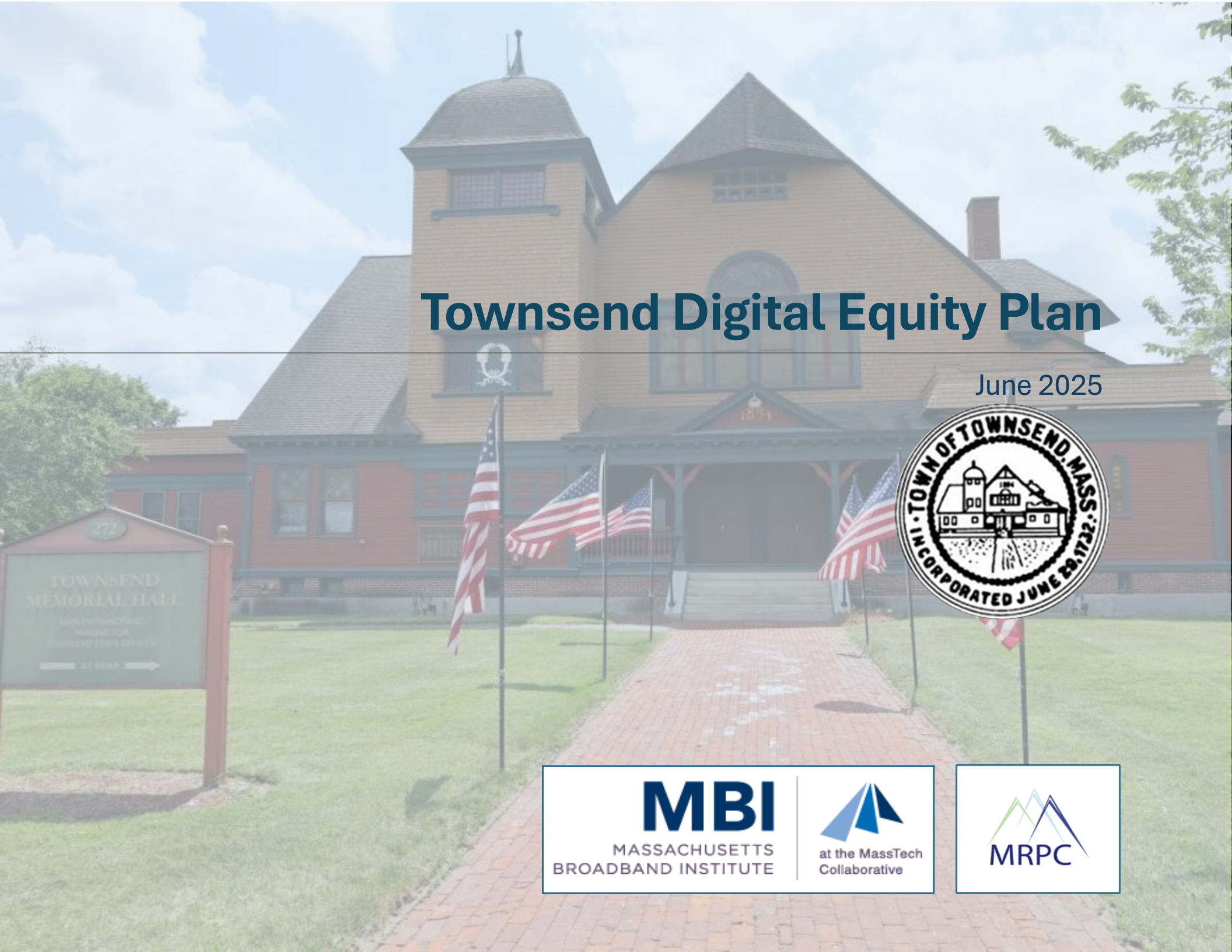


Townsend Digital Equity Plan

June 2025

MBI
MASSACHUSETTS
BROADBAND INSTITUTE

at the MassTech
Collaborative

MRPC

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

Plan prepared by the Montachusett Regional Planning Commission
Tracy Murphy, Senior Planner – Project Co-Lead
Jeffrey Legros, Senior Planner – Project Co-Lead
Gregor Goodlett, Planning Intern

Table of Contents

Digital divide is the issue.

Digital equity is the goal.

Digital inclusion is the work.

Source: National Digital Inclusion Alliance

1

1. Introduction to Digital Equity Planning

The Town of Townsend received technical assistance from the Montachusett Regional Planning Commission, funded by the Massachusetts Broadband Institute (MBI) under the Municipal Digital Equity Planning Program, to draft a municipal digital equity plan.

The goal of achieving digital equity within a community is one that aims to ensure everyone has equitable access and opportunities to the digital information and technology needed for full participation in society, democracy, and the economy through a process known as digital inclusion. The focus is on bridging digital gaps associated with the availability of high-speed broadband internet service and digital devices, affordability of internet service and devices, and overall adoptability of those services and devices. Increasing access and removing barriers affecting digital inclusion and equity requires a fuller understanding of those barriers, and how they affect certain segments of the population, particularly within varying geographic areas such as urban centers, suburban neighborhoods, and rural regions.

In certain areas or among certain segments of the population, bridging the digital divide by increasing "access" may mean developing programs that address affordability issues or language barriers that limit access to services and devices. In other areas, it may focus on increasing "adoptability" among aging adults over 60, through digital literacy classes intended to build confidence, trust, and overall comfort-levels through lessons in basic computer use and online safety and security. In more rural areas, where residential internet services are limited and publicly accessible spaces with reliable connectivity are few and far between, it may focus on expanding service to remote locations, creating public workspaces, increasing staffing and hours to those spaces, or, providing convenient, connected outdoor workspaces in places where hours or staffing are limited.

Regardless, increasing digital inclusion, or bridging the digital divide to achieve digital equity requires an understanding of the existing challenges and barriers that may be preventing inclusion, creating the divide, or limiting equity. Without a comprehensive understanding of the conditions, it is impossible to identify what is needed to address and overcome those conditions. The primary purpose of Digital Equity Planning is to evaluate the existing conditions around digital equity, define the community "needs" required to overcome any challenges or barriers contributing to digital inequities or limiting digital inclusion, and, finally, to develop strategies, goals, and actions required to increase digital inclusion, bridge the digital divide, and achieve digital equity. Achieving Digital Equity is the vision and desired outcome of this planning process.

1.1 Digital Equity

The Challenge, The Opportunity, and The Vision

The first two decades of the 21st century have been defined by the emergence of global economies, increasing private enterprise, wide-scale technological and tele-communications advancements, including an increase in personal, internet-enabled mobile computer devices (aka cell phones or smart-phones), the development of digital social media and "user-generated content", the rise of artificial intelligence and machine learning, drastic climatic and ecological changes related to global warming, a global pandemic leading to the death of over 6-million people worldwide and causing major disruption to the global economy, and an increase in the world population from 6.1 billion to 8.2 billion people (as of October 2024). This seems like a lot of change in such a short time – and it is – but human knowledge, technology, and information, specifically *digital* information, is growing at an exponential rate like never before. Consider this: More than half the world's population, approximately 4 billion people, now have access to the internet and own a cell phone. Further, in 2010 former Google CEO, Eric Schmidt, noted that the entire written works of humanity (in all languages) prior to 2003, was estimated to be about 5 exebytes of data. At that time, in 2010, it was estimated that an equivalent amount, 5 exebytes, of digital information was created every two

days! [1,2] Now, in 2024, only 14 years later, the amount of data created every day is estimated to be 400 exebytes! (That is equivalent to 400 million terabytes of data.) [3]

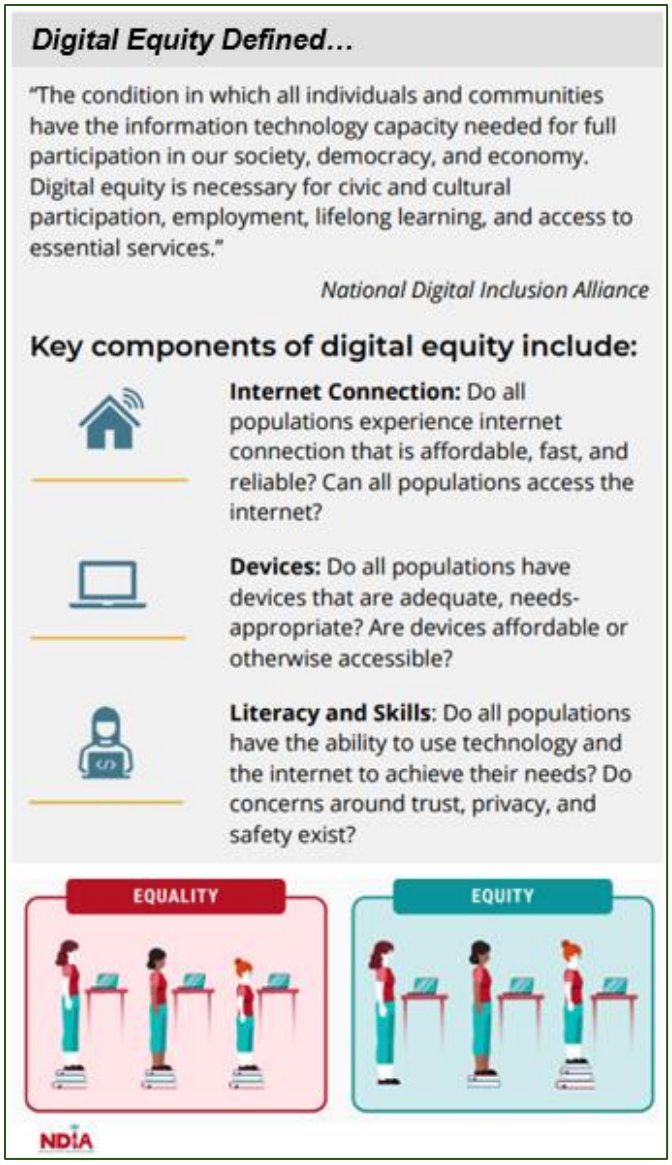
In 2020 alone, internet users generated 64.2 zettabytes of data, which is more than the number of stars in the universe.

Since 2020 and the COVID-19 pandemic, people rely more than they ever have before on broadband internet and online, web-based platforms for employment, education, healthcare, shopping, dining, business development, news and information, and everyday living. This reliance is now a dependency of necessity, rather than a matter of convenience or conscious choice as may have been considered just a few short years ago. To put today's daily internet usage and data creation into perspective, in 2024, there are 5 billion internet searches performed daily; Every minute of each day there are over 500,000 photos shared on Snapchat; Even more astoundingly, there are 156 million emails sent every minute of every day, an amount that equates to 250 billion or more emails sent per day, or over 91 trillion per year!

To understand the importance of digital equity and the purpose of this planning process, it is necessary to know the answer to two questions: "What is Digital Equity?", and "Why is Digital Equity Important?".

What is Digital Equity?

Digital equity efforts seek to ensure everyone has the same access and opportunities to the information technology needed for full participation in society, democracy, and the economy. The focus is on bridging the affordability of internet service and devices, building skills to use programs and equipment, increasing trust, and overcoming language or other barriers that keep individuals from fully participating.



[1] "Digital in 2018: World's internet users pass the 4 billion mark". We Are Social. 30 January 2018.
[2] "Eric Schmidt: Every 2 Days We Create As Much Information As We Did Up To 2003". 4 August 2010.
[3] https://explodingtopics.com/blog/data-generated-per-day

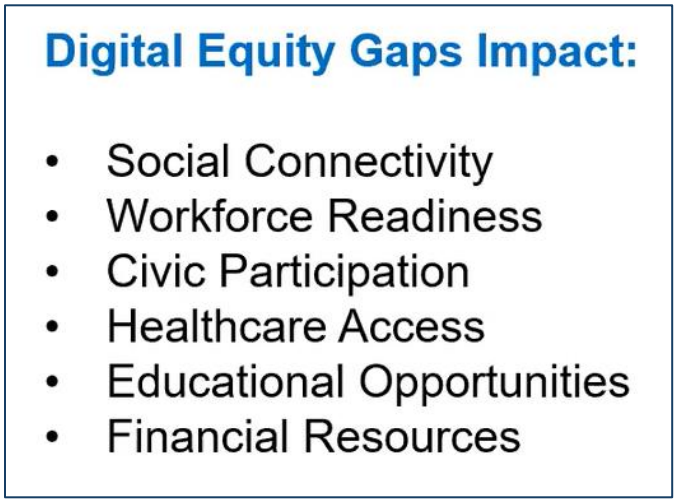
Why is Digital Equity Important?

Access to broadband internet and digital devices through equitable availability, affordability, and adoptability is essential for people to participate in society, the economy, and democracy, and to receive essential services, education, and job opportunities. It is a necessity of everyday life and living.

Digital equity aims to address the digital divide, which is the gap in access to digital services and devices that poses certain barriers or challenges to some people more than others. Digital equity can be achieved or improved by:

- Ensuring equal access to technology, such as devices, software, and the internet
- Providing training for educators to help students of all ages use digital tools
- Developing digital literacy in schools and other public institutions
- Preparing all people, including lower-income households, aging adults, incarcerated individuals, Veterans, individuals with disabilities, individuals with language and literacy barriers, individuals who are members of a racial or ethnic minority group, and rural residents, for success in the digital age

1.1.1 The Challenge: The Digital Divide



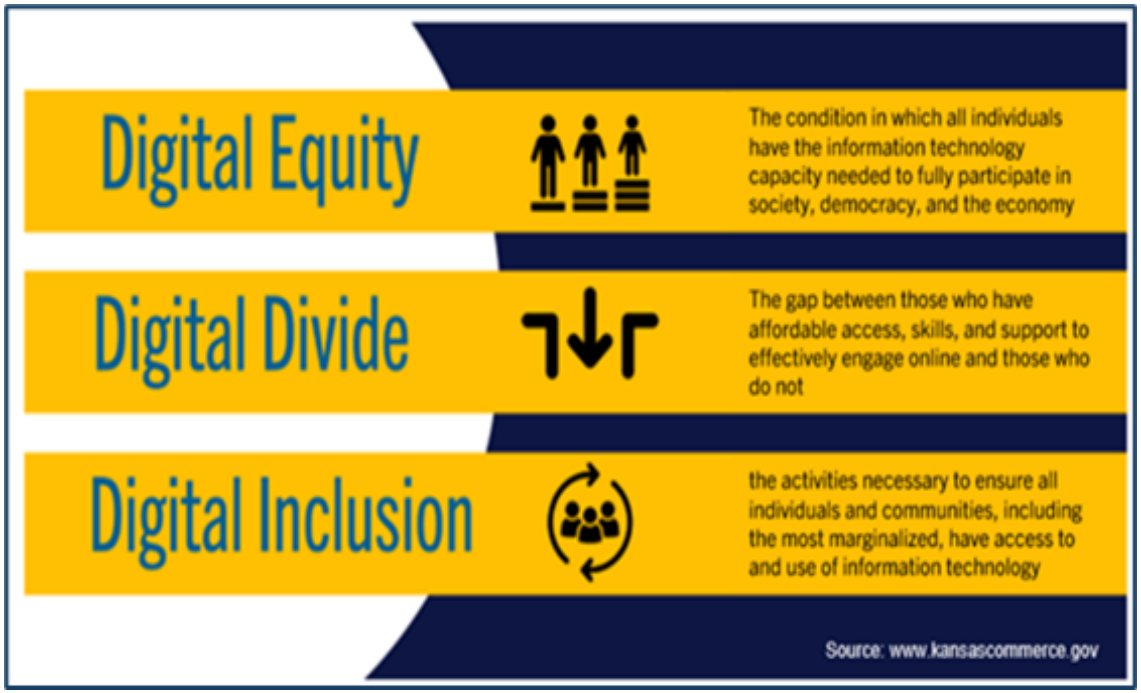
Inequitable access to the internet, sometimes referred to as the digital divide, is related to issues with internet supply (i.e., availability and affordability of broadband service connections), internet demand or adoptability (i.e., utilization or adoption of those services), and digital literacy and technology (access to and affordability of digital devices and technologies, and digital skills, confidence, and convenience, and comfort levels associated with use of such devices).[4] This plan examines the existing conditions of the Town of Townsend, with a focus on social and economic demographics of populations or groups determined to be most susceptible to digital inequity.

The purpose of the plan is to better understand the "Digital Divide" that exists within the community and among its residents and neighborhoods, and particularly among certain populations or groups determined to be most susceptible to digital inequity. Overall, factors of internet availability, affordability, and adoptability, all

[4] U.S. Census Bureau, SEHSD Working Paper Number: 2019-15, *Deconstructing the Digital Divide: Identifying the Supply and Demand Factors That Drive Internet Subscription Rates*, Micheal J.R. Martin

play a role in determining an individual or group's access to reliable high-speed broadband internet and digital devices and technologies. The purpose of this plan is to understand barriers and challenges to digital inclusion, and to develop strategies, goals, and actions capable of narrowing the digital divide by increasing inclusion and thereby enhancing digital equity.

1.1.2 The Opportunity: Digital Inclusion



The importance of access to reliable broadband internet service and overall access thorough availability, affordability, and adoptability of digital technologies and devices has been recognized by local, state, and Federal officials as well as digital equity advocacy organizations. It has become clear that broadband connectivity and digital literacy are increasingly critical to how individuals—participate in the society, economy, and civic institutions of the United States, and access health care and essential services, especially for obtaining education and building careers. There are high societal and economic costs associated with digital inequality and exclusion. A person's opportunity for economic success, educational achievement, health and wellness, social well-being, community involvement, and civic engagement are dependent upon access and proficiency related to broadband internet and digital technology, devices, and skills. Digital exclusion can materially, socially, and physically harm and hinder an individual's personal and financial status and situation. Inequalities associated with other socio-economic, demographic factors can increase such exclusions and exacerbate existing wealth and income gaps and lead to further challenges and barriers to successfully accomplishing the necessary tasks of daily life in the pursuit of one's own livelihood and inalienable rights of living.

1.1.3 The Vision: Digital Equity

Sustained investment toward identifying and understanding the causes contributing to digital inequity is necessary to increase digital inclusion and achieve an equitable digital environment to prevent further exclusion and individual and societal degradation. Achieving Digital Equity is a matter of social and economic justice and is worthy of its pursuit.

