Municipal Digital Equity Planning Program:

Digital Equity Plan

Towns of Phillipston & Royalston, Massachusetts

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Towns of Phillipston & Royalston Digital Equity Plan

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Prepared by the Montachusett Regional Planning Commission

for The Towns of Phillipston & Royalston

Montachusett Regional Planning Commission
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Commonwealth of Massachusetts

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1 An Introduction to Digital Equity Planning:

What is Digital Equity & Why is it important?

1.1 Plan Background & Overview

The Towns of Phillipston and Royalston 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, and 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.

1.2 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 it 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!

Broadband internet, digital information, and digital technologies are more important now than ever, and their importance in rural areas is perhaps even greater than in more developed, suburban, urban and metropolitan areas. Identifying challenges and barriers related to broadband access within underserved, rural communities, like Phillipston and Royalston, and understanding the needs of rural residents and communities to overcome those challenges and barriers is critical, if not essential to achieving digital equity.

[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

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.

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

To achieve digital equity, or even to improve digital equitability, you must first understand the problem, otherwise known as the "Digital Divide".

1.2.1 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 Towns of Phillipston and Royalston, with a focus on social and economic demographics of populations or groups determined to be most susceptible to digital inequity.

Digital Equity Gaps Impact:

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

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 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.

1.2.2 The Opportunity: Digital Inclusion

The importance of the 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.

[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

1.2.3 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."***

1.3 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
- 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 below.

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

1.3.1 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.

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 language is English or another language and whether or not the barrier is due to spoken or written 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

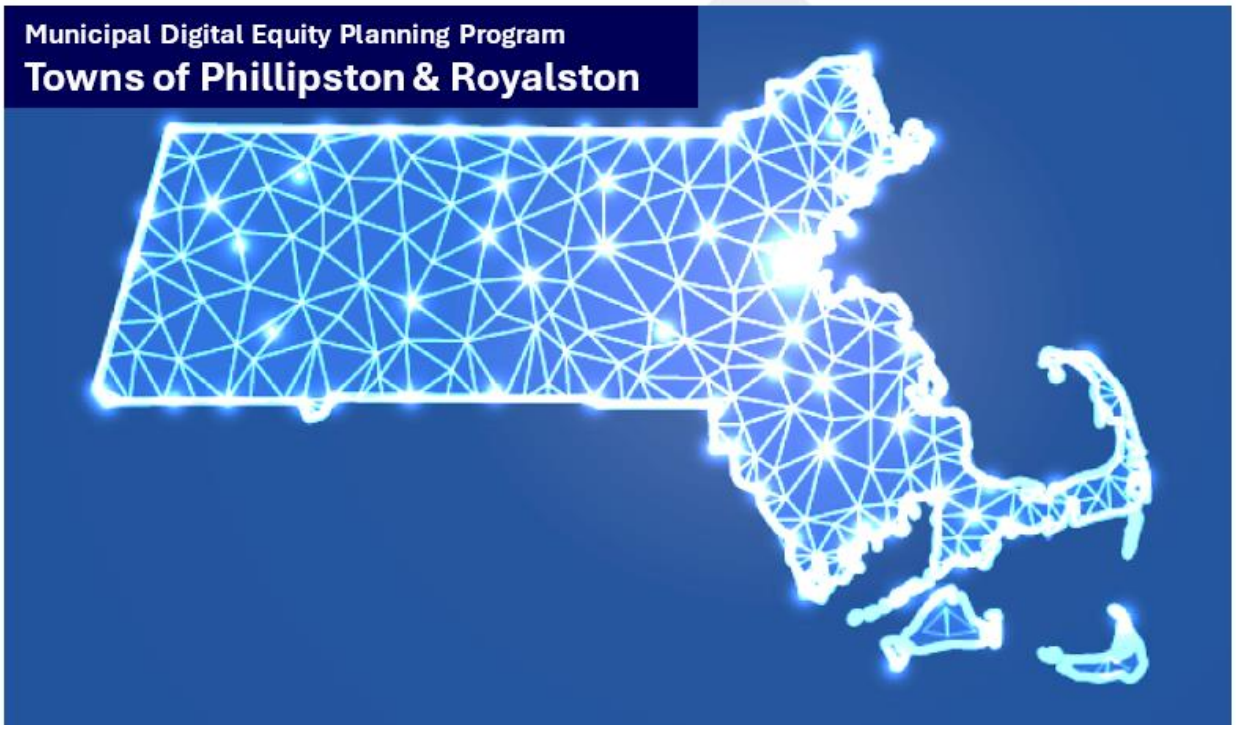
The term "rural area" has the meaning given the term in section 601(b)(3) of the Rural Electrification Act of 1936 (7 U.S.C. 950bb(b)(3)).

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

2

2 Digital Equity Values and Best Practices

Towns of Phillipston & Royalston

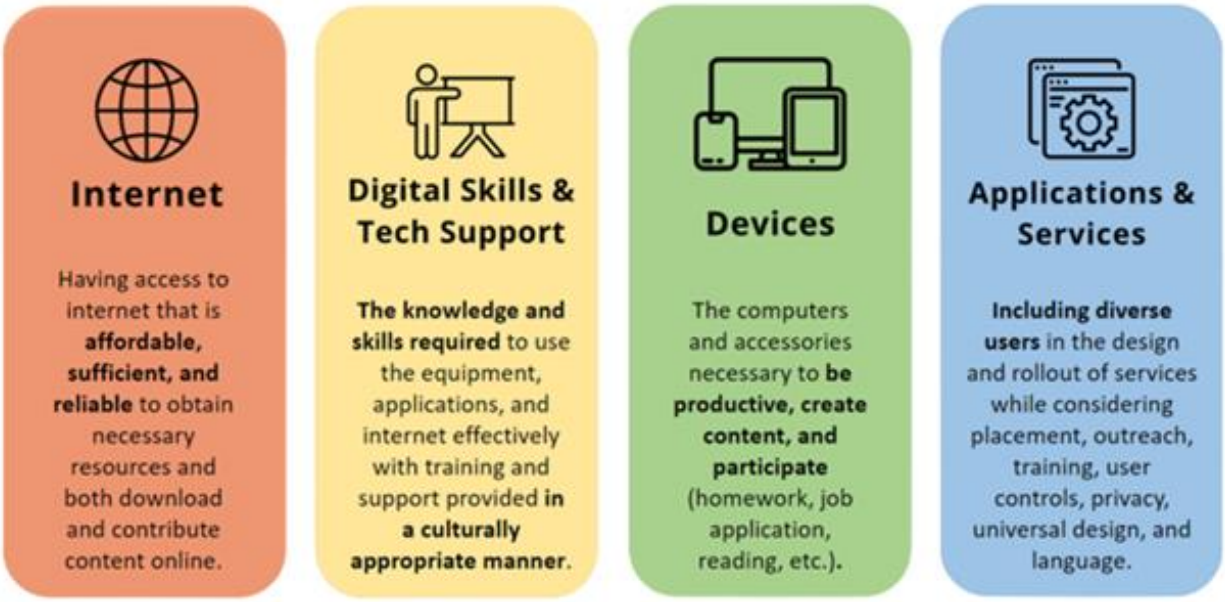


2.1 Digital Equity Values

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 Towns of Phillipston, and Royalston are undergoing a Digital Equity Planning process to better understand the needs of their rural communities and region. The outcome of the planning process will be a Digital Equity Action Plan that will identify a regional vision, and 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 rural areas, broadband internet accessibility and connectivity issues currently do exist and are related to various factors, including gaps in reliable internet availability, the rural location of the communities, 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 these rural communities and surrounding region include a high proportion of individuals representing a covered population of the Digital Equity Act[7].



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

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.

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

2.2 Broadband Internet Access:

Availability, Affordability, Adoptability

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 Phillipston and Royalston, 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.

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) actually 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 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

[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

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 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 4.3 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

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

[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/

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 the survey, 77% of respondents say losing their ACP benefit would disrupt their critical aspects lives by making them change their plan or drop internet service entirely. Approximately three-fourths report using their internet service for work, health care appointments, job applications and schoolwork. Finally, when 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 4.3 of this Plan.

2.2.3 Broadband Internet Adoptability

Broadband (and digital technology) adoptability or 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.

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

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 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 4.3 of this Plan.

The Three Components of Access—Availability, Affordability, Adoption

Availability: Is there sufficient infrastructure and coverage to deliver reliable, high-speed wired or wireless broadband service and technology tools for learning?

Affordability: Can learners and families/caregivers pay for the total cost of maintaining reliable, high-speed broadband service and technology tools for learning?

Adoption: Do learners and families/caregivers have the information, support, and skills to obtain regular, adequate access to reliable, high-speed broadband service and technology tools for learning?

Source: *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.*

2.3 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

Align areas of interest and get leadership buy in

[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/)

As recommended by NTIA, the 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:

Broadband Availability & Affordability

Online Privacy & Cybersecurity

Online Accessibility & Inclusivity

Device Availability & Affordability

Digital Literacy

2.4 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:

Municipal Digital Equity Best Management Practices

- Promulgate policies and programs that facilitate digital access, through increased availability, affordability, and adoptability to broadband internet and digital devices through inclusion, digital literacy programs and education, and capital investment in deployment and adoption by residents to overcome challenges and barriers to achieving digital equity.
- 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.
- Post on Town website and distribute information to low-income residents about internet access, digital literacy, affordable home Internet service offers and lower-cost devices.
- 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.

- Conduct ongoing community engagement to Aging Adults over 60, Veterans, lower income households, individuals with disabilities, ethnic and racial minority groups, individuals with language barriers, including lower levels of literacy, previously incarcerated individuals, and rural residents, to continue to understand their varying Digital Equity and broadband access needs.
- 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.
- Coordinate and Partner with MBI, ISPs and Regional and Statewide Partners, and Leadership Groups for middle- and Last-mile planning.
- Identify strategies, adopt policies, and seek funding to accelerate broadband deployment and adoption, including coordinating, negotiating, and partnering ISPs to connect unserved areas and assist low-income residents and other covered population groups.
- Continue to reference the Mass Broadband Map and Internet for All Plan as guidance and pursue funding to implement goals, strategies, and actions identified within the Municipal Digital Equity Plan.
- Adopt implementing ordinances for policies and plans that promote and facilitate investment and development for digital infrastructure, digital equipment and technology, digital literacy programs and services, and other digital equity measures.
- Maintain enrollment (or enroll) in the E-Rate Program for all Public Schools and Libraries
- Enact procedures to streamline broadband project approvals and permitting, including priority focus for partnerships with ISPs.
- Incorporate high-speed Internet infrastructure into all public projects, especially major transportation, affordable housing, parks & recreation, and public utility projects.
- Purchase and utilize technology which can enable residents to access public information and services.
- 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.
- Purchase computing devices and hotspots in bulk to be loaned and/or sold at a discounted price for residents in device adoption programs.
- Provide information and services online through broadband that increases the relevance of the technology to consumers, which encourages adoption and reduces impacts on the environment.
- 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.
- Encourage and support schools to implement effective technology and Digital Inclusions programs.
- Coordinate with state and Federal legislators to ensure that funding mechanisms for Community Cable Access T.V. providers 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.
- 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.

2.5 A Strategic Approach to Digital Equity & Inclusion

To pursue and uphold the Best Management Practices outlined above 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.

2.5.1 Leadership (Champions)

The first step in pursuing enhancements to digital equity and inclusion is to establish a team of digital equity leaders, or champions within the Phillipston and Royalston communities. 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.

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

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 Towns' Select Board and Planning Board are informed of the Digital Equity Plan's key goals and objectives, and that they may continue to seek funding for digital equity initiatives is treat the implementation of this Plan's recommended goals and actions as a high 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, they 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.

2.5.2 Community Engagement & Partnerships

Phillipston and Royalston should continue to improve upon the Towns' 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 relative 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, and at the Town Transfer Station. 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 Social Media accounts or Cable Access channel(s) should also be used, but these 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 Towns' websites and draft a one-pager identifying Phillipston's and Royalston's digital equity goals 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, Phillipston's and Royalston's Digital Equity Leaders should maintain and improve relationships with community partners dedicated to increasing digital equity throughout Phillipston, Royalston, 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 nearby Templeton Community Television (TCTV), Athol-Orange Community Television (AOtv), Winchendon TV, and Gardner Educational TV. The Digital Lab at Scout Hall in Templeton, should also be listed as an important regional digital literacy and inclusion resource. 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.

2.5.3 Access to Broadband Internet and Digital Devices

Phillipston and Royalston should strive to expand access to broadband internet and affordable devices. One way to accomplish this goal is to improve access to internet and internet connected workstations and devices in public spaces like the Phillips Free Public Library, Phinehas S. Newton Library, Town Halls, Phillipston Memorial Building community center, Royalston's Whitney Hall, and at other public areas and meeting spaces. Another way is to continue to offer hotspots and provide additional hotspots through an enhanced loaner program. Such a program can be facilitated by the libraries but may also offer hotspots reservable through the Town Halls, senior centers/Councils on Aging, and potentially through a partnership with the Digital Lab in nearby Templeton.

The inventory of hotspots publicly available (outside of schools) should be at least 20 units (10 per Town). Phillipston and Royalston, given their ruralness and the few known locations where internet and cell phone service are lacking, may also consider purchasing and providing or sponsoring satellite internet services to rural residents affected by such service gaps. 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 Phillipston Free Public Library and Phinehas S. Newton Library.

The Towns should continue to support, promote, and enhance their libraries 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 to use or loan by the public.

The Narragansett Regional School Department (for Phillipston students) and Athol-Royalston School Department (for Royalston students) should continue to identify and address inequities,

and other challenges and barriers experienced by students by continuing to provide free access to hotspots for students who request them, to the greatest extent possible so that access to broadband internet and digital devices exists at a level greater than pre-Covid-19 levels.

Finally, the Towns 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 Templeton Community Television and the Digital Lab at Scout Hall in Templeton, who could potentially provide opportunities for digital literacy training, refurbishing devices, and who could potentially become a regional partner in digital device refurbishment and distribution.

2.5.4 Digital Literacy Training & Opportunities

Phillipston and Royalston should continue to create, strengthen, and expand digital literacy opportunities throughout their communities and region. The Towns should engage a qualified Digital Navigator or qualified digital literacy trainer, or partner with a qualified Digital Navigator to offer digital literacy courses at their Public Libraries, Senior Center/Council on Aging luncheons, and at other public community gathering locations like the Phillipston Memorial Building community center and Whitney Hall (Royalston). There is strong demand for increased digital literacy class offerings and an expanded curriculum focused on specific needs of rural residents, general tech-help for all ages, particularly aging adults over 60, and general skill-building related to various applications from business to crafting and hobbies. Information and training focused on accessing services like public transit and transportation, online shopping and food/grocery home-delivery in rural areas could be critically important to the well-being of the communities, again, particularly for aging adults over 60. 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 its public survey.

The Towns should seek to jointly contract a local digital navigation training consultant (Digital Navigator) to provide digital literacy training in both communities and 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.

As part of the Towns' Digital Equity & Inclusion webpages described within subsection 5.2.1, above, a Digital Literacy Resources subpage should be created, highlighting related training resources and opportunities.

In consultation with a Digital Navigator or the Digital Lab in Templeton, the Towns should develop and distribute digital literacy resources and guidance documents on the Town websites and at Town Halls, Community Centers and Libraries, and to Aging Adults through the Councils on Aging.

2.5.5 Addressing the Needs of Covered Populations

The Towns of Phillipston and Royalston 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, and Veterans. Particular attention should be given to the fact that all residents of both Phillipston and Royalston are covered as "individuals who reside in rural areas".

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

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

The Narragansett Regional School District (NRSD) and Athol-Royalston Regional School District, in coordination with the Towns should work to strengthen digital skills training for students in Phillipston's (NRSD) and Royalston's (ARRSD) public schools and continue to track and improve curriculum, courses, and training programs, both for teachers and students, based on identified needs.

The Towns of Phillipston and Royalston, in consultation with a Digital Navigator or in partnership with the Digital Lab in Templeton, 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 Libraries, Town Halls, or community centers.

2.5.6 Commercial & Economic Community Development

The Towns 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 Digital Lab in Templeton, 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 rural areas. 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.

Track the local broadband market to advocate for consumers and **promote job opportunities** locally.

The Towns should offer and expand upon digital literacy courses through consultation with a Digital Navigator or in partnership/consultation with the Digital Lab in Templeton. Courses or skills-building opportunities should be based on the needs of specific covered populations, such as Veterans, Aging Adults, and Individuals who Reside in Rural Areas.

3

3 Digital Equity Planning & Engagement Process

Community engagement was an essential component of the development of the Town of Phillipston & Royalston's 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. 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 on key stakeholders to engage and provided guidance and input on the development of the Plan over the course of several meetings, interviews, and inquiries.

Members of the Core Team met on:

- February 1, 2024
- March 7, 2024
- July 25, 2024
- August 21, 2024
- October 15, 2024

Phillipston & Royalston Digital Equity Planning Core Team Working Group Participants	
Name (Town Representing)	**Position/Role**
Melanie Jackson (Phillipston)	Chief Admin. to Select Board & Planning Board
Chuck Kolbenson (Phillipson)	Phillipston Cable Access Television
Nichole Gogh (Phillipston)	Select Board Member
Bill Chapman (Royalston)	Select Board Member
Michelle Deline (Royalston)	Admin. Asst. to Select Board
Rick Martin (Formerly Royalston)	Former Select Board Member
Jim Barclay (Royalston)	Emergency Management Director

3.2 Public Engagement

MRPC staff implemented a two-step stakeholder engagement process that included a questionnaire and follow-up interview. Commission staff conducted a diverse range of community engagement activities, including attendance at community pop-up events. 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 engagement activities included:

- Survey distribution
- Stakeholder interviews
- Community pop-up events
- Focus Group Meetings & Community Workshops (Digital Literacy/Tech-Help Forums)
- Digital Equity Core Team Working Group Meetings

A public presentation of the Plan was made to the Royalston Select Board at their meeting on January 14, 2025, and to the Phillipston Select Board on January 22nd, 2025.

A separate 14-day public review and comment period was held in conjunction with each of the public presentations.

3.2.1 Statewide and Local Digital Equity Surveys

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. In addition, paper surveys and collection boxes were provided in the following locations in Phillipston & Royalston:

- Town Halls
- Libraries
- Council on Aging Meeting Locations
- Royalston Town Transfer Station

During the Planning Process, MRPC received some feedback that the statewide survey was too long, asked too many personal demographics questions, and appeared not to be locally relevant. So, in the Fall of 2024, a local survey was also distributed to address low response rates to the statewide survey and provide additional local input.

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

3.2.2 Community Events and Pop-ups

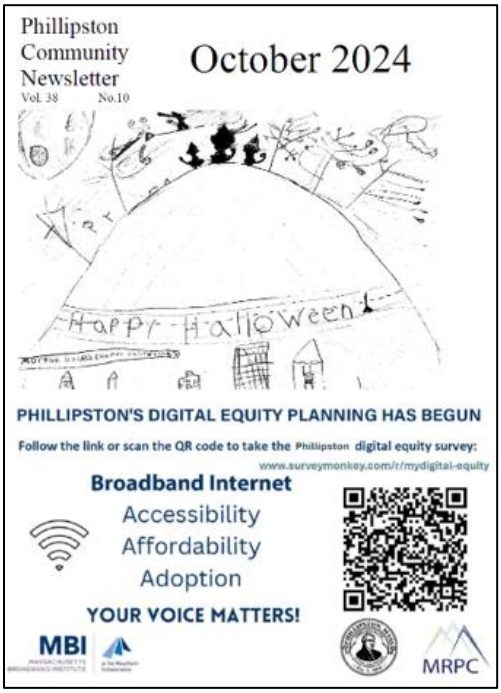
MRPC attended several community events in to promote the Digital Equity Planning project and gather public input to the Plan, by promoting the Digital Equity survey.

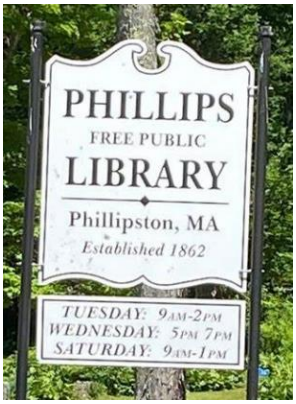
Community Events		
Event (Location)	**Date**	**Activity**
National Night Out (Town Common - Cancelled)	8/6/2024	Cancelled due to weather
Digital Literacy Tech Help Forum (Hosted regionally at Templeton Senior Center)	8/13/2024	Community Workshop: Digital Literacy & Tech Help Forum
Royalston Council on Aging Social/Luncheon Outreach (Town Hall Dining Room)	8/21/2024	Community Workshop: Focus Group Info & Input Session
NRSD Warrior Fest - Narragansett High School	9/14/2024	Table & Survey Box Public Info, Outreach, & Engagement

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 critical needs of the clients that they served, particularly as they pertained to specific covered populations.





Stakeholder Questionnaires & Interviews			
Organization/Department/Board	**Date Completed**	**Interviewee**	**Questionnaire Completed**
Phillipston Public Library	6/24/2024	J. Prime	Y
Royalston Public Library	6/24/2024	K. Morris	Y
Athol-Royalston Public School Dept.	4/3/2024	D. Sergio	Y
Narragansett Regional School Dept.	7/3/2024	J. Perrine	Y
Council on Aging/Senior Center Royalston	8/21/2024	G. Winitzer	N
Royalston Select Board	6/4/2024	R. Martin	Y
Phillipston Select/Planning Board Admin.	2/14 & 8/21/2024	M. Jackson	Y
Phillipston Cable Access Television	3/13 & 5/29/2024	C. Kolbenson	Y
LUK, Inc.	8/19/2024	E. McMillan	Y
Montachusett Veterans Outreach Center	6/12/2024	S. Marchetti	Y
Clear Path for New England Veterans	5/31/2024	J. Vance	Y

3.4 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 organization or entity.

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
Templeton Senior Center (Phillipston and Royalston Aging Adults/CoA patrons were invited to attend)	8/13/2024	Aging Adults and Residents of Rural Areas, Veterans, Covered Households, Individuals with a Language Barrier, and Individuals with a Disability
Royalston Senior Social/Luncheon	8/21/2024	Aging Adults and Residents of Rural Areas, Veterans, Covered Households, Individuals with a Language Barrier, and Individuals with a Disability

4

4 EXISTING CONDITIONS EVALUATION

Phillipston and Royalston, Massachusetts

4.1 EXISTING CONDITIONS OVERVIEW

The overall purpose of this evaluation was to understand the existing conditions around digital equity and digital technology, specifically broadband internet and internet-based computing devices, and the local levels of access, affordability, and adoptability of those services and technologies, particularly for covered populations, so that they may be best served by the recommendations of this Digital Equity Plan. In addition to providing information about available broadband internet services and devices, the analysis also aims to identify and evaluate the personal barriers and challenges experienced by people, especially covered populations, relative to broadband internet service accessibility or availability, adoption, and affordability. Further, it assesses not only those people *with* access to, or using such services or devices, but also those portions of the populations *without* access or use of, or otherwise lacking fixed broadband, lacking computer or other devices. Finally, it aims to better understand the barriers and challenges of populations not using the internet, and populations not using a device. Sometimes those challenges or barriers extend beyond access or affordability, and at times are related to a person's willingness to adopt such technology (services and devices, alike), rather than their ability or accessibility.

Establishing comprehensive and inclusive existing conditions, through a robust community outreach and stakeholder engagement process, allows for the development of a Digital Equity Plan that includes a set of meaningful, community guided recommendations that will best address the needs of those it is intended to serve.

The following Existing Conditions Evaluation and Community Needs Assessment (presented within Section 5) evaluates certain aspects of the Town of Phillipston's, and Royalston's population demographics with specific regard to the eight (8) Covered Populations of the Digital Equity Act. The evaluation, and subsequent "needs" assessment, highlight vulnerabilities and inequities regarding broadband internet access relative to availability, affordability, and adoptability – the three pillars of digital equitability and broadband internet accessibility.

Much of the data for this analysis was obtained from input from the Digital Equity Planning Core Team members, stakeholder interviews, focus group meetings, digital literacy assessments and tech-help sessions, the Massachusetts Broadband Institute (MBI) survey results, FCC Data, other local and

regional data and information, including the Massachusetts Division of Local Services' Data Analytics and Resources Bureau, and US Census data.

