees digital literacy of the adults (parents & guardians) in the house as a driving factor to overall literacy issues. There are access issues where there are some areas in Ashby without affordable access or no access at all. The Technology Director for the school district claims there were no issues during the pandemic for students and provides wi-fi at the school for the students and staff. The school district teaches 100% of the students in grades K-5 the use of computers and digital literacy, so the Ashby students receive this as part of their curriculum[30].

4.6.4 Digital Equity Champions

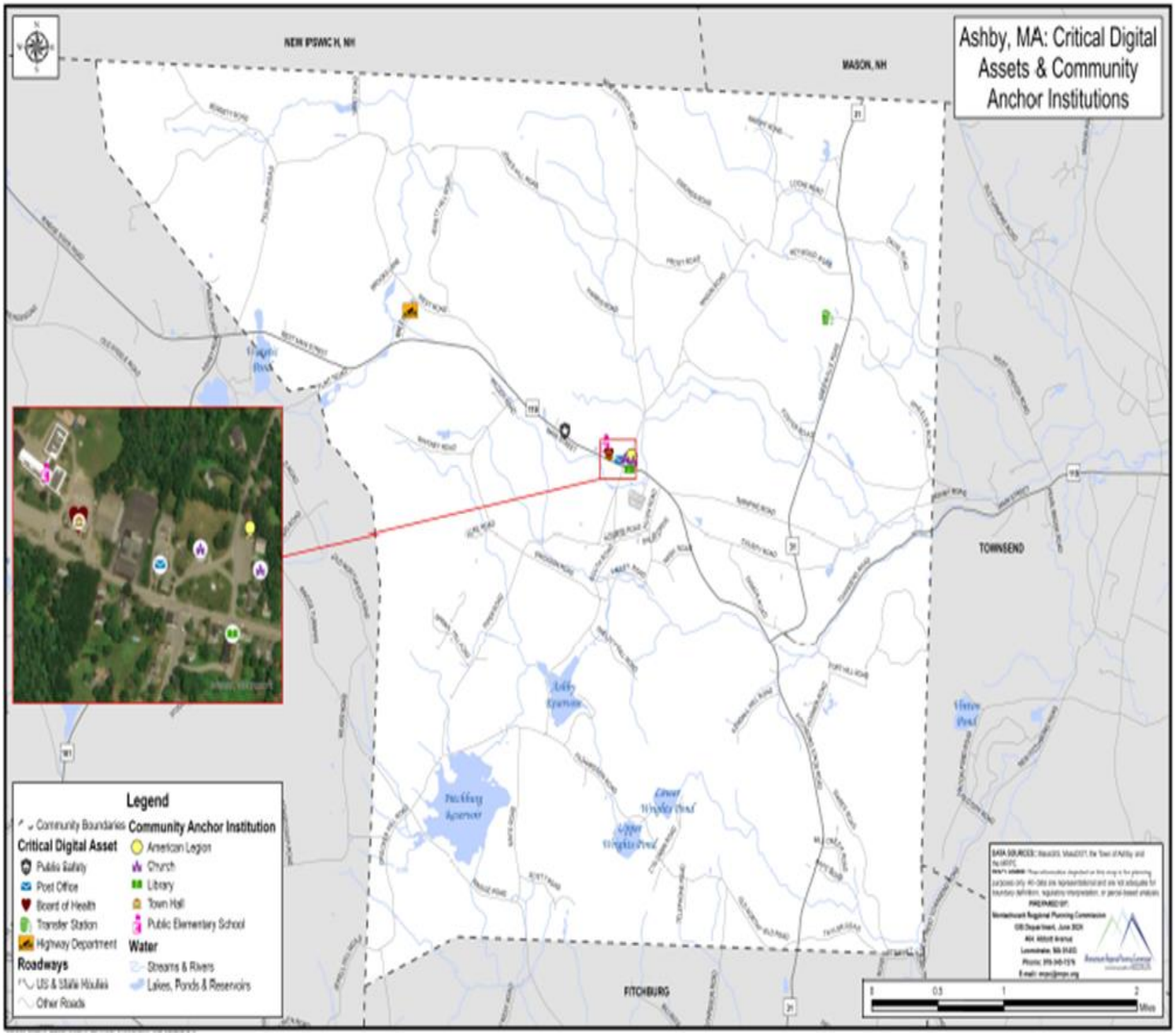
Ashby's best champion is the Library Director. No other town entity provides computers or digital literacy classes. The library is a Community Anchor Institution and one of the only ones that provide these services. If the Library could hire additional staff solely for digital equity, it would

[30] https://profiles.doe.mass.edu/profiles/student.aspx?orgcode=07350010&orgtypecode=6&leftNavId=16937&

put Ashby in a good position to educate the residents and provide opportunities for social interaction, participation in public meetings, and general connection to society.

Figure 11 shows the locations of all Critical Digital Assets and Community Anchor Institutions located within the Town of Ashby, as listed in the tables above.

Figure 11. Critical Digital Assets & Community Anchor Institutions.



5

5 COMMUNITY NEEDS ASSESSMENT

The assessment of community needs was not limited only to internet accessibility, but also included an evaluation of the region's digital literacy opportunities, and the communities' level of digital literacy or knowledge, skills, abilities, and importantly, comfort levels, and willingness to adopt broadband internet and digital technologies. Community needs were assessed generally, but with specific regard to the status and needs of covered populations.

5.1 THE PATH TO DIGITAL EQUITY IN ASHBY

The Existing Conditions Analysis in Section 4 outlines the assets in the community and illustrates some of the challenges the community faces concerning availability, affordability, and adoption. However, Ashby has some activities in place to begin to bridge the digital divide.

5.2 PUBLIC INPUT

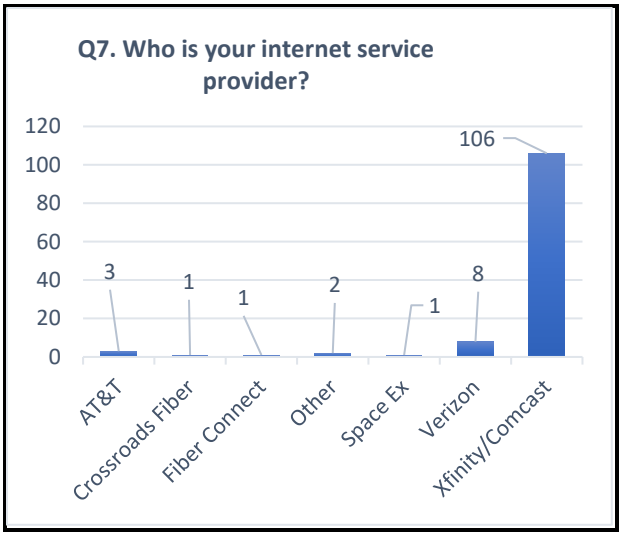
5.2.1 Statewide Digital Equity Survey Availability

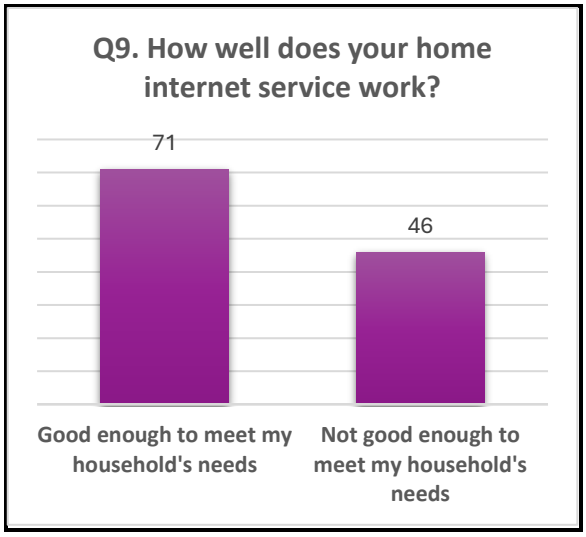
The Statewide Digital Equity was initially sent to all MRPC communities during our outreach period in 2023. Specifically for Ashby, fliers with the QR code for the state survey were distributed to working group members and displayed around town. For those without internet or device access, hard copy surveys and survey boxes were placed at:

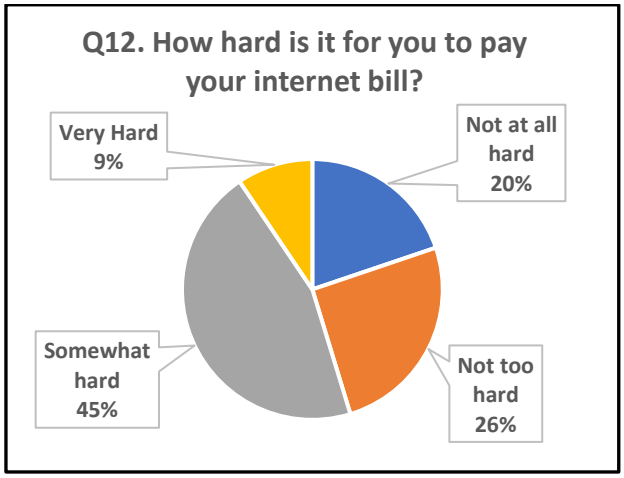
- The Town Hall
- The Senior Center
- Ashby Free Public Library