The vision for broadband and digital equity in the Commonwealth of Massachusetts was established within the *Massachusetts Internet for All Plan*, and contends that:

> *"Every resident in Massachusetts has high-speed, high-quality internet availability and can confidently adopt and use the internet regardless of who they are or where they live. This universal connectivity will ensure that everyone has the support they need to enjoy full personal, civic, and economic digital participation throughout their lives with safety and security."*

1.2 The Digital Equity Act

The Digital Equity Act [47 USC 1721(8)] of 2021[5] 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
- 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

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

- Undertake any other project and activity that the Assistant Secretary finds to be consistent with the purposes for which the Program is established

As an initial step in the development of such programs for digital equity improvements, like with most publicly funded planning initiatives, a community engagement and public involvement process was established and implemented to document existing conditions, identify challenges, barriers, or limitations contributing to digital exclusion or inequality among covered populations, assess related community needs, and develop meaningful, attainable goals and feasible, implementable actions or activities capable of reducing the digital gap, thereby increasing digital inclusion, and improving or achieving digital equity. The resulting Digital Equity Plan is intended to provide a strategy to enhance digital equity community-wide, and particularly among certain "Covered Populations" of the Digital Equity Act. These specific segments of the population are described and defined as part of this section below and community demographics related to each Covered Population group are provided within **Section 4.3**.

1.2.1 Covered Populations of the Digital Equity Act – Definitions

The eight covered populations of the Digital Equity Act of 2021 listed above are defined in greater detail below[6]:

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

The term "incarcerated individuals" refers to inmates at state and county jails and correctional facilities, other than individuals who are incarcerated in a Federal correctional facility.

[6] Actual proportions of residents covered by each of the eight covered populations relative to Townsend's total populations are provided within Section 5, Existing Conditions.

Veterans

The term “veteran” has the meaning given the term in section 101 of title 38, United States Code.

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).

Individuals with a Language Barrier

The term “individuals with a language barrier” includes any individuals who are subject to a communication barrier among people who are unable to speak or write in a common language including those who are English learners and any individuals who have low levels of literacy regardless of whether or not their spoken and /or written language is English or another language.

Individuals who are Members of a Racial or Ethnic Minority Group

The term “individuals who are members of a Racial or Ethnic Minority Group” includes all individuals who are members of any racial or ethnic minority group other than non-Hispanic Whites who constitute the majority (58.4%) in the United States.

Individuals who Primarily Reside in a Rural Area

The term “rural area” has the meaning given the term in section 601(b)(3) of the Rural Electrification Act of 1936 (7 U.S.C. 950bb(b)(3)). A town other than a city or town that has a population of greater than 50,000 inhabitants.

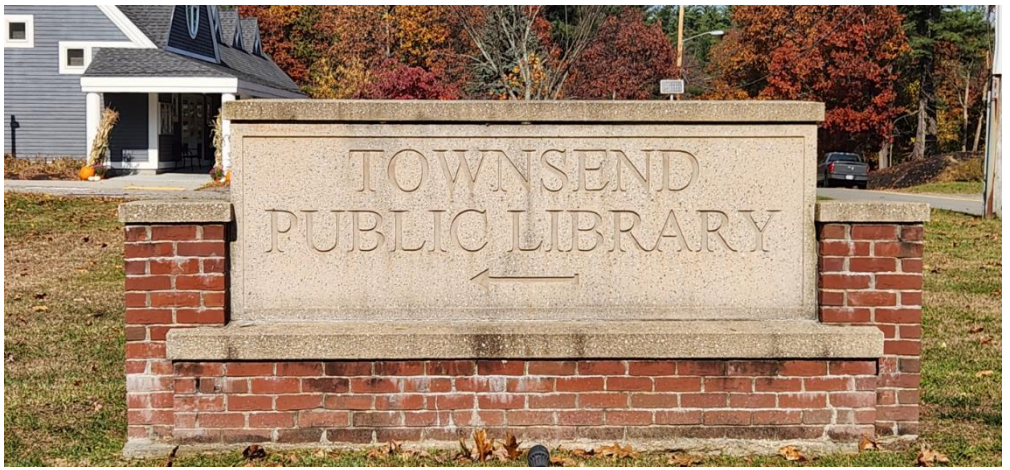
2

2. Digital Equity Values & Best Practices

2.1 Digital Equity Values

Equitable access to broadband internet 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. These gaps, and their associated challenges and barriers are often exacerbated in rural areas at the community and regional scales. The rural communities of Northwest Worcester County of the Montachusett Region are no exception and perhaps are a prime example of how Digital Equity gaps affect certain groups or segments of the population within rural areas.

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 Townsend is undergoing a Digital Equity Planning process to better understand the needs of their communities and the region. The outcome of the planning process will be a Digital Equity Action Plan that will identify a vision, associated goals and implementable actions, to improve broadband internet access, enhance digital equity, and increase digital literacy among residents, businesses, and institutions.

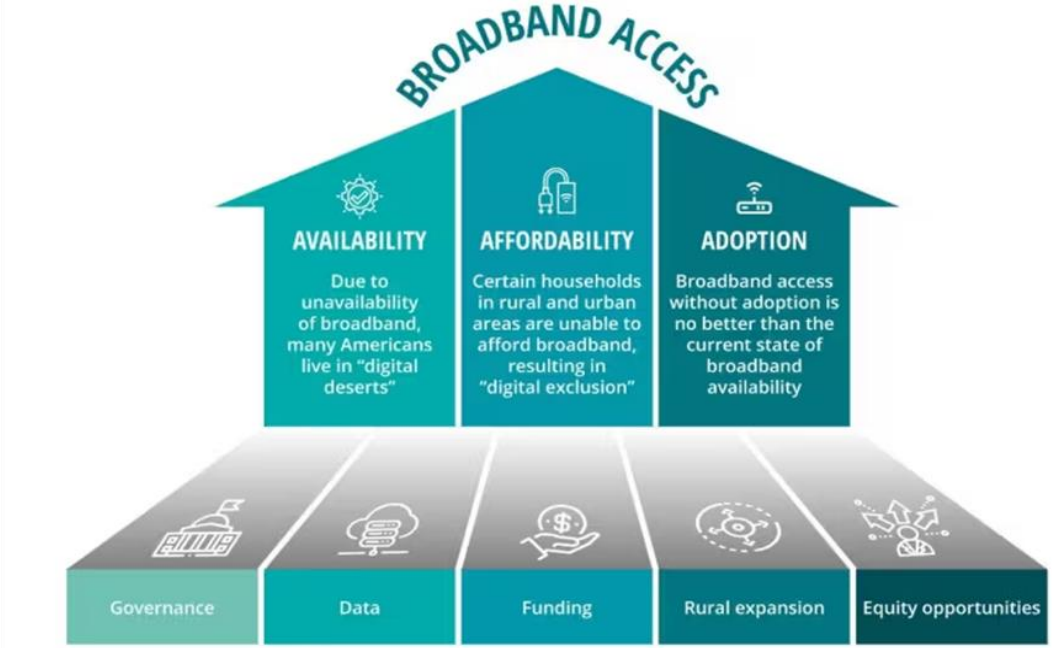


As with many other communities, broadband internet accessibility and connectivity issues currently exist and are related to various factors, including gaps in reliable internet availability, the, local and regional socioeconomic demographics affecting income and opportunity, higher-than average services costs, affordability and convenient access to devices and technology, gaps in digital literacy training, accessibility issues, and the lack of digital resources and programs preclude access for many individuals. Further, the populations of communities and the surrounding region include a high proportion of individuals representing a covered population of the Digital Equity Act[7].

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.

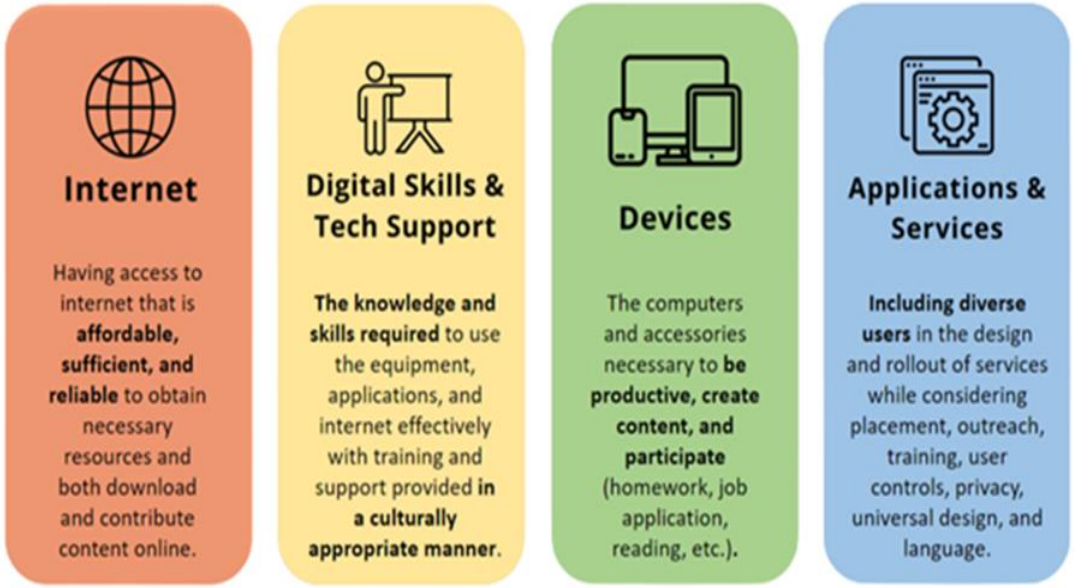
2.2 Broadband Internet Access

Broadband internet "access" encompasses the "**Three A's of Digital Equity**", availability, affordability, and adoptability relative to broadband internet service, digital devices, and digital technologies. Identifying challenges and barriers related to broadband internet access (i.e., availability, affordability, adoptability) within underserved, rural communities, like Townsend, and understanding the needs of the residents to overcome those challenges and barriers is both critical and essential, and the primary purpose of this Plan.



Source: Deloitte analysis.

[7] https://www.congress.gov/bill/117th-congress/house-bill/1841/text



Source: Elements of Digital Equity, City of Seathle: www.seattle.gov/tech

According to the U.S. Census Bureau, the digital divide was an omnipresent issue in 2018,[8] continued to be an issue in 2019,[9] and the factors disproportionately affecting certain segments of the population were exacerbated and highlighted by the Covid-19 pandemic in 2020[10], 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) provided 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 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

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

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.

Since 2020 and the COVID-19 pandemic, people rely more on broadband internet and online, web-based platforms for employment, education, banking, social interaction, and access to essential services and information than they did even a few short years ago. Broadband internet is more important now than ever, and is as important, or even more important in rural areas as it is within more developed, suburban and metropolitan areas.

2.2.1 Broadband 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[11]. 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

[11] FCC News, Office of Media Relations, Press Release dated March, 14, 2024: https://docs.fcc.gov/public/attachments/DOC-401205A1.pdf

without access to any broadband service or "with broadband service below 25 Mbps download speed and 3 Mbps upload speed" is considered "***Unserved***".[12]

A community specific evaluation of internet availability is provided within **Section 4.4** of this Plan.

2.2.2 Broadband Internet Affordability

According to a recent report published by the National Skills Coalition[13], thirty-two percent of U.S. households are subscription vulnerable, meaning they are unable to afford and maintain an internet service subscription. This gap contributes to differences in learning experiences, as 65 percent of families with income levels below the poverty threshold reported that a lack of access to broadband internet prevented their children from participating in school and completing schoolwork because 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. It should be noted that these figures, representing socio-economic influenced digital gaps, could be even higher. For example, according to that same National Skills Coalition report, *The Roadmap for Racial Equity*, Spanish-language-dominant Americans are less likely to report having high-speed internet at home.

One of the greatest measures to improve internet affordability following the Covid-19 pandemic was the Affordable Connectivity Program (ACP), a Federally funded internet subsidy program which was available to income eligible households until June 1, 2024, when funding officially expired. To better understand the program's impact, the FCC surveyed ACP recipients in December 2023. According to that survey, 77% of respondents say losing their ACP benefit would disrupt their critical aspects lives by making them change their plan or drop

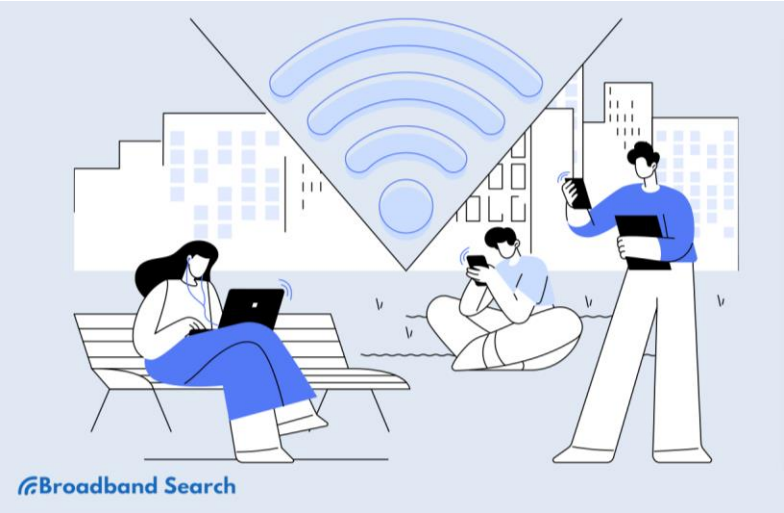
[12]NTIA BEAD Program, Program Documentation:
https://www.ntia.gov/funding-programs/internet-all/broadband-equity-access-and-deployment-bead-program

[13] 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/

internet service entirely. Approximately three-fourths report using their internet service for work, health care appointments, job applications and schoolwork. Finally, when 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. [14]

A community specific evaluation of internet affordability is provided within **Section 4.4** of this Plan.

2.2.4 Broadband Internet Adoptability



Digital adoptability and 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. Children with disabilities, who disproportionately live in low-income households, experience additional technology barriers, such as outdated equipment, non-accessible web content, inaccessible online platforms and course materials, and a lack of in-person support to engage with technology tools for learning.

Even with increasing technology usage in the classroom, few professional learning opportunities focused on effective technology use in the classroom are provided to educators. Further, the National Center for Education Statistics has found that on average, educators working

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

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.[15]

A community specific evaluation of internet adoptability is provided within **Section 4.4** of this Plan.

2.6 Alignment with Existing Efforts Through Strategic Visions

In line with the National Telecommunications and Information Administration (NTIA), Internet for All program's Digital Equity Plan Guidance, this Digital Equity Plan recognizes and will strive to align with existing local and regional efforts, goals, plans, and enhanced outcomes related to the following critical aspects of society:

	Economic and Development Workforce Development Goals, Plans, and Outcomes
	Educational Outcomes
	Health Outcomes
	Civic and Social Engagement
	Delivery of other Essential Services

As recommended by NTIA, this Plan also encourages continued and ongoing assessment of existing conditions using measurable objectives aimed at reducing the digital divide through the implementation of the strategies, goals, and actions identified within this Plan to further digital inclusion and equity relative to the following related categories or sectors:

[15] 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. (https://tech.ed.gov/advancing-digital-equity-for-all/)

City Leaders: Areas of investment for achieving Digital Equity Solutions	
Digital Equity Infrastructure-based Solutions:	**Digital Equity Program-based Solutions**
• City-owned conduit • Dark Fiber • Lit Fiber • Community (Municipal) Broadband • Fixed Wireless Network • Wireless Mesh Network	• Affordable (and free) home internet • Public networks and connections • Affordable and free devices • Digital Navigators (trainers) • Digital Literacy Training & Skills Building • Tech-Support

To become a municipal leader in digital equity and inclusion a Town, through the work of dedicated leaders, or digital equity "champions", the National League of Cities recommends focused investment in solutions related to two important Digital Equity categories, Digital Equity Infrastructure and Digital Equity Programs:

The following **Section**, **2.7** offers a set of Best Management Practices and a Strategic Approach or Frameworks to guide Townend's Town Leaders in their effort to enhance digital equity and inclusion Town-wide and to successfully implement the goals and actions set forth in **Section 6**.

2.7 Best Practices for Municipalities

Below is a comprehensive list of "best practices" for Municipal Officials and Community Leaders, including Town Administrators, Select Board Members, Commission Members, Purchasing Agents, Grant Writers, Planners, Heath Agents, Parks & Recreation Departments, School Administrators and Teachers, and others:

2.7.1 Municipal Digital Equity Best Management Practices

Below is a comprehensive list of "best practices" for Municipal Officials and Community Leaders, including Town Administration, Board & Commission Members, Purchasing Agents, IT Directors, Grant Writers, Planners, Heath Agents, Parks & Recreation Departments, School Administrators and Teachers, among others:

- Develop and adopt policies and measures to accelerate broadband deployment and adoption and increase access to reliable high-speed internet in public spaces to achieve Digital Equity.
- Request all Departments to identify and implement strategies that integrate Digital Inclusion into ongoing services and programs.

- Participate in a Regional Digital Equity Coalition or Leadership Group to coordinate plans and actions to achieve economies of scale and optimal impact.
- Recognize remote workers and embrace the value of broadband access as workforce development strategy and climate resiliency measure.
- Incorporate Digtial Equity Planning into Master Planning, and Land Use and Economic Development related plans to promote digital inclusion and improve quality of life for residents.
- Maintain a map of unserved and underserved areas and households and digitally disadvantaged neighborhoods with preferred broadband strategic corridors and identified public assets to accelerate broadband deployment.
- Incorporate high-speed Internet infrastructure into all public projects, especially major transportation, affordable housing, parks & recreation, and public utility projects.
- Develop a robust "green technology ecosystem" to refurbish and reallocate retired computing devices and for donation to unconnected low-income households participating in adoption programs. Encourage all public departments and local businesses and larger employers to participate in the program and donate retired devices.
- Provide online access to all policies, plans, ordinances, and services information, including remote participation in public meetings.
- Deliver online as many public services as possible "online" to reduce vehicle trips and improve efficiency, productivity, and convenience.
- Develop and continue to support digital literacy programs and digital navigation services to residents at public facilities, particularly libraries, senior centers, Veterans services centers, community centers, maker spaces, digital labs, internet cafes and third space/remote work hubs.

2.8 Strategic Approach to Digital Equity & Inclusion

To pursue and uphold the Best Management Practices outlined above, which are aimed at enhancing digital equity and inclusion throughout a community and among its covered population groups, it is important to develop overarching strategies for key sectors or components of digital equity and inclusion. Below are common, overarching strategies related to six primary sectors or components of Digital Equity and Inclusion. Consideration of these recommended strategies relative to the six identified sectors, or components of Digital Equity and Inclusion will help to provide context and an organizational framework to assess the associated challenges, barriers, and needs evaluated and assessed within **Sections 4**, (**Existing Conditions**) and **Section 5** (**Community Needs**) of this plan, and will ultimately provide a set of guiding principles for establishing meaningful **Goals and Actions** (**Section 6**) to address those challenges, barriers, and needs, which is the primary purpose of this Plan.

2.8.1 Leadership (Champions)

Identify a core team of digital equity champions, **pursue increased funding,** and become a **leader in digital equity.**

The first step in pursuing enhancements to digital equity and inclusion is to establish a team of digital equity leaders, or champions within the Town of Townsend. These leaders, many of whom were likely involved in the development of this Plan, will continue to assess and evaluate the existing conditions and community needs around broadband internet access and digital literacy and inclusion in the short-term and over time.