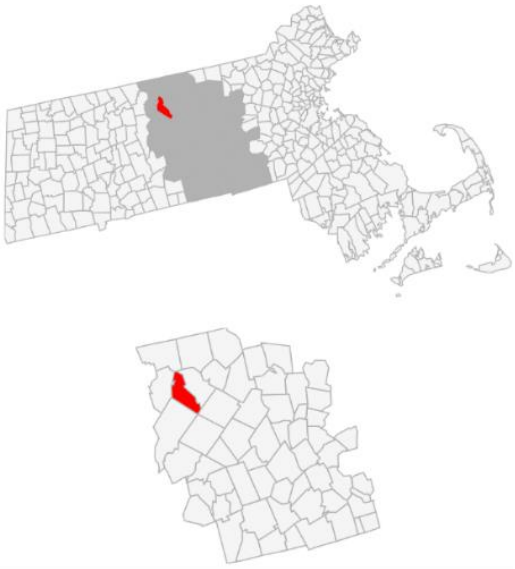
4.2 Community Profiles

Demographic trends in a community can impact local internet accessibility (i.e., availability, affordability, and adoptability) and affect service demand and technology support needs. Understanding the demographic profiles of Phillipston, and Royalston, and its neighboring towns and other rural towns of the Montachusett Region, and the socioeconomic indicators and distribution and proportion of covered populations is essential to understanding and evaluating the digital equity condition and needs of the region and community, particularly with regard to certain Digital Equity "indicators" and their relationship to covered populations of the Digital Equity Act.

Understanding target population demographics is a critical component of any planning process which aims to identify strategies and actions for addressing community needs, especially when a primary focus of the Plan is achieving equitable outcomes.

4.2.1 Phillipston Town

Phillipston, located in northwestern Worcester County and bordering the towns of Templeton, Hubbardston, Barre, Petersham, Athol, and Royalston, is home to 1, 918 residents with a population density of 77.9 people per square mile, less than the county (570.7) and statewide (901.2) population densities. The median household income in Phillipston is $90,625 which is above the Worcester County median income of $88,524 and below the Massachusetts median income of $96,505. Only 4.6% of residents in the town the town live below the poverty line, which is lower than the Worcester County average of 10.6% and statewide average of 10.4%. 97.8% of all residents report as white alone. Of those over the age of 25, 92.1% have completed a high school education and 24.8% have obtained bachelor's degrees or higher.



Computer and internet use in Phillipston is comparable to the county and statewide averages with 92.9% of all households having a computer and 88.9% of households having a broadband internet subscription. **Figure 4-1**, below is a summary of Digital Equity Indicators for the Town of Phillipston.[16]

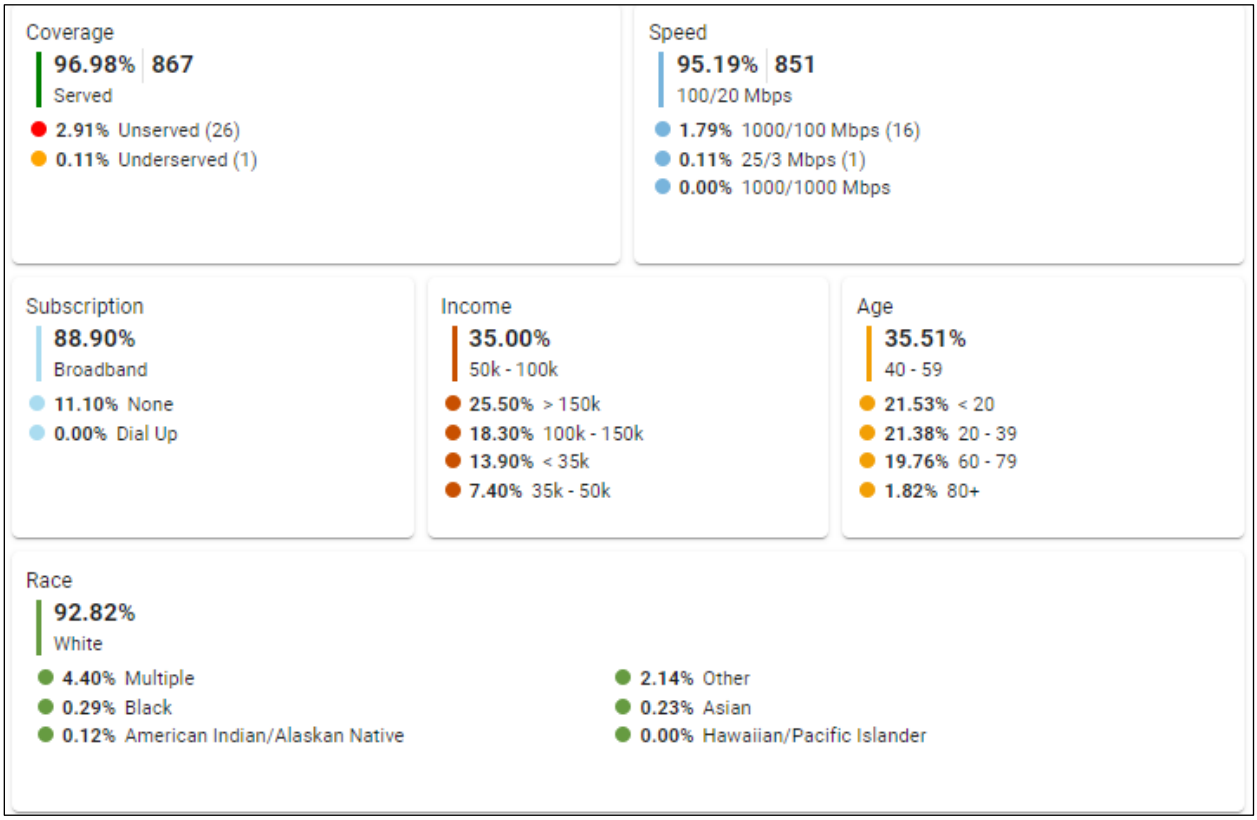
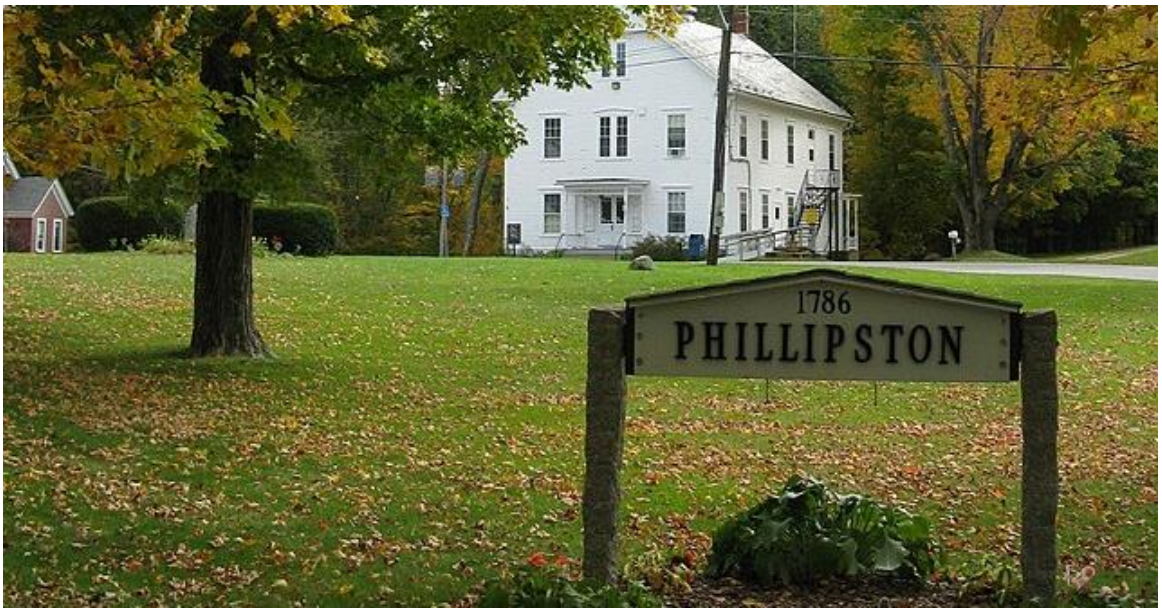


Figure 4-1: Broadband and Digital Equity Indicators, Phillipston, MA.



[16] U.S. Census Bureau. American Community Survey. 2022: ACS 5-Year Estimates Data Profiles. (Accessed June 28, 2024)

4.2.2 Royalston Town

Royalston is located in North Worcester County on the New Hampshire Border and on the border with Franklin County, Massachusetts. Royalston borders the Worcester County towns of Winchendon, Templeton, Phillipston, and Athol, and the Franklin County towns of Orange and Warwick, and is home to 1,455 residents with a population density of 34.2 people per square mile, less than the county (570.7) and statewide (901.2) population densities. The median household income in Royalston is $98,542 which is above the Worcester County median income of $88,524 and slightly above the Massachusetts median income of $96,505. Approximately 11.2% of residents in the town the town live below the poverty line, which is slightly higher than the Worcester County average of 10.6% and statewide average of 10.4%. 96.6% of all residents report as white alone. Of those over the age of 25, 88.6% have completed a high school education and 24.8% have obtained bachelor's degrees or higher.

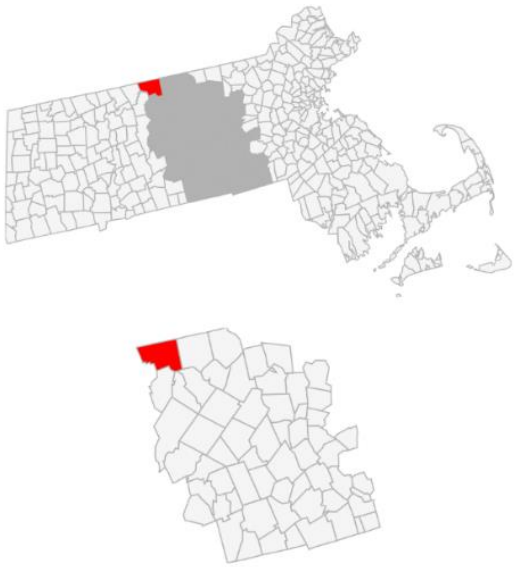


Photo by Ericshawwhite – Own Work, CC BY-SA

Computer and internet use in Royalston is comparable to the county and statewide averages with 89.4% of all households having a computer. However, only 74.2% of households have a broadband internet subscription. **Figure 4-2**, below is a summary of Digital Equity Indicators for the Town of Royalston.[17]

[17] U.S. Census Bureau. American Community Survey. 2022: ACS 5-Year Estimates Data Profiles. (Accessed June 28, 2024)

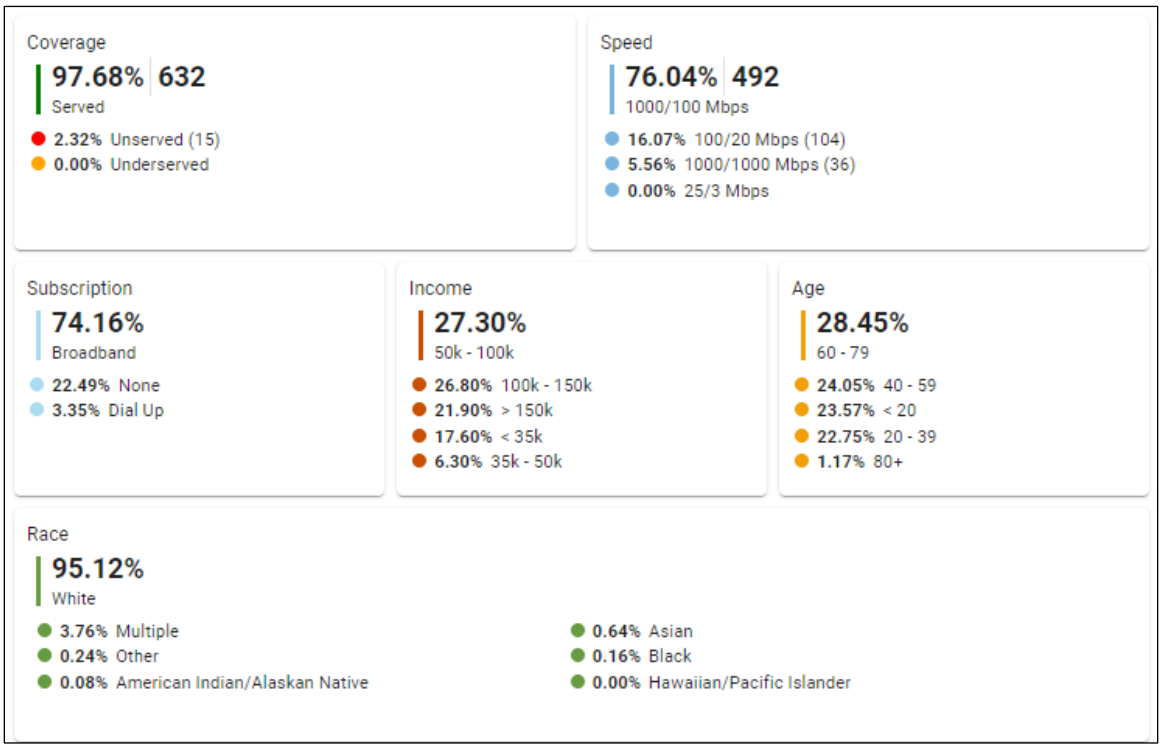
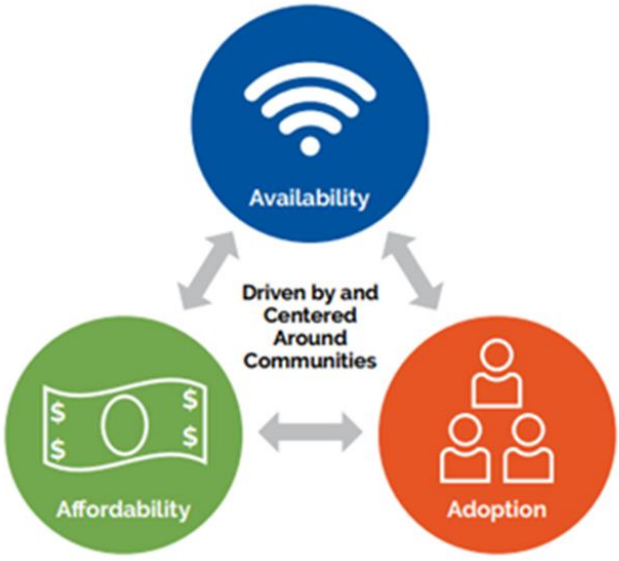


Figure 4-2: Broadband and Digital Equity Indicators, Royalston, MA.

4.3 Assessment of Broadband Access in Phillipston & Royalston

For such a rural region, a relatively high percentage of Phillipston's (88.9%), and Royalston's (74.2%) households currently subscribe to broadband internet service. However, according to the U.S. Census Bureau, the proportion of residents subscribing to a broadband internet subscription in these two rural Worcester County Towns, located in the northwestern-most portion of the Montachusett Region, is lower than the national (93%) and statewide (90%) averages. Aside from internet subscription rates, a more complete picture of broadband internet "access" can be attained by evaluating "The three A's" of Broadband Access: Availability, Affordability, and Adoptability.



4.3.1 Availability of Broadband in Phillipston & Royalston

According to the Massachusetts Broadband Map, with regard to the **availability of internet service**, **Phillipston** has less than five Internet Service Providers (ISP) and **894 Serviceable Locations**, of which 867 (96.9%) are classified as "Served", one (1; 0.001%) are classified as "Underserved", and 26 (2.9%) are classified as "Unserved". Xfinity/Comcast is the primary ISP in Phillipston. In addition to Xfinity, Fixed Wireless internet service exists through T-Mobile and Satellite internet may also be available from various providers such as Dish, DirectTV, HughesNet, Viasat, and Starlink.

Figure 4-3 below shows the total distribution of serviceable locations, relative to **Served**, **Underserved**, and **Unserved** addresses in **Phillipston**. Corresponding **Figure 4-4** provides an expanded Broadband Coverage Map for Phillipston, allowing for a fuller evaluation of the infographic map components and corresponding data.

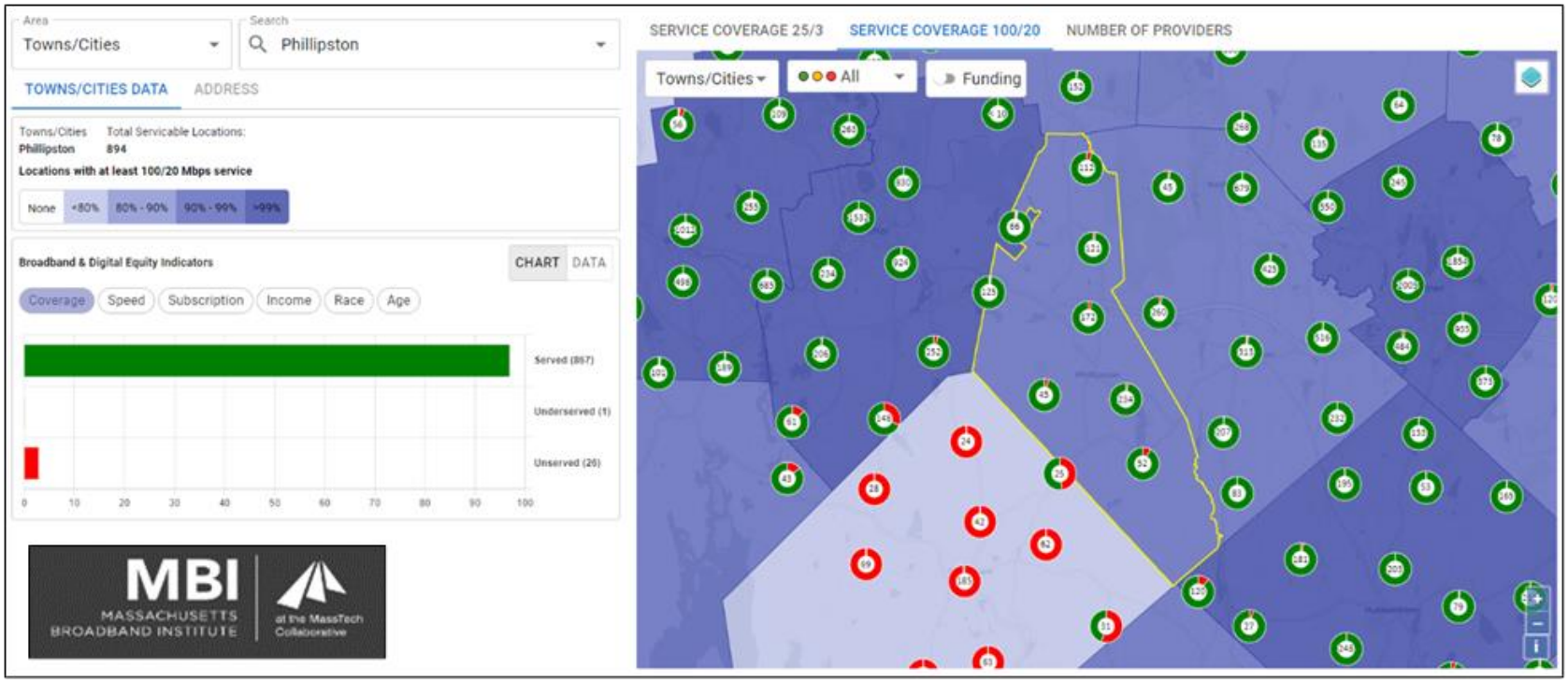


Figure 4-3: Broadband Coverage Map, Phillipston, MA.

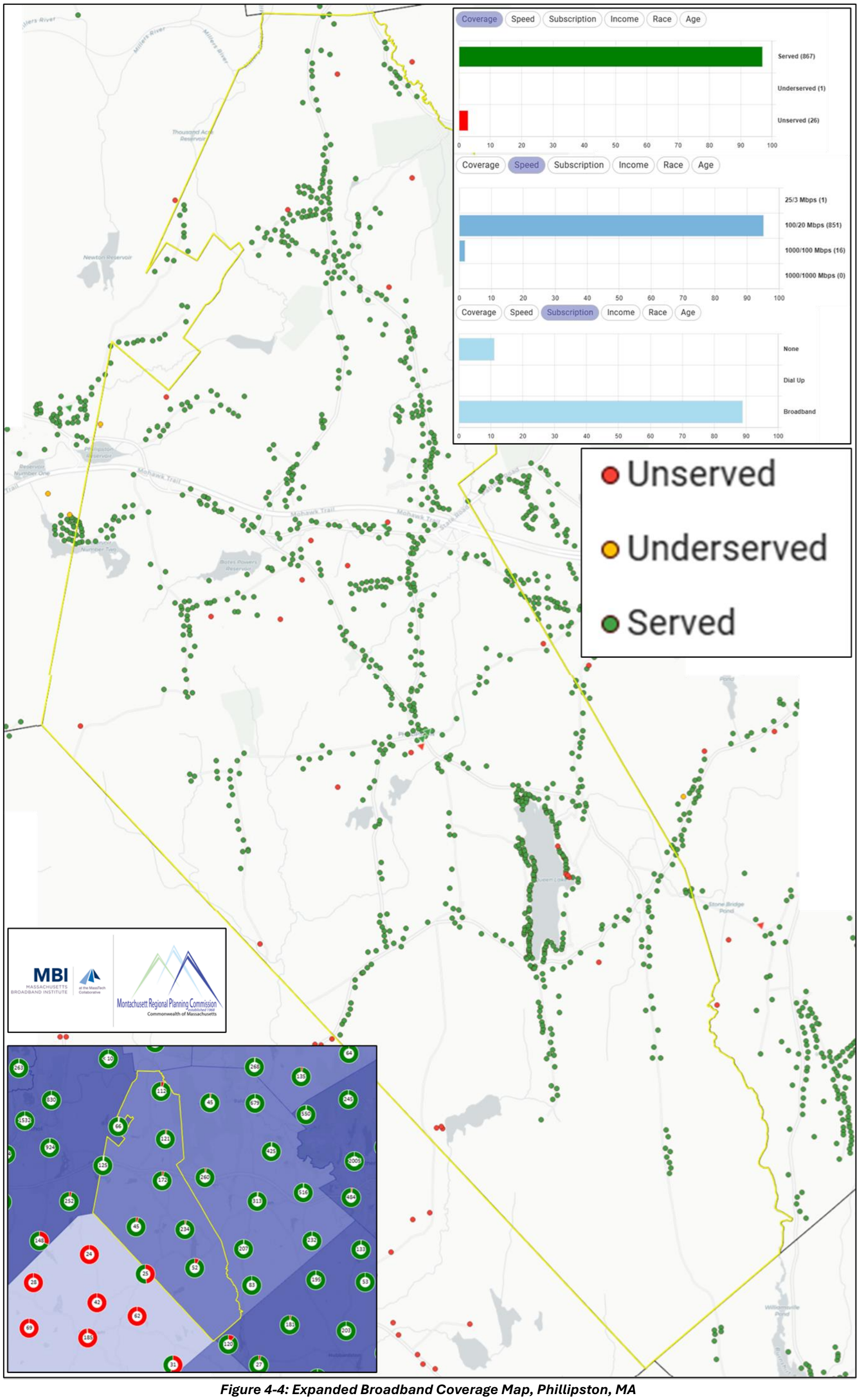


Figure 4-4: Expanded Broadband Coverage Map, Phillipston, MA

According to the Massachusetts Broadband Map, with regard to the **availability of internet service**, **Royalston has 647 Serviceable Locations**, of which 632 (97.68%) are classified as "Served", zero (0; 0.0%) are classified as "Underserved", and 15 (2.32%) are classified as "Unserved". **Royalston** has less than five Internet Service Providers (ISP), with the primary provider being Spectrum. In addition to Spectrum, Fixed Wireless internet service exists through T-Mobile and Verizon, and Satellite internet may also be available from various providers such as Dish, DirectTV, HughesNet, Viasat, and Starlink.

Figure 4-5 below shows the total distribution of serviceable locations, relative to their status as Served, Underserved, or Unserved. Corresponding Figure **4-6** on the following page provides an expanded version of the Broadband Coverage Map for Phillipston, allowing for a fuller evaluation of the infographic map components and corresponding data.

Figure 4-5: Broadband Coverage Map, Royalston, MA.