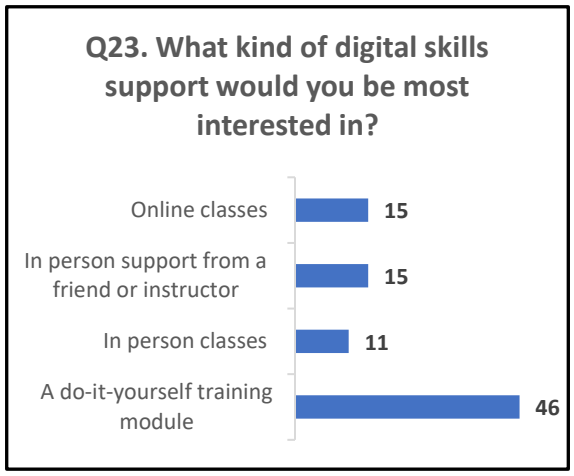
5.2.2. Statewide Survey Results – Sample

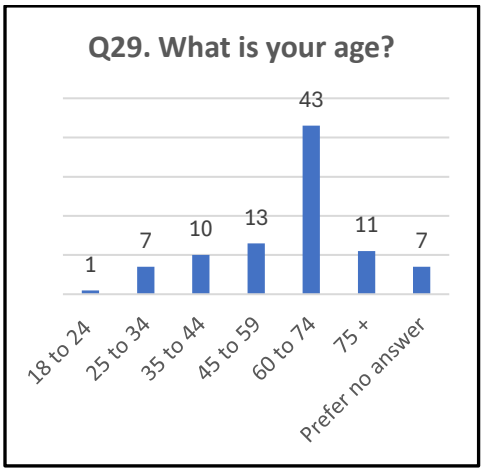
127 people from Ashby took the statewide survey. A sample of results can be found below. Xfinity/Comcast is the major supplier of internet service in Ashby and about 39% of respondents find that the service does not work good enough to meet their household needs. As expected, many survey respondents are concerned about internet safety and security and are having difficulty paying for their internet service (44%). The economic hardship may account for the 15-19.99% of residents in Ashby that do not have an internet subscription.

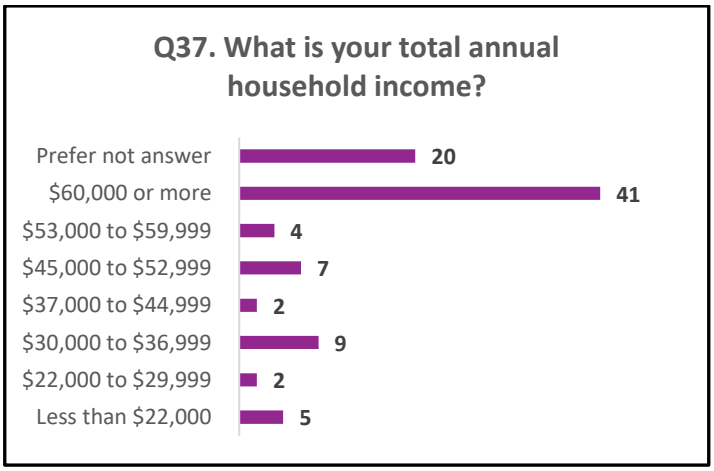

Q7. Who is your internet service provider?
120
100
80
60
40
20
0
3
1
1
2
1
8
106
AT&T
Crossroads Fiber
Fiber Connect
Other
Space Ex
Verizon
Xfinity/Comcast


Q9. How well does your home internet service work?
71
46
Good enough to meet my household's needs
Not good enough to meet my household's needs


Q12. How hard is it for you to pay your internet bill?
Very Hard 9%
Not at all hard 20%
Somewhat hard 45%
Not too hard 26%


Q23. What kind of digital skills support would you be most interested in?
Online classes
15
In person support from a friend or instructor
15
In person classes
11
A do-it-yourself training module
46


Q29. What is your age?
1
7
10
13
43
11
7
18 to 24
25 to 34
35 to 44
45 to 59
60 to 74
75+
Prefer no answer


Q37. What is your total annual household income?
Prefer not answer
20
$60,000 or more
41
$53,000 to $59,999
4
$45,000 to $52,999
7
$37,000 to $44,999
2
$30,000 to $36,999
9
$22,000 to $29,999
2
Less than $22,000
5

5.3 COMMUNITY NEEDS

Ashby's needs are based on interviews, focus groups, meetings, stakeholder questionnaires and survey responses. The following illustrates what digital resources each Anchor Institution listed provides and what resources are needed to improve digital access, affordability and adoption.

5.3.1 Aging Adults

Ashby Senior Center

The mission of the Ashby Council on Aging is dedicated to enhancing the quality of life of Ashby seniors by offering services that strive to promote each resident's independence and healthy, successful aging. The Ashby Senior Center is in Ashby's Town Hall and provides at least 17 available services to the community and serves residents over 60 years of age, which represents 31% of Ashby's population.

The Senior Center Director says she sees about 10% or 100 seniors on a regular basis at the center. In the Directors interview it was stated that "most of the seniors she oversees are not tech friendly and do not wish to learn [and that] the center itself has decent Wi-Fi connection but is not available to the public, unless they ask individually to borrow it." The center has an updated computer, and no hot spots are offered. The computer does not see too much usage. The Director felt the best place for digital literacy classes was at the library, but did offer that if classes were provided to seniors that the language be simple, the class description be appealing, and lessons should be about being safe on the internet, using devices, and joining government meetings. The Council on Aging recently provided a presentation to seniors regarding CapTel, a captioning telephone for the hearing impaired.

The Senior population in Ashby needs assistance with digital literacy as many do not know how to use devices. Common issues that arise with the seniors are difficulties with using devices particularly their hand-held smart phone devices and accessing online government assistance programs. Smartphones are senior's primary digital device, however a barrier to getting their device is the high cost and many are unsure how to use its features.

Key actions to improve Digital Equity:

1. There is a need for additional resources at the Senior Center, such as devices, training, and financial assistance for internet services and devices.
2. Devices that are ADA compliant to mitigate difficulties.

3. Formal training classes are needed at the Senior Center that are reoccurring because new users need to have the training reinforced if they do not utilize digital technology daily.
4. Resources for improved communication with the Town.

5.3.2 Veterans

Many veterans lack internet access due to affordability, trust, and digital literacy barriers. Additionally, although most veterans have mobile data, many are concerned about scams and privacy. The lack of feeling secure online discourages veterans from accessing the internet at home. 75% of veterans have some form of internet access, however many struggle with the cost and lack of digital skills needed to navigate the online world. There is an emphasis on the need for accessible digital literacy programs held in familiar, comfortable locations, ideally promoted through veteran networks. Locations such as libraries are crucial access points to get Wi-Fi and digital help. But many of these places lack privacy or require appointments that act as barriers for veterans trying to access digital resources. Furthermore, veterans primarily use the internet for benefits, social connections, and entertainment.

Keys actions to improve Digital Equity:

1. Workspaces are needed to provide access to the internet for various services where privacy can be maintained.
2. Cyber-Security training is imperative as many Veterans do not utilize the internet for fear of safety and cyber security concerns.
3. Affordable internet options and devices are needed as many Veterans cannot afford to pay for internet services, nor can they afford a device. This is vital as many Veteran's programs and benefits are accessible only through the internet.

5.3.3 Rural Covered Households & Families – Entire Population

Ashby Free Public Library

The library is the place where residents like to gather and one place where wi-fi can be used from the outside of the building. Residents of all ages and incomes use the library, many just to access the internet. Currently, the Library offers free public Wi-Fi, however, it covers the lower half of the library the best and the top floor has a spotty signal at best. There are two updated computers, both of which are in the children's room connected to LAN/Ethernet. The Director wants to move the computers into a less noisy and more private part of the library, but the current location is where the best internet connection is located. Internet service at the library

remains poor and implementing newer hardware and sustaining bandwidth throughout the building proves difficult because of the 1901 masonry.

The Director was recently able to invest in three Wi-Fi extenders, but this remains to be seen as a viable fix for the poor internet connection upstairs. She is also looking into E-rate discounted tech services (Fall Deadline). Additionally, the library is understaffed with only two part-time staff, so the Director is requesting additional funding for potentially one more staff member.