The leadership group should participate in local or regional digital equity and inclusion coalitions or working groups and meet regularly (at least quarterly) to advance the goals of the Digital Equity Plan and guide the Plan's evolution over time. It will be critical to ensure that the Town Administrator, Select Board, and Planning Board are well-informed of the Digital Equity Plan's key goals and objectives, and that they may continue to seek funding for digital equity initiatives and treat the implementation of this Plan's recommended goals and actions as a priority.

Leaders should stay coordinated with regional, state, and federal stakeholders in digital equity, including the Massachusetts Broadband Institute and Montachusett Regional Planning Commission. They should continue to track and monitor development of the statewide BEAD initiative and other funding and engagement opportunities and seek recognition through programs like the Digital Inclusion Trailblazers award program. In addition to their ongoing pursuit of digital equity and inclusion, the town should also recognize and celebrate Digital Inclusion Week, in October of each year, through hosting local events or by promoting and joining other local, regional, state, or national events.

Further, Digital Equity Leaders should coordinate with state and Federal legislators to ensure that funding mechanisms for Community Cable Access T.V. providers are preserved and that they evolve and advance in conjunction with the evolution and advancement of the provision and consumption of streaming media and digital services and in the face of declining cable T.V. subscriptions.

2.8.2 Community Engagement & Partnerships

The Town of Townsend should continue to improve upon the Town's processes for engaging with the community and building digital equity and inclusion partnerships. This should be considered when disseminating information (physically and virtually), collecting feedback, and announcing public events, especially related to digital equity and inclusion. When disseminating information or promoting events around digital literacy, it is often overlooked that some segment of the population you are intending to serve may not have a computer or internet subscription or are not comfortable receiving information digitally. For this reason, the Town should consider existing alternative (traditional) methods of outreach and engagement such as physical postings, yard-boards, digital notification displays, posting in the Senior Center Calendar/Newsletter, in tax bills or water bills, and on the Townsend Community Access Media (TCAM) network. Digital methods of outreach, such as social media and new, innovative methods like video "shorts" or other digital media content created for posting on Town 's Social Media accounts should be used but should not be the sole method of communicating with the public. Hybrid methods of engaging with the community to deliver important information or notices, such as though automated "code-red" calls or text messages should also be used but should not be the primary or sole means of communication.

Leaders, particularly those who are Town staff or appointed and elected officials, should evaluate municipal websites, media, and communications to ensure that they are accessible to all users, and all Internet-enabled devices including cell phones and tablets. Refer to the U.S. Department of Justice Civil Rights Division's guidance on web accessibility and compliance with the Americans with Disabilities Act (ADA) and strive to meet the standards for information and communication technology (ICT) under section 508 of the Rehabilitation Act and Section 255 of the communications Act.

Leaders should create a Digital Equity & Inclusion webpage on the Town's websites and draft a one-page circular identifying digital equity goals & priority actions and providing access to the full Digital Equity Plan within each community. Other digital equity and inclusion resources, such as digital literacy and skills building opportunities should also be listed on the webpage(s), and the locations where they are offered should be provided. The webpage should also list contact information for local and regional digital equity leaders (champions) and trainers (navigators).

Finally, the Town of Townsend's Digital Equity Leaders should maintain and improve relationships with community partners dedicated to increasing digital equity throughout the Town and the Montachusett Region. Such partners, or stakeholders may include the libraries, local boards and committees, local/regional non-profits, civic organizations, business owners, other social services organizations, local Cable Access stations, including Townsend's TCAM, Leominster Cable Access Television (LTV), Fitchburg Access Television (FATV) Lunenburg Public Access (LPA) Television, Gardner Educational TV (GETV), Sterling-Lancaster Community Television (SLCTV), and Templeton Community Television (TCTV). The Youth Innovation Center/MOC, inc., UMass Lowell Digital Equity Partnership, Mount Wachusett

Community College, and MassHire North Central Mass Career Center, the Boys & Girls Club, Montachusett Regional Planning Commission, Townsend Recreation Commission, and North Middlesex Regional School District (NMRSD) should also be listed as an important regional digital literacy and inclusion resources. Further, other organizations and community assets providing digital literacy and inclusion programs or services or considered Digital Equity "Champions" or "Navigators", especially those providing improved access broadband internet, affordable devise, and digital literacy training, should also be listed.

2.8.3 Access to Broadband Internet and Digital Devices

The Town of Townsend should strive to establish and build upon existing coordinated partnerships to expand access to broadband internet and affordable devices. One way to accomplish this goal is to improve access to the internet and internet connected workstations and devices in public spaces like the Library, Town Hall, and at other public areas and meeting spaces, including outdoor public spaces and Town parks and playgrounds. Another option is to continue to offer hotspots and provide additional hotspots through an enhanced reservation-based loaner program. Such a program can be facilitated by the Public Library but may also offer hotspots reservable through the Town Hall, Townsend Senior Center (Councils on Aging), and potentially through partnerships with the Housing Authority, Recreation Department, and School Department. Similarly, access to digital devices and workstations like laptops, computers, printers, video-conferencing stations, and other technology and equipment (such as music, art, audio, and video, equipment and programs) should be acquired and made available at the Public Library.

Additionally, the Town should continue to support, promote, and enhance their Public Library, Senior Center, Recreation Center, Town Hall, and Veterans' Office as digital resources and "digital inclusion hubs", where computers and reliable high-speed internet and digital devices, services, and programs can be accessed by the public. These spaces should feature modern, well-maintained laptops, computers, hotspots, copiers, scanners, printers, and audio-video equipment in line with community needs and available for free use or loan by the public.

The Town and their digital equity partners should aim to strengthen connections with groups who facilitate device donation programs and provide free or discount refurbished devices to households who need them. They should also consider developing partnerships with NMRSD schools, Nashoba Tech, MOC, and Townsend Recreation Department amongst many others, who could potentially provide opportunities for digital literacy training, refurbishing devices, and potentially establish additional partnerships and/or a regional network for digital device refurbishment and distribution.

2.8.4 Digital Literacy Training & Opportunities

The Town of Townsend should continue to create, strengthen, and expand digital literacy opportunities and partnerships throughout the community and the Montachusett Region. The Town, and its local and regional partners, should engage with and promote the certification of qualified, local Digital Navigators (digital literacy trainers, educators, and support specialists), or partner with a qualified Digital Navigator to offer digital literacy courses at their Public Library, Senior Center (Council on Aging luncheons), Veterans Center, and at other public community gathering locations.

There is strong demand for increased digital literacy class offerings and an expanded curriculum focused on specific needs of urban residents of Gateway Cities and Environmental Justice Areas, and specifically "covered populations" of the Digital Equity Act. General tech-help for all ages, but particularly aging adults over 60, and general tech-help and skill-building related to various applications from business, everyday living, to digital art, media, music, and crafting and hobbies are also essential needs. Information and training focused on accessing and using digital services and public administration applications like public transit and transportation, online shopping and food/grocery home-delivery, Veterans Assistance benefits, retirement and social security benefits, Medicare, healthcare appointments, medical results, registry of motor vehicles online applications, renewals, and admirative forms, and many other online activities and requirements, are also of great need. Many of the most pressing and desired needs of the community for digital literacy training topics are identified within later sections of this Plan and supported by the results of the public survey.

The Town should seek to contract with a local digital navigation training consultant (Digital Navigator) or establish necessary coordinated partnerships to ensure that digital literacy training and skills building opportunities are available to residents of the Town and surrounding region. The Town and its partners should also seek to offer training for local residents, leaders, and staff at Community Anchor Institutions to become certified Digital Navigators following the National Digital Inclusion Alliance's (NDIA) Digital Navigator Model, a proven method of digital literacy training, skills-building, and inclusion.

2.8.5 Addressing the Needs of Covered Populations

The Town of Townsend should provide targeted support for vulnerable segments of the community, including lower income households, individuals with disabilities, individuals with language barriers and lower levels of literacy, students, young adults, adults seeking jobs, aging adults over 60, Racial & Ethnic Minority Groups, Individuals with a Language Barrier, and Veterans.

Provide targeted support for vulnerable segments of the community, including students, adults seeking jobs, and seniors.

The Town should prepare covered populations to avoid scams and remain safe from common online risks, such as hackers, identity thieves, and (increasingly common) online scams by providing dedicated training to aging adults over 60, students, and other community members.

The Town, in consultation with a Digital Navigator or other Digital Literacy stakeholders and partners, should develop an online submission form and call-in system to log tech-help questions and develop an on-site tech-help office hours program at the Public Library, Senior Center, Veterans Center, and Housing Authority community rooms. In addition, the Town should offer and expand upon digital literacy courses through consultation with a Digital Navigator or in partnership/consultation with the MassHire North Central Mass Career Center, UMass Lowell Digital Equity Partnership, MWCC, and other potential partners focused on inclusion and overcoming specific barriers and challenges faced by covered populations.

2.8.6 Commercial & Economic Development

The Town should promote local economic development opportunities related to digital literacy and inclusion and encourage digital/internet-focused entrepreneurship, home businesses, and professional development. In partnership with the MassHire Central Mass Career Center, UMass Digital Equity Partnership program, and/or a consulting Digital Navigator, residents and students should be encouraged to develop web-based applications, tools, and business models that benefit the provision of services and improved livability and well-being in Gateway Cities and among their communities and neighborhoods. Similarly, they should encourage jobseekers of all ages and backgrounds to become qualified Digital Navigators, or digital literacy trainers. Such efforts can be supported through enhanced vocational tech education, and as part of the ongoing community-based digital literacy training recommended and supported by this Plan.

3

3. Digital Equity Planning Process

Community engagement was an essential component of the development of the Town of Townsend Digital Equity Plan. Answers to a comprehensive stakeholder questionnaire, input from stakeholder interviews, feedback from Core Team members, information gathered at focus group meetings, responses to the statewide public survey (and a local survey), and comments and feedback provided by the public at various community engagement events informed the existing conditions evaluation and community needs assessment as well as helped to define the visions, goals, actions and strategies documented within this Plan.

3.1 Digital Equity Core Team Working Group

To develop an effective community engagement strategy, provide information about potential stakeholders, local resources, and community assets, a Core Team of municipal officials was formed (**Table 3-1**). This Core Team also played a primary role in guiding the planning process and informing the development of meaningful goals and actions. In addition, they offered insights into key stakeholders to engage and provided guidance and input on the development of the Plan over the course of several meetings, interviews, and inquiries.

Core Team Working Group Meetings were held on:

- September 13, 2024 – Initial Project Scoping/Town Involvement & Establishment of Core Team
- October 24, 2024 – Kick-Off meeting; Covered Populations & Key Stakeholders
- February 27, 2025 – Existing Conditions & Community Needs
- March 27, 2025 – Vision, Goals & Actions

Table 3-1: Townsend & Townsend Digital Equity Planning Core Team Working Group Participants		
Name	**Position/Role**	**Organization**
Stacy Schuttler	Library Director	Town of Townsend
Molly Benevides	Asst. Library Director	Town of Townsend
Elise Johnson	COA Director	Town of Townsend
Jeremy Hammond	School IT Representative	Town of Townsend
Emmy Hoff	Recreation	Town of Townsend
Kieran Meehan	Grant and Housing Coordinator	Town of Townsend

3.2 Public Engagement

Enter summary of public engagement here including tech help sessions and focus group meetings.

MRPC staff implemented a two-step stakeholder engagement process that included a questionnaire and follow-up interview. A particular goal of this planning process was to engage individuals and organizations representing covered populations within the community who are particularly impacted by the digital divide. Key community activities included:

- State Survey notices
- Stakeholder interviews
- Digital Equity Core Team Working Group Meetings

MRPC staff held a Digital Equity Focus Group at the Senior Center during their luncheon on February 27, 2025

A public presentation of the Plan was made to the Townsend Select Board at their meeting on May 20th, 2025. A 14-day comment period was also held in conjunction with the public presentation.

3.2.1 Statewide Digital Equity Survey

At regular intervals in 2023 and 2024, outreach 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. Responses from the Town of Townsend were extremely limited and resulted in only eight responses. A local survey was conducted to try to increase the response rate but yielded only five responses.

Survey results, and their limitations, are discussed in greater detail and presented within Section 5 of this plan.

3.3 Stakeholder Engagement

3.3.1 Stakeholder Questionnaires & Interviews

The MRPC Team distributed stakeholder questionnaires and facilitated several follow-up interviews with digital equity stakeholders identified as part of the planning process. The questionnaire and interviews focused on digital services and programs (including public

internet, workstations, and digital literacy programs) offered by each stakeholder-organization, department or facility, and any key challenges and opportunities related to their day-to-day work. It also aimed to identify the critical needs of the clients that they served, particularly as they pertained to certain Covered Populations.

Stakeholder Questionnaires & Interviews			
Organization/Department/Board	**Date Completed**	**Interviewee**	**Questionnaire Completed**
Townsend Public Library	10/24/24, 2/27/25, 3/27/25	Stacy Shuttler	Y
Townsend Public Library	10/24/24, 2/27/25, 3/27/25	Molly Benevides	Y
Townsend Regional School Dept.	10/24/24	Jeremy Hammond	Core Team
Senior Center (Council on Aging)	2/27/25	Elise Johnson	Core Team
Council on Aging	10/21/24	Lynn Pinkerton, Chair	Y
Townsend Recreation Department	2/27 & 3/27/25	Emmy Hoff	Core Team
Townsend Ecumenical Outreach (ETO)	3/18/25	Kym Craven	N
LUK, Inc.	8/16/24	E McMillan	Y
Wachusett District Veterans' Services	6/12/24	Cory Hasselman	Y
Clear Path for New England Veterans	5/31/24	J Vance	Y
Mass Hire Career Center	11/26/24	Jeff Roberge	Y

3.3 Focus Group Meetings & Round Table Discussions

The MRPC team conducted focus group meetings to discuss the needs of specific covered populations served by the respective stakeholder organizations.

Focus Group Meetings & Round Table Discussions		
Focus Group Meetings	**Date**	**Covered Population or Focus Group**
Montachusett Veterans Outreach Center	6/12/2024	Veterans, and Aging Adults, Covered Households, Racial & Ethnic Minority Groups, Individuals with a Language Barrier, Individuals with a Disability, and Residents of Rural Areas
Social Services Roundtable	12/11/ 2024	Aging Adults and Residents of Rural Areas, Veterans, Covered Households, Individuals with a Language Barrier, and Individuals with a Disability
Townsend Senior Center	2/27/25	Aging Adults and Residents of Rural Areas, Veterans, Covered Households

4

4. Existing Conditions Evaluation

Equitable access to broadband internet 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.

The following Existing Conditions Analysis evaluates certain aspects of the Town of Townsend'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 equity and broadband internet accessibility.

In addition to providing information about available broadband internet services and devices, the analysis also aims to identify and evaluate the 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 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 service and or lacking computers or other 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, affordability, or digital literacy levels, and at times are related to a person's willingness to adopt such technology (services and devices, alike), rather than their ability or access. The analysis also includes references to community needs; however, an in-depth analysis of those needs can be found in **Chapter 5** of this Digital Equity Plan.

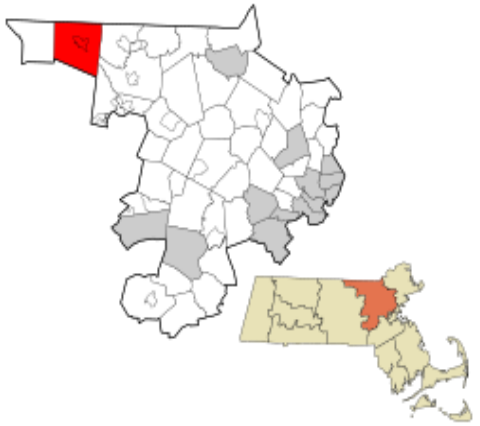
4.1 Community Context

Demographic trends throughout a geographic region or within a community can impact local internet service demand and technology support needs. Understanding the demographic profile, socioeconomic indicators, and distribution and proportion of covered populations, is essential to understanding and evaluating the needs of a community, and a critical component of any planning process which aims to identify strategies and actions for addressing those needs, especially when a primary focus of the Plan is achieving equitable outcomes.

Much of the data for this analysis was obtained from input from the members of the **Townsend Digital Equity Planning Core Group**, stakeholder interviews, 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.

Town of Townsend

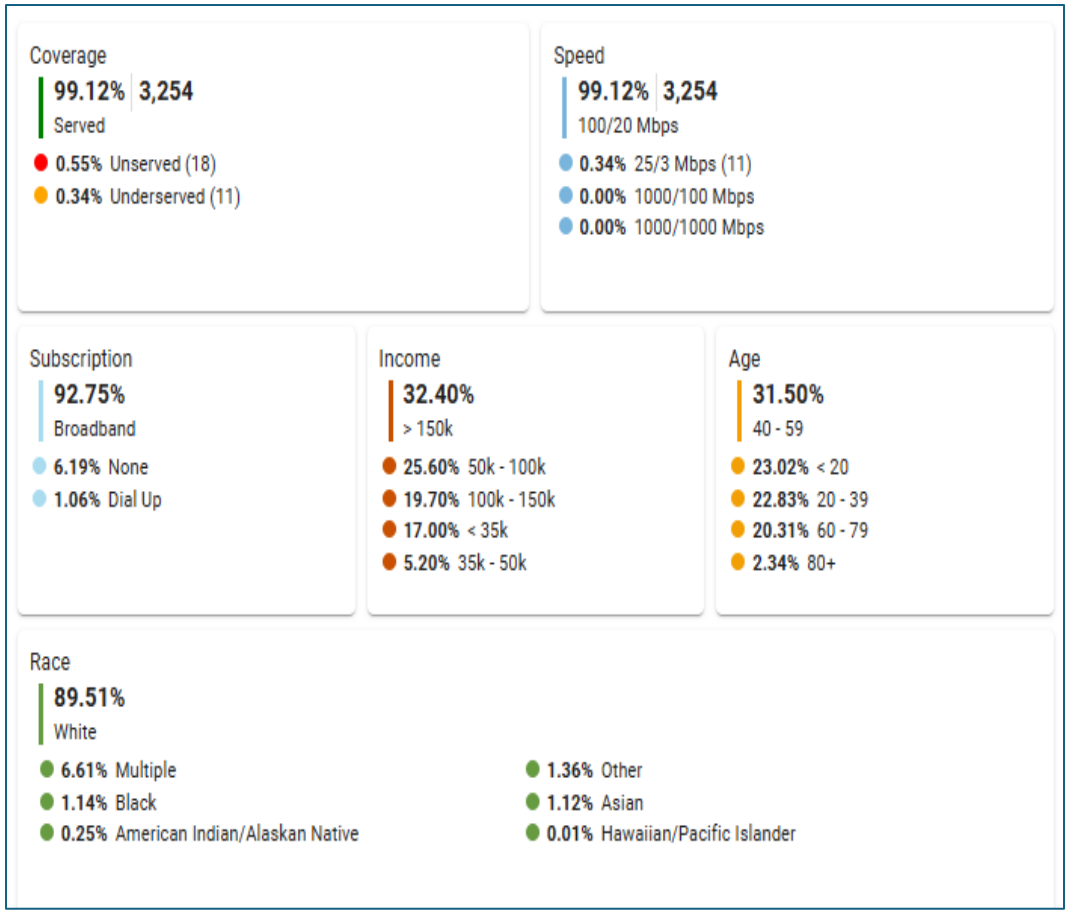
Townsend is in Northwest Middlesex County and borders the towns of Pepperell, Groton, Ashby, and Lunenburg. According to the town's US Census Bureau Profile, Townsend is home to 8,732 residents with a population per square mile of 280, less than the county (570.7) and statewide (901.2) population densities. The median household income in Townsend is $105,662, which is below the Middlesex County median income of $123,705 but above the state median income of $96,505. Of the town, 7.6% of residents live below the poverty line, which is roughly the same percentage as the county average of 7.7% and lower than the statewide average of 10.4%. While 86.8% of all residents report as white alone, 3.1% report as black or African American, 3.3% report as Asian. Of the population, only 2.6% report as being of two or more races. Of residents over the age of 25, 27.1% have completed a high school education and 37.8% have obtained bachelor's degrees or higher.