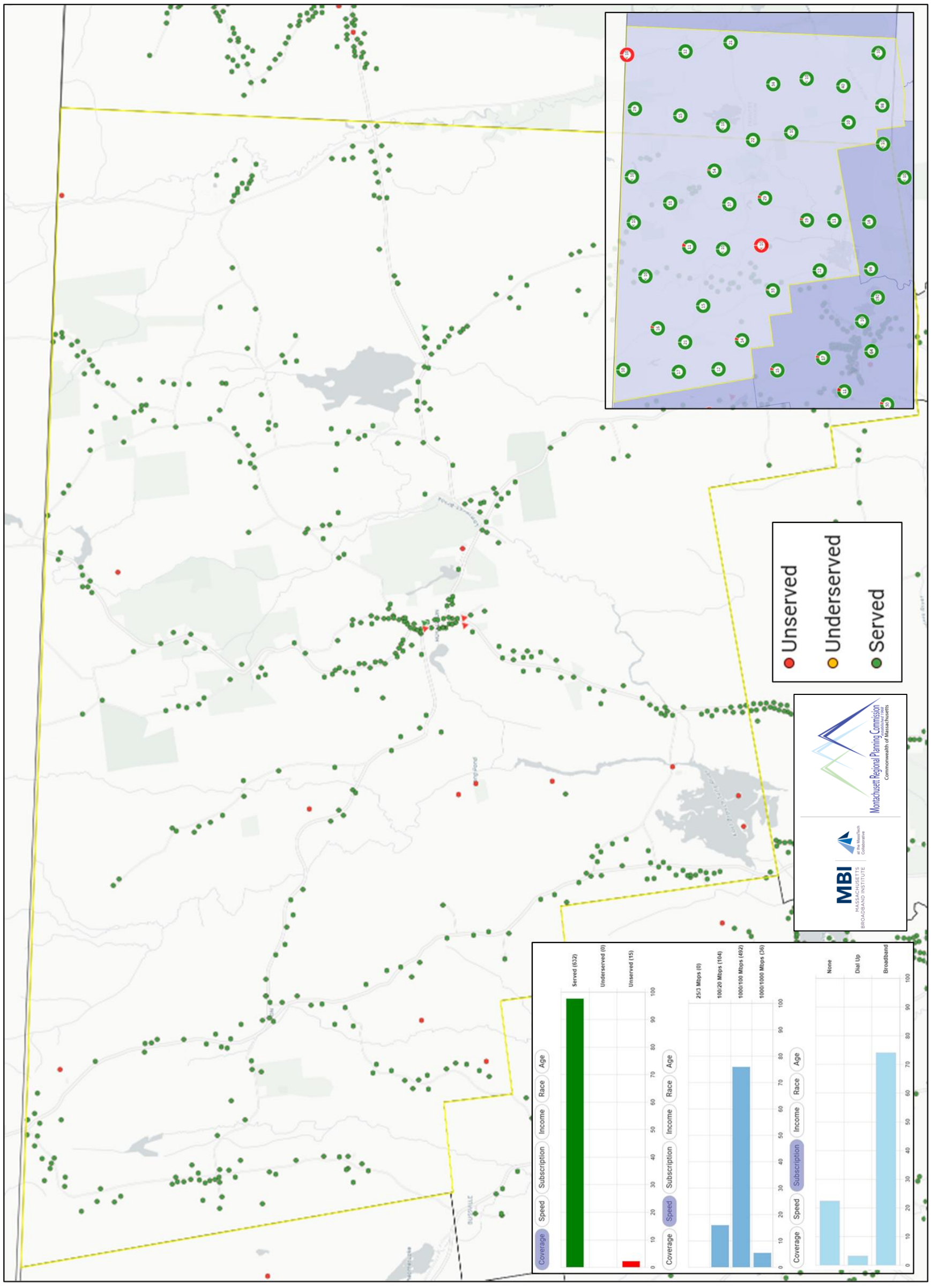


Figure 4-6: Expanded Broadband Coverage Map, Royalston, MA.

4.3.2 Broadband Internet Affordability in Phillipston & Royalston

Affordability of internet service 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 less than five (<5) Internet Services Providers (ISP) available to any part of Phillipston and Royalston, and realistically there is typically only one available provider of wired, broadband internet. It should be noted that the national average of available ISP providers five (5) to six (6). According to **Figure 4-7** below, which shows the average for the lowest broadband price by region, Phillipston and Royalston, located on the border of Central Massachusetts and the North Quabbin and Connecticut River Valley regions have the 2nd highest internet costs in the state, 2nd only to the Cape Code region.

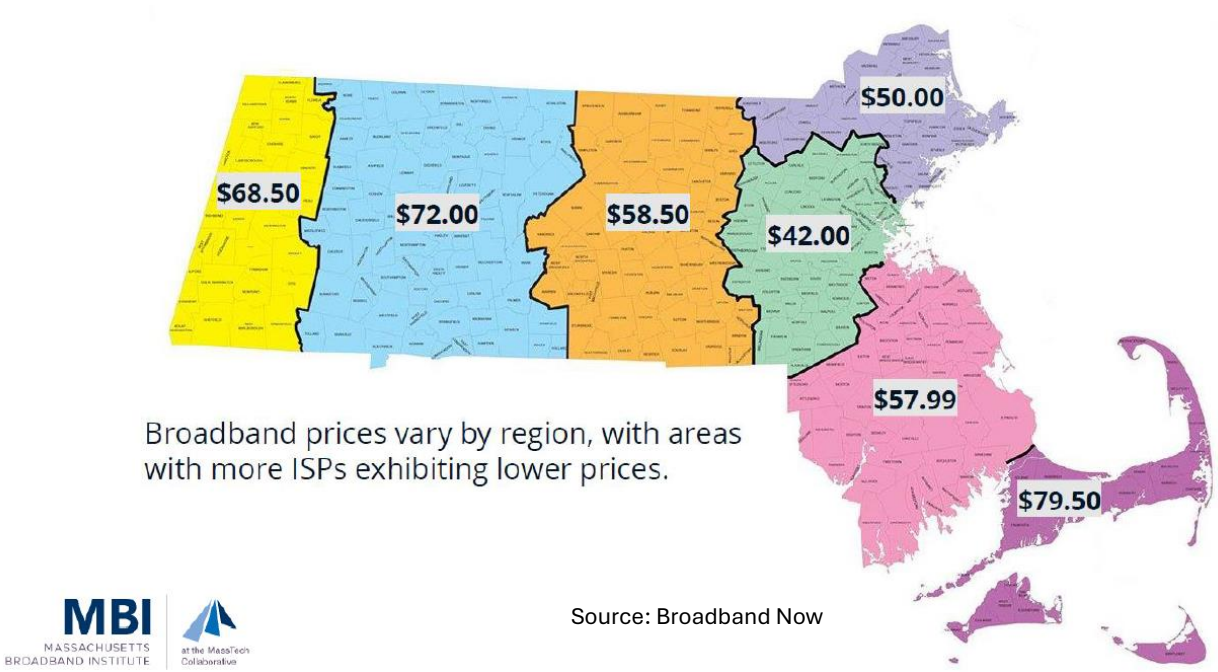


Figure 4-7. Statewide average broadband prices by region.

The Affordable Connectivity Program (ACP) was an FCC program which provided an internet cost reduction or subsidy to qualified households following the Covid-19 Pandemic. Unfortunately, the Federally funded program has since ended leaving many former participants with higher internet costs than what they had become familiar with and budgeted for over the past few years.

In Phillipston and a portion of Athol sharing the same zip code, which combined encompassed 5,450 total households, 2,395 households (43.9%) were eligible for enrollment in the ACP. Of those eligible households, 71.6% (1,716 households) were enrolled in the ACP, a number almost equivalent to the entire population of Phillipston. In Phillipston (and the aforementioned portion of Athol), 58% of those households who were enrolled in ACP are considered "Rent Burdened" and 19% are 65+ years of age, and another 8% have an income under $15,000.

In Royalston, 164 out of 551 total households (29.8%) were eligible for enrollment in the ACP. Of those eligible households, 20.1% (33 households) were enrolled in the ACP. In Royalston, 65% of those households who were enrolled in ACP are considered "Rent Burdened" and 19% are 65+ years of age, and another 8% have an income under $15,000.

While ACP was one available internet affordability program available to a considerable number of eligible households, there are other programs such as the Federal Communication Commission's (FCC) LifeLine Support for Affordable Communications (LifeLine Program)[18], Comcast/Xfinity's *Internet Essentials* Program[19], or Xfinity NOW Internet[20], and Spectrum's Internet for Low-Income Households option, *Spectrum Internet Assist*[21].

Another affordability or subsidized internet program, the Internet Essentials Partnership Program (IEPP)[22] is a public-private partnership program offered by Comcast/Xfinity which is designed to help accelerate Internet adoption by providing the opportunity for school districts and other organizations to fund and quickly connect large numbers of students and families to broadband access at home. To establish an IEPP agreement, sponsors need to commit to sponsoring at least 25 eligible applicants who are new to the program. According to Comcast/Xfinity, "through IEPP, sponsored families have access to all the benefits Internet Essentials has to offer – a high-speed Internet connection at home, the option to purchase a low-cost computer, and access to free digital skills training in person (if safe), online, and in print. The Internet Essentials Partnership Program not only enables more families to connect to the Internet at home, it also allows community-based partners to bring their expertise to empower families to take on the challenges of today while preparing for the future."

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.

4.3.3 Broadband Internet Adoptability in Phillipston & Royalston

Internet "adoptability" and "digital connectivity" is a combined measure of people accessing and utilizing the internet (particularly broadband internet) and digital devices at home and is often, but not exclusively related to digital literacy levels. Some factors that can be assessed to "measure" digital adoptability 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

[18] https://www.lifelinesupport.org/
[19] https://www.xfinity.com/learn/internet-service/internet-essentials
[20] https://www.xfinity.com/now
[21] https://www.spectrum.com/internet/spectrum-internet-assist
[22] https://www.xfinity.com/learn/internet-service/internet-essentials/sponsor

100/20 Mbps), and Broadband Internet Usage vs. Availability (percentage of households with a Broadband Internet connection to their home that actually subscribe to the Service).

With regard to **broadband internet adoptability and digital connectivity**, **Phillipston** is similar to the state and national averages, as shown in **Table 4-1** below.

Table 4-1: Digital Connectivity in Phillipston.

Phillipston Digital Connectivity			
Metric or Measure of Connectivity	**Phillipston**	**Massachusetts**	**USA**
Average Household Size	2.7	2.5	2.7
Work from Home Percent	9%	15%	12%
Households with Devices	93%	95%	94%
Households with Internet	88%	91%	89%
Households with Broadband Internet	76%	81%	73%
Broadband Internet Usage vs. Availability	77%	82%	74%
Source: ISP Reports (https://ispreports.org/) accessed August 13, 2024.			

This summary indicates that Phillipston is consistent with statewide and national averages related to measures of digital connectivity, however for a community with such a high rate of serviceable locations (97%) there is a notable difference between the percentage of served households with an internet subscription (89%) and those without (11%), indicating a gap in internet adoptability that may be related to affordability of internet service, individual levels of digital literacy, availability or affordability of digital devices, personal preference, or other potential barriers to digital equity and inclusion. Regardless, it should be noted that 11% of Phillipston's served households have not adopted internet service at home.

With regard to **broadband internet adoptability and digital connectivity**, **Royalston** is below the state and national averages in most categories, as shown in **Table 4-2** below, and lower than its neighboring communities of Winchendon, Templeton, and Phillipston, with the exception of the availability of Fiber-optic, which is now available throughout most parts of Royalston.

Table 4-2: Digital Connectivity in Royalston.

Royalston Digital Connectivity			
Metric or Measure of Connectivity	**Royalston**	**Massachusetts**	**USA**
Average Household Size	2.7	2.5	2.7
Work from Home Percent	8%	15%	12%
Households with Devices	90%	95%	94%
Households with Internet	78%	91%	89%
Households with Broadband Internet	35%	81%	73%
Broadband Internet Usage vs. Availability	35%	82%	74%
Fiber-optic Availability	98.99%	55.92%	58.45%
Source: ISP Reports (https://ispreports.org/) accessed June 25, 2024.			

The above summary data indicates that there is a considerable gap between the number of households that have access to broadband internet, and those that have adopted it. For instance, 98% of households in Royalston are "served" locations with available high speed broadband internet, however, of those served locations, only 74% subscribe to broadband internet, and a full 22% do not have any internet subscription. Therefore, it can be surmised that there may be existing barriers or challenges, such as affordability or digital literacy, that are limiting higher levels of adoption. However, it should also be noted that Royalston has only 12% of its population enrolled in school between 6th grade and college level, compared to the Massachusetts Statewide average of 17%, which may indicate a lower "need" for internet in at least 5% of home than the average statewide. Further, only 8% of Royalston's residents work from home, versus 15% statewide, which could also account for lesser need for another 7% of households relative to the statewide average. While these factors may indicate a lower level of digital connectivity "needs" within the community, they could also be a result of certain challenges or barriers caused by past and current digital inequity, such as rural location, and an historical lack of access to reliable internet (particularly broadband internet) until only recently.

For instance, in Royalston, when most communities were switching from dial-up internet service to DSL, DSL was not yet widely available to Royalston residents, and then when technological advances led to changes from DSL to cable (broadband), access in Royalston was still limited to DSL as the best available service for a considerable number of years. During that time many residents opted for Satellite-based internet service, and more recently Fixed Wireless internet as the most available, reliable, and affordable option for higher-speed internet. Many residents, and the Town's library, were early adopters of Starlink satellite internet, and the library was even part of its "beta" testing program. The recent availability of Spectrum Broadband Internet townwide may result in a greater level of adoption of broadband by a greater portion of the population, now that the service is more widely available.

Actual speeds and levels of reliability associated with this new service are currently being assessed and compared by Town residents and Community Anchor Institutions and, by some indications, are variable dependent upon location and therefore, may not be fully reflective of anticipated or advertised speeds at all times or in all places. Feedback, over time, and based on measurable objectives which can be incorporated into the Goals and Actions of this Plan, will provide a better indication and fuller understanding of present internet services speed and reliability townwide.

4.4 Demographics of Covered Populations

Definitions of covered populations of the Digital Equity Act of 2021 were provided within **Section 1** of this Plan. It is important to note that an individual may be a member of more than one of the covered populations. If an individual belonged to at least one of these populations, the individual was counted as part of the covered population; therefore, the percentages for the eight covered populations do not sum to the percentage of total covered population.

4.4.1 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. According to recent estimates of the U.S. Census Bureau, there are **703 households in Phillipston** and **538 households in Royalston**. **Figure 4-8** below provides a summary of income-based demographics for Phillipston's households and **Figure 4-9** provides a summary of income-based demographics for Royalston's households. For a family of four, the annual household income equivalent to one and a half times (150%) the poverty level is $46,800. While most households in Phillipston and Royalston are above that amount, 21% of household incomes are below $50,000 in Phillipston and 24% of households are below that amount in Royalston and, according to the U.S. Census Bureau's Digital Equity Act population viewer, an estimated 12% of Phillipston and Royalston's households exist at or below 150% of the poverty level and, as such, are "covered" populations of the Digital Equity Act as "covered households".[23]

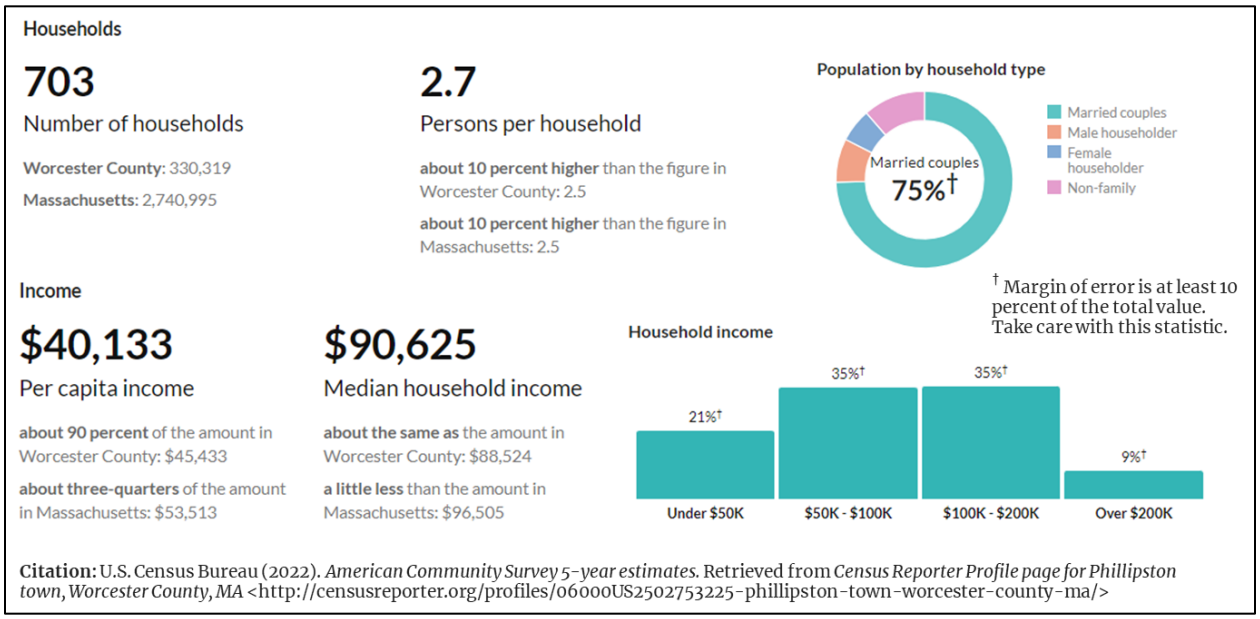


Figure 4-8. Income-based demographics for Phillipston's households.

[23] U.S. Census Bureau, 2019 Modeled Total Covered Population Estimates. Digital Equity Act Population Viewer: https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42

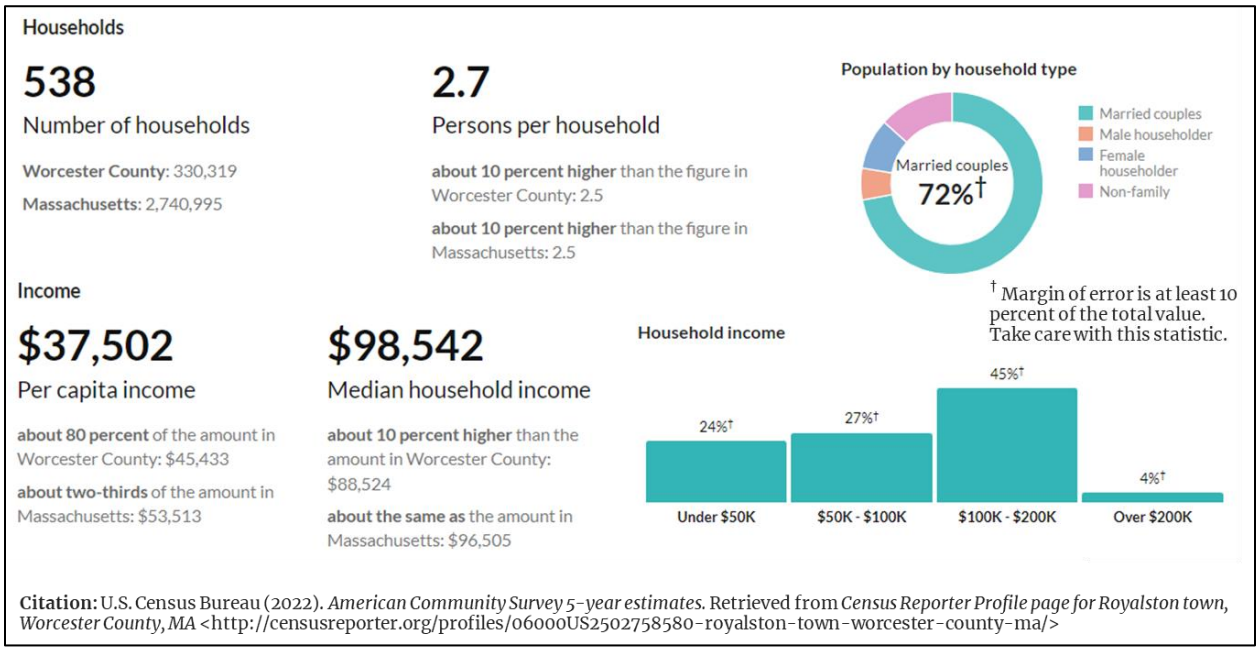


Figure 4-9. Income-based demographics for Royalston's households.

4.4.2 Aging Individuals

Aging individuals 60 years or older are one of the more significant "covered populations" within both Phillipston and Royalston. 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.

The population of residents over 60 years of age is increasing nationally, statewide, and within the Montachusett Region. **In Phillipston, approximately 21% of the population is 60 years of age or older** (**Figure 4-10**) and **in Royalston approximately 29% of the population is 60 years of age or older** (**Figure 4-11**). Therefore, between a quarter and a third of the Towns' populations are part of the "Aging Individuals" covered population group and are an important focus of this Plan.

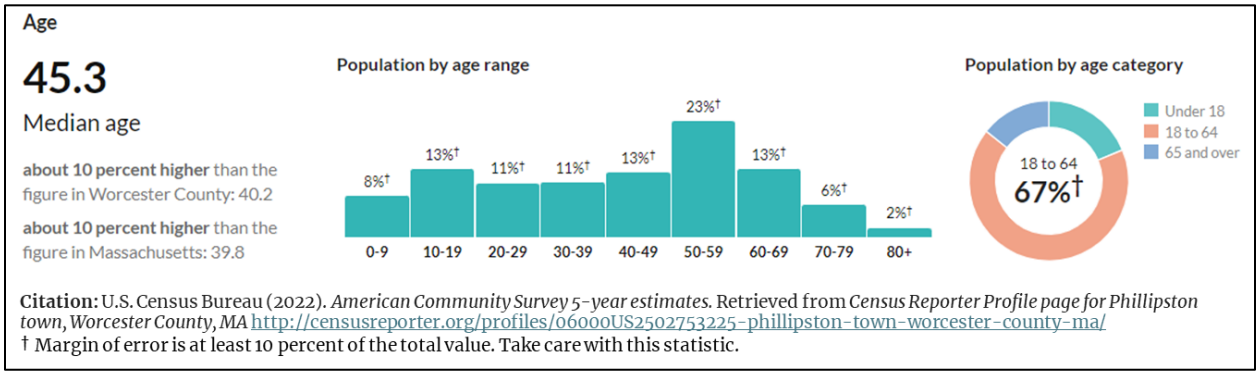


Figure 4-10. Population by age range for the Town of Phillipston.