Key actions to improve Digital Equity:

1. Reoccurring Digital Literacy classes are needed at the library to ensure that users are comfortable with using a device and navigating the internet.
2. Faster, more reliable internet connection that extends to outside the physical location and to other areas of the library
3. Private workspaces are equipped with devices.
4. Hot Spot program for those who cannot afford internet service or there is inadequate service available where they live.

Public School

The **Ashby Elementary School** is part of the North Middlesex Regional School District. Through the NMRSD the school participates in the E-Rate system. During Covid-19 there were families without internet access that presented challenges, especially exasperated for families/locations that did not have adequate cell phone service.

Issues include device access – smart phone is one primary device in some homes but is not sufficient for schoolwork. The school offers online educational tools to students, but they are only accessible to those with adequate internet service and/or device access.

Key actions to improve Digital Equity:

- Additional Resources for digital learning in the classroom
- Adequate internet for students outside of school
- Additional devices of all types
- ILAP, live translation tablets

5.4 Priorities

Internet and device access are crucial for **Seniors and Veterans** to access telemedicine, financial services and banking, and other online services that are now part of daily life. For medical patients and people of all ages with disabilities, but especially for people represented in multiple covered populations, such as aging adults with disabilities, aging adults who are veterans, or aging veterans who have one or more disabilities, etc., digital equity through enhanced digital literacy and advocacy is essential to successful and comfortable living. Further, older adults who have mobility or transportation limitations that make it difficult for them to visit healthcare providers' offices, telemedicine—the provision of healthcare remotely using ICTs—offers a convenient means of accessing healthcare services, but only if they are knowledgeable and comfortable using such technologies.

There are currently barriers to healthcare access in the Montachusett region that affect residents of all ages. More advocacy and equity in digital access through affordability, availability, and adoptability, and therefore better digital access to healthcare for aging adults is of utmost importance, especially considering the growing popularity of web-based platforms for provider communication, medical records, scheduling, and receiving test results. Through digital equity stakeholder interviews, leaders in local institutions and organizations, Ashby noted their need to address barriers that affect access to internet services, devices and digital literacy education. Additionally, the town recognizes the effect of being “technologically disadvantaged” by having limited internet access capabilities. According to a software developer resident, “The reality in Ashby is quite different. Here, fiber optic connections are nonexistent, and the available internet services are frustratingly unreliable.”

Other priorities include:

- **Senior Center**: Devices for both staff and client use that include Accessibility features
  Wi-Fi for public use
  Devices for public use
- **Town Common**: Improved internet service to facilitate vendor/business sales at events and public use
- **Library:** Hot Spot Device lending program
  Workstations with devices that offer privacy to the user
  Permanent solution for Improved Internet service
  Outdoor pods and wi-fi mesh

6

6 DIGITAL EQUITY VISION, GOALS, ACTIONS & NEXT STEPS

Broadband internet accessibility and connectivity issues in Ashby are related to various factors, including gaps in reliable internet service, diverse socioeconomic demographics affecting income and opportunity, higher-than-average services costs limiting access and affecting affordability, convenient access to affordable devices and technology. However, Ashby has a framework in place that can serve as an avenue to work towards bridging the digital gap.

6.1 DIGITAL EQUITY VISION

Ashby strives to provide full and equitable access to digital technology and its benefits so all residents can thrive, regardless of demographics.

6.2 DIGITAL EQUITY GOALS

1. Create Digital Navigators program with staff at each Anchor Institution.
2. Create public Wi-Fi availability in and around public facilities.
3. Expand/improve, Public Wi-Fi Availability in the Town Center.
4. Create “Hot Spot" lending programs.
5. Provide adequate spaces for connectivity in Anchor institutions.
6. Provide Financial resources for connectivity.
7. Promote existing and offer new one-to one in-person support.
8. Provide Access to additional Devices.
9. Develop a digital equity network to strengthen public service, awareness and participation.
10. Increase the level of citizen participation in Town government.

6.3 DIGITAL EQUITY IMPLEMENTATION FOCUS AREAS

Actions outlined in this plan and displayed in section 6.4 Digital Equity Action Plan, were devised using the following seven (7) project focus areas outlined in the Municipal Digital Equity Implementation Program.

Project Focus Areas	
	Staff Capacity for Digital Equity A full- or part-time staff person to oversee, project manage, and execute municipal digital equity activities in coordination with municipal leadership, various municipal departments, stakeholders, and residents.
	Wi-Fi Access and Innovative Connectivity Technology Assessment, design, and establishment of an appropriate technology solution to provide in-unit access to the internet for residents living in affordable housing and/or low-income neighborhoods.
	Public Space Modernization Improvements to inadequate broadband infrastructure and digital use in public spaces, such as libraries, community centers, senior centers, educational facilities, workforce training locations, and commercial corridors.
	Connectivity for Economic Hardship Provision of Wi-Fi cellular hot spots to individuals lacking stable housing where they are unable to have a fixed broadband internet subscription.
	Digital Literacy Provision of training programs to improve digital literacy and skills to use devices, online resources, and other digital tools. Literacy program curricula and models may vary based on learner needs and familiarity with devices and the internet, such as in-person group instruction, a-synchronous online instruction, or one-on-one training.
	Device Distribution and Refurbishment Provision of new or used internet-connected devices, such as laptops, tablets, and smart phones, to distribute to target populations.
	Education, Outreach, and Adoption Enrollment of eligible residents in discounted options for broadband, devices, and digital skills. Outreach may include workshops, call center phone banking, door-to-door outreach, online/printed communications, and public service announcements.

6.4 DIGITAL EQUITY ACTION PLAN

Category	Goal	Action	Champion	Funding/Program
Staff Capacity for Digital Equity	1. Create Digital Navigator program with staff at each Anchor Institution	Train town staff on digital literacy training techniques	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	Municipal Digital Equity Implementation Program MassHire Central Mass Career Center Partnership Digital Equity Partnership Program
WiFi Access & Innovative Technology	2. Create additional public wifi availability in and around public facilities.	Outdoor Solar powered Internet café at the Library for off hours use	Library	Municipal Digital Equity Implementation Program Massachusetts Community Compact IT Program
		Improve internet service in public facilites and expand internet service into parking areas.	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	Municipal Digital Equity Implementation Program
	3. Expand/improve, Public WiFi Availability on the Town Common	Explore avenues to provide "mesh" type or other alternatives that will improve internet service on the town common.	Town Hall	Municipal Digital Equity Implementation Program Massachusetts Community Compact IT Program Digital Equity Partnership Program
	4. Create a "Hot Spot" lending program	Expand "Hot Spot" lending program in the Library and educate staff and community organizations about their existence.	Library	Municipal Digital Equity Implementation Program
Public Space Modernization	5. Provide adequate spaces for connectivity in Anchor institutions.	Provide space(s) for privacy or install a "pod" type structure for when a user is participating in a sensitive matter.	Community Anchor Institutions (Senior Center, Library)	AARP's Community Challenge grant
Connectivity for Economic Hardship	6. Provide Financial resources for connectivity	Provide list of financial assistance resources for internet service for those who qualify.	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	Lead for America American Connection Corps
		Create programs similar to fuel assistance for financial assistance for internet service for those who qualify.	(Town Hall, Senior Center)	Point 32 Health Foundation funding AARP's Community Challenge grant
Digital Literacy & Safety	7. Promote existing and offer new one-to one in-person support	Create a map and brochure of locations that free, public Wi-Fi is available and when/where digital literacy courses and support are available. Create additional avenues of support as needed.	Community Anchor Institutions (Town Hall, Senior Center, Library,School)	Point 32 Health Foundation funding Local Technical High School Design Program