4.2 Assessing Digital Equity in Townsend

Figure 4-1 on the following page is a summary of Digital Equity Indicators for Townsend.[16] According to the 2022 ACS 5-year estimates, computer and internet use in Townsend is comparable to county and statewide averages with **99.12%** of all **households** in the town have broadband internet coverage availability with **92.75%** of those **households** having a broadband internet subscription.

Figure 4-1: Broadband and Digital Equity Indicators, Townsend, MA



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

The Digital Equity Act Population Viewer[17] compiled by the US Census includes five (5) layers depicting pertinent information to help determine existing conditions and digital equity needs in Townsend. To further explore neighborhood-based and town-wide population percentage data for various covered population groups within census tracts, a matrix with a town-wide summary is presented as **Table 4-1**. The corresponding Townsend Census Tract Map, **Figure 4-2** illustrates the locations of those within covered populations most affected by digital inequities.

Figure 4-2: Covered Populations Townsend, MA

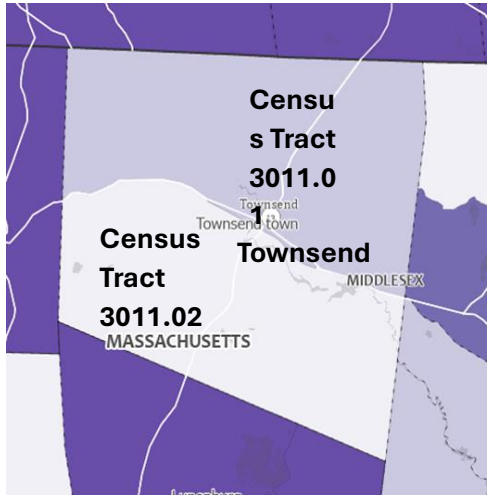


Table 4-1. Neighborhood (census tract) based and townwide population characteristics of covered population groups of the Digital Equity Act.

Census Tract#	Total Rural Population	% Covered Population (150% of the poverty level)	% Aging Adults (over 60)	% Veterans	% Population with one or more disabilities	% Language Barrier	% Ethnic/ Racial Minority	% Population lacking internet or a device
3011.01	3965	8.9	21.4	5.9	10.3	14.4	8.1	6.1
3011.02	4767	6	22.9	5.1	9	16.2	3.7	7.8
Town	8732	7.4	22.1	5.7	9.6	15.3	5.9	6.9

[17] The Digital Equity Act Population Viewer, https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42 (Accessed July 9, 2024)

4.3 Covered Populations of the Digital Equity Act

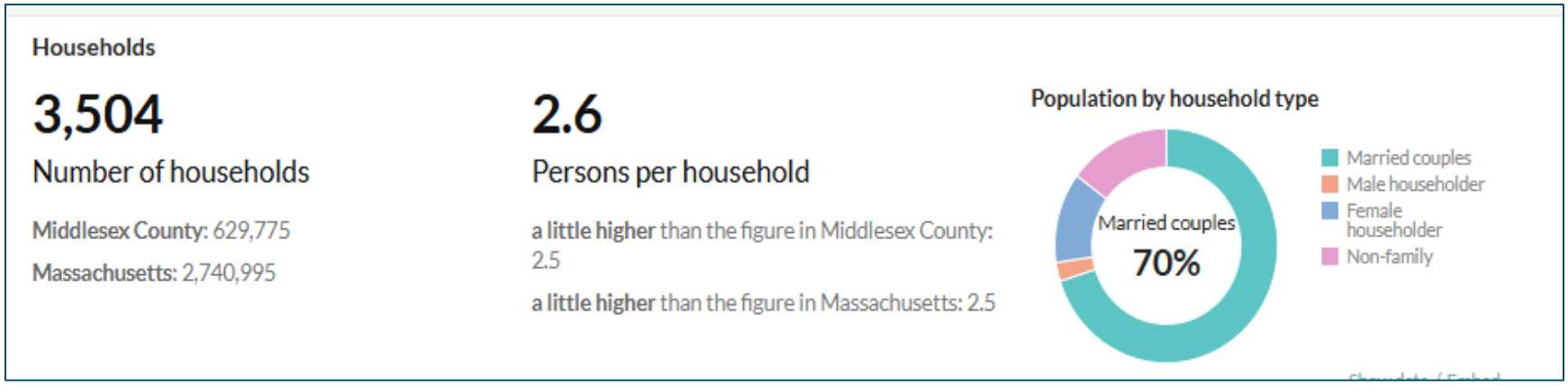
The subsections below provide standard definitions, community characteristics, and population demographics related to the eight Covered Populations of the Digital Equity Act.

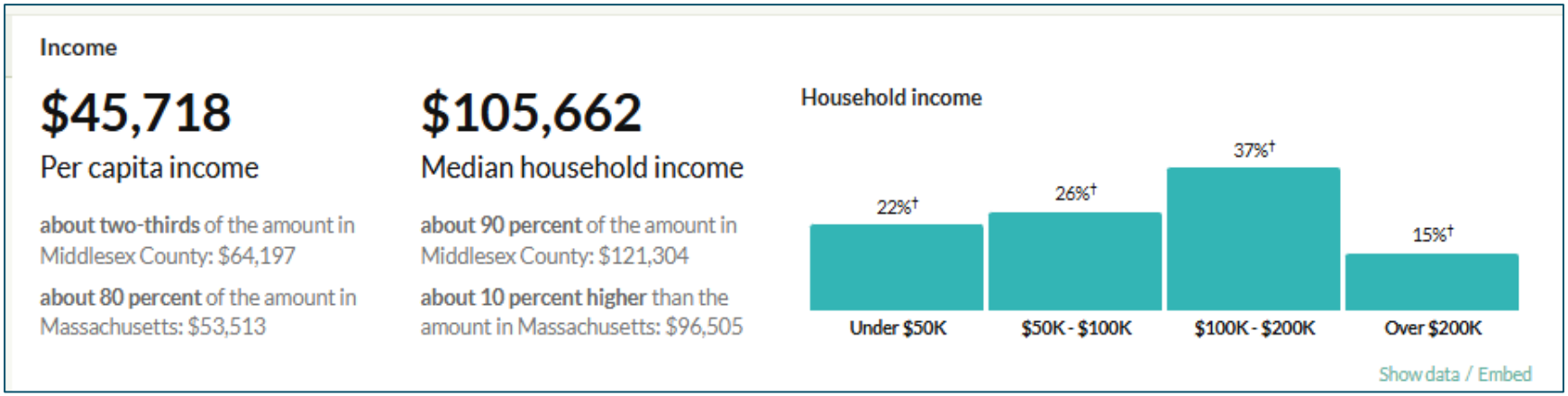
4.3.1 Covered Households

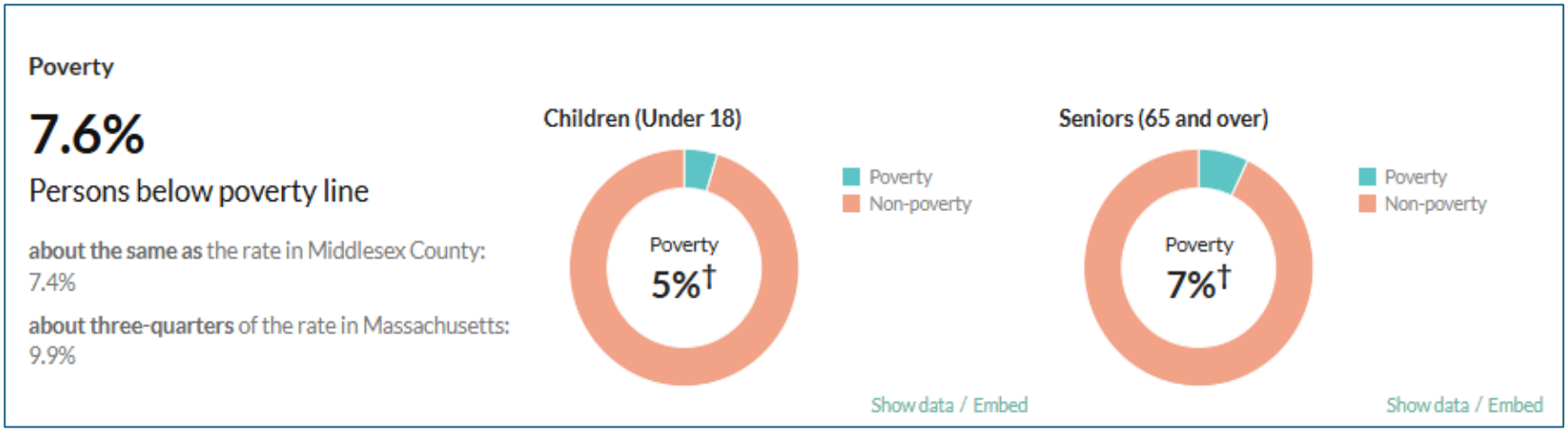
Individuals who live in the term "covered household" means a household with the taxable income of which for the most recently completed taxable year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the US Census Bureau.

According to recent estimates of Covered Households from the US Census Bureau, there are **3,504** households in Townsend. **Figure 4-3** provides a summary of household and income-based demographics for Townsend's households.

Figure 4-3: Household and Income-based Demographics in Townsend, MA.[1]





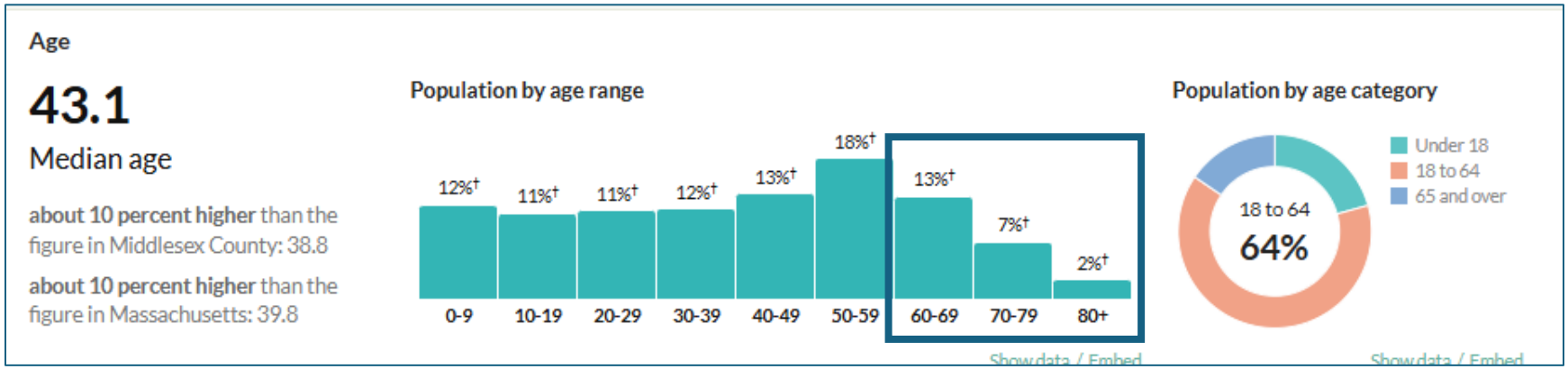


4.3.2 Aging Individuals

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.

Figure 4-4 shows that Townsend has an aging population, with 22% of its population being 60 or older as of 2022. The population is seeing a slight rise in age with the median age increasing from 41.7 to 43.1 from 2010 to 2022.[18]

Figure 4-4: Age Demographics in Townsend, MA.[19]



The Townsend Senior Center had over 20,000 visitors in FY24. Outreach conducted through stakeholders identified the primary needs of Townsend's aging population as updated devices at the center, internet safety & cybersecurity training, and one on one device/internet navigation training and assistance. A common concern was a fear of online scams and a certain level of distrust for some aspects of digital technology and its uses or misuses. Expanded services in areas such as device usage, navigation of common software platforms, general computer skills, and comfort and trust of digital devices and technology are critical for the aging population to actively participate in everyday life.

[18] U.S. Census Bureau

[19] US Census Bureau (2022) American Survey 5-year estimates. Retrieved from Census Reporter Profile page for Townsend MA https://censusreporter.org/profiles/16000US2535075-Townsend-ma/

4.3.3 Incarcerated Individuals

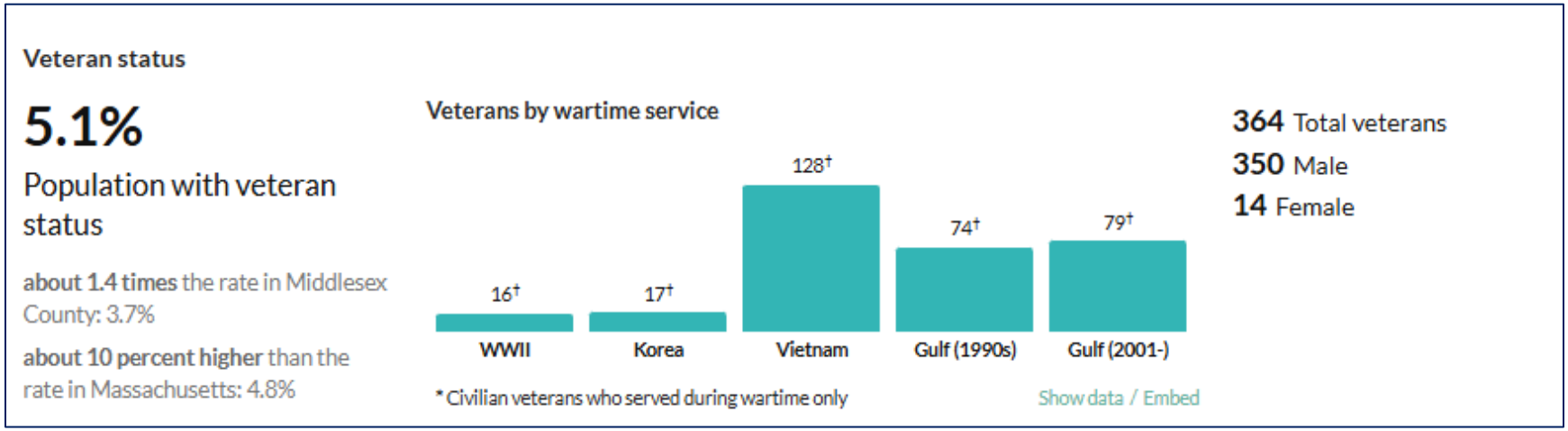
Incarcerated individuals are inmates at state and county jails and correctional facilities, other than individuals who are incarcerated in a federal correctional facility. The closest facility to Townsend is the Souza-Baranowski Correctional Center in Lancaster, MA.

Of the many challenges released inmates face, some are related to broadband internet accessibility and digital literacy relative to the availability, affordability, and adoptability (use) of the internet and internet-connected digital devices. Many inmates are not familiar with the internet or digital devices as the related technologies and current uses either did not exist or were far less advanced or common before they entered prison. Now, these technologies could be of great benefit to their current re-entry needs, however, targeted training is needed to develop skills and build comfort and trust in the use of these technologies as part of their daily lives.

4.3.4 Veterans

The term "Veteran" has the meaning given the term in section 101 of title 38, United States Code.

Figure 4-5: Veteran Status in Townsend, MA.[20]



[20] Citation: US Census Bureau (2022) American Survey 5-year estimates. Retrieved from Census Reporter Profile page for Townsend MA https://censusreporter.org/profiles/16000US2535075-Townsend-ma/

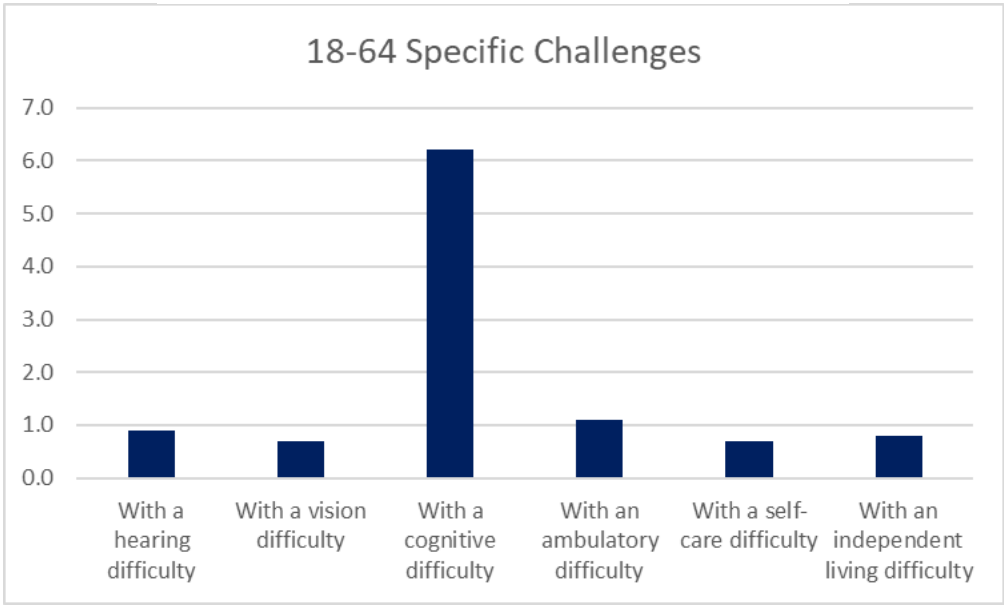
As **Figure 4- 5** depicts, Veterans make up 5.1% of Townsend's 18 and older population.[21] Veterans are valued within the region and honored for their service. However, many lack financial resources to afford the internet, and, despite the presence of local and regional Veteran's organizations and service programs, some do not currently offer veteran-specific digital equity, literacy, and affordability programs.