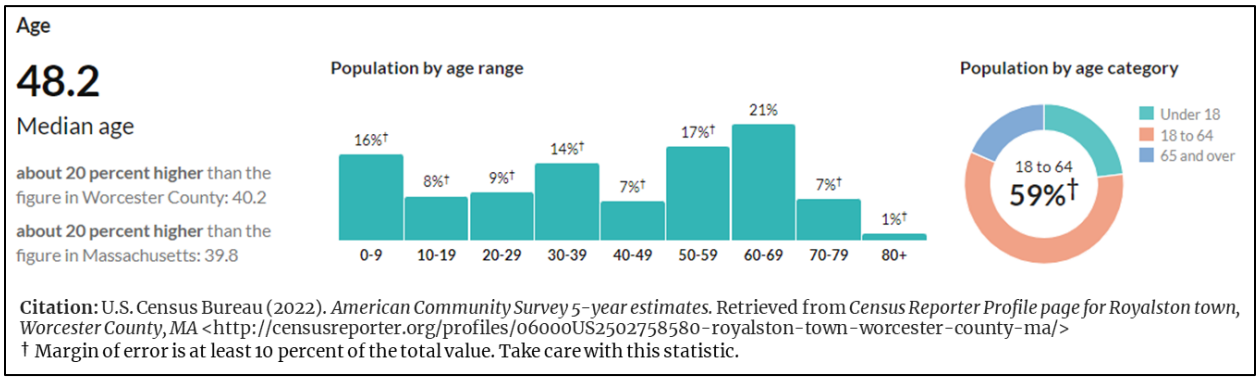
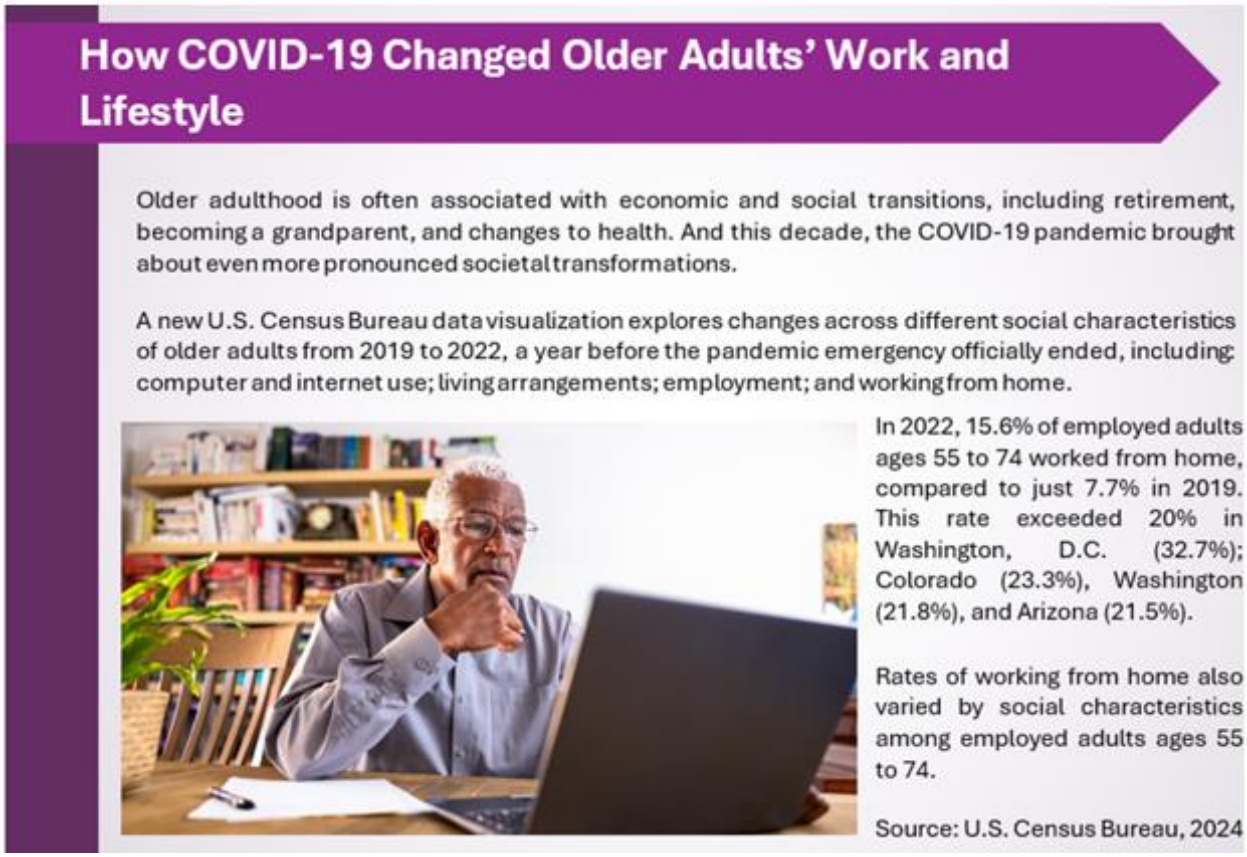
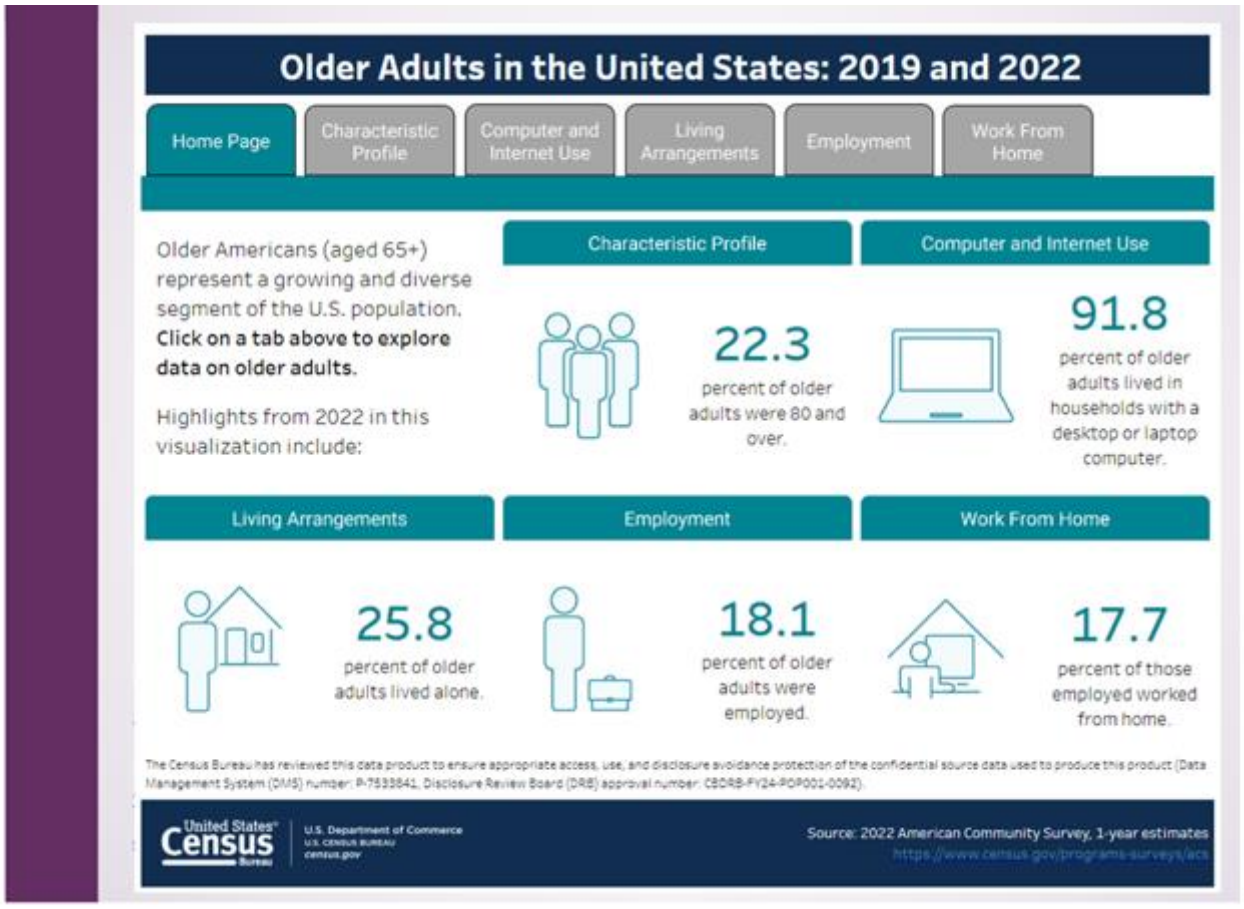


Figure 4-11. Population by age range for the Town of Royalston.

Outreach conducted through regional stakeholders, including Councils on Aging and Senior Centers indicate a need for digital literacy training, "tech help" sessions, and internet safety and cyber security education, as well as expanded advocacy, programs, and services for the region's aging adults in areas such as device usage, navigation of common software platforms, general computer skills, and comfort and trust of digital devices and technology.





4.4.3 Incarcerated Individuals

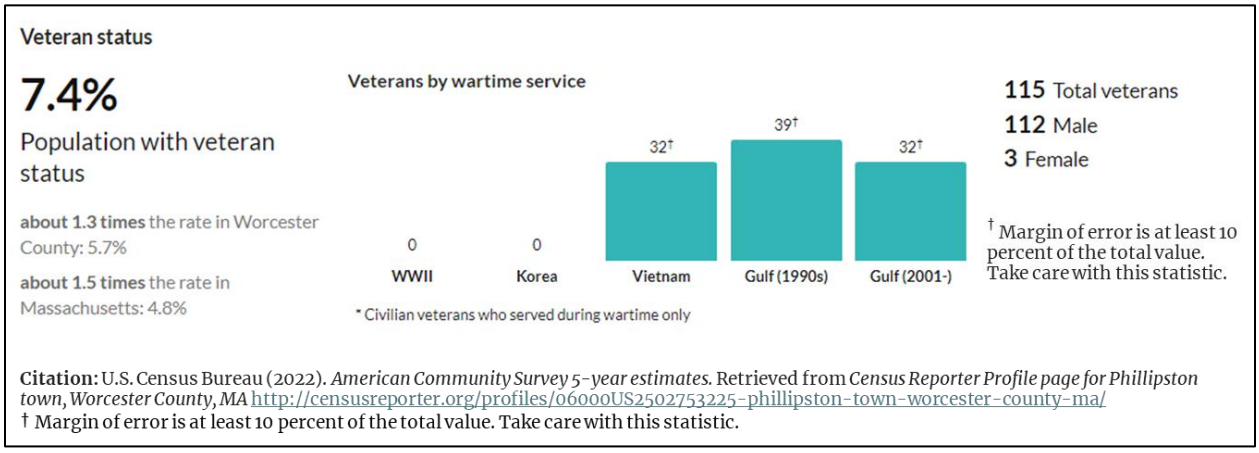
Inmates at state and county jails and correctional facilities, other than individuals who are incarcerated in a Federal correctional facility. The closest correctional facilities to Fitchburg are the North Central Correctional Institution in Gardner, MA, and the nearby Souza Bankowski Correctional Center and MCI-Shirley, located in Shirley, MA.

The Worcester County Sherriff's Office, Fitchburg Community Support Center (Re-Entry Program) is a local and regional community resource and support center for recently released, formerly incarcerated individuals, located in nearby Fitchburg, MA. As part of the stakeholder outreach for this plan, staff from that office noted the barriers and challenges faced by former inmates related upon release and re-entry into society. Of the many challenges they 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 of the use of these technologies as part of their daily lives.

Inmates make up zero percent of Phillipston and Royalston's populations at the time of this planning process and are not a primary focus of the Plan.

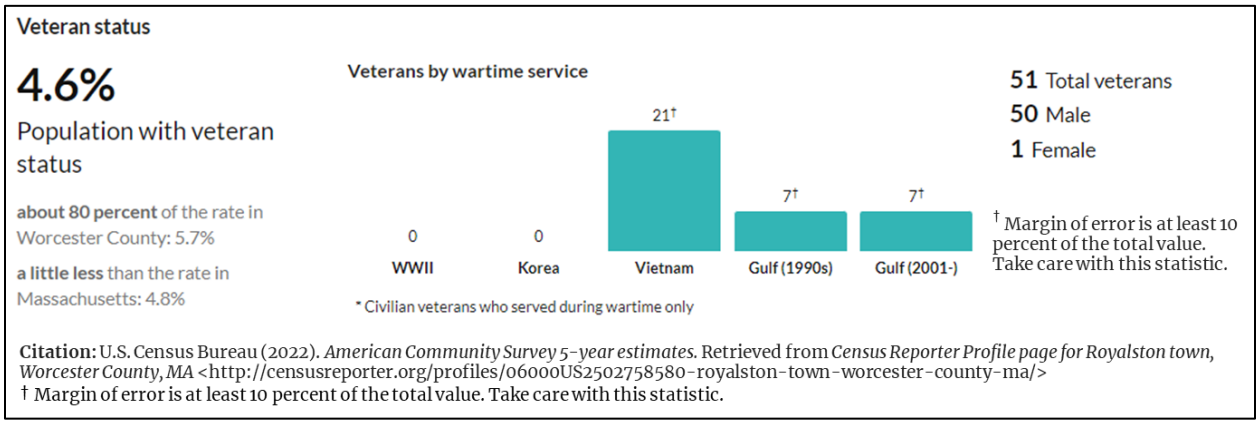
4.4.4 Veterans

Veterans make up approximately 7 to 7.5% of Phillipston's population over 18 (**Figure 4-12**) and approximately 4.6 to 6.2% of Royalston's population over 18 (**Figure 4-13**), and a considerable portion of the Montachusett Region's population. Veterans are valued within the region and honored for their service. However, many veterans lack financial resource to afford internet, and, despite the presence of Veterans local and regional organizations and service programs, most do not currently offer any digital literacy resources, and veteran-specific digital equity, literacy, and affordability programs are unknown or non-existent.



Citation: U.S. Census Bureau (2022). *American Community Survey 5-year estimates.* Retrieved from *Census Reporter Profile page for Phillipston town, Worcester County, MA* http://censusreporter.org/profiles/06000US2502753225-phillipston-town-worcester-county-ma/
† Margin of error is at least 10 percent of the total value. Take care with this statistic.

Figure 4-12. Population with Veteran status in Phillipston.



Citation: U.S. Census Bureau (2022). *American Community Survey 5-year estimates.* Retrieved from *Census Reporter Profile page for Royalston town, Worcester County, MA* <http://censusreporter.org/profiles/06000US2502758580-royalston-town-worcester-county-ma/>
† Margin of error is at least 10 percent of the total value. Take care with this statistic.

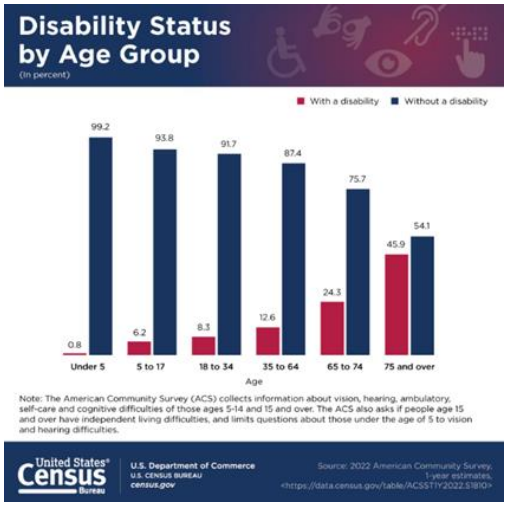
Figure 4-13. Population with Veteran status in Royalston.

There are several Veteran's organizations serving the Montachusett Region, including the one-of-a-kind Montachusett Veterans Outreach Center. The Montachusett Veteran's Outreach Center (MVOC) services over 700 Veteran's annually, most of whom reside in the Montachusett Region including veterans housing. In addition to their many services, MVOC offers free Wi-Fi access for veterans at their Gardner office. Internet service is also available (free) to some residents and digital literacy classes are offered, however increased digital literacy programming is needed and desired

by the organization and those they serve. A recent Digital Equity Veterans Focus Group meeting for the Montachusett Region was convened by the Montachusett Regional Planning Commission as part of this planning process. The meeting waw hosted by the MVOC and Veteran's Services Officers from all Montachusett communities were invited to share their stories, ideas, needs, and visions for increased digital equity for the region's veterans.

4.4.5 Individuals with Disabilities

Many residents of the northwest Montachusett Region have one or more disabilities. Under the Digital Equity Act, and for the purposes of this Plan, 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). According to the Commonwealth of Massachusetts' Office on Disability[24], Phillipston has 198 individuals (12%) with one or more disabilities and Royalston has 130 individuals with one or more disabilities (10.6%). So, approximately 10-12% of Phillipston and Royalston's population are covered as "Individuals with Disabilities" under the Digital Equity Act, and as such are a focus of this Plan.



4.4.6 Individuals with a Language Barrier

The Montachusett region has many individuals who are English learners and/or who have lower levels of literacy. Both of these groups of people are covered populations as individuals with a language barrier. Within Phillipston, 14.4% of the population are persons covered by the Digital Equity Act as "Individuals with a Language Barrier", which includes individuals with lower literacy levels. Only 1.1% of Phillipston's population are classified as English "learners". Within Royalston, approximately 16.9% of the population are persons covered by the Digital Equity Act as "Individuals with a Language Barrier", which includes individuals with lower literacy levels. Only 3.0% of Royalston's population are classified as English "learners".[25]

Many people born outside of the US, some non-English speaking, have immigrated to the Montachusett Region over the course of many generations. More recently, an influx of non-English speakers including those who speak Haitian-Creole, Arabic, Spanish and Portuguese have come to the Montachusett Region. These individuals and their families are also covered as "individuals who are members of a racial or ethnic minority group", and some who earn lower levels of income are also covered as "covered households". Phillipston and Royalston's population consist mostly of white, English-speaking residents, however, the presence of a broad diversity of ethnicities and languages within the Montachusett Region make this an important population to consider, even in more rural English-speaking areas. Further, lower levels of education and, hence, literacy, are also

[24] population-of-working-age-individuals-with-disabilities-in-massachusetts-by-city-and-town-as-of-2010-census.xls
[25] U.S. Census Bureau, 2019 Modeled Total Covered Population Estimates. Digital Equity Act Population Viewer: https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42

more prevalent within the rural communities of the Montachusett Region, again, illustrating the importance of recognizing and considering the needs of this covered population.

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

Most of the resident population of Phillipston and Royalston primarily identify as white and white alone. However, 4.4% of Phillipston's population report as multiple races, 2.4 report as "other", 0.29 report as black, 0.23 report as Asian, and 0.12 report as American Indian/Alaskan native (**Figure 4-14**). It is estimated that approximately 6.6% of Phillipston's residents are covered populations of the Digital Equity Act as "Members of a Racial or Ethnic Minority Group".

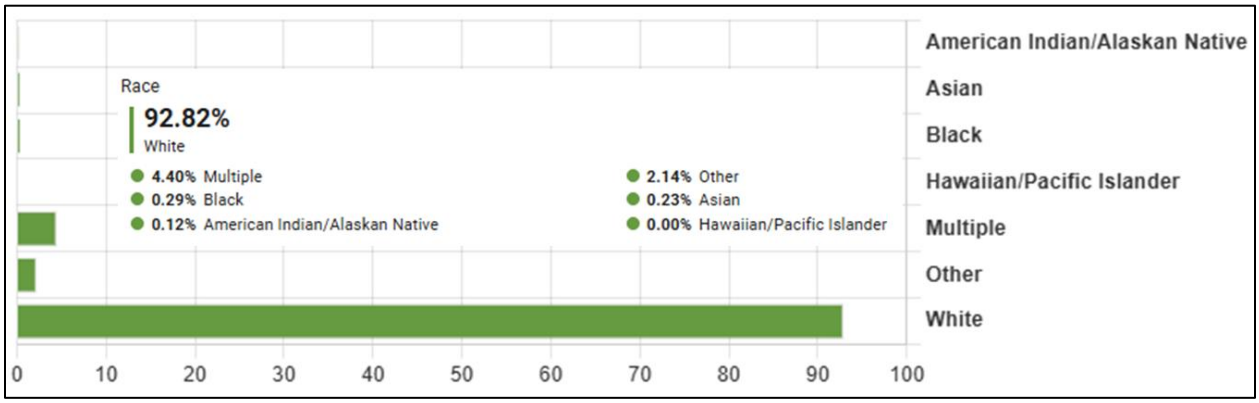


Figure 4-14. Phillipston's population by Race.

Similarly, in Royalston 3.76% of the population report as multiple races, 0.24 report as "other", 0.16 report as black, 0.64 report as Asian, and 0.08 report as American Indian/Alaskan native (**Figure 4-15**). It is estimated that approximately 3.8% of Royalston's residents are covered populations of the Digital Equity Act as "Members of a Racial or Ethnic Minority Group".

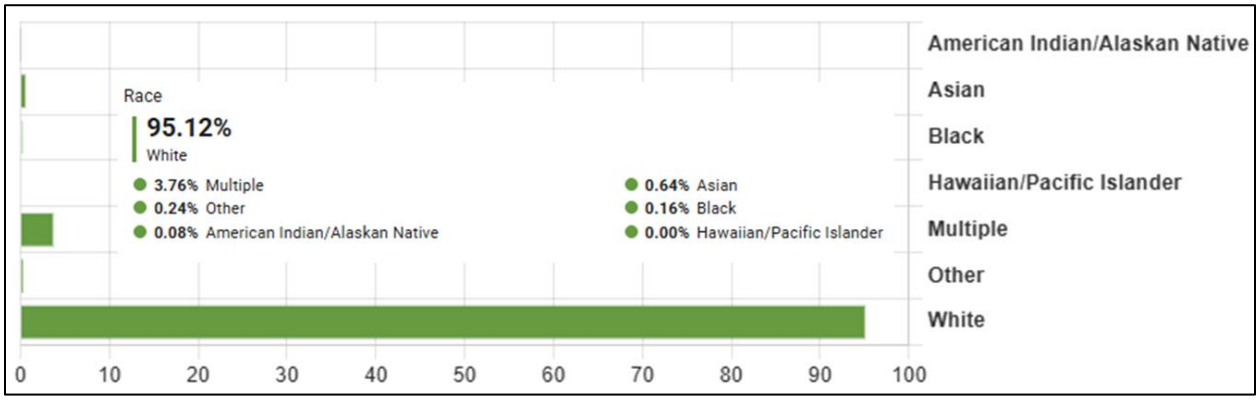


Figure 4-15. Royalston's population by Race.

Many people born outside of the US, some non-English speaking, and some of multiple ethnicities, have immigrated to the Montachusett Region over the course of many generations. Recently, there has been an increase of immigration of individuals and families of ethnic and racial minority groups to nearby communities like Athol, Winchendon, Gardner, Leominster, and Fitchburg, including those who speak Haitian-Creole, Arabic, Spanish and Portuguese. The diverse ethnic make-up of the

greater region of the Montachusett area makes this covered population an important one to consider, even in rural areas with predominantly white residents.

4.4.8 Individuals who Primarily Reside in a Rural Area

Under the Digital Equity Act, and hence for the purposes of this Plan, 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)). Both Phillipston and Royalston are classified as a "Rural Area" and therefore, all of the residents (100%) within both communities are part of a "covered population" group as "individuals who primarily reside in rural areas". In fact, most areas of western Massachusetts, including the northwest portion of Worcester County and the Montachusett Region exhibit between 90-100% coverage as "covered populations", which can be attributed to the rural designation of most communities within this area, in addition to other socio-economic factors related to other designated populations covered under the Digital Equity Act, and often coinciding with the "rural-ness" of a place or region. Because of their "rural" designation, 100% of both Phillipston and Royalston's population are classified as "covered" populations of the Digital Equity Act.

The U.S. Census Bureau's Digital Equity Act Population Viewer is an online interactive map application that displays proportions of the population covered by the Digital Equity Act. **Figure 4-16** below, provides a visual representation of covered populations throughout Massachusetts and demonstrates the high degree of covered people within rural areas of western Massachusetts, including the Towns of Phillipston and Royalston and neighboring portions of the Montachusett and North Quabbin regions.

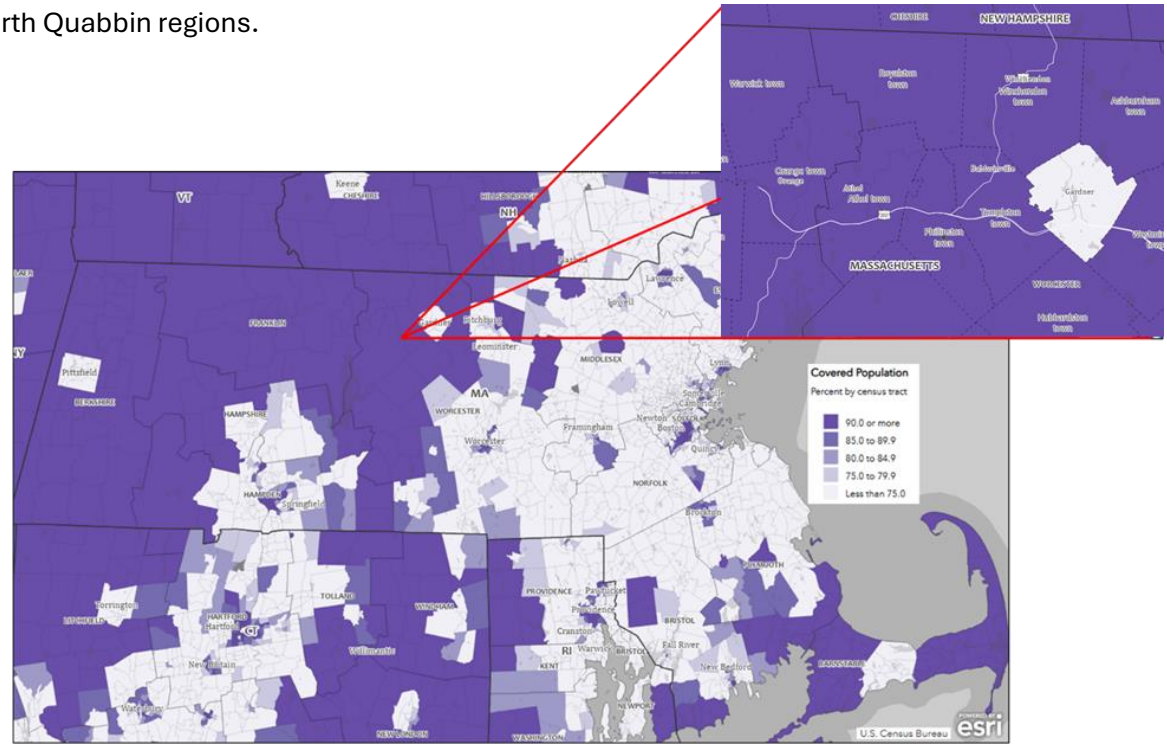


Figure 4-16. Massachusetts' Covered Populations & the rural loci of Phillipston & Royalston.

4.5 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 communities' digital assets and institutions which provide public internet and digital literacy programs and services are described below.