DIGITAL EQUITY ACTION PLAN – CONTINUED

Category	Goal	Action	Champion	Funding/Program
Device Distribution and Refurbishment	8. Provide access to additional devices.	Provide additional Chrome Books and Lap tops for loan programs.	Community Anchor Institutions (Senior Center, Library)	Municipal Digital Equity Implementation Program Digital Equity Partnership Program
		Provide translation tablets to all Anchor Institutions and Digital Assets	Community Anchor Institutions (Senior Center, Library,School)	Municipal Digital Equity Implementation Program
		Provide computer "pod" for privacy in at the Library	Library	Municipal Digital Equity Implementation Program Laura Bush 21st Century Library Program National Leadership Grants for Libraries
		Provide additional desktop computers for use in the Senior Center and Library.	Community Anchor Institutions (Senior Center, Library)	Municipal Digital Equity Implementation Program Digital Equity Partnership Program AARP's Community Challenge grant
Education, Outreach and Adoption	9. Develop a digital equity network to strengthen public service, awareness and participation	Create an Application(AP) and/or a map and brochure of locations that free, public Wi-Fi is available and when/where digital literacy courses and support are available.	Community Anchor Institutions (Senior Center, Library)	(AP may become an ongoing expense) Point 32 Health Foundation funding Town Operating Budget
		Offer workshops and educational campaigns to improve residents' understanding of digital terminology and internet safety	Community Anchor Institutions (Town Hall, Senior Center, Library, School) Communications Committee.	AARP's Community Challenge grant MassHire Central Mass Career Center Partnership
		Offer workshops and educational campaigns translated to other languages for ESL or non english speakers to improve residents' understanding of digital terminology and internet safety.	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	AARP's Community Challenge grant MassHire Central Mass Career Center Partnership
	10.Increase the level of citizen participation in Town government	Provide adequate equipment to broadcast Government proceedings and provide for active resident participation.	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	Municipal Digital Equity Implementation Program
		Update the Town Website to include fillable forms and ADA accessiblity measures	Community Anchor Institutions (Town Hall, Senior Center, Library, School)	Community Compact Grant Program Town Operating Budget
		Training to access online meeting platforms to attend/participate in public meetings.	Town Hall	Municipal Digital Equity Implementation Program Local Digital Navigators trained from Goal 1

6.5 ACTION PLAN IMPLEMENTATION

Ashby can and should leverage numerous state and federal funding opportunities to support digital equity initiatives to bridge the Towns' digital divide, increase digital inclusion, and enhance digital equity. These funding programs target critical implementation areas of digital equity planning, including workforce development, digital literacy education, device distribution, broadband adoption, infrastructure, and community outreach & engagement. Much like planning activities in the economic development field, if appropriate, it may be beneficial to adopt a regional approach to digital equity implementation to enable resource sharing, coordination and achieve economies of scale.

6.5.1 Municipal Digital Equity Implementation Program Overview[31]

The intent of the Municipal Digital Equity Implementation Program is to enable municipalities who need funding to mobilize, start-up, and implement digital equity activities locally to access a one-time grant up to $100,000 per municipality to execute a project (or projects) defined in their Digital Equity Plan or related document that MBI deems of sufficient standard. Project implementation will increase access and usage of the internet for the populations most impacted by the COVID-19 pandemic.

Municipalities participating in the Municipal Digital Equity Planning program (the program associated with the development of this Plan) are directly eligible for implementation funding through this grant program. Municipalities that have completed and approved a Digital Equity Plan select one or more of the focus areas for implementation. At present, MBI has set aside $56,603.77 in implementation funds for the Town of Ashby to apply to implement actions outlined in this Plan. Municipalities are strongly encouraged to utilize their planning consultants from the Municipal Digital Equity Planning Program to define a project (or set of projects) scope and budget for implementation. Upon approval from MBI, municipalities may start project implementation and will be accountable to MBI's reporting requirements, which vary by proposed focus area(s).

Specifically, the Municipal Digital Equity Implementation Program will accomplish three goals:

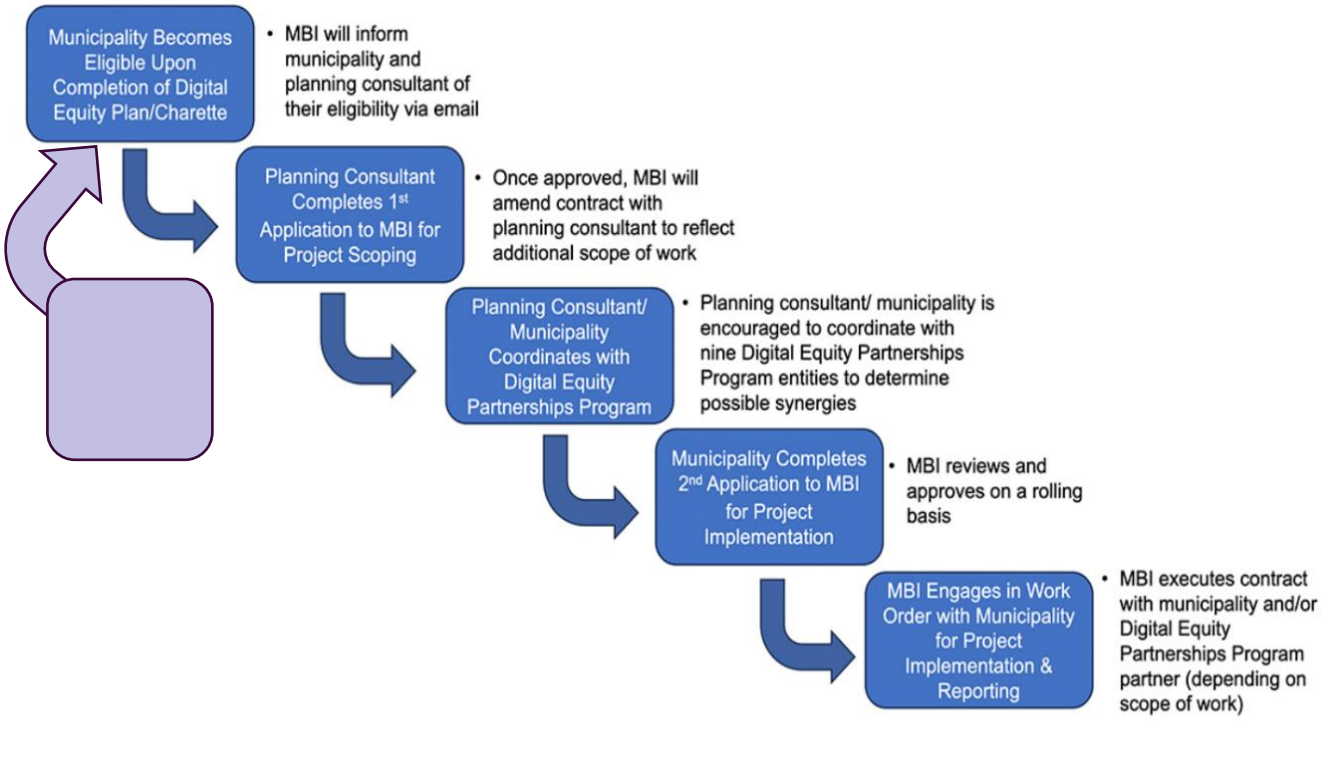
1. Enable municipalities to make local digital equity investments that will increase access, adoption, and usage of the internet for the populations most impacted by the COVID-19 pandemic.

[31] Overview from https://broadband.masstech.org/digital-equity-implementation

2. Transition municipalities from the planning to implementation phase by providing funds to execute a project (or projects) indicated in their Digital Equity Plan, Digital Equity Planning Charette, or pre-existing plan deemed sufficient by MBI.

3. Encourage collaboration and synergy with the Digital Equity Partnerships Program, which includes statewide and regional grantees with high capacity for digital equity work.

6.5.2 Municipal Digital Equity Implementation Grant Process



6.6 DIGITAL EQUITY RESOURCES

6.6.1 Statewide Digital Equity Planning

Massachusetts received funding under the State Digital Equity Planning Grant Program, one of three grant programs established by the $2.75 billion federal Digital Equity Act (DEA). The DEA aims to "promote the achievement of digital equity, support digital inclusion activities, and build capacity for efforts by States relating to the adoption of broadband by residents of those states." MBI anticipates leveraging the statewide plan as a framework for implementing DEA State Digital

Equity Grant funds toward future planning efforts.[32] MBI developed a Statewide Digital Equity Plan for Massachusetts, which has been published online at https://broadband.masstech.org/internetforall

6.6.2 Digital Equity Initiatives and Programs

Digital Literacy Initiative

Establish and implement digital literacy training programs to ensure that target populations have the requisite skills to use devices, online resources, and digital tools. The Ashby Public Library and Senior Center can partner with MBI to expand digital literacy training opportunities.

Wi-Fi Access Initiative

The Metropolitan Area Planning Council's (MAPC) Apartment Wi-Fi Program works with municipalities, public housing authorities, and affordable housing developers to build Wi-Fi networks for residents. The Apartment Wi-Fi Program provides funding, project management, and procurement support to fund the construction of Wi-Fi networks, providing residents with equal or superior service to what is available from commercial ISPs at no cost to residents. Program funding covers all capital costs associated with network design, construction, equipment, and the first year of ongoing operating expenses.

Connectivity Initiative for Economic Hardship

The provision of Wi-Fi cellular hotspots to individuals lacking stable housing and unable to have a fixed broadband internet subscription will provide broadband connectivity to this vulnerable population. The Library can partner with MBI to expand the Library's hotspot loan program, increasing the number of hotspots available to library patrons.

Education, Outreach, and Adoption

Support outreach and engagement activities designed to increase the success of digital equity programming, including digital literacy programs, device access, and Wi-Fi or hotspot connectivity. The Library, Senior Center, and the Town Hall can partner with MBI to support public outreach regarding the Town's digital equity goals and increase enrollment in programs among the Town's population.