A Digital Equity Veterans Focus Group meeting for the Montachusett Region was recently convened by the Montachusett Regional Planning Commission as part of the planning process for this Plan and for other Digital Equity Plans being prepared for municipalities within the Montachusett Region. The meeting was hosted by the Montachusett Veterans Outreach Center, MVOC. Veteran's Services Officers from Montachusett communities were invited to share their stories, ideas, needs, and visions for increased digital equity for the region's veterans. While the internet service in Townsend is adequate in terms of speed and reliability, many Veterans do not have access due in part to many factors such as cost, age (digital literacy), housing insecurity and unemployment.

4.3.5 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). Many residents of the northwest Montachusett Region have one or more disabilities. Townsend has 673 individuals with one or more disabilities, making up 10.3 % of the total population.[22] Of those over 18 – 64 years of age, the Massachusetts Office of Disability (MOD) provides data on specific difficulties. **Figure 4-6** on the following page further identifies the Specific difficulties that may create barriers and have negative consequential impact on an individual's ability to achieve digital literacy and as such needs to be considered when strategies are devised to meet the goals of this plan.

Figure 4-6: ADA, Specific Challenges in Townsend, MA.



[21] U.S. Census Bureau
[22] State of Massachusetts, *Overall Disability* (Accessed July 9, 2024)

4.3.6 Individuals with a Language Barrier

The Census definition of a Limited English Proficient (LEP) person is "...a person who speaks another language other than English at home and does not speak English well or not at all." A recent study examined the 2021 American Community Survey – 5 Year Estimates and was able to determine that approximately 5.02% (or 11,848 individuals) of the MRPC population age five and older (236,131 individuals) speak English less than very well (ELTVW). This is therefore considered the Limited English Proficiency (LEP) population for the region. Most of these individuals reside in Clinton, Fitchburg, Harvard, and Leominster. Each of these communities has a LEP population percentage that exceeds the Montachusett regional average of 5.02%. In Townsend, 1.71% of the population speak less than very well English (**Table 4-2**).

Table 4- 2: LEP – Montachusett Region[23]

Community	Total Pop. Age 5+	Speaks English Less Than Very Well	% Speaks English Less Than Very Well
Ashburnham	5,958	32	0.54%
Ashby	3,140	0	0.00%
Ayer	7,885	248	3.15%
Clinton	14,301	1,272	8.89%
Fitchburg	39,394	3,481	8.84%
Hubbardston	4,044	30	0.74%
Leominster	40,844	3,868	9.47%
Lunenburg	11,044	352	3.19%
Shirley	7,134	270	3.78%
Sterling	7,653	95	1.24%
Townsend	**8,706**	**149**	**1.71%**
Westminster	7,773	14	0.18%
Winchendon	9,720	186	1.91%
MRPC Region Total	**236,131**	**11,848**	**5.02%**
United States Total	**310,302,360**	**25,535,259**	**8.23%**

4.3.7 Individuals who are Members of a Racial or Ethnic Minority Group

The resident population of Townsend primarily identifies as white and white alone, with a larger percentage of white residents than the national average having 87% compared to 60.1% respectively, and higher percentage than the state (68.9%).[23] 4% of Townsend's population is Hispanic, and 3% are Black and 3% Asian. Additionally, 3 % of the population are of two or more races or ethnicities and 4.6 % of Townsend's residents are foreign born. As many as 13% of Townsend's residents are covered under the Digital Equity Act as members of a racial or ethnic minority group. (see **Figure 4-7)**

Figure 4-7: Ethnic/Minority and Foreign Born - Townsend[24]

4.3.8 Individuals who Primarily Reside in a Rural Area

The term "rural area" has the meaning given the term in section 601(b)(3) of the Rural Electrification Act of 1936 (7 U.S.C. 950bb(b)(3)). **Townsend is considered a rural area for the purposes of this plan**.

4.3.9 Distribution of Covered Populations in Townsend

Figure 4-8 shows a summary of the town-wide percentages of the population for various indicators compiled by the US Census Bureau Digital Equity Act Population Viewer.

Figure 4-8: Covered Populations in Townsend, MA

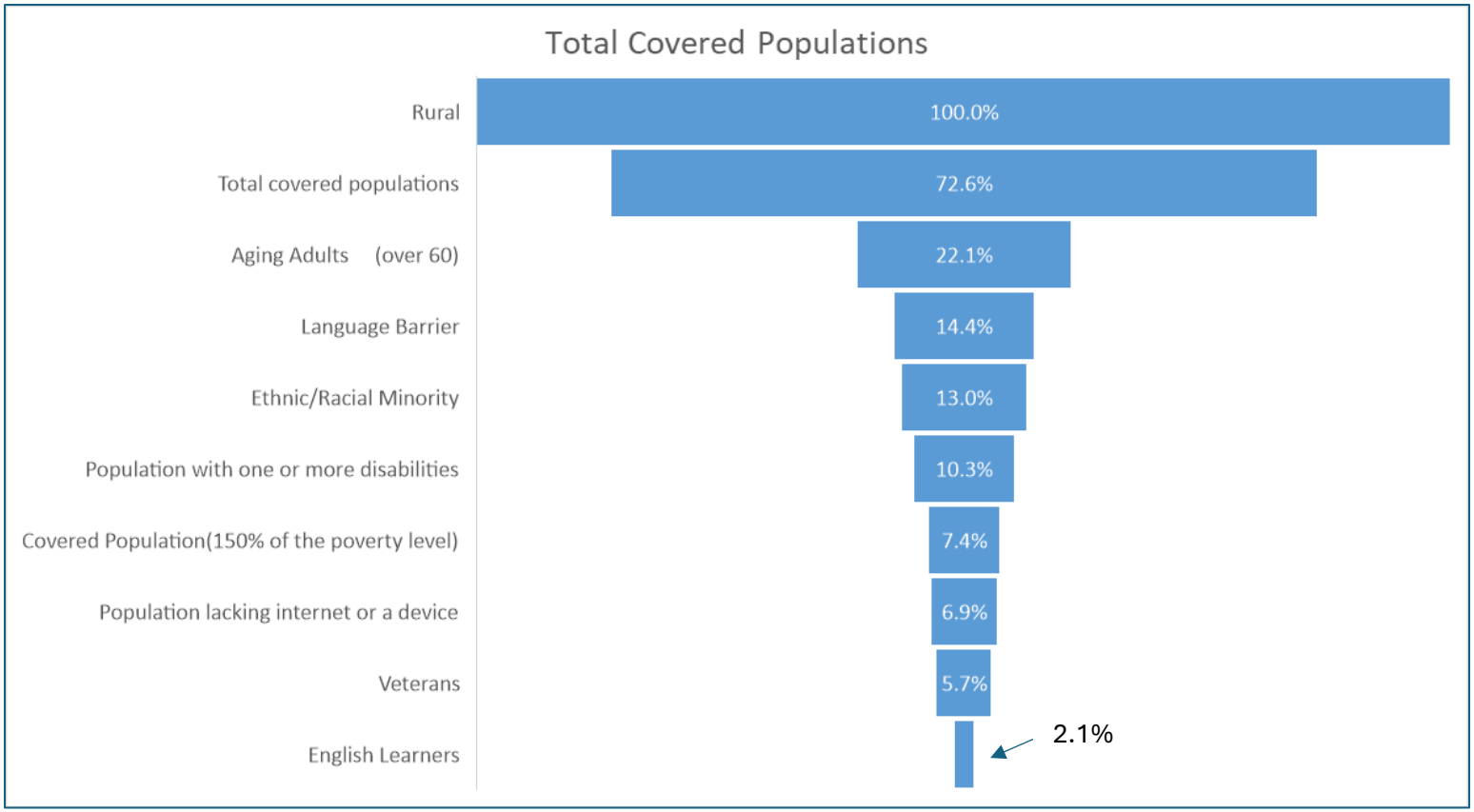
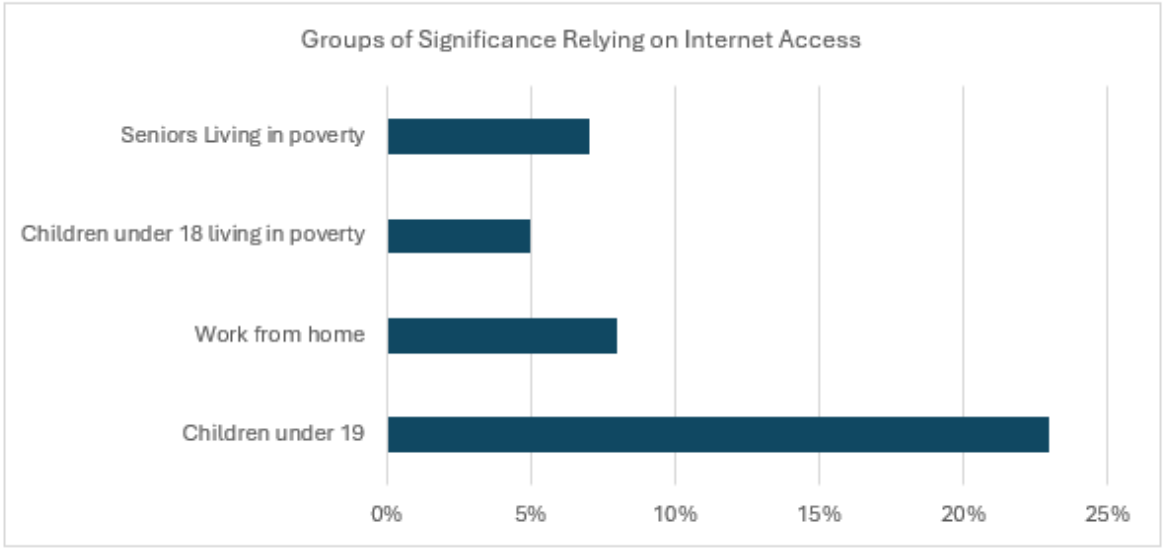


Figure 4-9 below shows a summary of the percentages of the Townsend population that may, or may may not be included in the covered populations but nonetheless rely on adequate internet, accessibility and digital literacy skills. The work from home category is the percentage of those in the over 18 workforces residing in Townsend. Percentages are compiled by using US Census Bureau information.

Figure 4-9: Other Groups of Significance in Townsend



4.4 Broadband Internet Access in Townsend

Aside from the percentages of the population who are part of a Covered Population of the Digital Equity Act, a more complete picture of broadband internet "access" can be attained by evaluating the "**The Three A's**" of Broadband Access: **Availability**, **Affordability**, and **Adoptability**. Each of these factors is defined below and an evaluation of the existing conditions within Townsend, relative to each factor, is provided within the following three subsections.

Broadband 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 ***Serviceable*** location refers to an address with access to Broadband Internet service from an Internet Service Provider. As of March 14, 2024, the FCC's new benchmark for high-speed fixed broadband is 100 Mbps download and 20 Mbps upload, a significant increase from the previous 25/3 Mbps benchmark set in 2015[25]. Under these new standards[26]:

- "***Served***" locations have broadband speeds of at least 100 Mbps download and 20 Mbps upload.
- "***Underserved***" locations have speeds above 25/3 Mbps but below 100/20 Mbps.
- "***Unserved***" locations lack broadband service or have speeds below 25/3 Mbps.

The definitions of minimum standards presented here align with the NTIA BEAD program and other U.S. Universal Service Fund initiatives. For more details, refer to **Section 2.2**, of this Plan and specifically **subsection 2.2.1**, "*Broadband Internet Availability*".

Digital Connectivity or **Broadband Internet Adoptability** 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).

Broadband Internet Affordability and the affordability of digital devices can limit an individual's or household's ability to access the internet. Certain populations or individuals may be more adversely affected by this factor than others. For instance, Covered Populations groups like households earning less than 150% of the poverty level, or individuals with disabilities, aging adults, or Veterans on a fixed income are less likely to be able to afford internet service and up-to-date digital devices than others.

4.4.1 Internet Availability in Townsend

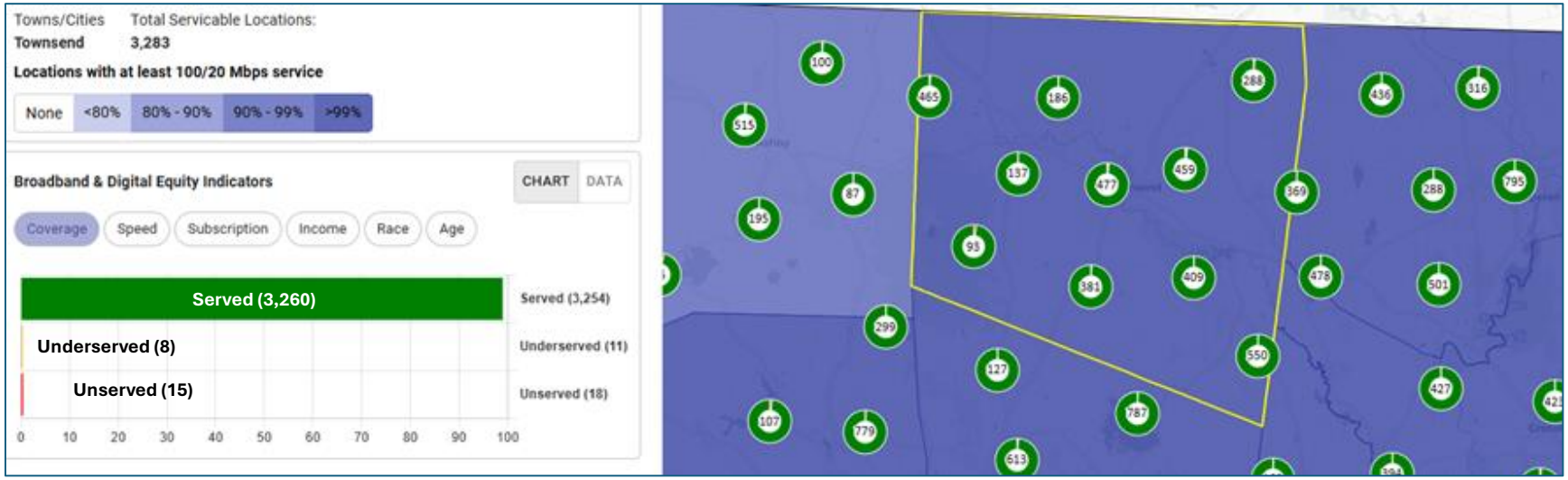
Regarding **Internet Availability**, **Townsend** has six (6) primary Internet Service Providers (ISP), as shown within **Table 4-3** below. Cable and Fixed Wireless internet are available, and satellite internet may also be available from various providers such as Dish, DirectTV, HughesNet, Viasat, and Starlink.

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

Table 4-3. Internet Availability by Service Providers in Townsend, MA.		
Provider	**Connection**	**Availability**
Xfinity	Cable	100.0%
Spectrum	Cable	4.8%
Earthlink	Fixed Wireless	24.5%
Verizon	Fixed Wireless	30.7%
T Mobile 5G	Fixed Wireless	99.8%
AT&T	Fixed Wireless	24.5%
Source: ISP Reports (https://ispreports.org/) accessed March 28, 2025.		

According to the Massachusetts Broadband Map the Town of Townsend has 3,283 Serviceable Locations, of which 3,260 (99.3%) are classified as "Served", eight (8) (0.24%) are classified as "Underserved", and 15 (0.46%) are classified as "Unserved". **Figure 4-10** below shows the total distribution of serviceable locations, relative to their status as Served, Underserved, or Unserved.[27]

Figure 4-10: Distribution of serviceable locations in Townsend



[27] Massachusetts Broadband Map

4.4.2 Broadband Internet Adoptability in Townsend

A relatively high percentage of Townsend's households currently subscribe to broadband internet service, at 91.7%. According to the U.S. Census, the proportion of residents subscribing to a broadband internet subscription Townsend is slightly lower than the national (93%) and higher than the statewide (90%) averages. Since 2020 and the COVID-19 pandemic, people rely more on broadband internet and online, web-based platforms for employment, education, banking, social interaction, and access to essential services and information than they did even a few short years ago. While there has been an increase in the number of homes with broadband internet since pre-covid times, there is still not full coverage in the town. Broadband internet is more important now than ever, and identifying challenges and barriers related to broadband access and understanding the needs of the residents to overcome those challenges and barriers is both critical and essential, and the primary purpose of this Plan.

Regarding **Digital Connectivity**, **Townsend** is comparable to statewide and national averages with slightly more households with internet and broadband, as well as using devices, as shown within **Table 4-4**. One major variation from statewide and national averages is the complete lack of Fiber-optic infrastructure in Townsend. Fiber-optic, which can handle greater bandwidth and provide higher speeds, is not available in Townsend. The lack of fiberoptic infrastructure and service is in contrast to the average conditions of the state and nation.

The shift to remote work brought about by Covid-19 has significantly increased the demand for higher internet speeds and greater bandwidth. 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.

Table 4-4. Digital Connectivity in Townsend, MA

Metric or Measure of Connectivity	Townsend	Massachusetts	USA
Average Household Size	2.6	2.5	2.7
Work from Home Percent	14%	17%	14%
Households with Devices	99%	95%	95%
Households with Internet	95%	92%	90%
Households with Broadband Internet	86%	82%	75%
Broadband Internet Usage vs. Availability	86%	83%	76%
Fiber-optic Availability	0%	57.36%	61.55%

Source: ISP Reports (https://ispreports.org/) accessed March 28, 2025.

In addition, 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 current and future needs. Townsend's fiber-optic availability has gotten a jump to accommodate those requirements. With population growth, higher demand for broadband internet, and an increase in high bandwidth internet uses, improvement to Townsend's digital literacy programs and device access programs could better provide for the existing and future populations.