4.5.1 Critical Digital Assets

The term "Critical Digital Asset" means a digital computer, communication system, or network that is a component of a critical Information System, including assets that perform Safety-Sensitive and/or Emergency Planning (SSEP) functions. Such assets (facilities- and systems-based infrastructure) are often critical to emergency response and public safety and provide support to protect, serve, or administer important government and public safety functions. Critical Digital Assets sometimes provide a pathway to other critical systems or a support system asset whose failure or compromise could result in a threat to public safety. Critical Digital Assets are often at risk of cyber-attacks and proper digital network security and access is crucial to their protection and function. Summary lists of the primary Critical Digital Assets located within Phillipston and Royalston are shown below within **Table 4-3** and **Table 4-4**, respectively.

Table 4-3: Phillipston's Critical Digital Assets.

Critical Digital Assets in Phillipston, MA		
Facility Type	**Organization**	**Location**
Other Government Buildings	Phillipston Highway Department*	95 Templeton Road
Public Safety	Emergency Management Facility	90 State Road
Public Safety	PHILLIPSTON POLICE DEPARTMENT	40 The Common
*CAI Fiber network connection needed.		

Table 4-4: Royalston's Critical Digital Assets.

Critical Digital Assets in Royalston, MA		
Facility Type	**Organization**	**Location**
Other Government Buildings	Whitney Hall	5 School Street
Post Office	Royalston Post Office/Royalston Historic Society	1 Athol Road
Other Government Buildings	Royalston DPW	19 Winchendon Road
Public Safety	Royalston Public Safety	4 Athol Road
Public Safety	Royalston Fire Station #2	17 Main Street

4.5.2 Community Anchor Institutions

The term "Community Anchor Institution" as defined within the Digital Equity Act of 2021 means a public school, a library, a medical or healthcare provider, a community college or other institution of higher education, a state library agency, and any other nonprofit or governmental community support organization.

Phillipston's and Royalston's Community Anchor Institutions are shown below within **Table 4-5** and **Table 4-6**, respectively.

4-5: Phillipston's Community Anchor Institutions.

Community Anchor Institutions - Phillipston		
Facility Type	**Organization**	**Location**
Library	PHILLIPS FREE PUBLIC LIBRARY	25 Templeton Road
Town Hall	Phillipston Town Hall	50 On the Common
Town Hall Annex	Phillipston Town Hall Annex	15 Templeton Road
Other Government Building	Phillipston Memorial Community Building (former school)	20 On the Common

4-6: Royalston's Community Anchor Institutions.

Community Anchor Institutions - Royalston		
Facility Type	**Organization**	**Location**
Church	First Congregational Church	15 On the Common
Church	Second Congregational Church	3 School St
Library	PHINEHAS S. NEWTON LIBRARY	19 On the Common
Town Hall	Royalston Town Hall	13 On the Common
School	The Village School	On the Common
School	Royalston Community School	96 Winchendon Road

The locations of Critical Digital Assets and Community Anchor Institutions listed in the preceding Tables are shown within a map of each community, presented below as **Figure 4-17** for Phillipston, and **Figure 4-18** for Royalston.

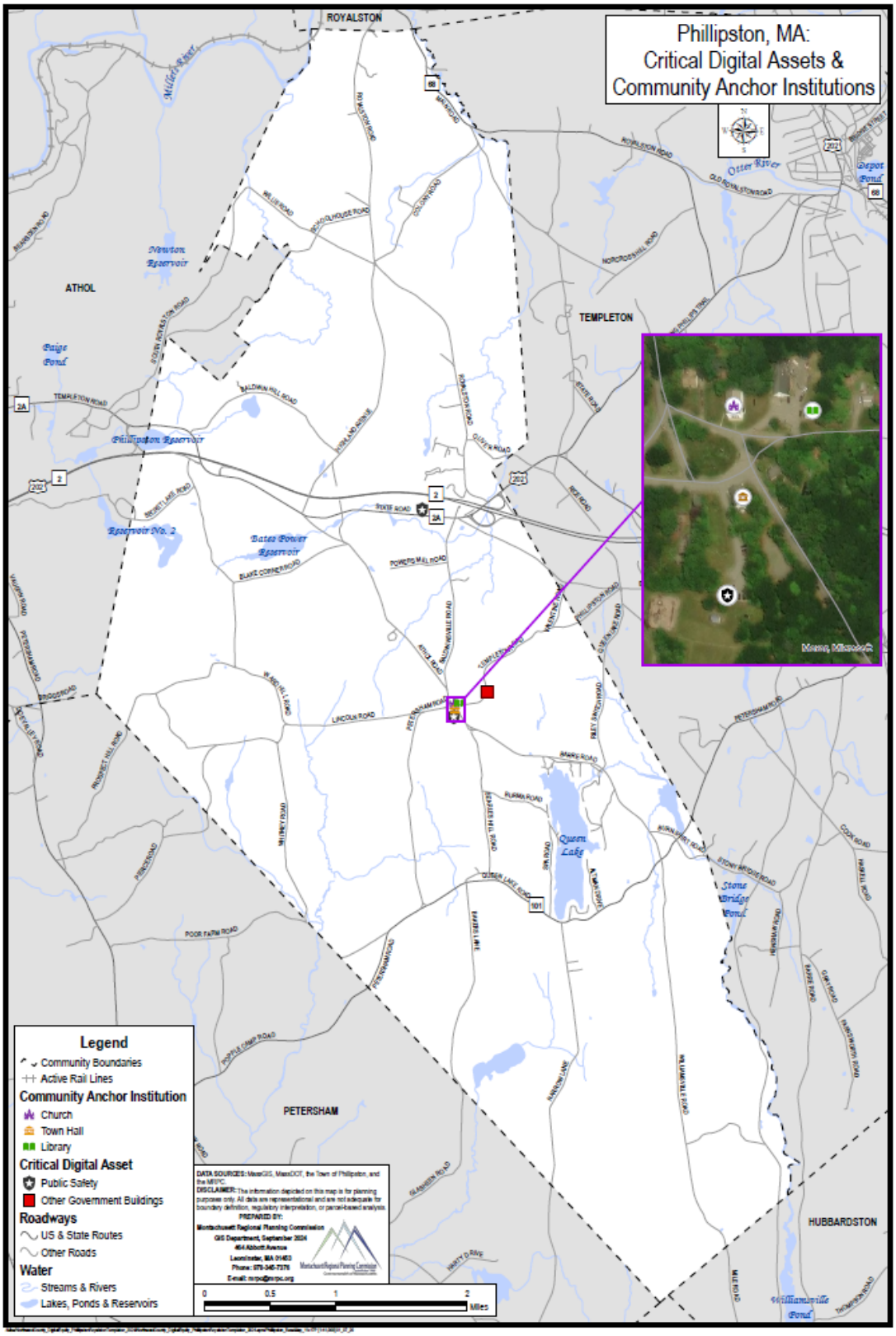


Figure 4-17: Map of Critical Digital Assets & Community Anchor Institutions in Phillipston.

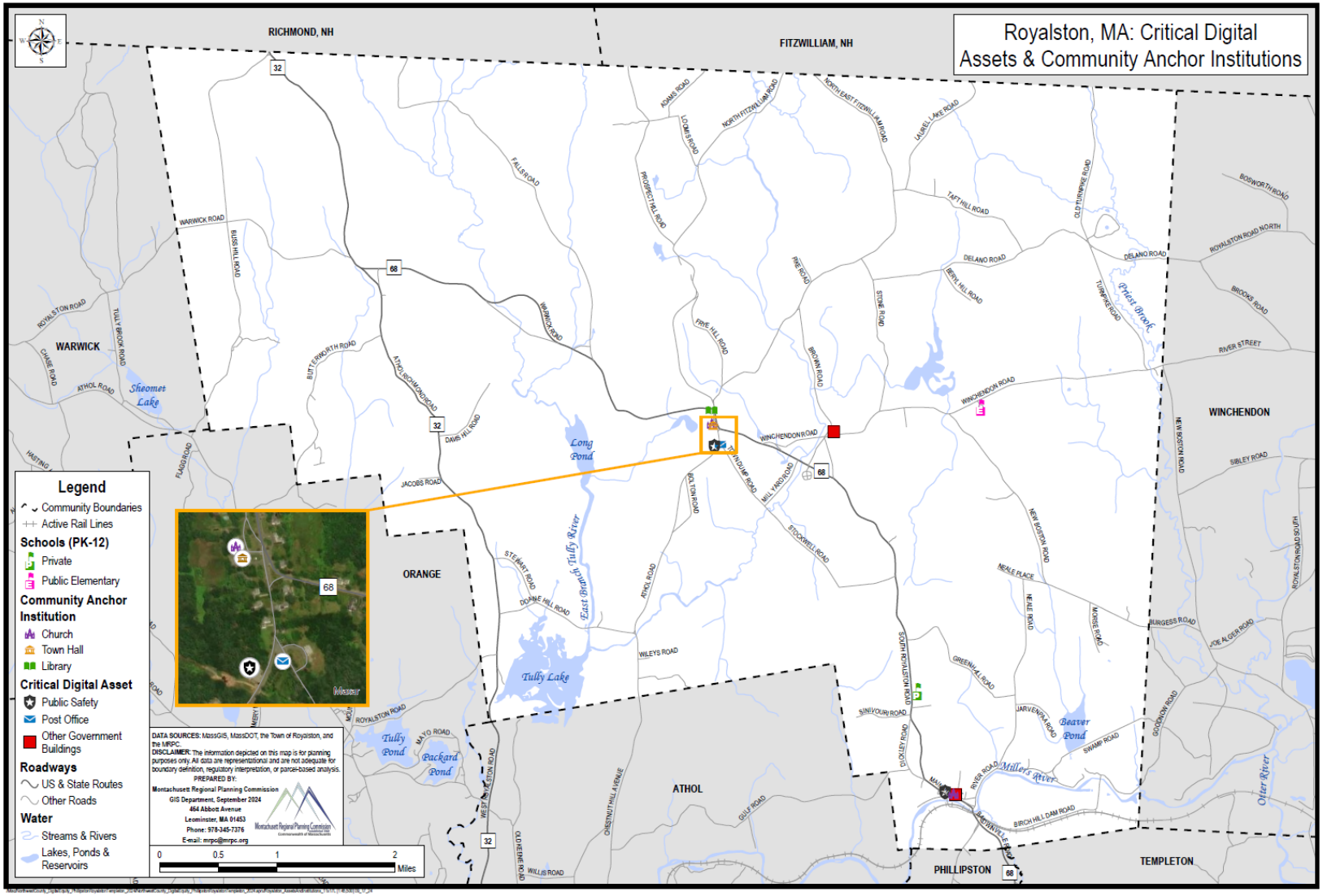
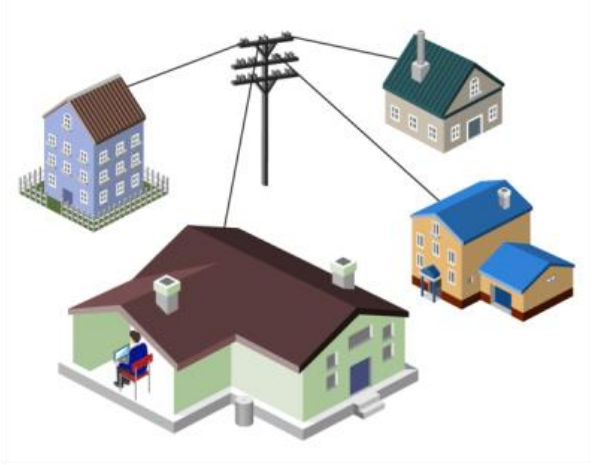


Figure 4-18: Map of Critical Digital Assets & Community Anchor Institutions in Royalston.

4.6 Public Broadband Infrastructure

4.6.1 MBI Last Mile Broadband Infrastructure

The Last Mile Program is a broadband internet infrastructure initiative and funding program aimed at providing residential broadband access in 53 Last Mile Towns, including 44 unserved Western and Central Massachusetts towns that lacked any residential broadband service and an additional 9 underserved Western and Central Massachusetts towns that were partially served by cable. The Commonwealth of Massachusetts, with the support of the Massachusetts Legislature, appropriated funds to support the MBI's mission to develop access to broadband service throughout the Commonwealth through public and private partnerships.



Last Mile is an industry term that describes the local network infrastructure closest to the end-users (e.g., the residents, businesses and community facilities). They are typically built off of middle mile networks.

The two maps presented below as **Figure 4-19** and **Figure 4-20** illustrate Last Mile Project Partners and Pathways and Last Mile Project Status, respectively.

MBI Last Mile Programs

broadband.masstech.org/last-mile-programs

In May 2016, then-Governor Baker and Lieutenant Governor Polito met with legislative leaders, MBI officials, and local representatives from unserved municipalities to discuss a strategic pathway forward for the Last Mile program, an effort designed to accelerate progress. A new Last Mile project leadership team was also announced to guide the MBI's high-speed internet accessibility efforts and appropriately disperse state capital Last Mile funds to approved projects. View the complete Program Policy.

The MBI, Commonwealth, and Executive Office of Housing & Economic Development (EOHED) built a flexible framework that would help all Last Mile towns achieve broadband access, allowing for a range of project models, including multi-town collaborations, locally-owned networks, and industry partnerships. Project models allowed for many technology and operational choices, as long as they meet core speed, affordability, and sustainability standards.

The Commonwealth and EOHED launched the Last Mile Infrastructure Grant Program for Last Mile towns that seek to build a municipally-owned broadband network. MBI administers the Flexible Grant Program that provides grants to private providers to build, own and operate broadband networks in Last Mile Towns. MBI also administered the Broadband Extension Program for partially served cable towns, which was completed in September 2018.

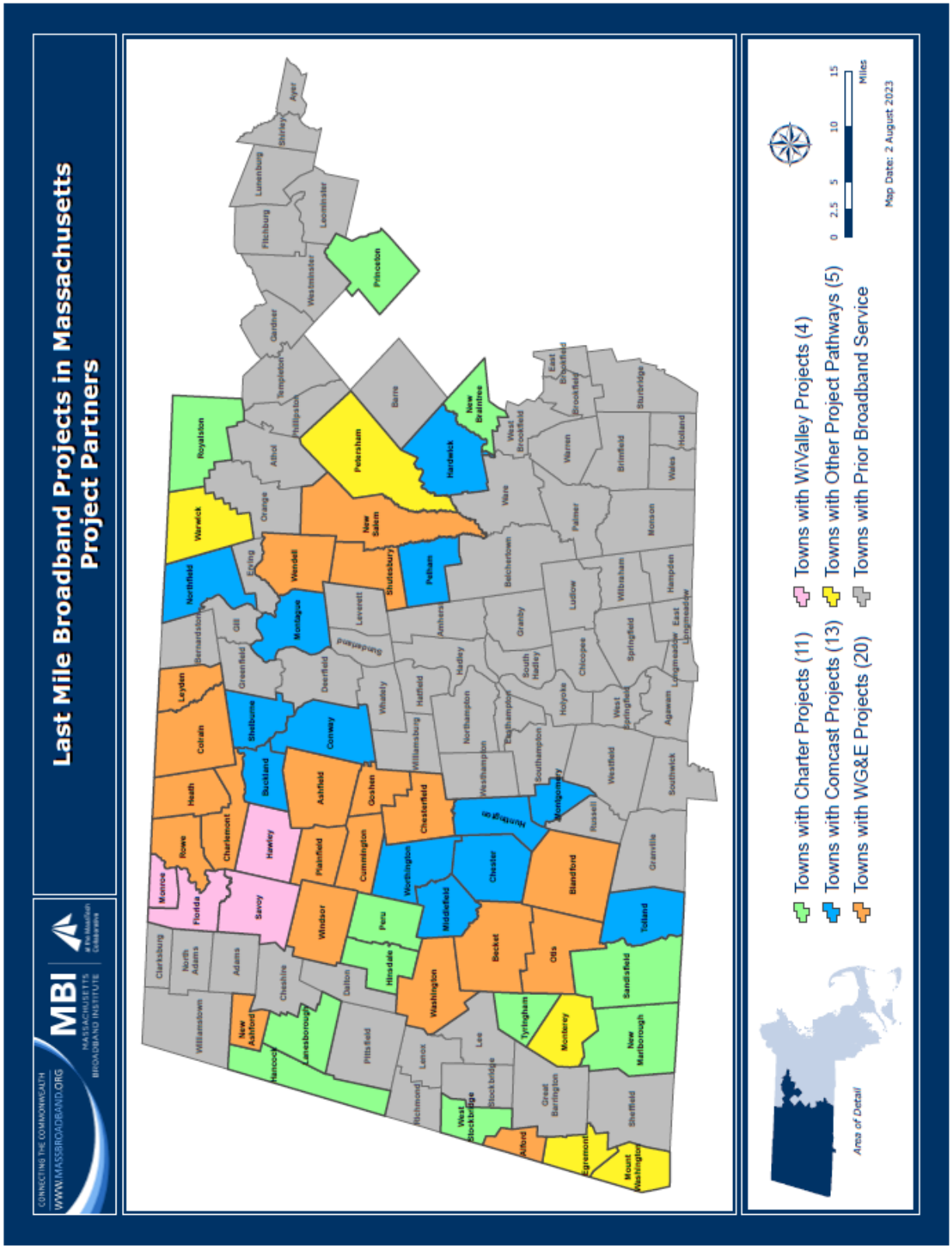


Figure 4-19: Last Mile Project Partners and Pathways.

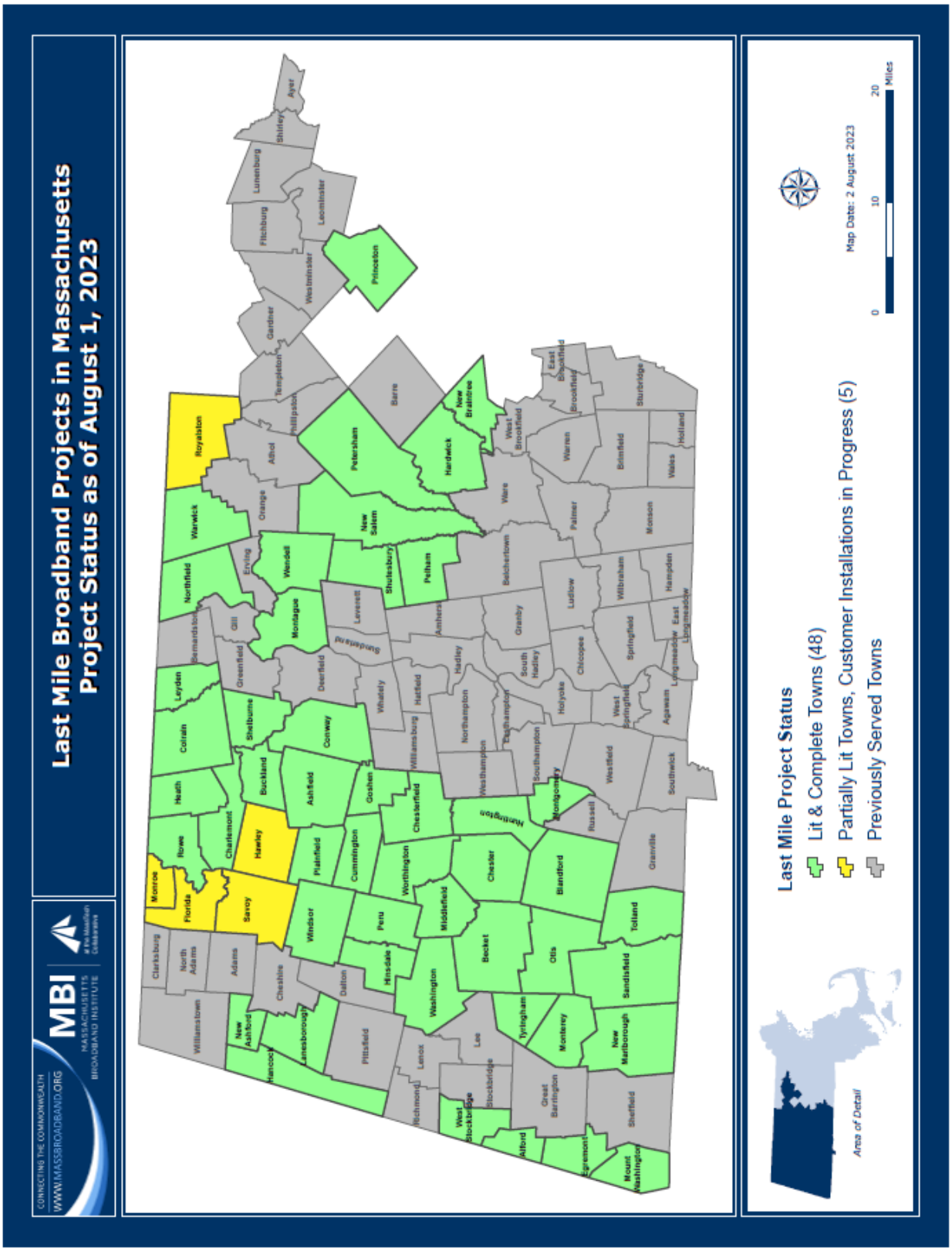
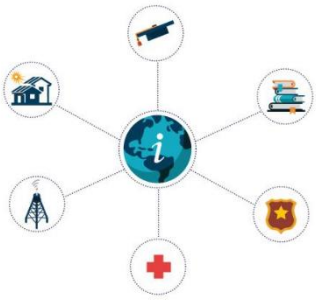


Figure 4-20: Last Mile Project Status

4.6.2 MassBroadband 123

MassBroadband 123 is an open access, fiber-optic "*middle mile*" network in western and north central Massachusetts, designed, built, and operated by MBI in early 2014.



Middle Mile is an industry term that describes the network infrastructure that connects last mile (i.e., local) networks to other network service providers, major telecommunications carriers, and the greater internet. It does not typically connect the majority of end-users.

broadband.masstech.org/massbroadband-123

About the MassBroadband 123 Network

- Designed, built, and owned by Massachusetts Broadband Institute (MBI)
- Operated by Local Linx (formerly KCST USA)
- Consists of approximately 1,200 miles of fiber, connecting 120+ communities in western and north central Massachusetts
- Provides direct connectivity to hundreds of public facilities in Berkshire, Franklin, Hampden and Hampshire Counties and parts of Worcester County
- Covers more than one-third of the geographic area of Massachusetts, which has more than 400,000 households and businesses and more than one million residents

About the MassBroadband 123 Network

Local Linx provides wholesale services on the network to local retail Internet Service Providers (ISP) that may offer consumer services in the region.

- ISPs use the network to offer broadband services to public safety entities, schools, libraries, medical facilities, town halls, and other Community Anchor Institutions (CAI) already connected to the network.
- ISPs may request quotes from Local Linx to build new extensions to connect additional CAIs and businesses in the region.
- IPSs can purchase dark fiber connections, high speed lit services to facilitate backhaul for Fiber to the Premise (FTTP) networks, and collocation services to house equipment within MassBroadband 123 facilities.

MassBroadband 123 is an open-access, *middle mile* fiber-optic network that stretches across 120+ western and central Massachusetts communities (**Figure 4-21**). It was the first step in bringing high-speed internet to all parts of the state and is now used as a building block to design and build last mile connections to residents and businesses in areas that still lack high-speed internet services, such as Phillipston (**Figure 4-22**) and Royalston (**Figure 4-23**).