Lead for America American Connection Corps

The Lead for America American Connection Corp (ACC) is a service membership focused on advancing economic prosperity and bridging the digital divide. The ACC supports broadband

[32] National Telecommunications and Information Administration. (2022). Notice of Funding Opportunity State Digital Equity Planning Grant Program Executive Summary. Broadband- USA. https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/DE%20PLANNING%20 GRANT%20NOFO.pdf.

development, digital inclusion, and civic leadership in communities through a network of ACC Members who provide critical capacity-building services for the host organization or municipality. A Member of ACC can advance community dialogue regarding community needs beyond the scope of this plan, continuing to identify issues and opportunities through routine surveying and discussions.

Determination of Need (DoN)

The Massachusetts Department of Public Health (DPH) Determination of Need (DoN) program was established to "encourage competition with a public health focus; to promote population health; to support the development of innovative health delivery methods and population health strategies within the healthcare delivery system; and to ensure that resources will be made reasonably and equitably available to every person within the Commonwealth at the lowest reasonable aggregate cost."

6.6.3 Digital Equity Grants

Municipal Fiber Grant Program

The Massachusetts Division of Local Services Municipal Fiber Grant Program assists municipalities with the construction and completion of municipal fiber networks. A cohesive municipal network "allows for centralized management of IT infrastructure, including an enterprise approach to network monitoring, cyber security, records management, and backup and recovery." All municipalities that are not previous grantees of the program are eligible. Ashby can leverage Municipal Fiber Grant Program funds toward developing a municipal wireless mesh network to provide free public internet outdoors. These funds can also support the promotion of job opportunities within Ashby's economy and workforce training opportunities.

Community Compact IT Grant Program

The Massachusetts Community Compact IT Grant Program provides grants of up to $200,000 to support the implementation of local innovative IT projects, including one-time capital needs related to planning, design, installation, implementation, and initial training. To enhance the funding already received, Ashby can leverage Municipal Fiber Grant Program funds toward developing a municipal wireless mesh network to provide free public internet outdoors.

AARP's Community Challenge grants

The AARP Community Challenge grant program is part of the nationwide AARP Livable Communities initiative that provides small grants to fund quick-action projects that can help communities become more livable for people of all ages. The program is intended to help communities make immediate improvements and jump-start long-term progress and increase

digital connections by expanding the high-speed internet and enhancing digital literacy skills of residents.

The Hybrid Programming for Councils on Aging Grant

The Hybrid Programming for Councils on Aging Grant is a new $1.45 million program from the Executive Office of Elder Affairs (EOEA). Funds are available to help Massachusetts Councils on Aging (COAs) expand access to high-quality hybrid (i.e., both in-person and virtual) programs for Massachusetts residents who are 60 years of age and older. That way, the same programming is available, accessible, and enjoyable for Older Adults who attend in-person or virtually. The grant round for 2024 is closed but more funds are expected to be available in 2025.

Point 32 Health Foundation funding

Point 32 Health Foundation works with communities to support, advocate and advance healthier lives for everyone. Grants are available to nonprofits doing work in aging that addresses equity, especially in communities most affected by systemic barriers.

Municipal Americans with Disabilities Act Grant

The Municipal Americans with Disabilities Act Grant program is aimed to support capital improvements specifically dedicated to improving programmatic access and/or removing barriers encountered by persons with disabilities in applicant facilities throughout the Commonwealth. Grants will be awarded to successful applicants to remove barriers and create and improve accessible features and programmatic access including, but not limited to, Limited Use/Limited Application (LULAs) signage, and communication access devices.

7

7. APPENDIX

Core Group Meeting Notes

Focus Group Notes

Stakeholder Questionnaires

Interview Notes

Core Group Meeting Notes – MRPC Staff

KChapman:
Ashby Digital Equity Kickoff Meeting Notes – 2/20/2028

- The lack of high-speed internet in the library, which only has the lowest business level (that no one uses because it lacks in meeting basic needs) that's provided by Comcast.

- Guides for basic how-to (i.e. Zoom, et al) so that people in the town can better interact with virtual meetings for civic life that the Town can make publicly available to people.

- Improvement of quality of service throughout the community as a baseline and a lack of real options that have comparable service. Also, cell service is unreliable and intermittent with significant patches that prevent use of services, even in emergency situations.

- Outdated and aged equipment that doesn't meet the needs currently existing in the town compounded by disregard from the internet providers that service the community.

RDoherty:
Outreach- We will be doing
- October 2024- hopefully be done

Stakeholder group- identify who they are
Roberta- Budget does not allow for high speed
- Library needs bigger
- Comcast 30mb/s- lowest business
    - Unusable when its multiple people
- Look at E-Rate

Heather- currently applying
- Formula- subsidize as much as 95% of upgrade cost
- Loan out- Chrome Books, Hotspots
- Heather can give training
- Looking into going to COA

Chloe- Northstar
Cathy- Zoom basics, a uniform guide
Alan- outreach to school age children
- We are going to reach out to all districts
- They were the ones doing it all during COVID

Veterans- Ashby & Townsend have a combined

Council on aging, veterans- reach out to
- American Legion
- Knights of Columbus
- Land Trust

Lenette out of Gardner- Veterans Coordinator- April-Lynn

Tim- Strength of service, what will be a part of addressing
June (School committee Rep)- 2 issues

- Internet service, not the best option
    - Comcast is the best
    - Reg. Verizon, no fios (DSL)
- Cell service- safety concern
- There during Covid; opened up some internet cafes, not in Ashby really
- Our students are more well versed with this stuff

Roberta

- Comcast finally replaced 15-20 yr old library modem- finally gave them wifi
    - Concrete floors weren't considered

MY take away- actual customer service

T.cantor- Devices in the implementation?

Tech literacy
ISP's having interest in the town

Ashby has cable access

<u>Potential Stakeholders</u>
Alan Pease
Tim Bauman
June McNeil
Heather Perry
April-Lynn Forest
Gail Tukianen
Roberta
Cathy Krisofferson
Jessica Kallin
T. Cantor
Ukar?

Stakeholder Questionnaires

Stakeholder Interview Notes

Ashby Public Library Interview Write-up

Heather Perry - Thursday, June 6th at 11:30 AM in person at the Ashby Public Library, 812 Main St, Ashby, MA 01431

Heather Perry recently took over as Director of the Ashby Public Library. With a background in running college libraries Perry is well versed in her profession. Throughout her time at the library, Perry implemented hot spot programs during the Pandemic, attempted to train members in digital literacy, wrote grants for the library, updated technology. However, hotspots were seldom used, the turnout for digital literacy is low, there were issues being accepted for many of the grants, and the library budget is a constraint when trying to purchase new and improved technology. Mentioned several times during the interview was how little money there was to get new computers, hire additional staff, or get faster more reliable internet connection.

Budget restrictions:

$100,000 Annual

- 50% salaries
- 25% Utilities/Heat (Until!)
- 19.5% Materials
- ~5% For all Else

For instance, when salaries, utilities and materials are covered for there is not a lot of room left for updating digital devices or Wi-Fi. Perry was able to invest in 3 Wi-Fi extenders, but this remains to be seen as a viable fix for the poor internet connection upstairs. She is also looking into E-rate discounted tech services (Fall Deadline). Additionally, the library is understaffed with only two part-time staff, so Perry is requesting additional funding for potentially one more staff member.

Currently, there are 2 updated computers, both of which are in the children's room connected to LAN/Ethernet. Perry wants to move the computers into a less noisy and more private part of the library, but this is where the best internet connection is located. Internet service at the library remains poor and implementing newer hardware and sustaining bandwidth throughout the building proves difficult because of the 1901 masonry.