4.4.3 Broadband Internet Affordability in Townsend

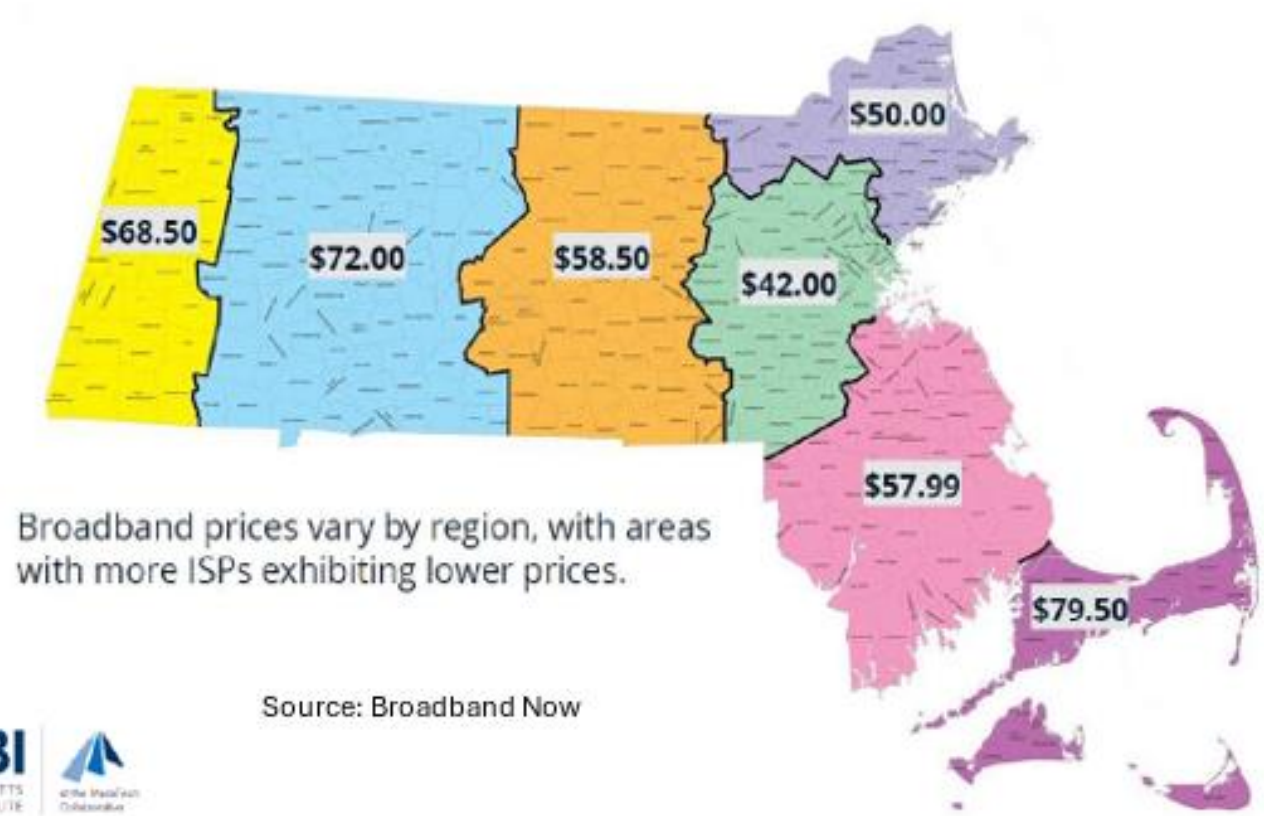
Affordability of internet services or subscriptions is a critical component of broadband internet access and Digital Equity. As for Internet Affordability, broadband prices vary by region, with areas with more ISPs exhibiting lower prices. There are five Internet Services Providers (ISP) available to most parts of Townsend, and there are two available providers of wired, broadband internet. It should be noted that the national average of available ISP providers is five (5) to six (6).

There are programs such as the Federal Communication Commission's (FCC) LifeLine Support for Affordable Communications Households option, *Spectrum Internet Assist*[28] (LifeLine Program)[29], Comcast/Xfinity's *Internet Essentials* Program[30], or Xfinity NOW Internet[31], and Spectrum's Internet for Lower-Income. Regardless of the various affordability programs and "affordable" internet service subscription options available, it is important to note that a minimum standard of 100 megabits per second download speed, and 20 megabits per second upload speed is the new benchmark of "reliable", "high-speed" internet for both subscribers and internet service providers. In the interest of Digital Inclusion and Equity, affordable internet programs should not only be affordable but should also meet that minimum standard benchmark for utility and function for all users across all programs and subscription rates.

Figure 4-11 shows the average broadband price by region, Townsend, located on the border of New Hampshire in Middlesex County, has the 4th highest internet costs in the state.

[28] https://www.spectrum.com/internet/spectrum-internet-assist
[29] https://www.lifelinesupport.org/
[30] https://www.xfinity.com/learn/internet-service/internet-essentials
[31] https://www.xfinity.com/now

Figure 4-11: Statewide average broadband prices by region



Source: Broadband Now

4.5 Digital Equity and Economic Development

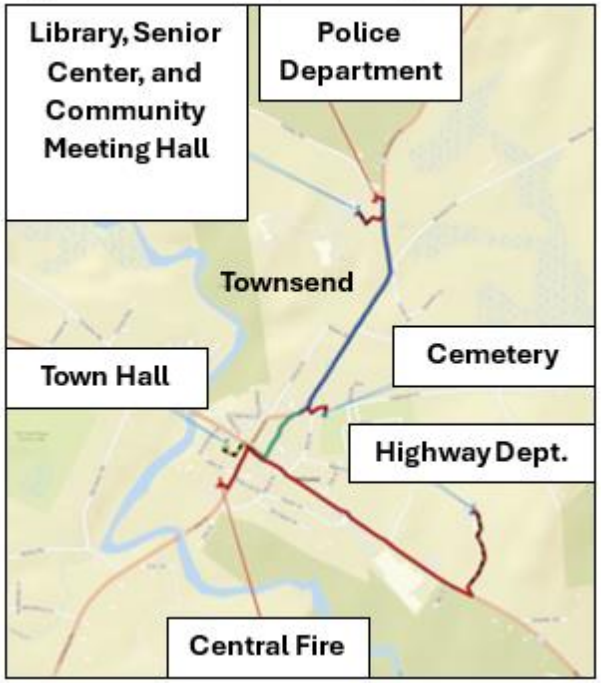
The greatest threat identified by economic development leaders in the Montachusett region by a wide margin is the quality of aging infrastructure throughout the region. This threat likely applies to internet infrastructure too and therefore affects broadband internet access, and subsequently digital equity and inclusion. Many agreed that improving the quality of telecommunications and digital equity (ensuring equal access to broadband internet and digital technology and devices and the use of information and communication technologies) was a major need and potential opportunity for the region. The 2024 *Montachusett Regional Comprehensive Economic Development Strategy* (MRCEDS)[32] recognizes that "***internet access is playing a larger role in everyday life, as it is required to work from home, schedule doctor appointments, access financial institutions, and promote overall business in general"***.

4.6 Recent Investments in Public & Private Broadband Infrastructure

- Town of Townsend (2023), **Municipal Fiber Grant Award** (**$173,384**): Installing a cascade star topology fiber optic wide area network (WAN). See **Figure 4-12**.
- Verizon New England, Inc. (2024), Broadband Infrastructure Gap Networks Program grant award ($37,068,263): To deploy high-speed internet lines to locations within several communities, including Townsend, that lack access to a broadband connection, thereby expanding high-speed broadband internet infrastructure to underserved homes, business, and community anchor institutions in Townsend and across the state.

*"When folks have affordable and reliable high-speed internet, small businesses get ahead, students excel in the classroom, and communities are able to stay connected with loved ones," **said Congresswoman Lori Trahan (MA-03)**. "I'm thrilled that families in Lunenberg, **Townsend** and Ashburnham will benefit from this important investment, helping to close the digital divide here in Massachusetts and across our nation!"*

Figure 4-12: Municipal Fiber Optic Network



[32] Montachusett Regional Comprehensive Economic Development Strategy – MRCEDS 2024: https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/mrceds_2024-29.pdf

4.7 Critical Digital Assets & Community Anchor Institutions

Critical Digital Assets and Community Anchor Institutions are critical 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 the communities' 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.

4.7.1 Townsend 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. Critical Digital Assets are often at risk of cyber-attacks and proper digital network security and access is crucial to their protection and function. A summary of the primary Critical Digital Assets for Townsend is shown in **Table 4-5**.

Table 4-5: Critical Digital Assets, Townsend, MA.

Critical Digital Assets - Townsend		
Facility Type	**Organization**	**Location**
Public Safety	Emergency Management Agency	272 Main St.
Public Safety	Townsend Fire Department	13 Elm St
Public Safety	Townsend Fire Department (2)	460 Main St.
Public Safety	Townsend Fire Department (3)	47 Main St.
Public Safety Public Service	Townsend Police Department Townsend Highway Department	70 Brookline St 177 Main St
Public Utility	Townsend Wastewater Treatment Plant	25 Harbor Trace Rd
Public Utility	Townsend Water Department	540 Main St
Other Government Buildings	Townsend Post Office	227 Main St
Education	Townsend Public Schools – North Middlesex Regional School District	66 Brookline St

4.7.2 Townsend Community Anchor Institutions

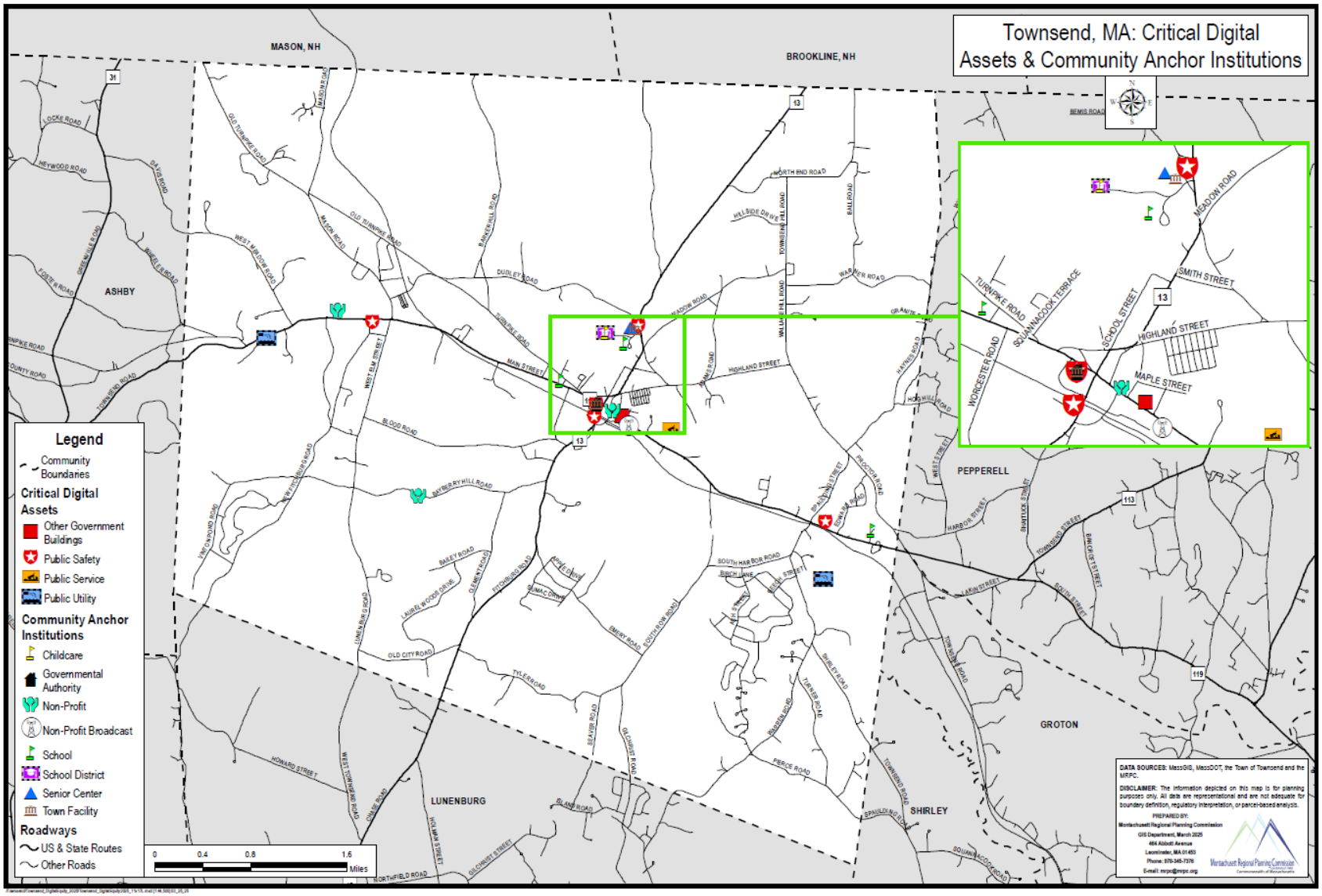
The term "Community Anchor Institution" as defined within the Digital Equity Act of 2021 means a public school, a library, a medical or healthcare provider, a community college or other institution of higher education, a state library agency, and any other nonprofit or governmental community support organization. Below in **Table 4-6** is a summary of the primary Community Anchor Institutions located within Townsend:

Table 4-6 Community Anchor Institutions - Townsend

Facility Type	Organization	Location
Town Facility	Town of Townsend Town Hall	272 Main St
Town Facility	Townsend Public Library	12 Dudley Rd
Town Facility	Fitness Center/Recreation	5 Jeffs St.
Governmental Authority	Townsend Housing Authority	272 Main St
Non-Profit Broadcast	Townsend Community Action Media (TCAM)	222 Main St. Unit#5
Non-Profit	Townsend Veterans of Foreign Wars (VFW)	491A Main St
Non-profit	Townsend Ecumenical Outreach	82 Bayberry Hill Rd
Senior Center	Townsend Senior Center	16 Dudley Rd
School District	North Middlesex Regional District Offices	66 Brookline St
School (Elementary School)	Spaulding Memorial School	1 Whitcomb St
School (Middle School)	Hawthorne Brook Middle School	64 Brookline St
School (High School)	North Middlesex Regional High School	19 Main St
School (Preschool)	Squannacook Early Childhood Center	66 Brookline St
Non-Profit	NM Cares	241 Main St Lower level
Non-Profit	Townsend Drop -In Center	241 Main St

Figure 4-13 on the following page is a map showing the locations of all Critical Digital Assets and Community Anchor Institutions located within Townsend, as listed above.

Figure 4-13: Critical Digital Assets and Community Anchor Institutions in Townsend



5

5. Community Digital Equity Barriers & Needs Assessment

In addition to the Existing Conditions Evaluation presented within **Section 4** of this Plan, the Digital Equity Planning Process also includes an assessment of "Community Needs" presented here as **Section 5**. Location-specific Community Needs are established as part of the public outreach and engagement portion of the planning process 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, interviews, and responses to the Statewide Digital Equity Survey.

The assessment of community needs was not limited only to internet accessibility but also included an evaluation of the Town of Townsend and surrounding region's digital literacy opportunities, and the community's level of digital literacy skills, abilities, comfort levels, and willingness to adopt broadband internet and digital technologies. Community needs were assessed generally, but with consideration given to the status and needs of certain covered populations of the Digital Equity Act, described within **Section 4.3**, above.

5.1 Statewide & Local Digital Equity Survey

The state's first Digital Equity Survey launched in 2023 to help the Massachusetts Broadband Institute identify individuals' needs for accessibility and affordability of digital devices and the internet as well as digital skills needed to safely access online resources. Unfortunately, only eight (8) people from Townsend responded to the statewide survey. A local Digital Equity Survey was also launched in September of 2024 and promoted by MRPC, local towns, including Townsend, and digital equity stakeholders of the Montachusett Region. While that survey did resonate and generate responses in some local communities, only 5 Townsend residents responded to the survey. Despite the limited number of respondents to the statewide and local surveys, several overarching themes relating to Digital Equity and Inclusion challenges, barriers, or needs were highlighted by those responding and were consistent with other regional findings and findings in similar communities. Below is a summary list of those themes:

- Affordability of broadband internet service
- Reliability of Broadband Internet Service and Increased Upload/Download Speeds
- Limited number of service providers resulting in a lack of market competition
- Public Wi-Fi Access
- Internet Affordability or subsidy programs for Aging Adults Over 60
- Expanded and Accessible (Available, Affordable, Adoptable) Fiber Optic Network Infrastructure for Residents
- Digital Literacy programs and services
- Internet Safety & Security awareness and education

The limited survey respondents represented several covered populations including Aging Adults Over 60, Individuals who reside in Rural Areas, and Covered Households earning less 150% of the poverty level. Regarding digital literacy training, those that responded expressed an interest in courses related to digital art, photo editing, or graphic design, online/internet safety, cyber security, and tele-health. Cyber-security and internet safety were common topics of concern raised during stakeholder interviews, public engagement, focus group meetings and stakeholder surveys throughout the entire Montachusett Region and among a variety of covered population groups. Despite the limited response-rate, it appears that Townsend is no exception – Internet safety and security is a major concern and Digital Literacy training is key to promote cybersecurity awareness and is a needed resource for Communities and their Anchor Institutions such as Libraires, Senior Centers, Veteran's Centers, Community & Recreation Centers, Housing Authorities, City and Town Halls, and Schools.

5.2 Barriers and Needs Outline

To accurately articulate the digital equity needs in Townsend it is imperative to understand the barriers that exist. **Table 5-1** lists both the barriers to digital equity and what needs will help work towards bridging the digital gap in Townsend.