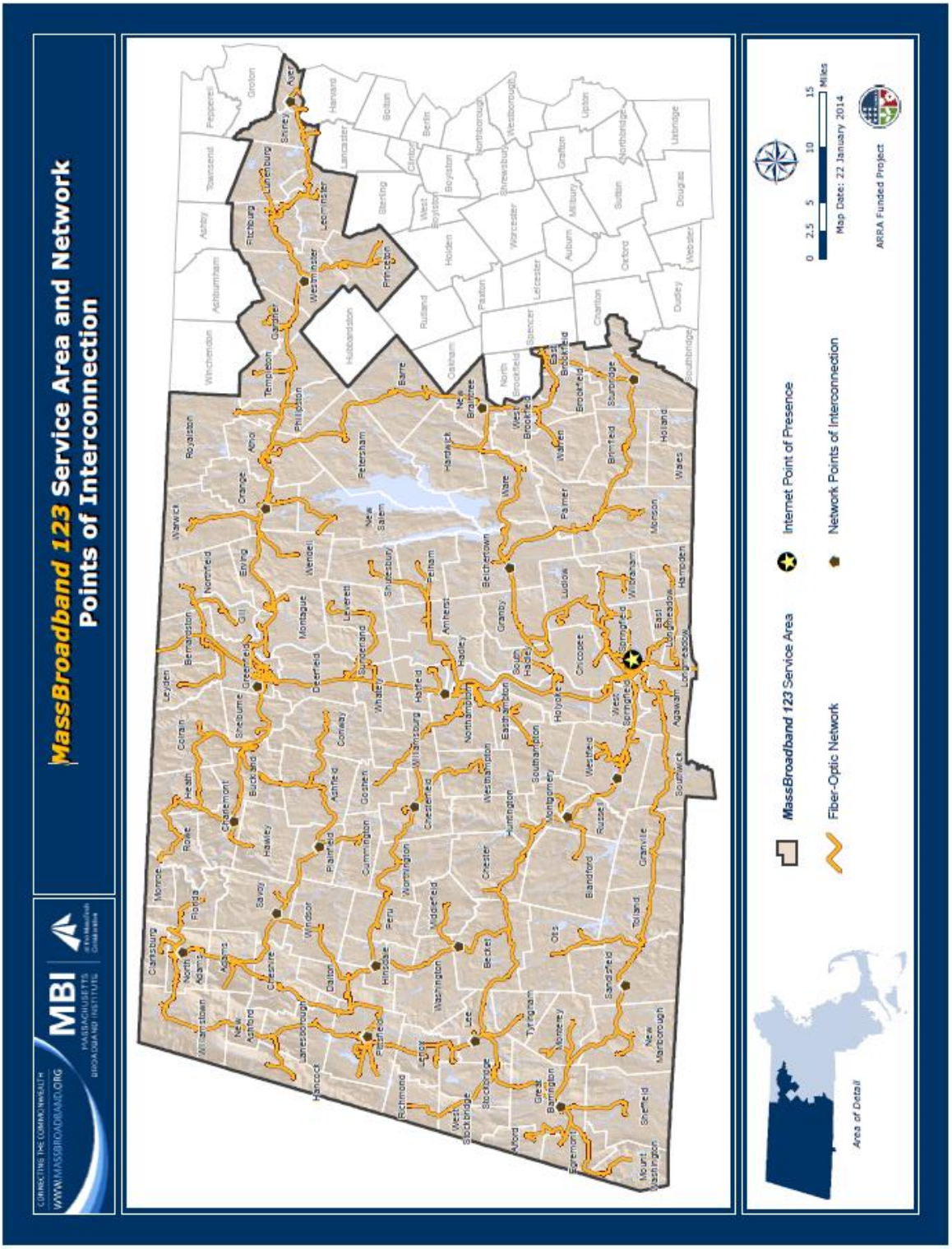


Figure 4-21: MassBroadband 123 Service Area & network.

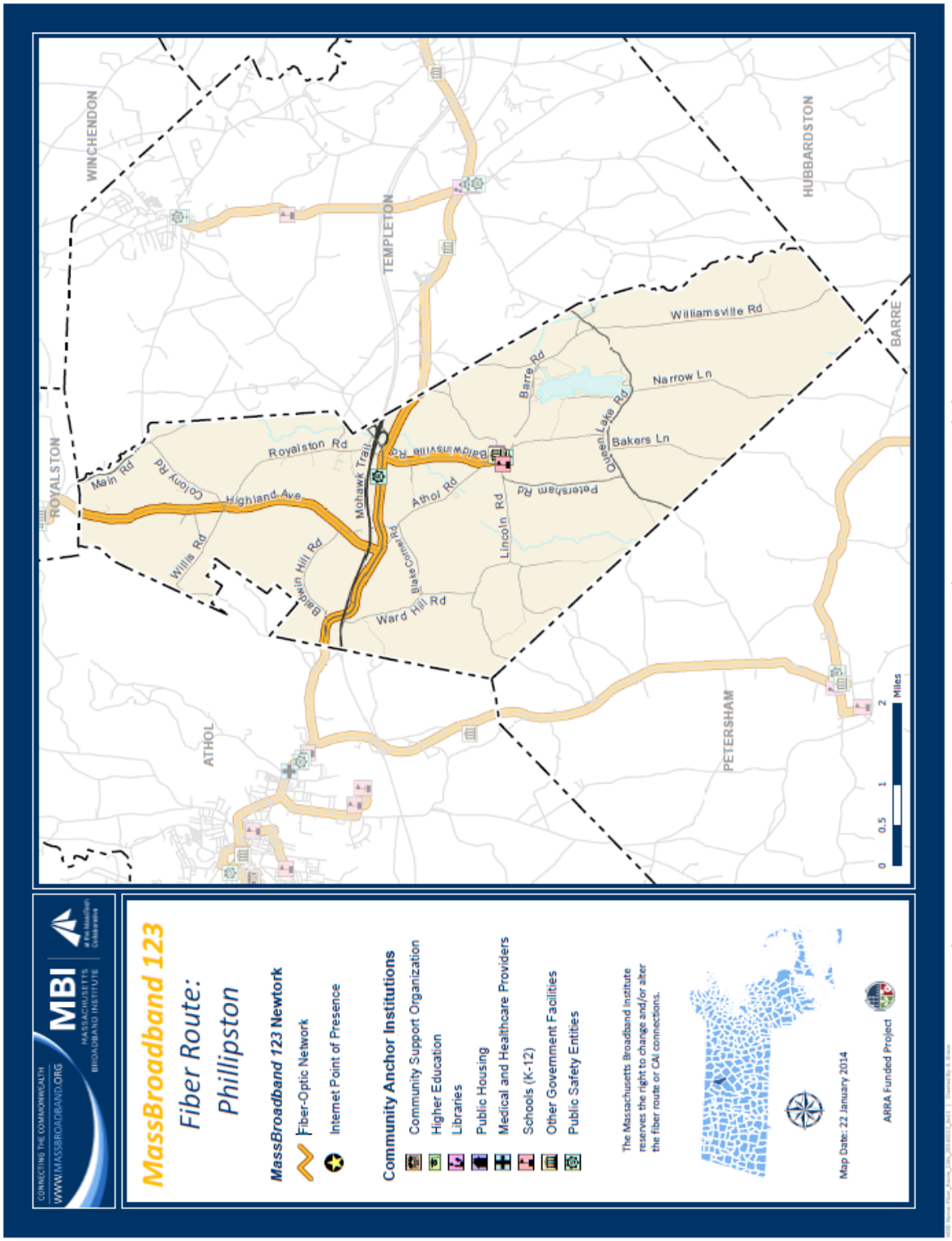


Figure 4-22: MassBroadband 123 Fiber Route – Phillipston, MA.

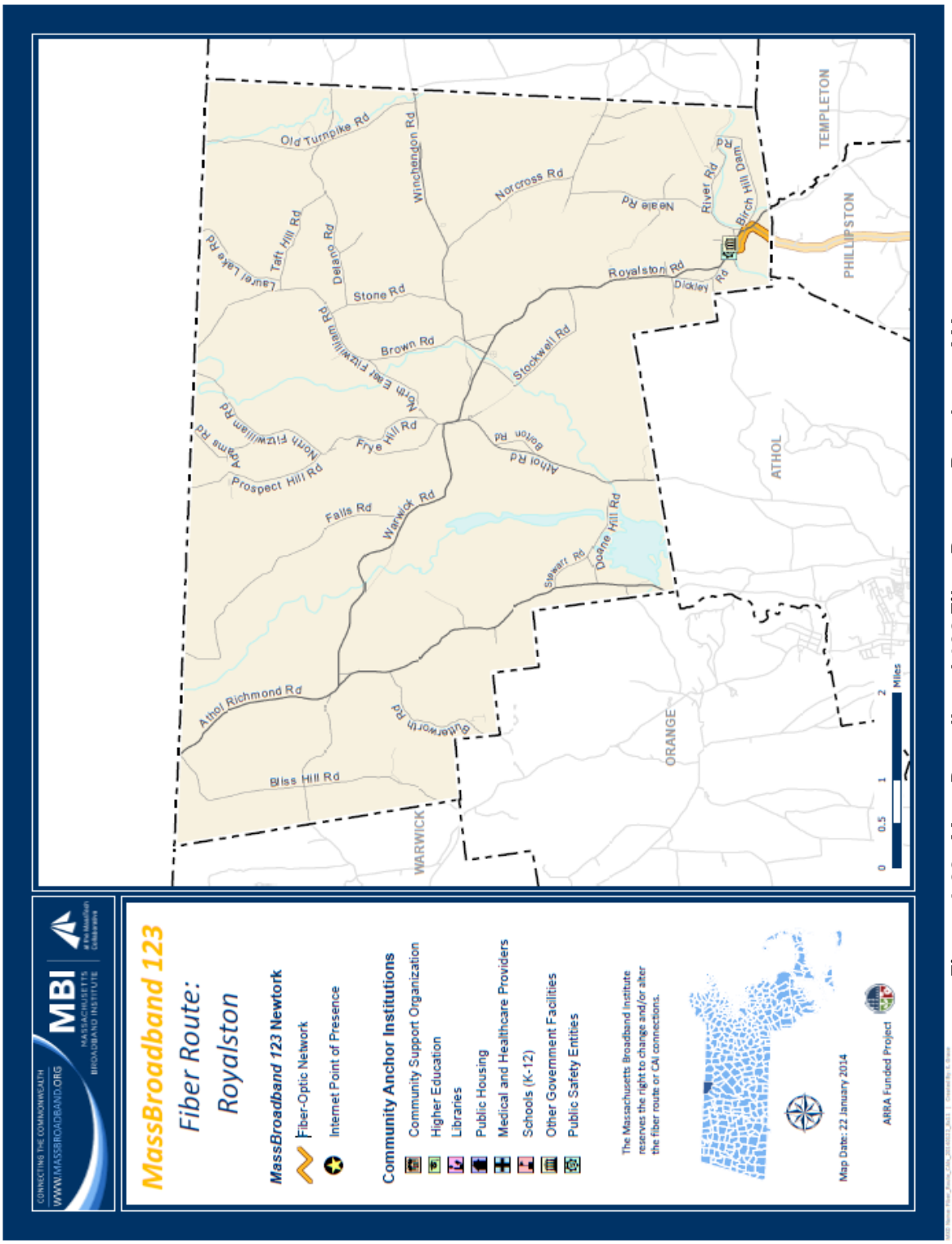


Figure 4-23: MassBroadband 123 Fiber Route – Royalston, MA.

5

5 COMMUNITY NEEDS ASSESSMENT

Towns of Phillipston & Royalston

In addition to the Existing Conditions Evaluation presented in Section 4 of this Plan, the Digital Equity Planning Process also includes an assessment of "Community Needs". 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 and interviews, and local and regional 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 region's digital literacy opportunities, and the communities' level of digital literacy or knowledge, skills, abilities, and importantly, comfort levels, and willingness to adopt broadband internet and digital technologies. Community needs were assessed generally, but with specific regard to the status and needs of covered populations.

5.1 SUMMARY OF COMMUNITY NEEDS

The Existing Conditions Evaluation presented within **Section 4** assessed the digital assets of the communities and evaluated the existing conditions concerning availability, affordability, and adoption of broadband internet. The Assessment of Community Needs presented here within **Section 5**, provides an analysis of existing challenges and barriers affecting access to broadband internet, digital literacy and inclusion needs related to digital skills, internet safety and security, and digital inclusion needs related to general computer and technology adoption and use, and access to digital devices and technologies.

Barriers to accessing broadband internet and digital devices:

- **Fear of internet/Safety Concerns** – Lack of knowledge regarding staying safe online or a general distrust of the internet are preventing some residents from adopting the internet and digital devices.
- **Affordability** – There are few or no choices in internet service providers (ISP) which prevents market competition and leads to expensive services. Internet is expensive in the Montachusett Region and there are few or no affordable internet options for low-income households except for those that are based on a lower level of service, resulting in lower speed and reliability. There is an overall concern for rising costs over time, especially among covered households, and those with fixed incomes such as individuals with disabilities and

aging adults. Internet is now considered an essential service, or utility, like heat, electricity, and water, and therefore, it should be available and affordable to all.

- **Additional access to digital literacy resources, programs, and services** – Digital Literacy Training is needed in the region. There are no professional digital literacy organizations or service providers in the Montachusett Region except for a few social services organizations, institutions of higher education, or workforce development agencies who provide some digital literacy training services as part of their mission. Even those cases are limited and usually dependent upon intermittent funding to provide those services when such funds are available. The recent UMass Lowell Digital Equity Partnership funded by the Massachusetts Broadband Institute (MBI) through their Digital Equity Partnerships program is the first major, focused, adequately funded effort on enhancing Digital Literacy and Digital Inclusion in this region and, without taking away from its successes, it has had a very limited scope that has focused almost entirely on the Gateway City of Fitchburg in this region. Building upon and expanding the focus area of the UMass Lowell Digital Equity Partnership could have substantial positive impacts on the region. Using the curriculum and teaching and learning framework or model established by that program, and with the incorporation of other local stakeholders and partners, it can be expanded throughout the Montachusett Region to great effect. Communities who have participated in and prepared a Plan though the Municipal Digital Equity Planning program will be better prepared and have access to funding through the Municipal Digital Equity Implementation grant program to develop such partnerships and implement such programs to provide local digital literacy and inclusion opportunities.
- **Unavailable or unreliable internet** – Broadband internet availability and reliability (speed and connectivity) issues have improved greatly in the past few years in Phillipston and Royalston. However, there are still reports of inconsistent reliability (speed and connectivity) and a few areas where service is limited or unavailable. Continuing to document reliability issues will be critically important to locating areas of concern and justifying the need for improvements related to infrastructure or equipment maintenance, upgrades, or expansion. An effort should be made to address areas without access to service and those experiencing unreliable service.
- **Lack of personal digital devices and home internet** – In Phillipston, 11% of households do not have a broadband internet subscription and 7% do not have a computer. In Royalston, 26% of households do not have a broadband internet subscription and 11% do not have a computer.
- **Lack of public internet and digital workspaces** – Unfortunately many public spaces do not have the resources, equipment, funding or staff capacity to take on a high demand of digital access and literacy help needs. For example, the libraries do not have full time hours, and there are no alternative public spaces where public internet and digital workstations are freely available for public use. While increasing library hours would require increased staff capacity that is not easily supported by rural, small-town budgets, finding other ways to expand public internet and digital workspace offerings such as outdoor public wi-fi mesh

networks and computer "labs" or classrooms at other public facilities such as Town Halls, Churches, or Community Centers, could provide increased access to meet the needs of the community.

- **Digital Literacy ability, comfort-level, and willingness to adopt** – An assessment of regional and community needs indicated that, with regard to digital literacy, a person's ability or knowledge of how to use a computer or other internet-connected digital devices is not the only digital literacy factor affecting a person's adoption of broadband internet and digital devices. In many cases, personal comfort and trust levels also affect adoption rates and that means that often adoption is a matter of preference, not solely skills or ability. In some cases, a limited awareness results in a limited confidence and lower comfort level. In other cases, people choose not to learn or increase their skills and comfort because they not only lack personal confidence, but they also lack fundamental confidence and trust in the technology or their ability to remain safe while using it. These are real and justifiable concerns, and the internet and digital devices can expose people to certain digital scams, exposure of personal information or data, and even targeted incursion of sensitive personal identification data and information, including in some cases medical records, financial data, and even social security numbers. While some nefarious entities do use the internet and digital technology to perpetrate scams and "steal" personal data and information, it is important to know that there are certain steps you can take to reduce risks, protect your personal data and information, and avoid such scams. With increased knowledge, skills, and overall digital literacy, comes increased comfort and confidence, and through that increased digital literacy, it is possible, and beneficial to reduce risk and increase personal internet safety and security.

Digital Literacy Needs:

- **Help Navigating Government Websites and Online Applications and Forms** – It was noted that residents, particularly aging adults, 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. Specifically, it was noted that assistance was needed with the following:
    a. DMV Forms (license and registration renewals)
    b. Immigration Forms
    c. Online bill or tax payments
    d. Online Medical Records/Telehealth
- **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.
- **Setting up digital devices and accessing and changing device settings** – Many people noted that sometimes the hardest part of using a digital device can be setting it up or finding and changing settings within the device. While some people are comfortable operating and

using a digital device like a cellphone, laptop, computer, tablet, Smart T.V., or other internet-connected digital devices, they are not comfortable enough to set one up if they need to purchase a new device or upgrade an old one. Even finding the appropriate setting can sometimes involve navigating through multiple menus and screens that are not always logical or intuitive. This can be intimidating or stressful for most people and is often prohibits them from making necessary changes or updating old, out-of-date technology, which can then lead to safety and security issues.

- **Basic Computer Skills** – It was noted that many residents, particularly aging adults need basic computer skills. Something as basic as using a mouse and keyboard may be challenging to many people. Often, digital literacy and computer classes assume that people already know what may seem like common knowledge to others. Similarly, many classes are based on using specific software programs or conducting tasks often associated with school or work and as such are geared toward students or professionals. However, many people now need to use the internet for everyday living, but not for work or school. Understanding this need and accommodating the digital literacy and skills needs of people other than students and working professionals is necessary. Further, there is now a greater need for teaching people how to use the internet and digital devices for conducting crafts and hobbies and exploring knowledge and satisfying curiosity. For example, visual search can now be used to help people identify plants, animals, or birds, or even antique vases. A visual search is often easier for someone to use than a text search, and in many cases returns better, more relevant results.
- **Managing online subscriptions and accounts** – Creating an online account, subscribing to an online streaming media service, creating an email account, an Amazon profile, or Prime Account, a Netflix, Hulu, AppleTV, and/or Disney+ account, online bill paying, an online store account, etc., etc., etc. The need for more and more online accounts to accomplish everyday tasks creates a whole other challenge, managing these accounts, usernames, and passwords. This can be a challenge for anyone, but especially for people who do not have a high level of confidence using the internet and digital devices. And, if setting up and managing these accounts is challenging, it can be almost impossible to cancel or make changes to an account, especially one that is connected to a bank account rather than a credit or debit card, or worse, if you do not remember or have access to the password. These types of issues were noted as a challenge for people of all ages and with varying degrees of digital literacy and confidence.
- **Cyber-Security & Internet Safety** – Cyber-security and internet safety was highlighted as important throughout the process among various stakeholders and focus groups. It was particularly important to aging adults, and surprisingly, cyber security and internet safety were rated as the top two most beneficial types of digital skills trainings desired by Phillipston residents and the fourth and sixth highest for Royalston residents in the local digital equity public survey (see more in **Section 5.2** below).

- **How to use a handheld device** – It was noted that touch screens are harder for some people to use due to touch sensitivity and other physical characteristics or disabilities which may affect touch screen usage. It was noted that aging adults sometimes find touch screens difficult to use and that "accidental" touches can be frustrating, confusing, and difficult to navigate or "back out" of.
- **Creating online video content, digital art, music, and editing digital photos or videos** – It was noted that many people are interested in digital literacy training related to digital photo, video, and other digital media content creation.

Digital Inclusion and Access Needs:

- **Improve Digital Internet Access, Service, and Connectivity** – Improving access digital devices is dependent upon access (availability, affordability, adoptability) discussed as part of "barriers to accessing broadband internet" and "digital literacy needs" discussed above.
- **Improve Wi-Fi internet speed, strength, and coverage area within public buildings, particularly at the Town Halls/Senior Centers, Libraries, and other public community spaces, including outdoor spaces** – Promoting digital inclusion in a Municipal Digital Equity Plan must first focus on ensuring that public spaces have reliable access to internet and that public wi-fi and digital workspaces are made available to the public in public buildings and outdoor spaces, like parks, commons, gazebos, and outside of public buildings.
- **Extend Wi-Fi internet to 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 public wi-fi in outdoor public spaces such as outside of Town Halls, Libraries, and community buildings like Phillipston Memorial Building, and at South Royalston Common. This need is especially true and amplified in rural areas where libraries and public buildings may have limited operational hours and staffing and therefore, are not always accessible. In such instances, it is very beneficial to make public wi-fi available outside of public locations regardless of their normal operating business hours.
- **Increase access to affordable, up-to-date 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 (known as "Digital Navigators") it is recommended that public device distribution programs are inclusive of or offered in conjunction with Digital Literacy training. Such programs ensure that people are familiar with and comfortable using the device before it is distributed to their ownership. This is a responsible approach that gives the individual the proper training, skills, and confidence to use a device and ultimately leads to greater levels of satisfaction and increased use and overall success of the program.

- **Offer free online and printed Digital Literacy resources** – With the understanding that staff capacity and resources (financial budgets included) are often limited in rural communities, it is recognized digital literacy partners will be needed to successfully implement ongoing training opportunities. To meet the urgent and important need for digital literacy training with limited capacity and resources, it is recommended that partnerships with existing digital literacy training organizations and Digital "Navigators" be established. It is also recommended that additional available resources and funding opportunities be sought to provide ala-carte or at-home, learn-as-you-go services through existing free programs like www.DigitalLearn.org. Many such programs and resources, in addition to DigitalLearn, are provided within **Section 6.4.2** of this Plan.

Municipal and Organizational Needs to overcome barriers and enhance community digital equity, literacy, and Inclusion:

- **Partnerships, partnerships, partnerships** – Consider developing partnerships with the Digital Lab at Scout Hall in Templeton, Mount Wachusett Community College, and MassHire Career Center to coordinate with and build upon existing Digital Literacy programs.
- **Understanding Digital Equity & Inclusion in Rural Areas** – Better define the roles and importance of broadband internet access, digital equity, digital literacy, and digital inclusion in Rural areas.
- **Recipe for Digital Equity in Rural Areas** – Identify ways to bridge the "access" gap to bring digital technology and services to rural areas.
- **Needs are different in Rural Areas** – Recognize and address the differences between digital equity and inclusion needs in urban and suburban areas versus those in rural areas.
- **Different does not mean less important** – Improve knowledge and understanding of uses of digital technologies and services in rural areas to improve digital literacy and access to digital resources which will provide people with the convenience and improved quality of life that is often experienced more commonly in less rural areas.

5.2 Public Input Surveys

5.2.1 Statewide Digital Equity Survey Results and Local Digital Equity Surveys

There were only 16 responses to the Statewide Digital Equity Survey from residents of the Town of Phillipston and only 7 from the Town of Royalston. According to the 10 out of 16 respondents who answered the question, the average cost of internet in Phillipston is $127.90. According to the 4 out of 7 respondents in Royalston who answered the question, the average cost of internet in Royalston is $65. Of the 16 Phillipston respondents who answered the follow-up question, 3 found that it was "very hard" to pay for an internet subscription, 8 thought that it was "somewhat hard", 4 thought that it was "not too hard", and only 1 thought that it was "not at all hard". In Royalston, of the 6 respondents who answered the follow-up question, 2 thought that it was "somewhat hard" to pay for an internet subscription, 4 thought that it was "not too hard", and 1 did not answer the question. In Phillipston, 15 of 16 respondents indicated that their broadband internet provider was

Xfinity/Comcast. In Royalston, 2 of 5 respondents indicated that their broadband internet provider was Spectrum, on indicated that it was Verizon and the other indicated that it was Viasat, a satellite internet provider.

The minimal number of responses, even for two very rural communities with individual populations of under 2,000 people within each community, yielded limited variation, and the representativeness of the data is uncertain. Given this a local survey was conducted, the results of which are summarized below.

5.2.2 Local Digital Equity Survey Results

There were also limited responses to the Local Digital Equity Survey including **15 responses from residents of the Town of Phillipston** and **22 responses from the Town of Royalston**. In **Phillipston**, 100% indicated that their "home internet service provider" was Xfinity/Comcast, and in **Royalston**, 75% of respondents indicated that it was Spectrum. In Royalston Verizon accounted for another 5% (1 respondent), and "Other" accounted for the remaining 20% (4 responses) with the "other" providers being listed as Starlink (2), MBI (Town Anchor Institution), and MLP.

In **Phillipston**, of those who responded to the question of "How satisfied are you with your current home internet service?", 5 were 'Satisfied' (33.33%), 4 were 'Neutral' (26.67%), 2 were 'Very Satisfied' (13.33%), 2 were 'Dissatisfied' (13.33%), and 2 were 'Very Dissatisfied' (13.33%). In **Royalston**, when asked "How satisfied are you with your current home internet service?", of those who responded, 9 were 'Very Satisfied' (40.91%), 5 were 'Satisfied' (22.73%), 3 were 'Neutral' (13.64%), 2 were 'Dissatisfied' (9.09%), 2 were 'Very Dissatisfied' (9.09%), and 1 did not have internet service at home.

In **Phillipston**, when asked "How often do you experience home internet connectivity issues?", 6 responded 'Rarely' (40%), 4 responded 'Often' (26.67%), 3 responded 'Sometimes' (20%), 1 responded 'Never' (6.67%), and 1 responded 'Always' (6.67%). In **Royalston**, of those who responded, 12 people responded 'Rarely' (60%), 4 responded 'Often' (20%), 3 responded 'Sometimes'15%, and 1 person responded 'Never' (5%).