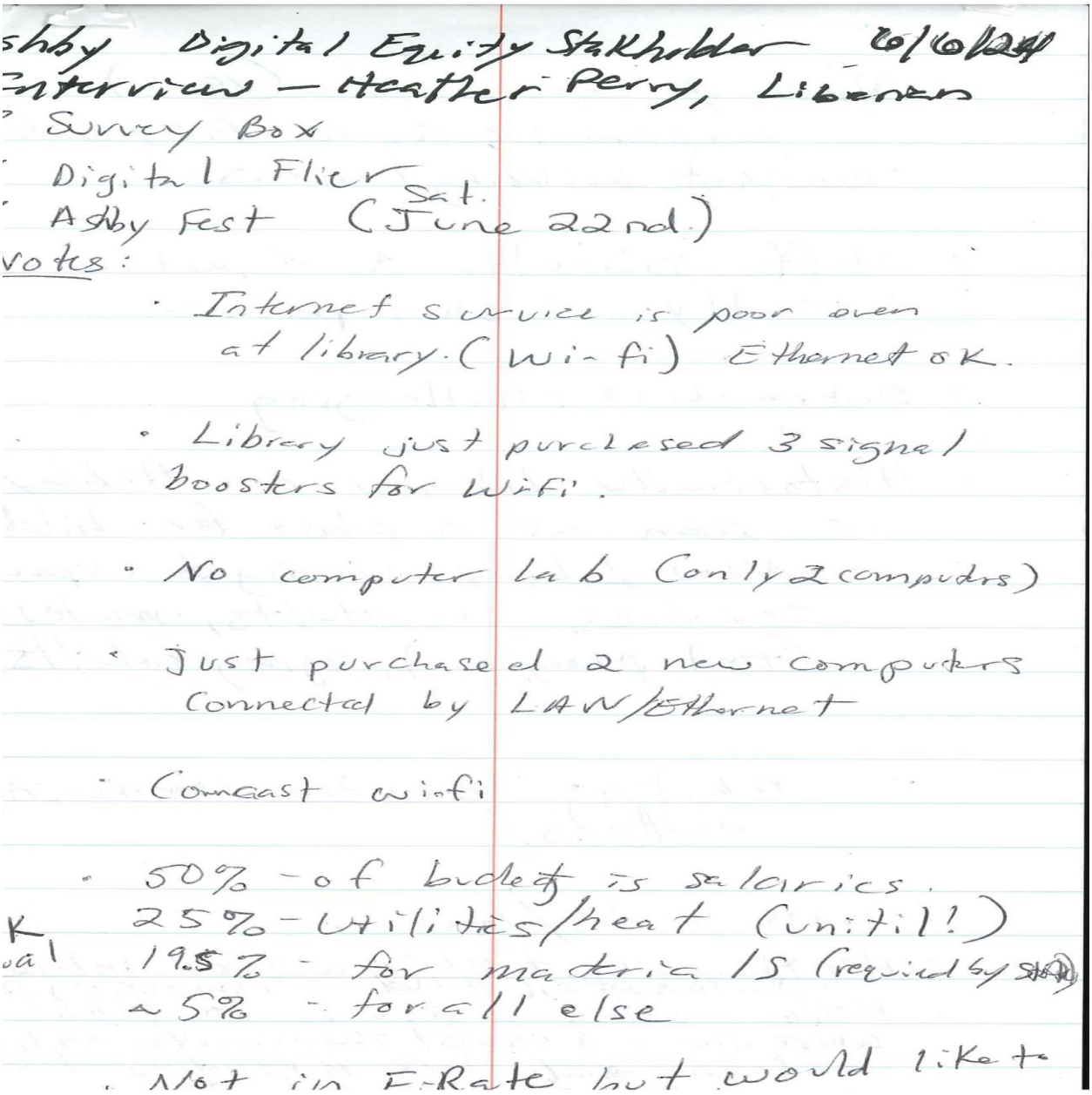
Furthermore, historically the library in Ashby has been a place for children, but now is looking to expand its services to attract a variety of age groups and genders. Perry mentioned implementing a "Tool Program" in the hopes it would appeal to the males in the community drawing more members to the library. This was incredibly interesting because it in part draws upon the idea of a Library Economy. MRPC should investigate this further because it specifically focuses on building sustainable, cooperative, and caring communities that have access to commonly shared resources.

Most Ashby residents are not digitally literate for a variety of reasons such as general distrust, lack of affordable options, and unreliability. Digital literacy training continues to be a struggle in the town due to a lack of understanding and distrust. Mentioned in the Digital Equity Stakeholder Questionnaire Heather states, “So many people have only rudimentary digital skills, [and] many are reluctant to embrace changing technology” (3). The people have little awareness of the practicality of technology and share in a general fear of being scammed. Furthermore, with the current internet connection within the town being unreliable and/or unaffordable there is greater resistance to becoming digitally literate. Therefore, many Ashby residents show little to no interest in digital learning. For this reason, if MRPC or the library were to do any outreach programs to the towns people then it would be best to reach them via mail. For example, the library had great success in library membership outreach, gaining the most library membership signups after sending advertisements via mail ($300 to reach entire community). Despite resident pushback against digital literacy, Heather Perry remains adamant that funding to run digital literacy courses and training sessions would be very helpful to the residents. Perry stresses the importance of digital literacy. For example, she had success in training a client on how to use the Cricket printer and now he has a successful gig using the device at the library. If Perry were to continue offering digital literacy classes, she feels that it would be a great benefit to all those seeking digital help.

Ashby is “technologically disadvantaged” having limited internet access capabilities. According to a software developer resident, “The reality in Ashby is quite different. Here, fiber optic connections are nonexistent, and the available internet services are frustratingly unreliable” (1). This was said to be the consensus of most Ashby residents. Moreover, implementation of better internet services may prove difficult due to the mountainous nature of the town. Upon a field investigation of West St., Jones Hill, and “Main St. to Big Al’s” all mentioned sites with poor coverage it was observed that depending on the provider there were several dead spots within the town.

Going forward, MRPC will keep in contact with Perry and attend public events such as the Ashby Fest to continue collecting digital insight from Ashby residents. Following the next Digital Equity meeting it is recommended MRPC brings a **survey box** and a **digital flier**.

Library Director Stakeholder Interview Notes – 6/6/24



Ashby Digital Equity Stakholder 6/6/24
Interview – Heather Perry, Librarian
- Survey Box
- Digital Flier
- Ashby Fest (June 22nd Sat.)

Notes:

- Internet service is poor even at library. (Wi-fi) Ethernet OK.
- Library just purchased 3 signal boosters for WiFi.
- No computer lab (only 2 computers)
- Just purchased 2 new computers connected by LAN/Ethernet
- Comcast wi-fi
- 50% - of budget is salaries.
  25% - Utilities/heat (until!)
  19.5% - for materials (required by State)
  ~5% - for all else
- Not in E-Rate but would like to

- Masonry construction (1901) is problematic for wi-fi distribution throughout building/areas.

- Staff Director + 2 part timers really 1 other person

- Outreach is challenging

- Historically Library in Ashby is seen as a place for children.
  - Now Library is trying to expand services to adults, males (tool program), aging adults, etc.

- Mailing to entire community on #300.

- DVD rentals/loans are
- Heather assist public with all online transactions of all kinds - airlinetix, registration
- Heather offers a service to public (fee) where she will assist them with online etc. ordering and checking validity of sites

nternet service or old technology
ker "flip-phones". Even cell coverage is
poor.

* Ashby Fest - • find the armadillo picture or google image search.
• Hotspot?

- 2-4 new computer set-ups
windows
- Sound-proof booth for remote-mobile work / video-conference or Zoom calls.

* Universal Class → NorthStar

* Additional stakeholders:
Suzor (IT consultant)
Fire Dept. / P.D.
Mike Bussel
School = Anne Carr Elem. Sch Principal
no librarian
- I.T. ? NMRSD
youth often,
Technologically proficient but not digitally literate

Poor coverage: West St.
Jones Hill
Main St "gap"

Alan Pease
& Genie Lindquist - Mike McCallum!

Daughter sunny is legistative aid

Best Source for Community outreach!

tech background and good resource and contact! Knows a million things and a million people!

Heather Perry, Library Director, Questionnaire

Digital Equity Stakeholder Questionnaire Heather Perry

Karen Chapman taking over lead.

#5

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Tuesday, May 28, 2024 7:56:02 PM
Last Modified:	Tuesday, May 28, 2024 8:06:34 PM
Time Spent:	00:10:32
IP Address:	24.62.156.56

Page 1

Q1 **Ashby**

Which community do you serve/represent? (If more than one, use the other box to identify the other communities).

Q2

Your Name and Position:

Heather Perry, Director

Q3

Organization Name and Location:

Ashby Free Public Library, Ashby

Q4 **Yes**

Are you aware of the Municipal Digital Equity Planning Program?https://broadband.masstech.org/municipal

Q5 **Yes**

Have you taken the statewide Digital Equity Survey? If not, please select "No" and follow the link below to take the survey:Statewide Digital Equity SurveyPlease promote and share the survey link with those you serve!

Q6

Would you like us to provide you with a flier or other information to help you promote the survey to the people you serve? If so, please indicate below and and provide an email address to send the flier to.

hperry@cwmars.org

1 / 5

Q7

Does your organization serve a Covered Household or Population as defined within the definitions of the Digital Equity Act of 2021 (H.R. 1841)?Covered populations include: Aging individuals (sometimes referred to as senior citizens or older adults); Individuals or families of low-income households (not greater the 150% of the poverty level); Minority groups; Individuals with a language barrier – including English learners and individuals with low levels of literacy, individuals with disabilities; Veterans; Incarcerated individuals other than those who are incarcerated in a Federal correctional facility.