Table 5-1 Townsend MA		
	Barriers	**Needs**
Availability	• Limitations to where free, public Wi-Fi is available • Lack of public charging stations • Limited hotspots (long-term use) • Lack of accessibility • CAT 5 wiring in library • Lack of 3rd party software training • Printing limitations • Outdated computers	• Expansion of Free Public Wi-Fi locations • Public charging stations • Additional hotspots • Transportation to digital resources • Wi-Fi options for homebound • Fiber-optic – Library • 3rd party software training for Library staff • Upgraded printers • Upgraded devices
Affordability	• Cost of internet service • Cost of devices • Fixed/limited income • Housing insecurity • ISP programs that offer low cost but inadequate internet service	• Low-cost/free internet programs • Device distribution programs (must include a digital literacy component) • Equitable ISP programs • Devices that meet CWMars operating system specs
Adoptability	• Lack of digital literacy • Lack of affordability • Lack of trust for the internet • Lack of technical knowledge to use devices effectively • Lack of private workspaces • Lack of one-on-one tech help • Lack of live tech help line • Lack of accessible formats where public internet resources and information is disseminated	• Consistent digital literacy classes • Digital literacy curriculum • Device distribution (once digital literacy program complete) • Internet Safety/cyber security Classes • Basic Computer use class (COA) • Private workspaces • Live one on one tech help • Live tech help line • Hard copy (and on-line) information pertaining to available digital resources • CWMars Premier Support

5.3 Summary of Specific Needs

A. Digital Availability

- **Limited Wi-Fi internet outside of public buildings** – An important outcome of this planning process and assessment of community needs was the identification of the need and desire for free charging stations, public workspaces and public wi-fi and additional outdoor public spaces such as outside of the Library, Town Hall, Town Common, the Jefts Street trailhead of the Squannacook River Rail Trail (future location of an outdoor fitness center), and at other Parks and Recreational spaces.
- **Access to Public Workspaces that provide privacy** – Many individuals only access to the internet and/or devices is in public buildings. Groups, such as the Council on Ageing (COA) meet in shared spaces and perform a variety of tasks in concert with each other. While the social aspect of this practice may be effective, there is an important need to provide individuals with privacy while using the internet/devices for tasks such as a telehealth appointment, financial matters or any other sensitive situation that requires privacy. Private workspaces are needed in public buildings. Townsend is in a unique position to accommodate this need given that the Senior Center/Community Meeting Room and Public Library complex have existing spaces that could be upgraded and utilized for this purpose, and there is space to accommodate the addition of booth-style privacy rooms or workspaces.
- **Limited access to Digital literacy resources** – Aa a rural community, Townsend's entire population qualifies as a member of a Covered Population of the Digital Equity Act. Given the understanding that covered populations face greater challenges and barriers to digital inclusion and equity, strong, coordinated partnerships that promote and provide digital literacy training and leadership are needed. Partnerships with existing digital literacy training organizations should be established. Additional resources and funding should also be sought to provide ala-carte or at-home, learn-as-you-go services through existing free programs like www.DigitalLearn.org or programs funded by the Town of Townsend or partner organizations. The Town of Townsend already has an active Recreation Department that considers educational training opportunities for residents of all ages to be an important part of its programming. In the past the Recreation Department has offered digital literacy themed trainings and is interested in partnering with the Library and Senior Center to expand those offerings in the future to meet the needs and achieve the goals identified within this Plan.
- **Access to Assistive Technology and Devices** – It was noted that some public computers and workstations are not fully "accessible" to individuals with disabilities. Even government webpages are not always fully ADA accessible or compliant with the established standards for Information and Communication Technology (ICT) under Section 508 of the Rehabilitation Act and Section 255 of the Communications Act. Additional digital and internet ADA accessibility measures through enhanced web content, devices and workspaces meeting the ICT standards and improved public access to assistive digital technology and devices are needed.

B. Digital Affordability

- **Affordability of Broadband Internet** – In many parts of the Montachusett Region there are few choices in internet service providers (ISP) which prevents market competition and leads to expensive services. In general, the internet is expensive in Townsend and there are few affordable internet options for low-income households except for those that are based on a lower level of service, resulting in lower upload/download speeds and service connection quality or reliability. The internet is now considered an essential resource or utility – like heat, electricity, and water – and therefore, programs to supplement the cost must be considered for those in need of financial assistance.

- **Affordability of Digital Devices** – Whether devices and workstations are made available for use in public buildings and spaces, or for personal ownership use through free or reduced-cost device distribution programs, it is essential to increase access not only to affordable, reliable broadband internet, but also to affordable, up-to-date, high-tech digital devices and technologies. Following the model established by NDIA and other digital literacy and device distribution advocates and training professionals, it is recommended that public device distribution programs are inclusive of or offered in conjunction with Digital Literacy training.

Townsend Public Library Touch-screen Informational Kiosk and Digital Device Charging Station

C. Digital Adoptability

- **Concerns about Cyber-Security & Internet Safety** – Cyber-security and internet safety were common topics of concern raised during stakeholder interviews, public engagement, focus group meetings and survey responses.

- **Limited Basic Computer Skills** – It was noted that many residents, particularly aging adults and Veterans need basic computer skills. Often, digital literacy and computer classes assume that people already know what may seem like common knowledge to others. Many people now need to use the internet for everyday living activities not associated with work or school. Understanding this need and accommodating the digital literacy and skills needs of people other than students and working professionals is necessary.

- **Limited Basic Internet Skills** – Navigating the internet is not always intuitive between websites or applications and among different people and population groups. It was noted that many of the region's residents could use basic instruction or assistance navigating

the internet. Individuals with a language barrier or lower levels of literacy, and aging adults, and veterans may face increased challenges and barriers to accessing and acquiring basic internet skills and other digital literacy needs.

- **Difficulty Navigating Government Websites and Online Applications and Forms** – It was noted that residents, particularly Aging Adults and Veterans need assistance navigating federal, state, and local government websites and need assistance completing and submitting online applications, permits, and forms and uploading supporting documentation to related online application systems. Of interest, it was noted that assistance was needed with: Massachusetts Registry of Moter Vehicle (RMV) automobile registration and driver's license renewal forms; Online bill or tax payments; Online Medical Records/Telehealth; Veteran's Administration (VA) website and online records and services portal.
- **Difficulty Setting up digital devices and accessing and changing device settings** – Many people noted that the hardest part of using a digital device can be setting it up or finding and changing settings within the device. While some are comfortable operating and using a digital device like a cellphone, laptop, computer, or tablet, they are not comfortable enough to set one up if they need to purchase a new device. This can be stressful and prevent people from changing settings or updating the device. Townsend is in a unique position, due to interested and qualified staff and an established culture of civic engagement and volunteerism, to establish a partnership between the Public Schools, Public Library, and Recreation Department to develop a framework to offering IT, Tech Help services or "office-hour" sessions to assist residents with setting up, updating, and changing devices and devices settings, and other general tech help topics.
- **Difficulty Managing online subscriptions and accounts** –The need for more and more online accounts to accomplish everyday tasks (Veteran's Administration, Tele-Health platforms, Amazon, Netflix, etc.) creates a challenge managing numerous account usernames and passwords. This can be a challenge for anyone, but especially for people who do not have a high level of digital literacy or who may have had someone else help them set up the account and do not know or remember their log-in information.

5.3.1 Organizational Needs

- **Technology & Infrastructure Gaps** – Aging digital networking equipment, computers, and lack of workstations in public spaces like the Senior Center and departments throughout town need to be updated with modern, up-to-date equipment and technology.
- **Partnerships**– Consider developing partnerships with MOC, Mount Wachusett Community College, and MassHire Career Center to coordinate with and build upon their existing Digital Literacy programs.

- **Understanding Digital Equity & Inclusion in Rural Areas** – According to the Pew Institute[33], many parts of rural America lack high-speed internet which means that communities face significant barriers to learning and working. Individuals residing in rural areas are less likely than suburban or urban residents to have a home broadband internet subscription and less likely to own a smartphone, tablet, laptop, or computer. While the number of rural residents having a broadband internet connection at home has increased from six-in-ten people (63%) in 2016, to seven-in-ten people (72%) in 2021, it is still lower than in more urban areas.

The Assessment of Community Needs presented within this section (**Section 5**) informed the Community Vision, Goals, and Actions provided in the following section, ***Digital Equity Vision, Goals, Actions & Implementation***, **Section 6** of this Plan.

[33] Some digital divides between rural, urban, suburban America persist | Pew Research Center
https://www.pewresearch.org/short-reads/2021/08/19/some-digital-divides-persist-between-rural-urban-and-suburban-america/


Howard Park Tra
Old Meetinghouse Park Trails
Squannacook River Rail Trail
Parking
irrel-Eze
sans Bou
fette
sses
illow Wind
es & Lessons

6

6. Digital Equity Vision, Goals, Actions & Implementation

Broadband internet accessibility and connectivity issues in Townsend 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 affordability, limited access to public internet and digital workspaces, affordable devices and technology, and digital literacy training and tech help. Through the information provided in this Plan and upon its eventual implementation, rural communities will have the tools necessary to enhance digital equity and inclusion to bridge the digital gap.

6.1 Digital Equity Community Vision

> ***Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services. The goal of Townsend's Digital Equity Plan is to ensure that all individuals in Townsend have equitable access to current technology, robust internet service, and training and education to make these tools accessible. Providing these necessary services allows the public to fully participate in our community, society, democracy and economy.***

6.2 Digital Equity Goals

1. Improve the effectiveness, efficiency, and quality of local initiatives that promote digital equity, literacy, and inclusion.
2. Increase access to affordable, fast, reliable internet.
3. Expand internet service, device distribution and digital literacy through community engagement and partnerships.
4. Increase the capabilities of Townsend’s technological resources and public digital workspaces.
5. Seek and secure funding opportunities for investments and long-term support of digital equity programs and services.

6.3 Digital Equity Implementation

Focus Areas

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

Source: Extreist.com

Source: HOK.com

MBI - Digital Equity Project Focus Areas	
	1. 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.
	2. 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.
	3. 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.
	4. 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.
	5. 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.
	6. Device Distribution and Refurbishment Provision of new or used internet-connected devices, such as laptops, tablets, and smart phones, to distribute to target populations.
	7. 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

Table 6-1 Townsend Digital Equity Action Plan				
Goal	**Action**	**MBI Project Category**	**Potential Lead (s)**	**Funding/Program**
1. Improve the effectiveness, efficiency, and quality of local initiatives that promote digital equity.	Promote and Support Digital Literacy Training Programs like those available through MassHire Central Mass Career Center, MWCC Adult Education, North Central Educational Opportunity Center, Montachusett Opportunity council (MOC) and other digital literacy partners.	5,7	Library/COA/Rec	MBI Digital Equity Partnerships program; NDIA; Commonwealth Corporation Grant (MassHire);
	Continue to evaluate and update the Townsend Digital Equity Plan and pursue opportunities, services, programs, and partnerships that enhance digital equity and inclusion initiatives.	5,6,7	Planning Dept.	MBI Digital Equity Implementation Grant program (future rounds); CDBG; NDIA
	Encourage peer-mentorship and "train-the-trainer" models where individuals of covered population groups are empowered to become qualified digital literacy and certified Digital Navigators such as senior-to-senior tech help sessions, peer-to-peer youth-led and youth driven initiatives.	5	Library/COA/Rec	MBI - Digital Equity Implementation Program, AARP Digital Skills; MassLinks Operation Able; Growth Mindset Model; MBI programs
	Identify and train a Digital Navigator (Qualified Trainer) at each Anchor institution. (Town Hall, Library, COA, Recreation Dept.)	1	Town Administrator	NDIA Digital Navigator & Digital Inclusion model; MBI Programs
	Join a Regional Digital Equity Coalition and play a role in future implementation and evolution of regional digital literacy initiatives.	2,4,5,7	Planning Dept./Library/COA/VFW/Rec	MBI Digital Equity Partnerships program; MBI Programs
	Expand Wi-Fi capabilities outside the library and at the exercise park behind the town hall.	3,4	IT/Library (CW-Mars)/Rec	MBI Programs or

2. Increase access to affordable, fast, reliable internet.				Digital Equity Implementation Grant program; CDBG
	Design Digital Equity & Resources Maps for display in kiosks or map-boards showing locations of public Wi-Fi, workspaces, charging stations, Community Anchor Institutions, and digital literacy resources.	3,4	IT/Town Administration/Planning	MBI - Digital Equity Implementation Program
	Create public Wi-Fi mesh networks and charging stations at Parks and Playgrounds.	3,4	IT/Town Administration	MBI Digital Equity Implementation Grant program (future rounds); NDIA, Commonwealth Compact Grant, MOD Municipal ADA Grant
	Evaluate and create spaces for connectivity in Anchor institutions that include workspaces, devices with charging stations, and audio visual.	3,4	IT/Town Administration	MBI - Digital Equity Implementation Program
	Provide "Pod" or booth style workspaces that provide privacy for users when participating in sensitive matters via the internet. (telehealth appointments, etc.) at all Anchor Institutions.	3,4	IT/Town Administration	MBI Digital Equity Implementation Grant program (future rounds); NDIA, Commonwealth Compact Grant, MOD Municipal ADA Grant
3. Expand internet service, device distribution	Expand capabilities on the town webpage for improved accessibility, ease of use, and enhanced function, with a goal toward meeting the established standards for information and communication technology (ICT).	5,7	Town Administrator	Existing Towny Resources, Staff Capacity, MBI - Digital Equity Implementation Program NDIA, Commonwealth Compact Grant,

and digital literacy through community engagement and partnerships.				MOD Municipal ADA Grant
	Create a Digital Equity and Inclusion webpage within the town website to host the Townsend Digital Equity Plan and a related interactive Local Digital Resources Map displaying locations of digital equity/literacy resources.	5,7	Town Administrator	Existing Towny Resources, Staff Capacity or MBI - Digital Equity Implementation Program
	Create print copies and a digital downloadable/printable version of the Local Digital Resources Map for distribution and display, including the installation of kiosks at Community Anchor Institutions and public outdoor digital spaces (workstations, charging stations, and outdoor public Wi-Fi areas).	5	IT/Town Staff	Existing Towny Resources, Staff Capacity or MBI - Digital Equity Implementation Program
	Partner with social service agencies and other town groups to create device distribution programs.	5,6,7	COA/Library/TEO/VFW	MBI - Digital Equity Implementation Program
	Partner with social service agencies and other town groups to create an internet assistance program that models fuel assistance programs.	5,6,7	COA/TEO/VFW	MBI - Digital Equity Implementation Program
4. Increase the capabilities of Townsend's technological resources and public digital workspaces.	Purchase additional Wi-Fi hotspots (with internet service subscription) for the library.	1,2,4	Library	MBI - Digital Equity Implementation Program
	Upgrade internet networking infrastructure and Internet services at the library.	1,3,4,	Town Administration/Library	
	Upgrade the Townsend Meeting Hall's audio/video technological systems and internet.	1.3.4	Town Administration	
	Upgrade the technology and enhance the internet service at the Recreation Center.	1.3.4	Recreation Dept./Town Administration	MBI - Digital Equity Implementation Program

	Create public workspaces outside of the library and Recreation Center that includes charging stations. (consider solar powered options where practical)	1,3,4,	Library/Recreation/Town Administration	MBI - Digital Equity Implementation Program
	Provide upgraded computer set ups that have access to the internet and printers at the Library, COA, Town Hall, and Recreation Department.	1,3,4,	Library/COA/Recreation Department/Town Administration	MBI - Digital Equity Implementation Program, AARP Community Challenge Grant
	Provide equipment, devices, technology, and workstations for the "Teen Room" at the library	3,4	Library	MBI - Digital Equity Implementation Program
5. Seek and secure funding opportunities for investment and long-term support of digital equity programs and services.	Leverage existing and potential funding sources and programs to enhance digital equity and inclusion in Townsend.	7	Town Staff/Library/COA	Existing Town Resources or Staff Capacity; MBI Launchpad Program; NDIA
	Identify meaningful partnerships and seek coordinated joint-funding applications for developing, expanding, or sharing resources to support the mission of existing Digital Equity & Literacy partners and Community Achor Institutions.	1,7	Town Staff/Planning	MBI Digital Equity Partnerships program; NDIA; Commonwealth Corporation Grant (MassHire), MBI Launchpad
	Coordinate with MassHire Central Mass Career Center and Making Opportunity Count, (MOC) to understand existing Digital Literacy funding mechanisms and sources to best plan for future funding needs over the course of the next 5 years and beyond.	1,7	Library/COA/TEO/VFW	Town Staff and Stakeholder Partners
	Develop framework and partnerships and seek funding to establish mobile, site-site and in-home digital literacy trainers and training services and/or corresponding Rideshare Transit and Transportation Programs that provide "rides for digital literacy and inclusion".	5,7	Library/COA/TEO/VFW	MBI Launchpad; AARP Digital Skills Training; NDIA Digital Navigator Model;

6.5 Digital Equity Implementation

Townsend can and should leverage numerous state and federal funding opportunities to support digital equity initiatives to bridge the Town's 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.

6.5.1. Municipal Digital Equity Implementation Program

Municipalities participating in the Municipal Digital Equity Planning program (the program associated with the development of this Plan) are directly eligible for another funding program administered by the Massachusetts Broadband Institute (MBI), the Municipal Digital Equity Implementation Grant program. Municipalities that have completed a Digital Equity Plan may select and apply for funding to implement one or more activities or "actions" identified as priorities within the Plan. The funding program allows for projects related to several project focus areas relevant to achieving or enhancing digital equity and providing services or programs supporting digital inclusion.

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 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.

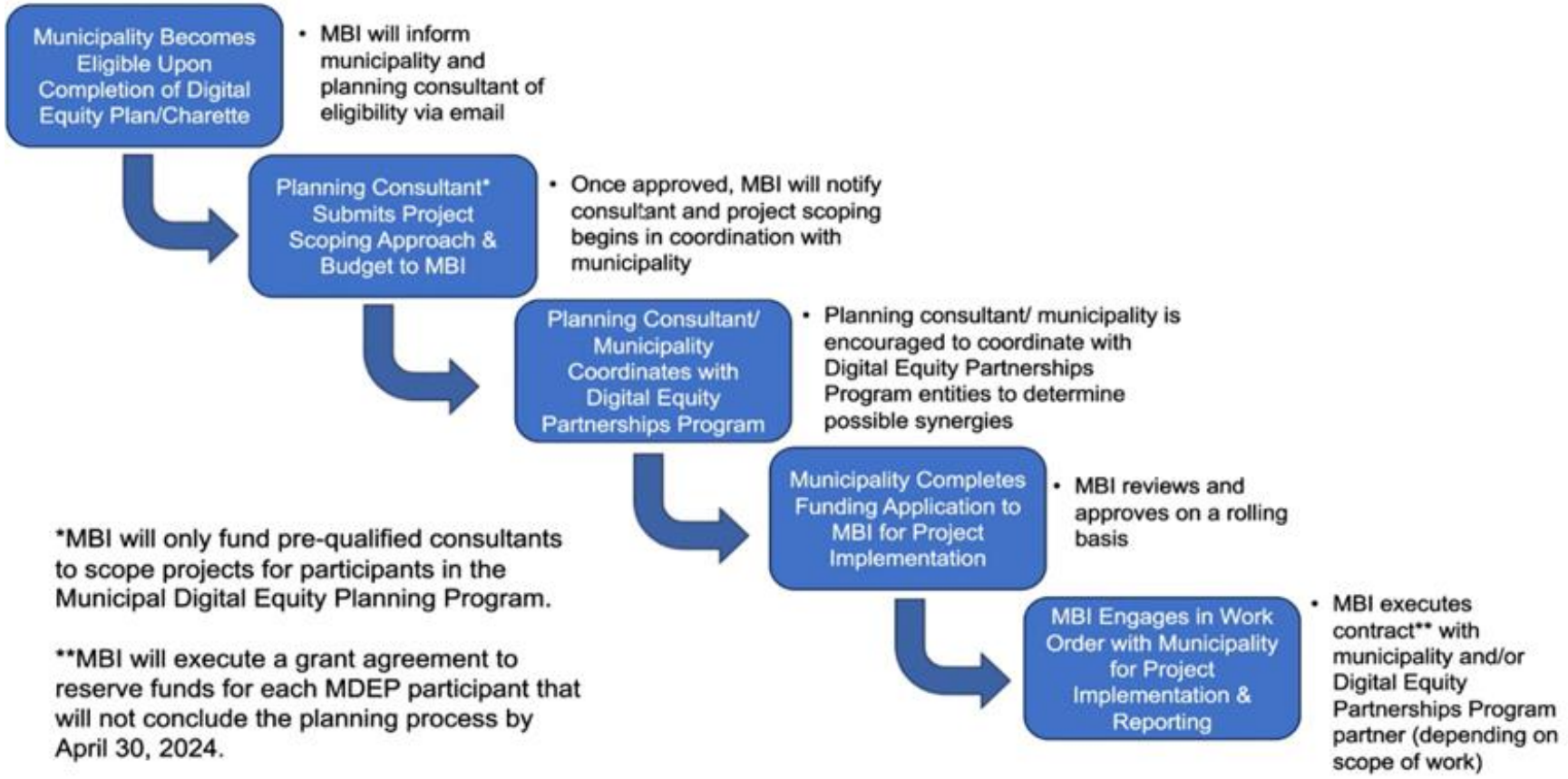
As with some related planning activities in the economic development field, it may be beneficial to adopt a regional approach to digital equity implementation. Such an approach would enable resource sharing that could reduce staff time and costs through coordinated efforts and support thereby increasing efficiency and likely offering mutual, joint benefits, and increased success. Through an application to MBI, the town is eligible to receive funds for the implementation of actions identified within this Plan. It should be noted that the Municipal Digital Equity Implementation Grant Program allows a municipality to apply for up to $100,000.