In **Phillipston**, 80% of respondents felt that the cost of internet services was not affordable to them, while only 20% felt that it was affordable to them. On the contrary, in **Royalston**, 75% of respondents thought that their internet *was* affordable to them while only 25% felt that it *was not* affordable.

In **Phillipston**, when asked "What challenges do you face when accessing or using the internet?", 8 respondents indicated that internet service was too expensive, or unaffordable, 4 respondents indicated that internet service speeds are too slow or unreliable, 4 respondents were concerned about online safety or privacy, and 3 respondents listed other challenges, such as "none" (2 responses), and "government agencies and businesses do not offer alternative way to interact other than tedious automated voice prompting". In **Royalston**, when asked the same question, 5 respondents listed "no challenges", 5 respondents indicated that internet service speeds are too slow or unreliable, 4 respondents were concerned about online safety or privacy, 2 indicated that their internet-connected digital equipment or devices were too old or low quality to function properly, 1 respondent indicated that internet service was too expensive, or unaffordable, 1 responded that they are not confident or do not know how to navigate the internet or use online tools,

1 respondent indicated that there is only one single choice of primary internet service provider and expressed concern that without choices in the market, prices would likely go up, and finally, 1 indicated that they choose not to use the internet.

In **Phillipston**, when asked about the "main reasons" for using the internet, respondents listed Shopping (13), followed by Entertainment/Hobbies (11) and Social Media (11), Healthcare (9), Work (8), Education (8), News (8), Financial or Banking (8), and Email (1). In **Royalston**, respondents listed Entertainment/Hobbies (19), Shopping (16), Financial or Banking (16), News (15), Social Media (14), Work (13), Healthcare (13), Education (7), as their main reasons for using the internet. Also noted were Email (1) and keeping in touch with family and friends (1). One (1) person reported that they do not use the internet.

In **Phillipston**, 9 out of 13 respondents indicated that they have internet at home but still sometimes use internet at other locations, while 4 out of 13 respondents said they do not usually use the internet in places other than their home. For people who sometimes use internet in places other than at home, when asked "where do you go to use the internet?", the top place selected was a business such as a restaurant, café, bookstore, pub, etc. In **Royalston**, 14 out of 20 respondents indicated that they have internet at home but still sometimes use internet at other locations, while only 4 out of 20 respondents said they do not usually use the internet in places other than their home. For people who sometimes use internet in places other than at home, when asked "where do you go to use the internet?", the top place selected was at their place of work (9), followed by a friend or family members home (7), a public library (7), or a business such as a restaurant, café, bookstore, pub, etc. (7), or a public space such as a park or government building.

When **Phillipston** residents were asked "How confident are you in your digital skills?", it was an equal 3-way split between all 15 respondents with 5 respondents indicating that they were "Very Confident" meaning they had a very high degree of digital skills and confidence, another 5 respondents indicating that they were "Confident", meaning they had some digital skills and confidence, and the other 5 respondents indicating that they were "Neutral" meaning they have some digital skills but a low level of confidence. When **Royalston** residents were asked the same question, of 20 responses, 9 respondents indicated that they were "Very Confident" meaning they had a very high degree of digital skills and confidence, 8 indicated that they were "Confident", meaning they had some digital skills and confidence, 2 respondents indicated that they were "Neutral" meaning they have some digital skills but a low level of confidence, and 1 indicated that they were "Not confident" meaning they had few digital skills and a low level of confidence.

In **Phillipston**, survey respondents age-groups ranged from over 25 to under 75 years of age, with many respondents being between 60 to 74 years old (9) followed by 45 to 59 years old (3) and 35 to 44 years old (1) and 25 to 34 years old (1). Respondents' levels of education ranged were well represented from High School graduates (3) to Advanced College Graduate Degrees (2) and included individuals with "some" college (3), Associate's Degrees (2), and Bachelor's Degrees (4). In **Royalston**, survey respondents age-groups ranged from 18-24 (1) to 75+ (1) and included 25 to 34 years old (1), 35 to 44 years old (3), 45 to 59 years old (6), and 60 to 74 years old (8). Respondents' levels of education ranges were also well represented from High School graduates (2) to Advanced

College Graduate Degrees (6) and included individuals with "some" college (3), Associate's Degrees (3), and Bachelor's Degrees (6).

Regarding the eight "Covered Populations of the Digital Equity Act", **Phillipston's** 15 survey respondents represented five out of eight "covered" groups with incarcerated individuals, individuals with a language barrier, and individuals who are members of an ethnic or racial minority group lacking representation among respondents. Some groups were strongly represented including Aging adults over 60 (8), Individuals who reside in Rural Areas (8 reported, however all 15 respondents are actually represented by this group), and Individuals with Disabilities (6), while Veterans (2), and Covered Households (2) were also represented. **Royalston's** 22 survey respondents represented six out of eight "covered" groups but incarcerated individuals and individuals with a language barrier were not represented among any respondents. Individuals who reside in Rural Areas (13 reported, however all 15 respondents are actually represented by this group), Aging adults over 60 (12), were strongly represented, and Individuals with Disabilities (3), Veterans (2), Covered Households (1), and individuals who are members of an ethnic or racial minority group (1) were also represented.

When asked for suggestions on "improvements for enhanced internet access or digital inclusion and equity" in the community, **Phillipston's** respondents listed items such as:

- More affordable internet
- Increased competition through increased number of Internet Service Providers
- Extend the ACP program & provide "universal service" (mandatory available access for everyone) & provide Towns with pricing control for local monopolies (ISPs)

When asked for suggestions on "improvements for enhanced internet access or digital inclusion and equity" in the community, **Royalston's** respondents listed items such as:

- The current minimum plan is 300mbps which is expensive. How about a cheaper plan of 150mbps?
- Service improvements (speed, reliability); faster access for everyone
- Connectivity for everyone; Spectrum to connection beyond railroad tracks
- Public internet access in public buildings
- More public Wi-Fi areas
- Public Wi-Fi or 5G in outdoor public spaces
- Better service in town
- Lower pricing; better affordability
- Better cellular coverage; Improved cellular service

5.3 Assessment of Community Needs by Covered Population Groups

To assess the digital equity needs of individual covered population groups with regard to digital literacy and inclusion, MRPC engaged with many stakeholders and the community throughout the planning process. A summary of community needs based on overall outreach and engagement was provided within Section 5.1, above; A summary of community needs gained from the results of Public Input Surveys was provided within Section 5.2, above. For details on the community engagement process and individual stakeholder interviews and community events that were part of that process, please refer to **Section 3** of this Plan, ***Community Planning and Engagement Process***.

Below, is a more focused summary of the Community Needs Assessment based on the needs of individual "covered" population groups within Phillipston and Royalston.

5.3.1 Needs of Individuals who live in Covered Households

Within rural areas, affordable internet is one of the greatest barriers to digital equity, as shown within **Section 4**, above. With an estimated 12% of Phillipston's and Royalston's households falling below 150% of the poverty line, and as such, considered as "covered households" under the Digital Equity Act, it is important to consider affordability when assessing the needs of the 1,200+ households and approximately 3,300 residents of these two rural Towns. For households made up of families with children who are in school, affordability is especially important. Domenic Sergio, IT Director of the Athol-Royalston Regional School District (ARRSD) and Jared Perrine, IT Director of the Narragansett Regional School District (NRSD) were both interviewed as part of this planning process. Jackie Prime, Library Director of Phillipston's Phillips Free Public Library, and Kathy Morris, Library Director of the Phinehas S. Newton Public Library in Royalston were also interviewed relative to the "covered households" and other covered population groups they serve. Below is a summary of the information and associated community needs gathered through those interviews.

According to the Nashoba Regional School District (NRSD), which covers the Towns of Phillipston and Templeton, approximately 30 hotspots were needed during the Covid-19 pandemic to ensure that all students had access to the internet at home. Specific information on the number of hotspots which were provided to Phillipston families of the NRSD was not provided, however, district-wide, since Covid-19, much of the learning done in school (and at home) is done "online" on a computer or Chromebook device. NRSD's pre-k to 4th grade students have access to a computing device (Chromebook) in school, but not for take-home. Students in 5th to 12th grade do all have a take-home device (Chromebook), but it is necessary to have access to affordable, reliable broadband internet to use that device to complete assigned work and projects.

Affordability is the biggest barrier when it comes to improving or providing digital services for schools and households in the region. Therefore, it is important that schools have less costly options to improving online provisions. Unfortunately, NRSD students no longer have access to hot spots as some did during Covid-19. Finding a way to re-fund the NRSD's 30 hotspots or make more hotspots available to families through the district's public libraries is a critical need. Since Covid-19, many families within the NRSD and ARRSD (~1,716 households in Phillipston and Athol, and ~33 in Royalston) signed up for internet the Affordable Connectivity Program (ACP), an internet affordability

program. However, that cost-saving program is no longer available, and those families are now paying higher rates (as before) or seeking alternative programs or options.

As for the cost of providing reliable internet services in schools, it can be expensive, but like in the home, and perhaps more so, it is a necessity and responsibility to provide reliable service to the students and teachers to meet their teaching and learning needs. NRSD (and Phillipston's Phillips Free Public Library) participates in the E-Rate program, an FCC program providing internet service and technology cost savings to public schools and libraires. NRSD schools are eligible for a 70% cost-match savings rate through the E-Rate program which saves the schools approximately $60,000 to $70,000 per year on internet service and required technology to provide wireless connections to that service such as switches, access points, and a firewall. ARRSD (and Royalston's Phinehas S. Newton Library) also participates in the E-Rate Program which provides savings on internet and wi-fi internet access (service, networking, equipment, distribution, etc.) within public schools and libraries.

For the Athol and Royalston Regional School District (ARRSD) there is a great need for more affordable internet and devices. Affordability is the biggest barrier when it comes to improving or providing digital services for schools and households in the region. Since ARRSD serves 64% of the district's population, and 100% of the district's residents are part of a covered population (due exclusively to Ruralness, and with high levels of Covered Households, Aging Adults, and Individuals with Disabilities) it is important that schools have less costly options to improving online provisions. Students used the schools' hot spots. Moreover, children in the school district are aware of how to use digital devices. Within the ARRSD it is estimated that 90-95% of kids know how to use devices, however due to ruralness, and high levels of covered households (with lower incomes), access to affordable, reliable, high-speed internet and digital devices is a concern.

According to ARRSD's IT Director, the high cost of internet access and digital devices poses significant barriers to providing digital services for both schools and households within the ARRSD. Similar concerns exist within the NRSD. Given this, it is crucial that more affordable options are made available to improve digital access for students and their families, particularly for "covered households". While there may be other opportunities for cost-saving programs for internet services, such as the former ACP for households and the ongoing E-Rate program for public schools and libraires, there is also a real risk of increases in cost over time and the ability of rural households and school districts to afford those costs. For covered households with limited financial means, especially for household with students, affordability is an ongoing concern and the need for reliable, affordable, high-speed internet will remain the same or likely increase over time, while their ability to afford that service will always be limited. Likewise, the cost of internet and digital devices and technologies will continue to be a concern for public schools and libraries serving covered households, and particularly to those serving residents within rural areas. Finding ways to stabilize or reduce those costs, especially for covered households, is a critical need for Phillipston and Royalston.

5.3.2 Needs of Aging Individuals

According to input received by aging adult patrons and Senior Center Staff at a Focus Group meeting held at the Royalston Town Hall during a Senior Luncheon on August 21, 2024 and at a tech

help/digital literacy forum held at the Templeton Senior Center on August 13, 2024, aging adults in the region reported using the internet regularly for many activities including operating home business or conducting personal business and financial activities, participating in hobbies, news, shopping, communicating with family and friends over social media or video call apps, for conducting research, for entertainment, for conducting research or learning about things that interest them, for scheduling or participating in medical appointments and accessing medical records or results, for online registrations and applications, and for banking and bill paying, among other things.

Among Royalston's Aging Adults over 60, Entertainment/Hobbies, Shopping, News, Financial or Banking, and Social Media were the top five most common reasons for using the internet (followed by Healthcare, and to a lesser degree, work and education). **Among Aging Adults over 60 in Phillipston**, the top five reasons were Shopping, Entertainment/Hobbies, Social Media, News, and Healthcare, followed closely by Financial or Banking, and to a lesser degree, Work and Education.

Aging Adults over 60 in Phillipston and Royalston use the internet for a variety of reasons. Entertainment/Hobbies and Shopping are highly important "needs" among aging adults over 60 in this rural region, and access to News and Social Media are also important. However, many residents expressed concerns that they do not have the skill necessary to do some or all of the things they like or need to do using the internet and/or a digital device, so they still do it the traditional way, or have to ask for help from family, friends, or staff at their local library or council on aging. In Phillipston and Royalston, the libraries have part-time hours and limited staff. This makes it challenging or poses a barrier for some aging adults to access the resources or assistance they need, particularly for those that do not own a vehicle or are not comfortable driving long distances to other libraries in neighboring communities that have full-time operating hours and more staff. Therefore, even though some aging adults have internet access at home, they may not have a reliable, up-to-date computer or laptop to do everything they need to do, or they may sometimes need technical assistance from staff or volunteers at a library or council on aging that are not always available.

Many other aging adults in Phillipston and Royalston do not have internet service at home because it is not affordable for them. When aging adult residents of Phillipston and Royalston do not have access to the internet at home it is even more imperative that they can access the internet and a computer at a public location like a library or senior community center. While both communities have active Council's on Aging, with active participation from residents at events like Senior Luncheons, neither community currently has a formal Senior Center. The Athol Senior Center, Templeton Senior Center, and even the Gardner Senior Center are all located nearby and sometimes used by Phillipston and Royalston residents, however, as noted before relative to library access, not all aging adults are able or comfortable to drive long distances to access these services. While many of the aging adults in these two rural communities are familiar with the schedules of several local libraries and senior centers because of the limited operational hours of the local libraries, or lack of a formal Senior Center, it is not always possible to get to these other places. Creating spaces and times when aging adults can access free public internet and digital computing devices at Royalston Town Hall's Dining Room (where Senior Luncheons are held) or another public location like Whitney Hall, or in Phillipston's Memorial Building, is a real "need" and would alleviate some of the

challenges and barriers currently faced by many aging adults who do not have internet or devices at home or who need some assistance or companionship for support when navigating the internet.

Another challenge faced by aging adult individuals is that home-internet service/connectivity is often un-reliable or slow. Others may have devices that are out of date or in need of maintenance or software or hardware upgrades that they cannot conduct themselves or afford to have others conduct. Because affordability is a factor for both internet and device access, and since local libraries have limited, part-time hours, and there are currently no formal spaces or workstations at a senior center or council on aging office accessible to area residents, it is key to pursue affordable internet options and public workspaces for aging adults to enhance digital equity for this covered population, which accounts for nearly a quarter (21%) of Phillipston's total population and nearly a third (29%) of Royalston's population.

Another concern is the fact that many aging adults are increasingly feeling "forced" to use the internet or left without choices other than to use the internet to accomplish many of theier day-to-day "living" tasks. And, in some cases, there is no longer an alternative "off-line" or "in-person" methods to accomplish some tasks. Thus, an affordable, stable, or fixed cost is not the only thing needed to make the internet accessible and equitable for aging adult residents. Digital Literacy training in a variety of subjects and skill levels may also be needed. Many of the aging adults in attendance at the Focus Group meeting and Tech Help workshop were confident in their internet skills and had access to a computer or handheld device. In fact, 5 out of 12 aging adults over 60 who responded to Royalston's local digital equity survey were "very confident" in their digital skills and another 4 were "confident". Aging adults may be less confident in their digital skills in Phillipston where only 2 out of 8 were "very confident", another 2 out of 8 were "confident", and the remaining 6 respondents were "neutral", indicating that they had only some digital skills but a low level of confidence. Despite varying degrees of confidence, many aging adults expressed an interest in additional tech-help or digital literacy training to better navigate the internet or other online services. They specifically indicated the need for help navigating sites like Facebook, operating and setting up their hand-held devices, cyber-security and scam avoidance, and storing or archiving information to the cloud. Of particular interest and need in Phillipston was digital literacy training related to "online safety", "digital art photo editing, or graphic design", and creating online video content or podcasts". In Royalston, there was interest in "basic computer skills", "internet navigation", and online safety.

The libraries in Phillipston and Royalston also provides some services to aging adults, but grant funding is needed to support digital literacy programs, services, equipment, and staffing. However, it is unlikely that full-time hours would be financially feasible, so it will be important to ensure continued and future collaboration between the Libraries, Councils on Aging, Town Select Boards to pursue funding for and implement actions related to the needs identified within this Plan. Given the circumstances, it may also be important to coordinate with other area libraries and senior community centers to provide digital equity, literacy, and inclusion programs and services, and, if possible, pursue ride-share and public transit programs to support access to digital literacy and inclusion programs occurring in other nearby regional locations. The framework for such a service exists in the partnership between the Montachusett Regional Transit Authority (MART) and area Councils on Aging, however, the scope and source of funding would need to be expanded to include

digital literacy training if it is deemed not to be in line with existing allowances for health, well-being, and medical appointments.

5.3.3 Needs of Incarcerated Individuals

Incarcerated individuals do not make up an identifiable proportion of the populations of Phillipston or Royalston, and therefore the needs of that "covered" group are not specifically assessed as a primary concern or "need" of this Plan. However, it should be noted that the Worcester County Sherriff's Office located in Fitchburg provides transitional support for formerly incarcerated individuals and would be a good resource to consult if such a need arises.

5.3.4 Needs of Veterans Focus Group Meeting

According to input provided by local Veterans Services Officers at a Regional Veterans Focus Group Meeting held at the Montachusett Veterans Outreach Center (MVOC) in June 2024, many Veterans in the Montachusett Region, including ~7% of Phillipston's population and ~5-6% of Royalston's population may be subject to additional challenges and barriers to accessing the internet related to their status as Veterans. For example, many Veterans lack internet access due to affordability, trust, and digital literacy barriers. Some Veterans may have a disability that further impacts their digital equity. A large proportion of the regions Veteran's like other covered population groups have access to the internet through a mobile device such as a smartphone or tablet. Many others also have internet access at home, but a considerable proportion are believed to rely solely on mobile data as their primary source of internet. Additionally, many are concerned about online scams and internet privacy and security and choose not to subscribe to the internet or intentionally limit their access to their mobile device. The lack of "feeling secure" online may discourages many Veterans from accessing the internet at home.

Many Veterans possess specialized skills that make them proficient at various types of jobs, in many cases related to digital technology and the use of computers and software programs. However, some Veterans are faced with experiences that sometimes limit their ability to secure employment or hold long-term employment. Others are on a fixed income of a partial Veteran's retirement or disability claim due to being injured in the line of duty or other challenges associated with their dedicated service. For these reasons, and others, some Veteran's may struggle with the cost of internet service and a lack of digital skills needed to navigate the online world. There is an emphasis on the need for accessible digital literacy programs held in familiar, comfortable locations (such as Veterans Community Centers), ideally promoted through Veteran services networks and organizations like MVOC. Locations such as libraries are crucial public access points to get Wi-Fi and digital help for many people, however, many libraries are busy, lack privacy, or require sign-ups, reservations, appointments, or other personally identifying information or requirements that, sometimes, or often, act as barriers for Veterans trying to access digital resources. Furthermore, Veterans primarily use the internet for access to their Department of Veterans' Affairs benefits and related online programs and administrative (digital) applications, and Librarians are not trained or familiar with these programs, like Veteran's Services Officer or Coordinator at a Veteran's Center would be.

Veterans, like other segments of the population also use the internet for social connections, job-searches, health care services, financial services and banking, hobbies and entertainment, and all

other aspects of everyday life and living. Therefore, it is not only important for Veterans to have equitable, affordable access to reliable internet, it is essential that it be available to them at home, or in a public space that is "less public" than traditional public spaces and geared specifically toward Veterans and their needs and staffed by Veterans Services specialists.

Many veterans lack internet access due to affordability, trust, and digital literacy barriers. Additionally, although most veterans have mobile data, many are concerned about scams and privacy. The lack of feeling secure online discourages veterans from accessing the internet at home. It was estimated by the focus group attendees that 75% of veterans have some form of internet access, however many struggle with the cost and lack of digital skills needed to navigate the online world. There is an emphasis on the need for accessible digital literacy programs held in familiar, comfortable locations, ideally promoted through veteran networks. Locations such as libraries are crucial access points to get Wi-Fi and digital help. But many of these places lack privacy or require appointments that act as barriers for veterans trying to access digital resources. Taking these things into consideration, there are many factors and potential actions and opportunities to improve Digital Equity, Inclusion, and Literacy among Veterans in the Montachusett Region and within Phillipston and Royalston. Below are a few key items related to that objective.

Keys actions to improve Digital Equity for Veterans:

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

Many veterans in rural communities are hesitant to engage online due to fears of scams and cybersecurity threats. The need for secure and accessible spaces to access digital resources is critical, and veteran-friendly environments play an essential role in bridging digital accessibility gaps. Below are three additional, specific considerations that should be given directly related to the success of the three proposed actions suggested above.

1. Create safe and private workspaces, preferably within Veterans Resource Centers or places where Veterans Services Officers or Agents are present or available.
2. Provide online safety, cyber-security, software, and coding classes.
3. Provide affordable internet options specifically for Veterans.

Addressing digital barriers, such as affordability, lack of digital security, and digital literacy is crucial to ensuring equitable access to the internet for Veterans. Creating accessible, comfortable, stress-free digital workspaces, offering cybersecurity training, and providing affordable internet options and devices are all necessary steps to ensure Veterans have access to broadband internet critical digital resources. It is important to note and consider that many Veterans are also members of other

"covered population" groups, like aging adults, individuals with disabilities, individuals who reside in rural areas, and covered households whose income is less than 150% of the poverty level.

5.3.5 Needs of Individuals with Disabilities

Approximately 10-12% of Phillipston and Royalston's population are covered as "Individuals with Disabilities" under the Digital Equity Act. As part of the coordinated outreach for this Plan, MRPC met with John Person, Regional Director, at MassAbility (formerly the Massachusetts Rehabilitation Commission), a state agency empowering people with disabilities to live life on their own terms, through programs and services that expand possibilities in careers and training, home and community life, and legal rights and benefits – including disability determination for federal programs, such as the Digital Equity Act.

A primary digital "equity" issue for many individuals with disabilities, particularly for individuals who experience challenges to hearing or seeing, is the accessibility of digital media, particularly webpages. This can be especially important for a municipal government who serves the entire population of a community. Hence, one of the most critical needs, and important first steps for any municipality toward achieving digital equity is improving the accessibility and achieving ADA compliance of the Town website. Likewise, creating more private internet spaces where someone could sit down and if they needed get help with their digital needs, or conduct a virtual medical or other health and well-being appointment, would be a huge help to improving the digital equity for individuals with disabilities. Providing accessible spaces with accessible technologies, digital devices, and associated software and hardware is a crucial need. Due to a lack of affordable options at home particularly for "covered population" groups, and a lack of public internet accessibility in fully accessible public spaces with full-time operating hours, such as the library and Town Hall, more public spaces with internet and ADA accessible features are needed. One option would be to create an ADA-compliant digital workspace at the libraries or within a Community Center like Phillipston's Memorial Building or Royalston's Whitney Hall.

Funding for full disability accessible internet spaces, with the option for privacy, if needed, and a fully accessible municipal website gives residents the opportunity to engage and use the internet and is a first step toward community digital equity. The Municipal Digital Equity Planning program and Implementation Grant, provides the tools and resources to understand such a need and implement the necessary solutions. When individuals with disabilities do not have equitable access to broadband internet and accessible digital devices and technologies at home, they will depend on public spaces like a library, senior center, or community center/digital lab to get the services they need. Ensuring that those services are available is not only a primary purpose of this plan, but also a realistic possibility under the Municipal Digital Equity Implementation Plan and therefore identified as a priority. It should be noted that transportation is also often a barrier to gaining access to public services, and broadband internet and digital equipment, services, and programs, are no exception. Often, individuals with disabilities, aging adults, individuals residing in rural areas, and lower-income households all have challenges or barriers related to access to transportation or public transit. Consideration should be given to this factor which affects multiple covered populations, as an indirect barrier to digital equity and inclusion. Identifying and funding transit programs and services that could alleviate this challenge are needed and should be considered when

implementing any aspect of this Plan, particularly those aimed at benefiting individuals with disabilities and other affected covered populations. Access to public transit and transportation should also be considered when planning for and appropriately siting public digital equity resources.