Persons 60 years of age or older (sometimes referred to as senior citizens or aging adults)

,

Individuals living in households with incomes not exceeding 150% of the poverty level

,

Members of a racial or ethnic minority group,

Individuals with a language barrier – including English learners and individuals with low levels of literacy

,

Veterans,

Persons with Disabilities,

Rural Residents,

Other (please specify):

We serve everyone

Q8

If your organization serves clients from one or more of the covered populations, how many covered people do you typically serve each year?

1500

Q9

Is your organization on the statewide Digital Equity Asset Inventory Map?

I don't know

Q10

If NOT, do you believe your organization SHOULD be included in statewide Digital Equity Asset Inventory Map?

Yes

Q11

How well do you think you know Digital Equity needs of those you serve? On a scale of 1 to 5 (1=don't know them at all; 3 - unsure; 5 - know them well).

3

Ashby Fest 22th June !! ← Use MRPC Table cloth/ table/ Q Box something to draw them in

Building library econ. w/ a tool inventory

Digital Equity Stakeholder Questionnaire

Q12

Has 2 staff 1.5 staff growing constituents b/c community is used to PL being only for kids

Please describe some of the greatest digital equity and broadband internet needs of those you serve within each of the following categories: ppl still have flip phones

Digital Class

Digital Literacy	**So muny people have only rudimentary digital skills**
Digital Skills Adoption	**Many are reluctant to embrace changing technology**
Access to Digital Devices	**Because Ashby Internet is so poor many do not own devices**
Access to Broadband Internet Service	**It is not always available and even when it is it is expensive and unreliable**
Affordability of Broadband Internet Services	**It is not affordable**
Willingness to Adopt Digital Technology	**some people are not aware of its benefits**
Ability to Adopt Digital Technology	**Some people lack the skills. We have many town who do not have high literacy skills**
Reliability, Speed, and Performance of Available Broadband Internet Service	**it is not reliable in many parts of town and cell phones are impossible**
Awareness and Confidence with Cyber Security and Internet Safety	**people are very concerned.**

★ People do not know what it is going to do

"Fear of scams"

★ People will come into the library w/ a list of things they want the director to get.

★ outreach via mail needs help Advertising 4/yr. Action outreach

Main st to Big A/s no connection (mountains are a physical problem)

★ Information tech using

Q13

Do you currently offer people free access to the internet at your site?

Yes

Q14

Do you currently offer people access to computers or a computer lab at your site so they can do tasks they can't do at home?

Yes

2 computers for public access in childrens room

outside space (overhang) has wifi too no dedicated outside space

Q15

Do you currently offer ongoing or occasional classes related to computers, digital skills, programs, etc? If so, what type? (If not, skip question)

Yes. We give on demand insteuction and have computer classes online

Q16

What kind of computer/digital support could you use as an organization to do your work more efficiently or effectively (e.g., newer computers, faster speed, more reliable service, help pivoting to virtual)?

Newer computers, Faster speeds, !!

Q17

How did the Covid-19 pandemic impact or change how you work? (Such as remote work, computers/internet, etc.)

The library did virtual service during the pandemic. I was not yet in my position. Library closed during Covid.
Previous directors had different focuses

Q18 **Yes**

Is cybersecurity or internet safety a concern for your organization or those you serve?

Q19

If YES, what would you need to make your organization or its clients more cyber-safe?

More time to educate them !!

Q20 **Yes, CAI**

Would you consider your organization a Critical Digital Asset (CDA) or a Community Anchor Institution (CAI)? The term "Critical Digital Asset" means a digital computer, communication system, or network that is a component of a critical Information System (this includes assets that perform Safety-Sensitive or Emergency Planning ("SSEP") functions, or provide support to, protect, or provide a pathway to critical systems), or a support system asset whose failure or compromise as the result of a cyber attack would result in an adverse impact to an SSEP Function.The term "Community Anchor Institution" as defined within the Digital Equity Act of 2021 means a public school, a library, a medical or healthcare provider, a community college or other institution of higher education, a State library agency, and any other nonprofit or governmental community support organization.

Q21

If YES, do you currently have a public-facing free and open wifi network? If NO, would you be interested in being considered for one in the future?

yes, it requires users to agree to terms of service

Q22

Is there someone at your organization who may be interested in being part of a regional digital equity coalition or working group? If so, who?

Yes, Heather Brodie Perry, MLS, PhD Library Director

Q23

Is there a person within your community or organization that is an advocate for digital equity, digital literacy, and/or internet access and services? If so, who?

Yes, ✓

Q24

Are there any other important stakeholders, interested organizations or individuals, or covered populations, or focus groups that we should contact and include in the planning process? Please list any people, entities, or groups.

Respondent skipped this question

→ Problems w/ not getting accepted to grants

Pretty Bad connection here has to call comcast
3 internet extenders downstairs in childrens craft room limiting

Additional Questions for Stakeholder Interviews (primarily for Senior Centers/Senior Housing, Housing Authorities, Veterans Centers, Libraries, etc.):

2 computers for public access hardwired

2 diff. systems
CW mares / Comcast free
really bad
Budget is eaten by elevator budget
50% sal
25% heating
9.5% materials
5.5% general op. supplies
$100k

chromebooks are available to be loaned

1. Do you sign out hot spots at your facility?
   Did during Covid - State provided them but did not extend b/c no one used them
2. If no, are you interested in providing that service? (Too expensive)
   Yes if funded for equipment / services !! Year or more

Provides a lot of tech services navigating the internet

3. Are the computers that you provide for public use, well utilized?
   Digital navigation (Provide add funding) ☆
   Technologically Disadvantaged !!
4. Do you need additional computers, tablets, etc. to offer for public use?
   updated wifi
   Yes additional computers 4 more would be great windows comp.
5. Do you offer Digital Literacy classes free for the public?
   Only the director provides these classes wants more staff on this (would like more people taking the classes) ☆
6. If no, are you interested in either hosting or providing digital literacy classes free for the public? Yes want training on Digital literacy
   Sassy T-shirt cricket success!
   People not imagining the potential of Digital literacy
7. Are you able to provide a space(s) that an individual could participate in a confidential remote appointment? (VA Doctor appointment as an example, etc.)
   No good private spaces
8. If not, would you be interested pursuing that service?
   Would like a room dedicated to private ~~rooms~~ for internet access
9. Are you interested in serving as a digital hub in Winchendon? (Miranda, CAC too?) aka, a Critical Digital Asset (CDA) or a Community Anchor Institution (CAI)
   Ashby Public library is a CAI.
10. I have identified specific digital equity needs in the community concerning, Veteran's, Economically Disadvantaged (EJ), Seniors, Person's with a disability, and ESL populations. Am I missing anyone? Rural is a target population (the whole town qualifies) through this program but I want to include specific challenges that need to be addressed.

Infrastructure costs

☆ ~~ERATA~~ E-Rate provides discounted tech services Ashy PL is working on getting onto that (done the webinars)
Fall deadlines !!! Goal/Plan in MP

1) Any other org. on DL?

Suzor ← ?

Town Admin works on Mondays

Fire department (Deals w/ seniors tech) !!

Internet access would help w/ communication in times of need

→ School no longer has a librarian

Anne Gap Elem. School Principal

2) Any areas worse than others for internet connection

certain places have better reception

- Main St Bad
- West Rd Bad
- Jones Hill Bad

→ Zoom calls difficult (deminishes engagement when you can't connect properly to meetings)

→ Ashby has less coverage seems worse

? checks on who is covered across NH Border next to Ashby

Forwarding email ☆ council on aging (Applied for a grant but tech is not the aging Directors thing)

→ Coa@Ashby.Mass look for this ☆
gov

Commentary from Ashby Resident recently relocated to Ashby

Small-Town Living: Navigating the Challenges of Poor Internet Connectivity

As a software developer, my professional life hinges on having a reliable internet connection. About a year ago, my family and I transitioned from the hustle and bustle of a city to the charming town of Ashby, MA. Initially, this move raised significant concerns about internet connectivity - a crucial aspect of my work. However, thanks to Elon Musk's Starlink, I found some reassurance. Despite its high cost, Starlink offers a somewhat reliable and decent internet connection even in the most remote areas. While we haven't had to resort to that option yet, we've found ourselves limited to a single wired connection provider. It's far from the fiber optic speeds we're used to, but we've managed to make it work.

In the city, internet connectivity was never an issue. We enjoyed the luxury of choosing from multiple providers, many offering lightning-fast fiber optic connections at competitive prices. If one provider's rates became too steep, we could easily switch to another, maintaining high speeds and reliability without breaking the bank.