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 aims to 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.
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.
3. Encourage collaboration and synergy with the Digital Equity Partnerships Program, which includes statewide and regional grantees with high capacity for digital equity work. Charette, or pre-existing plan deemed sufficient by MBI.

MBI will administer the Implementation Grant round in the process outlined below:



6.5.2. Launch Pad (formerly proposed) Funding Program

The goal of the Launchpad Program was to distribute $9.44 million in two-year grants to non-profit and public sector entities capable of strengthening digital access and adoption for Massachusetts residents, specifically Covered Populations of the Digital Equity Act. Unfortunately, Federal funding for this program was suspended in May of 2025. MBI is currently working to develop an alternative funding program. Under the former Launch Pad program, eligible applicants (e.g., non-profit, community-based organizations, municipalities, regional planning agencies, philanthropic foundations, state agencies or quasi-governmental entities, educational or health care providers, community action agencies, and coalitions of multiple organizations) would have been awarded funding for a two-year period to implement their proposed projects. Proposals could not have exceeded a $1,000,000 budget. Only the most compelling proposals would have been considered for awards at the maximum amount. Applicants could have applied for one or more of six initiative areas (e.g., Wi-Fi Access Initiative; Public Space Internet Modernization; Connectivity for Economic Hardship; Digital Literacy; Device Distribution and Refurbishment; and Education, Outreach, and Adoption Support). In an effort to build upon the success of the Digital Equity Partnerships Program (see description below) and address existing gaps, MBI will prioritize funding to Priority Geographic Locations (Barnstable, Bristol, and Worcester Counties, including but not limited to Gateway Municipalities and state-designated rural communities as defined by the Massachusetts State Office of Rural Health. MBI Launch Pad program will also prioritize the following Covered Population groups: Incarcerated/formerly incarcerated individuals, residents with language barriers, and Veterans.

More information will be made available from MBI soon on the future status of this program or others like it.

6.6 Additional Digital Equity Funding

Lead for America American Connection Corps
https://broadband.masstech.org/massachusetts-digital-equity-opportunity

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 development, digital inclusion, and civic leadership in communities through a network of ACC Members. Organizations currently engaging in digital equity and inclusion work that want to expand their initiatives and impact can apply to host a digital equity practitioner directly through the Lead for America American Connection Corps (ACC) program. MBI and Lead

for America have committed to placing a cohort of practitioners to ensure a broad range of organizations can take advantage of this program. Individuals will be recruited in partnership with selected host sites from the communities that they will serve.

Digital Equity Partnerships Program
https://broadband.masstech.org/partnerships

The Digital Equity Partnerships Program launched in September 2022 to support organizations across the state in implementing projects that meet the digital equity goals outlined in the Commonwealth's 2021 ARPA COVID recovery legislation. MBI Partnerships program has had award increases detailed in new press releases since December 2023 (see program webpage). While MBI is not accepting new applications for this program, existing Partner grantees (such as UMass Lowell) may have opportunities open for municipalities or local organizations. The Program is comprised of six initiatives that applicants can focus on within proposals:

1. Wi-Fi Access: Implementing Wi-Fi in affordable housing and/or low-income neighborhoods.
2. Public Space Internet Modernization: Improving infrastructure and resources in public.
3. Connectivity for Economic Hardship: Providing "hot spots" to low-income/housing insecure individuals.
4. Digital Literacy: Establishing digital literacy programs to train populations on devices, resources, and digital tools.
5. Device Distribution and Refurbishment: Securing new and/or refurbished devices for distribution.
6. Education, Outreach, and Adoption Support Initiative: Conducting outreach to increase the success of digital equity programs like the Federal Communications Commission's Affordable Connectivity Program (ACP).

In December 2023, the Healey-Driscoll Administration and the Massachusetts Broadband Institute (MBI) at MassTech announced $20 million in new grants through the state's Digital Equity Partnerships Program, which supports high-impact and scalable initiatives that reach residents most affected by the digital divide. Since then, MBI has detailed award increases in new press releases, further supporting these critical projects. As part of this funding announcement, the University of Massachusetts Lowell was awarded $4 Million to spearhead a Digital Equity Partnership project covering the Gateway Cities of Leominster, Fitchburg, Lowell, Haverhill, and Lawrence, and more broadly across the many communities of the Merrimack Valley, Northern Worcester County and the North Shore. Through the funded partnership the UMass Lowell team will offer technical skills, a student digital navigators' model, project management resources, and procurement expertise. Specific outcomes will include deploying three neighborhood-scale mesh Wi-Fi networks, improving six public facilities with broadband service, creating a multi-tiered digital literacy and navigation initiative that establishes a regional help desk at UMass Lowell and

advances new digital literacy programs, distributing 1,200 new or refurbished devices; and finally, providing outreach at six community-based organizations to promote individual of adoption the Federal Communication Commission's, Affordable Connectivity Program.

Several aspects of the UMass Lowell Digital Equity Partnership Program, including Wi-Fi Access Initiative, Public Space Modernization Initiative, Digital Literacy Initiative, Device Distribution and Refurbishment Program, and Education, Outreach & Adoption Program, aim to serve several Gateway Cities including Fitchburg and Leominster, as well as other parts Northern Worcester County within the Montachusett Region.

Gap Networks Grant Program
https://broadband.masstech.org/gap-networks-grant-program

The $145 million Gap Networks Grant Program, administered by the Massachusetts Broadband Institute (MBI) will fund the deployment of broadband infrastructure in areas that currently lack broadband service. The Program aims to expand access and connectivity in unserved and underserved locations throughout the Commonwealth to bridge the digital divide. Specifically, the Program will fund the deployment of broadband infrastructure in those areas that currently lack access to sufficient broadband internet service, defined as a service offering download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.

Two rounds of Gap Networks funding have been awarded to support these efforts. Round 1 included Townsend under the Verizon award[34]. While prior investment of public funds has substantially reduced the number of unserved and underserved locations remaining in the state, there are still pockets of locations throughout the state that lack access to reliable and affordable broadband service. This Program is intended to address those remaining gaps in broadband availability. Projects funded through this Program must be designed to deliver broadband service that meets or exceeds 100 Mbps symmetrical speeds. Locations that will be covered through a binding funding commitment from other federal or state funding sources are not eligible for funding under this Program. Grant applicants are required to provide a minimum matching contribution of at least 20%, subject to limited waivers for certain municipally owned broadband infrastructure projects.

This Program will score more favorably proposed projects in economically challenged areas, specifically Gateway Municipalities and those areas identified by HUD's Qualified Census Tract program. Furthermore, awardees will be required in the Federal Communications Commission's Affordable Connectivity.

[34] (*Healey-Driscoll Administration Awards More than $45 Million in Grants to Extend High-Speed Internet Coverage Statewide | MBI*, 2024)

Metropolitan Area Planning Council Apartment Wi-Fi and MBI Residential Retrofit Program
https://www.mapc.org/our-work/expertise/digital-equity/apartment-wi-fi/
https://broadband.masstech.org/retrofit

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.

MBI's Residential Retrofit Program (funded through the federal Capital Projects Fund) works in tandem with MAPC's apartment Wi-Fi Program, utilizing the same expression of interest form for housing operators.

Housing Authorities and Redevelopment Authorities involved in affordable public housing projects should connect with representatives from MBI and/or MAPC to learn about the Apartment Wi-Fi Program and Residential Retrofit Program to find out if there are any opportunities to leverage these resources for existing and planned affordable housing buildings and properties.

Community Compact Cabinet Municipal Fiber Grant Program
https://www.mass.gov/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. Eligible communities 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 the local broadband economy and workforce training opportunities.

Community Compact Cabinet IT Grant Program
https://www.mass.gov/community-compact-it-grant-program

The Massachusetts Community Compact IT Grant Program, administered by the Division of Local Services, 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. Eligible communities can leverage the IT Grant Program funds toward developing a municipal wireless mesh network to provide free public internet outdoors.

Community Compact Cabinet Efficiency and Regionalization Grant Program
https://www.mass.gov/efficiency-regionalization-grant-program

The Community Compact Efficiency and Regionalization (E&R) Grant Program, administered by the Division of Local Services, is a competitive grant program that provides financial support for government bodies interested in regionalization and other efficiency strategies. Funds may be administered by government entities, regional school districts, regional planning agencies, and councils of governments. Example eligible expenses include equipment or software, technical assistance, or transition or project management costs for one year. Eligible communities can use E&R funding to secure software packages needed by municipal offices, including but not limited to permitting software for the Public Health Department. Communities can also partner with adjacent communities to secure a shared resource, like a Resident Engagement Coordinator.

AARP Community Challenge Grant Program
https://www.aarp.org/livable-communities/community-challenge/info-2025/2025-challenge.html

Flagship AARP Community Challenge grants have ranged from several hundred dollars for smaller, short-term activities to tens of thousands of dollars for larger projects. Since 2017, AARP has funded projects with an average grant amount of $10,000 to $12,000. Nine out of 10 grants (or 92 percent) are for $20,000 or less. In 2025, grants will not exceed $25,000. (AARP also reserves the right to award compelling projects of any dollar amount.) We are accepting applications for projects that benefit residents — especially those age 50 and older – in several community development categories, including “Increasing digital connections and enhancing digital literacy skills of residents”.

Enhancing Digital Literacy for Oder Adults Grant
https://www.mass.gov/info-details/enhancing-digital-literacy-for-older-adults-grant

The Enhancing Digital Literacy for Older Adults Grant is a $1.5 million program funded by American Rescue Plan Act Home and Community-Based Services (HCBS) that is designed to help councils on Aging (COAs) improve the digital literacy of older adults. Grants of up to $100,000 per COA are available for COAs in Massachusetts to facilitate:

- Purchase devices, software, or broadband for older adults; technology purchases for the COA are also allowed if they facilitate the goal of increasing the digital literacy of older adults
- Provide training, education, or support to enhance digital literacy for older adults in a COA's service area or older adults who access the COA

Overall, the goal of the grant is to help older adults use technology in a way that strengthens, enhances and expands HCBS. This may include helping older adults engage in telehealth, access medical information, connect with family or caregivers, participate in preventive health courses, participate in healthy aging programming, or find and access supports to age in the community.

Municipal Americans with Disabilities Act Grant
https://www.mass.gov/info-details/municipal-ada-improvement-grant-program

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.

Determination of Need (DoN)
https://www.mass.gov/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." The Massachusetts Executive Office of Elder Affairs (EOEA) created the Massachusetts Community Health and Healthy Aging Funds initiative in partnership with the Massachusetts DPH in 2017 as a revision to the DoN program. This program aims "to enhance the capacity of multi-sector collaboratives to authentically engage residents and work together" to remove barriers to health." Communities can leverage funding through the DoN program to establish training opportunities for local consumers regarding tracking medical records.

Commonwealth Corporation (CommCorp) YouthWorks Funding
https://commcorp.org/program/youthworks/

Commonwealth Corporation's YouthWorks is a state-funded youth employment program that supports skills training for youth up to age 25 from households earning less than 200% of the federal poverty rate. YouthWorks funding could be leveraged to support workforce training in North Central Massachusetts and throughout the Montachusett Region to enhance digital literacy & inclusion and support the local broadband economy. YouthWorks participants can also benefit from a statewide network of digital navigators through past program participants, and established MassHire Workforce Development programs, Job Boards, and Career Centers.

Massachusetts Department of Elementary and Secondary Education: Digital Literacy Now Grant
https://www.doe.mass.edu/grants/2022/147-2/

The purpose of this trust continuation grant is to establish and promote rigorous, engaging, and standards-aligned digital literacy and computer science (DLCS) education in public schools from kindergarten through grade 12. School districts are the unit of change toward creating rigorous, inclusive, and sustainable K–12 digital literacy and computer science education.

Broadband Equity, Access, and Deployment (BEAD) Program
https://www.ntia.gov/funding-programs/internet-all/broadband-equity-access-and-deployment-bead-program

The BEAD Program, created by the Bipartisan Infrastructure Investment and Jobs Act (IIJA) and administered through the NTIA, is a $42 billion dollar program with the goal of increasing access and affordability of broadband, creating jobs, increasing access to healthcare services, improving educational experiences of students, and improving quality of life for residents. Funds can be used for broadband deployment activities (e.g. construction and deployment of broadband infrastructure, personnel costs, leasing of infrastructure, etc.) and non-deployment activities (e.g. multi-lingual outreach to support adoption and digital literacy, direct subsidies for broadband subscriptions, costs associated with stakeholder engagement, etc.). The BEAD program prioritizes broadband serviceable locations that are unserved (below a 25/3 mpbs threshold) and underserved (below a 100/20 mbps threshold).

Deployment of the BEAD program in Massachusetts is being administered by the Massachusetts Broadband Institute. MBI is committed to achieving universal service in Massachusetts by bringing affordable, reliable high-speed internet to every home in the state. Townsend is currently being served through the Gap Networks program, therefore some locations in the town are provisionally ineligible for BEAD

Deployment funds. The BEAD program will primarily fund infrastructure projects through the Deployment phase which will connect the remaining unserved and underserved locations in the State. Once universal service is achieved, any remaining BEAD funds will be invested to enhance Community Anchor Institute connectivity and support digital equity initiatives.

MBI administered a pre-qualification process for the BEAD Program. This process supported the review and approval of subgrantee applications to certify that potential applicants meet the minimum necessary qualification requirements. Potential BEAD applicants were strongly encouraged but not required to prequalify now for BEAD deployment grant eligibility. Applicants that elected not to participate in the initial, standalone prequalification process will still be subject to a full review of qualifications during the funding round(s) that they participate in. The pre-qualification process opened on September 26, 2024, and was conducted in accordance with the procedures set forth in Volume II of the BEAD Initial Proposal for the Commonwealth of Massachusetts, as approved by NTIA. The process closed on October 28, 2024.

Office of Secondary and Elementary Education, Title II, Part A Grant Program
https://www.ed.gov/grants-and-programs/formula-grants/school-improvement/supporting-effective-instruction-state-grantstitle-ii-part-a

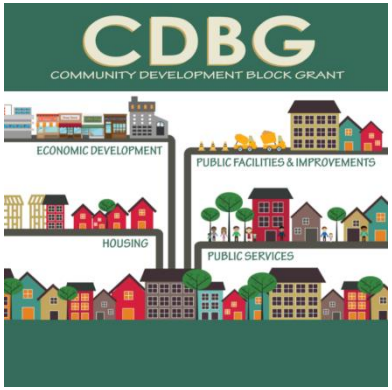
The U.S. Office of Elementary and Secondary Education (OESE) Title II, Part A grant program provides grants to state educational agencies and subgrants to local educational agencies to increase student achievement consistent with challenging state academic standards and improve the quality and effectiveness of teachers. Eligible activities under Title II, Part A, include providing support and professional development for teachers.

The OESE's Title III, Part A grant program was established to improve the education of English Learner (EL) children and youth by helping them learn English and meet challenging state academic content and student academic achievement standards. Eligible School Districts should apply for OESE Title II, Part A funds for professional development to empower teachers to adopt BLENDED teaching methods, leveraging technology while protecting students against unproductive online behavior. Districts should also apply for funds from the Office of Elementary and Secondary Education: Title III, Part A Funds to improve instruction for English Learners, including those with a disability, through enhanced curricula and programs.

Community Development Block Grant (CDBG)
https://www.hud.gov/program_offices/comm_planning/cdbg

The Department of Housing and Urban Development's (HUD) CDBG program provides annual grants on a formula basis to the Commonwealth of Massachusetts' Executive Office of Housing and Livable Communities, who then disperse funds to local municipalities using a statewide formula.

Communities use CDBG funds to address local needs with eligible activities including public facilities, infrastructure, housing, economic development, and planning. The projects should also accomplish a National Objective of either: 1) benefiting low- and moderate-income persons; 2) eliminating slums or blight; or 3) addressing urgent needs for community health and safety.



Eligible communities can apply for federal CDBG funding to assess existing broadband infrastructure and make additions or improvements where necessary. Eligible activities include acquisition, construction, reconstruction, rehabilitation, or installation of public facilities and improvements (which include infrastructure improvements), digital literacy classes, and internet subsidies for low-income households.

Additional Resources can be found in the Appendix.

6.7 Conclusion

Plan implementation can be accomplished by adhering to the principles of this plan and by utilizing its strategies and recommended actions as a guidance to achieving the overall vision. In some cases, the completion of an action may be contingent on the Town obtaining outside funding or other resources, separate from the Municipal Digital Equity Implementation grant funding program. Where possible, potential funding sources have been provided. Monitoring, evaluating, and enhancing the Town's Digital Equity Plan are important steps in maintaining an effective document and enhancing Digital Equity over time. Periodic revisions and updates of the plan will be required to ensure that the goals of the plan are kept current, considering potential changes in digital equity and inclusion priorities and accomplishments over time. It is recommended that this plan be revised every 3 years and that accomplishments, new priorities, or evolving needs, are evaluated and tracked over time to aid in the Plan's implementation and eventual update.

Further, it is the final recommendation of this plan that participation in a Digital Equity Coalition at the regional level thorough a coordinated partnership with other Municipalities within the Montachusett Region who have participated in the Municipal Digital Equity Planning process (as well as those who did not participate in the program), relevant stakeholders, and leaders of Community Anchor Institutions. Through this coalition, local and regional digital equity needs, visions, and goals of the Montachusett Region may continue to be expanded, enhanced and achieved for the benefit of all residents of the Region and through this Plan and participation in the regional coalition, the Digital Equity Visions, Goals, and Actions of the Town of Townsend have an exceptional chance of being successfully achieved.

7

7. Appendix