The reality in Ashby is quite different. Here, fiber optic connections are nonexistent, and the available internet services are frustratingly unreliable. This move has made me truly appreciate the seamless connectivity I once took for granted. Although I manage to get by, participating in meetings often involves dealing with dropouts and frozen connections. The days of affordable, high-speed internet are a distant memory.

Adding to the challenge is having school-age children who enjoy streaming and online gaming. Their activities further strain our internet bandwidth, making reliable connectivity all the more essential.

Despite these challenges, the trade-off for small-town living is undoubtedly worthwhile. The peace, community spirit, and quality of life in Ashby are unparalleled. While we've had to sacrifice some conveniences, the benefits of our new lifestyle far outweigh the drawbacks. For now, our single wired connection suffices, but knowing Starlink is an option provides a safety net. Small-town life comes with its challenges, but with a bit of adjustment and the right technology, it's a sacrifice worth making.

Ashby Senior Center COA Interview Write-up

April-Lynn Forest – Tuesday, June 18th at 2:30 PM over the phone

April-Lynn Forest is the Council on Aging Director at the Ashby Senior Center on the first floor of Town Hall. From the start, Forest was honest about not being tech friendly and showing no interest in learning. Additionally, within the first few minutes Forest says to me she has no interest in pushing the digital program either. She claims that her attitude towards digital literacy and the increasing need for the internet is shared by the seniors she serves.

Likewise, of a population of 1000 seniors Forest sees 100 of them. Most of the seniors she oversees are not tech friendly and do not wish to learn. In this way Forest says Heather Perry would be better to reach out to because her population is more interested in digital literacy. Forest states, the Ashby residents that come to her are different than those that Heather oversees. Seniors at the COA do not talk about tech "at all", often leave their phones at home, or have a harder time maneuvering the internet due to cognitive and age-related obstacles.

The center itself has decent Wi-Fi connection that is not available to the public. However, if one person comes in and asks for the Wi-Fi the staff are more than willing to let them borrow it. Other than that, there is one updated computer and no hot spots offered. The computer does not see too much usage. Similarly, the cell service in town is sketchy which matches similar descriptions from previous interviews.

In sum, if there were to be a digital tech help session with the Senior Center then the session should be held at the Ashby Library in coordination with April-Lynn Forest (COA) and Heather Perry. Though she is against the rapidly changing digital world, Forest sees the importance of digital help and how it could be useful for her patrons. Furthermore, if MRPC wishes to reach this critical population, then more efforts should go into how the program is advertised. This means using words that are more appealing to the seniors, run a class that is focused on staying safe online, reaching them through the Senior Center newsletter, or running classes with a focus on being less overwhelming (simple).

Moving forward, **MRPC** should include residents Ashby data on the town's population being split between wanting and not wanting digital help, many of which have a variety of cognitive barriers. Moreover, MRPC should start a focus group meeting at the library and advertise the event for all of Ashby.

April Lynn Forest Questionnaire

6/18/24 @ 2:30

Digital Equity Stakeholder Questic

6/18/24 @ 2:30pm w/ April Lenter on Aging !!!
978 512 0374

#7

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Thursday, May 30, 2024 10:35:23 AM
Last Modified:	Thursday, May 30, 2024 10:40:06 AM
Time Spent:	00:04:43
IP Address:	173.13.99.65

Page 1

Q1 **Ashby**

Which community do you serve/represent? (If more than one, use the other box to identify the other communities).

Why should somebody be forced to pay for something they are not comfortable w/ or do not know all too well

--> NDIA => Advocacy work for MBI

Q2

Your Name and Position:

April-Lynn M Forest COA Director

Q3

Organization Name and Location:

Ashby Council On Aging

Q4 **Yes**

Are you aware of the Municipal Digital Equity Planning Program?https://broadband.masstech.org/municipal

Q5 **No**

Have you taken the statewide Digital Equity Survey? If not, please select "No" and follow the link below to take the survey:Statewide Digital Equity SurveyPlease promote and share the survey link with those you serve!

Q6

Would you like us to provide you with a flier or other information to help you promote the survey to the people you serve? If so, please indicate below and and provide an email address to send the flier to.

coa@ashbyma.gov

Send a flier? No, send fliers

Q7

Does your organization serve a Covered Household or Population as defined within the definitions of the Digital Equity Act of 2021 (H.R. 1841)?Covered populations include: Aging individuals (sometimes referred to as senior citizens or older adults); Individuals or families of low-income households (not greater the 150% of the poverty level); Minority groups; Individuals with a language barrier – including English learners and individuals with low levels of literacy, individuals with disabilities; Veterans; Incarcerated individuals other than those who are incarcerated in a Federal correctional facility.

Persons 60 years of age or older (sometimes referred to as senior citizens or aging adults)

,

Veterans,

Persons with Disabilities,

Rural Residents

completely honest, not too friendly
do not want to learn
- Not ~~[illegible]~~ ~~[illegible]~~ any intrest in pushing the Digital program

Q8

If your organization serves clients from one or more of the covered populations, how many covered people do you typically serve each year?

900

- Town hall has good connection
cell service is sketchy
- Great connection

Q9

Is your organization on the statewide Digital Equity Asset Inventory Map?

I don't know

- 1 public computer does not have much

Q10

If NOT, do you believe your organization SHOULD be included in statewide Digital Equity Asset Inventory Map?

Yes

- Heather gets a diff group
- people leave phone at home
-> ~~pple~~ regulars dont talk about tech at all at COA

Q11

How well do you think you know Digital Equity needs of those you serve? On a scale of 1 to 5 (1=don't know them at all; 3 - unsure; 5 - know them well).

20

- Cyber security (as we age limited manoeuvability) harder to learn
-> brain ages -> remembering
-> diff needs

Q12

Please describe some of the greatest digital equity and broadband internet needs of those you serve within each of the following categories:

Respondent skipped this question

- Any interest w/ digital literacy classes
-> need an outline of what that means
-> terms are overwelming
-> spin it in a different way
-> 1000 seniors only goes 100
-> Newsletters =>

Q13

-> Do you currently offer people free access to the internet at your site? It is not for public use
not advertised as such
-> if people come in for wifi still given
-> No hotspots

Yes

Q14

Do you currently offer people access to computers or a computer lab at your site so they can do tasks they can't do at home?

Respondent skipped this question

No

Focus Group Notes – Senior Center Luncheon – 9/18/24

Luncheon Write-Up

Seniors – Wednesday, September 18th at 12:15 in person at the Ashby Town Hall

Main Takeaways:

1. Strong opinion that Comcast is too Expensive (Multiple people commented)
2. Helen Alden, Ashby Council on Aging, Vice President helenalden82@gmail.com
3. Questions about free internet? (implying a need for affordable options)
4. Internet connectivity is limited in the Ashby Town Hall
    a. No Wi-Fi in main room (where Senior Luncheon and similar events are held)
5. Asked to see survey results (what will come of this survey)
    a. Offered possibility to present results at CoA luncheon in October date?
6. Who supports this plan? (Did not like the idea of a Plan funded or enacted by Democrat legislation); Personal opinion comment made by 1 person

Important dates of Upcoming Events:

1. Pumpkin Fest (Sept. 28th)
    a. Tractor Parade
    b. Email friendsofashby@gmail.com
2. Creek Band (music concert) 10/10 Evening event
3. 10/17 Evening event
4. 10/23? Senior Luncheon

MRPC NOTES ON BARRIERS/ACTIONS/COSTS

Challenge	Proposed Action	Estimated Cost
Insufficient bandwidth on common for farmer's markets/fairs/ bandconcerts etc	Permanent hotspot on common	2400
Insufficient understanding of issues and potential solutions	Marketing Campaign using mail and community meetings to improve community knowledge	1200
Insufficient information Literacy among vulnerable populations in town	Information Literacy Instruction	
Need for individuals to organize marketing, development, and instruction of information literacy programming. Assessment and evaluation of program	Digital Equity Manager	
Low Bandwidth at the library	Broadband access at greater speed	2400
Low Quality Computer equipment at the library	Computers at the library for Public Use, High Quality computers to loan.	4000
Library is not open at all hours people may need internet access	Outdoor Solar powered Internet cafe	20000
Lack of home internet access at prices and reliability	Hotspots for loan	
Lack of space in library for privacy	Computer Pod	5400
Lack of knowledge about phone service reliability at home	Try before you buy phone service. Loaner Phone to check out of library.	1600
Historic Library does not receive wifi signal	Hardwire 1901 portion of building for ethernet	16000
Lack of ability to participate in town Zoom meetings	Hotspots and computer equipment to borrow at the library	
Lack of knowledge about important issues important to seniors	Internet literacy series on specific topics geared toward seniors in consultation and held at the Council on Aging	6000 with equipment for Council on Aging
Continued support	"internet grandkid"service	2500