According to input from MassAbility, one of the greatest digital equity challenges for individuals with disabilities is access to accessible technology and devices. For this reason, MassAbility partners with other organizations, such as EasterSeals, to provide affordable options to accessible digital resources (technology, equipment, and devices). In addition to providing products and guiding clients to affordable services, MassAbility also acts as a vocational rehabilitation center for persons with disabilities. EasterSeals is an accessible technology partner that provides systems covering a range of disabilities. As part of the implementation of this Plan and continued ongoing efforts toward enhancing and achieving digital equity in Phillipston and Royalston, MassAbility and partnerships with non-profit organizations serving individuals with disabilities should be considered and consulted to ensure that the needs of this important covered population comprising approximately 10-12% of Phillipston's and Royalston's populations are fully considered and met.

Below is a summary of key considerations for enhancing digital equity and inclusion among individuals with disabilities:

1. Accessible City Website
2. Accessible Digital Spaces with supporting access-based technology, software, hardware, equipment, devices, and functions for induvial with varying and/or multiple disabilities
3. Public and Non-profit Partnerships for group-specific digital literacy training
4. Public Transit & Transportation support for digital literacy trainings and public digital workspaces
5. Affordable and Accessible Digital Resources and Devices with Assistive Technology

5.3.6 Needs of Individuals with a Language Barrier

This covered population group includes individuals who are English-learners and individuals who have lower levels of literacy. In Phillipston, 14.4% of the population are individuals with a language barrier, including individuals with lower levels of literacy, and 1.1% are classified as English-learners. In Royalston, 16.9% of the population are individuals with a language barrier, including individuals with lower levels of literacy, and 3% are classified as English-learners. Individuals with a Language Barrier make up between 15 – 20% of the Phillipston and Royalston's population, and therefore, it is important to consider the digital equity, literacy, and inclusion needs of this group.

Digital Literacy and inclusion, related translation services, and affordable access to reliable, high-speed internet and digital devices are essential needs for individuals with language barriers. To meet these needs, it is necessary to develop and maintain diverse partnerships with critical agencies and organizations with the experience, skills, established relationships, and resources to meet the specific needs of this group. One such partner within the Montachusett Region is LUK, inc. who serves many different ethnic groups throughout the region and has established partnerships among many other social services organizations, including the Spanish American Center of Leominster. Making Opportunity Count (MOC) and NewVue Communities are two other organizations who have specialized experience serving segments of this covered population group. Mount Wachusett

Community College (MWCC), particularly their adult education program, and the MassHire North Central Mass Career Center (NCMCC) are two other organizations currently involved in Digital Literacy training throughout the region, and who would make ideal partners in achieving digital equity, literacy, and inclusion goals.

5.3.7 Needs of Individuals who are members of a Racial or Ethnic Minority Group

In Phillipston, 93% of the population reports as white, however, it is estimated that approximately 6.6% of Phillipston's residents are covered populations of the Digital Equity Act as "Members of a Racial or Ethnic Minority Group". Similarly, in Royalston, 95% of the population reports as white, however, it is estimated that approximately 3.8% of Royalston's residents are covered populations of the Digital Equity Act as "Members of a Racial or Ethnic Minority Group". While Phillipston and Royalston's population consist mostly of white, English-speaking residents, the presence of a broad diversity of ethnicities and languages within the Montachusett Region make the needs of this population group important to consider.

Many people born outside of the US have immigrated to the Montachusett Region over the course of many generations. More recently, the region has seen an influx in immigration of various ethnicities including people from Haiti, Brazil, Turkey, Latin America, and other parts of the world. Many recent immigrants are also members of other population groups such as, Individuals with a Language Barrier, and Covered Households. As with those other population groups, access to affordable, reliable, high-speed internet, digital devices, and digital literacy courses are essential. Similarly, providing such services is dependent upon developing and maintaining diverse, cooperative partnerships with critical agencies and organizations with the experience, skills, established relationships, and resources needed to meet the specific needs of this group. As with language-based needs, several partners within the region focus and specialize in serving the needs of racial and ethnic minority groups. For instance, LUK, inc., the Spanish American Center of Leominster, Making Opportunity Count (MOC), NewVue Communities, MWCC, and the MassHire NCMCC are all organizations currently involved in serving minority groups and, in many cases, providing Digital Literacy training services. Any and all of these groups would make ideal partners in achieving digital equity, literacy, and inclusion goals in Phillipston and Royalston.

5.3.8 Needs of Individuals who Reside in Rural Areas

According to the Pew Institute[25], many parts of rural America, lack of 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 urban and suburban areas. Similarly, access to reliable, high-speed internet service is also lower in rural areas than in urban and suburban areas.

[25] 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/

Given this, access to reliable, high-speed internet in public spaces in rural areas is critically important, however, as we found during this assessment, rural communities also suffer from limited Town budgets, limited staff capacity, and limited access to resources and services often provided by community services organizations in larger communities and less rural areas.

For instance, the Phinehas S. Newton Library in Royalston is a hub for community information, however, due to a lack of staff, affordable options, and financial resources, there are currently no digital programs or courses offered at the library. Similarly, in Phillipston, at the Phillips Free Public Library, there are few or no digital programs due to similar budget and staff constraints. Likewise, due to space and funding, digital devices and computer workstations are also limited and sometimes shared between library departments or programs. Given these limitations it is important for libraries to fully utilized the resources that are at their disposal. For example, in Royalston the library maintains an annual subscription to Tech Soup which hosts a plethora of free software programs geared toward education, teaching, learning, and creating. By joining this shared resource network, Royalston residents are able to access many resources that would at first have been thought to be outside of the budget. Another important resource, the Association of Small and Rural Libraries provides programs for, you guessed it… small and rural libraires. Their New England Libraries Grants program offers many opportunities for member and eligible libraries.

In both Phillipston and Royalston, there is a desire to bring back or host new digital literacy training classes and programs. Similarly, there is an interest in both communities to offer access to more and better digital equipment and computer workstations. It is a goal of both communities' libraries to provide hotspots for lease and to increase numbers of hotspots over time to satisfy demand and make affordable internet available to more people within the community. There is also a desire to provide digital music equipment and classes, classes on accessing and downloading e-books from the libraries extensive collection. Providing age-specific digital literacy programs is also of interest including computer basics and online safety and security for youth & families, as well as for aging adults. There is also a need and a desire to improve technology at the library and provide newer, computer workstations with peripheral technologies for scanning, printing, creating digital art and music, making video calls, recording podcasts, and creating other forms of digital media. Overcoming part-time, limited operational hours and space limitations by expanding wi-fi to outdoor spaces and creating outdoor workstations with charging capabilities is also need of rural communities like Phillipston and Royalston, and real possibility for enhancing digital equity and inclusion here.

Regardless of geography, and the "ruralness" of their location, Phillipston's and Royalston's libraries are valued and appreciated by the community and should be able to provide the same values and benefits to the residents of this rural area as libraries in larger Cities and Towns do.

In addition to the needs of libraries, other Community Anchor Institutions in rural areas are also dependent upon access to reliable, high-speed broadband internet. While Royalston has seen one of the most significant increases in broadband, fiberoptic internet access among any community statewide over the past few years, there are still some limitations to accessing affordable fiberoptic internet connectivity. One of which is the limited availability and high connection, and subscription

costs associated with accessing the Mass Broadband Institutes MassBroadband-123 (Fiberoptic) Network.

According to Chuck Kolbenson, Clerk of the Phillipston Cable Advisory Committee, the following locations are the only locations within Phillipston where MBI-123 fiber was routed where there is also a potential Community Anchor Institution (CAI) connection point:

- Town Hall - 50 The Common
- Town Annex - 15 Templeton Rd
- Police Station - 60 The Common
- Fire Department - 90 State Rd
- Phillipston Memorial Building (not a school anymore) - 20 The Common
- Library - 25 Templeton Rd

Of these potential connection locations, only four (4) have existing connections (service) being utilized. There is currently no fiber connection or CAI connection point at the Highway Department (95 Templeton Rd). (The fiber ends at the Phillips Free Public Library.) There is also no connection at the Church located at 60 The Common.

Unfortunately, many of the potential municipal CAI connection points are not connected because they are not financially feasible. They are considered un-affordable as a long-term option for providing internet access due to their high subscription pricing relative to cable broadband services available from Comcast/Xfinity. The MBI-123 fiber network also does not provide access to any residence or business in Town as of today. According to Local Linx the cost of running fiberoptic infrastructure to residences in Town is estimated to cost about $60,000 per fiber mile.

The Assessment of Community Needs presented within this Section (**Section 5**) have informed the Community Vision, Goals, and Recommendations, or Actions provided in the following Section (**Section 6**) of this Plan.

6

6 DIGITAL EQUITY RECOMMENDATIONS

Towns of Phillipston & Royalston

Broadband internet accessibility and connectivity issues in Phillipston and Royalston are related to various factors, including gaps in reliable internet service, diverse socioeconomic demographics affecting income and opportunity, higher-than-average services costs limiting access and affecting affordability, limited access to public internet and digital workspaces, affordable devices and technology, and digital literacy training and tech help. However, as outlined in the SWOT analysis, Phillipston and Royalston have potential to develop a framework to better support digital inclusion and enhance digital equity. Thorough the information provided by this Plan and upon its eventual implementation, these rural communities have the tools necessary to enhance digital equity and inclusion to bridge the digital gap.

6.1 DIGITAL EQUITY COMMUNITY VISION & MISSION

Access to high-speed internet, digital navigation, training, and tech-help services are essential to everyday life, for all communities, regardless of their location, and for all people, especially those who reside in rural areas.

The Towns of Phillipston and Royalston envision digitally connected communities with access to reliable, high-speed internet at the same level of service and quality as is expected in more

developed areas but without sacrificing the expectation of other highly esteemed and important characteristics and values of rural, forested, right-to-farm communities.

With thoughtful and inclusive planning, it is our mission, through this joint-plan, to promote digital equity through access to affordable services and programs and prepare the Towns and their residents for future digital advancements, establish open, yet secure public access to reliable, high-speed internet and internet-connected digital devices and workstations, while providing digital navigation and training services to advance digital literacy, safety, security, and individual levels of comfort and convenience among people of all ages and abilities.

Digital Equity in Phillipston and Royalston can be summarized and better understood by asking three basic questions: "What?", "Who?", and "Why?". Answering these questions requires careful thought, consideration, and exploration of the existing conditions around broadband internet access and digital literacy and inclusion. Having conducted that evaluation the basic, straight-forward answers below provide a clearer picture of those conditions and the general community challenges, barriers, and needs; Through this understanding, and the community vision and mission it inspired, clear goals and actions can be defined to address the needs and desired outcomes associated with those "Three W's".

What?	**Who?**	**Why?**
• Sound digital practices • Confidence in digital security • Availability of digital resources • Digital awareness and knowledge	• Aging adults over 60 • Lower-income households • Individuals who reside in Rural areas • Individuals with Disabilities • Individuals with a language barrier or lower levels of literacy • Veterans	• Compliance with ADA requirements • Inclusivity • Adaptability for future needs • Opportunity for rural residents and other covered population groups

6.2 Digital Equity Goals

Towns of Phillipston & Royalston Digital Equity Plan Goals:

I.	**Improve the effectiveness, efficiency, and quality of local initiatives that promote and enhance digital equity, literacy, and inclusion.**
II.	**Increase access to affordable, fast, reliable internet.**
III.	**Expand digital equity and inclusion through community engagement and outreach.**
IV.	**Further develop the municipality's technological resources and public digital workspaces.**
V.	**Increase access to digital, internet connected devices within homes and public spaces.**
VI.	**Identify and secure long term or reoccurring funding to support digital equity, literacy, and inclusion programs, services, and opportunities.**
VII.	**Promote and support community well-being and economic development for residents and businesses through improved digital inclusion and access.**

6.3 Digital Equity Recommendations (Action Plan)

A Digital Equity Action Plan or set of Recommendations (presented as Goals and Actions) aimed at addressing the Digital Equity "needs" of the residents of Phillipston and Royalston and achieving their shared community "vision" and "mission" was developed as part of this Plan and with information gathered throughout the public planning process. The Action Plan is presented here, within **Section 6.3**, as an Implementation Matrix which consolidates related actions under a common goal and offers guidance or recommendations on "Potential Leadership" or implementation partners and Potential Funding Programs" or sources of funding for each action. These recommendations are intended to help facilitate and guide the implementation process but are not intended to be an exhaustive, or complete list of necessary or supporting tools or resources, but rather they offer a starting point and guiding direction to pursue. The Implementation Matrix also provides information about which "Project Focus Area Categories" each potential action item is related to, relative to the Massachusetts Broadband Institute's, Municipal Digital Equity Implementation Grant program. This information will be useful as it directly corresponds to the categories of allowable and intended projects defined under that grant program, a primary potential funding source and companion program of the Municipal Digital Equity Planning program which funded the creation of this Plan.

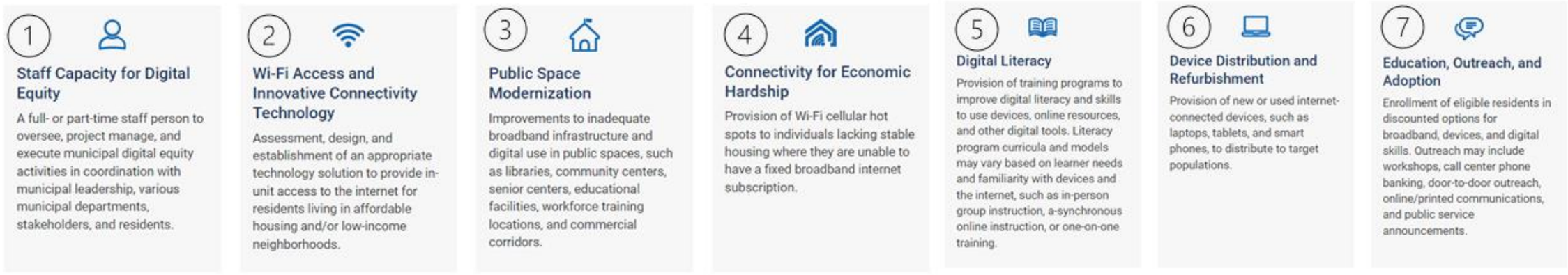
The Phillipston and Royalston Digital Equity Action Plan Implementation Matrix is presented within subsection **6.3.2**, below. A "Key" to the Matrix is provided directly below, as subsection **6.3.1**. The Key should be referenced prior to viewing the Matrix and in coordination with its use.

6.3.1 Key to the Digital Equity Action Plan Implementation Matrix

The information presented below provides a description of the organizational structure, or framework of the Digital Equity Action Plan Implementation Matrix and serves as a "Key" to its use:

- The Action Implementation Matrix includes the seven Goals identified on within **Section 6.2**.
- Goals are labelled by Roman numerals (I – VII).
- Each Goal and its corresponding Actions are color-coded with a common color, unique to each Goal.
- The Action Implementation Matrix identifies 36 proposed community-specific "Actions".
- Actions are related to one or more of the seven (7) identified project focus area categories of the Massachusetts Broadband Institutes Municipal Digital Equity Implementation Grant program (presented within the infographic below and labeled 1-7).
- The Project Focus Area Categories are labelled by the standard Arabic numerals, 1 – 7 to differentiate them from the Goals. The seven Project Focus Area Categories are shown and described within the infographic presented below. Some Action corresponds to more than one Project Focus Area Category. The corresponding category numbers are listed within the Matrix under the 'Project Focus Area Category(s)' column.
- It is important to note that neither the Arabic numbers or the Roman numerals given for Actions and Goals, respectively, are indicative of priority or ranking and that they do not correspond to each other numerically.

* *Project Focus Area Categories (Key):*



Source: Massachusetts Broadband Institute, Municipal Digital Equity Implementation Grant Program: https://broadband.masstech.org/digital-equity-implementation

6.3.2 Digital Equity Action Plan Implementation Matrix

Towns of Phillipston and Royalston Digital Equity Action Plan: Implementation Matrix				
Goal	**Action**	**Potential Leader(s)**	**Potential Funding Program(s)**	**Project Focus Area Category(s)** *See Key on p. 79
I. Improve the effectiveness, efficiency, and quality of local initiatives that promote and enhance digital equity, literacy, and inclusion.	**I (a).** Consult with a digital navigator to provide digital literacy training to the residents of Phillipston and Royalston utilizing the existing model of session-based training with device distribution upon completion.	Select Boards	MBI Municipal Digital Equity Implementation Grant; MBI Digital Equity Partnerships	**5, 6**
	I (b). Develop and implement an online and call-in service option to ask/log tech help questions to be answered or addressed in future tech help classes or scheduled 1-on-1 sessions.	Select Boards, Libraries	MBI Municipal Digital Equity Implementation Grant program	**5, 7**
	I (c). Provide the residents of Phillipston and Royalston with Digital Literacy classes and tech help support including computer/internet use, software tutorials, and other technology topics of interest or need through online sources and in person teaching and learning opportunities.	Libraries	MBI Municipal Digital Equity Implementation Grant program; TechSoup	**5, 7**
	I (d). Provide detailed instructions for usage of outdoor charging stations and outdoor Wi-Fi connected workstations and connecting to public Wi-Fi hotspots/mesh networks.	Digital Navigation Partner(s), or Equipment Vendor	MBI Municipal Digital Equity Implementation Grant program	**7**
	I (e). Provide digital music programs teaching young adults how to compose and perform digital/electronic music with code and older adults how to convert records, tapes, CDs, to digital format.	Libraries, Potential Regional Partnership with Digital Lab in Templeton	National Leadership Grants for Libraries; TechSoup; Small Libraries Grant	**5**
	I (f). Provide other technology learning options and opportunities for young adults, adults, and aging adults, including training to become qualified Digital Navigators (trainers) and leaders.	Libraries, Digital Literacy Navigation Partner(s)	NDIA Digital Navigator & Digital Inclusion models; American Library Association (ALA) Grant	**5, 7**
	I (g). Provide public computers and workspaces and digital literacy training for common, every-day, living, and necessities such as online shopping, grocery delivery services, tele-health and medical services, and other internet uses that some people take for granted in less rural areas.	Libraries	MBI Municipal Digital Equity Implementation Grant program; Small Libraries Grant; TechSoup	**3, 5, 7**
	II (a). Continue to promote and work toward affordable, fast, reliable internet for residents through coordination with MBI and ISPs to ensure that all “underserved” and “unserved” locations have access to broadband internet and that internet is affordable for all residents and consider the development of an affordable internet program for eligible covered populations modeled after fuel assistance programs.	Select Boards & Planning Boards, Regional Digital Equity Coalition, MBI, ISPs	BEAD; CDBG Funding; Community Foundation of North Central Mass	**2, 4, 7**

II. Increase access to affordable, fast, reliable internet.	**II (b).** Continue to seek and secure grant funding to provide and support services and programs for access to free, fast, reliable public internet at Town Hall, Library, and other public spaces.	Select Boards & Planning Boards	MBI Digital Equity Implementation Grant program	**2, 3**
	II (c). Consider providing satellite internet equipment to remote, unserved locations/residences in Town (e.g. King Street), particularly in known unserved locations in Royalston, where cellular service is also absent, as an interim solution until service is met through the BEAD Deployment.	Select Boards & Planning Boards	BEAD program; Community Compact Cabinet IT Grant Program	**2, 4, 6**
	II (d). Provide digital literacy training opportunities and public access to digital devices for lower-income, rural households, aging adults, Veterans, and individuals with disabilities.	Libraries, Councils on Aging, Disability Commissions	MBI Digital Equity Implementation Grant; Enhancing Digital Literacy for Older Adults Grant; MOD ADA Grant	**5**
	II (e). Develop partnerships or provide Town-funded sponsorship of up to $5k annually to leverage the Comcast Internet Essentials Partnership Program (IEPP) to fund 6 months of free basic internet services for qualifying residents and provide temporary emergency hotspots for residents in need.	Select Board, Community Partners	MBI Digital Equity Implementation Grant program; Town Budget; Partner Donations	**4**
III. Expand digital equity and inclusion through community engagement and outreach.	**III (a).** Continue to promote digital internet and digital device and literacy resource through public outreach in Town-wide newsletters, social media, You Tube channels, Cable Access, and through Town Boards and Committees and the availability and distribution of printed outreach materials.	Select Boards, Libraries, Councils on Aging, Regional Digital Equity Coalition	Existing Town Budget	**7**
	III (b). Commit to participation in a regional Digital Equity Coalition.	Select Boards Designee	Existing Town Budget, NDIA model	**7**
IV. Further develop the municipality's technological resources and public digital workspaces.	**IV (a).** Purchase and install full video-conferencing equipment to stream and record Public Meetings at Royalston Town Hall auditorium and Phillipston Memorial Building Meeting Room, including audio/visual camera(s) and microphone(s), projector/screen, or preferably, large size monitor 75"+, and all necessary connections, peripherals, and networking technology.	Select Boards	MBI Digital Equity Implementation Grant (reserved funds); Community Compact Cabinet IT Grant	**3**
	IV (b). Install Adobe Creative Content at Phineas S. Newton Library.	Royalston Library	MBI Digital Equity Implementation Grant (reserved funds); Tech Soup; Community Compact Cabinet IT Grant	**3**
	IV (c). Install computer kiosk-workstations at Phillipston Town Hall for online permitting/bill payments, etc.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (d). Install computer kiosk-workstations at Royalston Town Hall for online permitting/bill payments, etc.	Royalston Select Board	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (e). Install the large screen monitor and laptop with privacy headset on the back desk at Phineas S. Newton Library.	Royalston Library	MBI Digital Equity Implementation Grant (reserved funds)	**3**

	IV (f). Install retractable privacy curtains at Phineas S. Newton Library.	Royalston Library	Existing Budget	**3**
	IV (g). Establish three computer workstations at Phillipston Memorial Building: 2 in public area, 1 in private area.	Phillipston Library	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (h). Purchase video/teleconferencing camera, microphone, and headphones for computer workstation in private area of Phillipston Memorial Building.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (i). Purchase and install necessary cables, ports, modems, routers, and/or other necessary technology for hardwired internet on a separate, secure high-speed network 100/20 mbps to all three workstations in Phillipston Memorial Building.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (j). Purchase networked printer, scanner(s), and necessary power and networking plugs/cables to connect devices to all three workstations in Phillipston Memorial Building.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	IV (k). Evaluate and provide proper technology to ensure that public internet and computer workspaces at Town Hall(s), Library(s), and other public spaces such as Raymond School, Whitney Hall, and Memorial Building have internet connectivity speeds of 100/20 mbps or higher.	Phillipston & Royalston Select Boards and Building Commissions	MBI Digital Equity Implementation Grant; Community Compact IT Grant	**3**
V. Increase access to digital, internet connected devices within homes and public spaces.	**V (a).** Purchase and install two computer workstations at Phineas S. Newton Library.	Royalston Library	MBI Digital Equity Implementation Grant (reserved funds)	**3**
	V (b). Expand outdoor Wi-Fi Mesh network at Phineas S. Newton Library to allow for connectivity in rear of building, side of building, and front of building, including parking area.	Royalston Library	MBI Digital Equity Implementation Grant (reserved funds); Community Compact Municipal Fiber Grant	**2, 3**
	V (c). Provide an outdoor solar-powered workstation with charging ports at Phineas S. Newton Library.	Royalston Library	MBI Digital Equity Implementation Grant (reserved funds); Community Compact Municipal Fiber Grant	**2, 3**
	V (d). Provide an outdoor solar-powered workstation with charging ports at Phillipston Memorial Building and Town Hall.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds); Community Compact Municipal Fiber Grant	**2, 3**
	V (e). Install an outdoor Wi-Fi Mesh network at the Town Common including outdoor areas of Library, Town Hall, and Phillipston Memorial Building between building and playground and area in rear of Town Hall. Also consider a public outdoor wi-fi mesh network at King Phillips/Four Corners bus stop and at the Town transfer station.	Phillipston Select Board	MBI Digital Equity Implementation Grant (reserved funds); Community Compact Municipal Fiber Grant	**2, 3**
	V (f). Create and internet-enabled riverfront park in South Royalston by providing an outdoor mesh network between Fire Station and Whitney	Royalston Select Board, Community	MBI Digital Equity Implementation Grant	**2, 3**

	Hall capable of serving the common/park, gazebo, General Store, and portions of the riverfront area of Millers River.	Preservation Committee, and Open Space & Rec Comm.	(reserved funds); Community Compact Municipal Fiber Grant	
VI. Identify and secure long term or reoccurring funding to support digital equity, literacy, and inclusion programs, services, and opportunities.	**VI (a).** Observe measurable objectives from Year-1 activities of Municipal Digital Equity Planning Grant to plan for and seek long-term funding to maintain, enhance, and expand Digital Literacy and Technology programs, services, and opportunities for continued, ongoing implementation of the Digital Equity Plan.	Select Boards and Designated Departments, Staff, Boards & Committees	All relevant Digital Equity, Literacy, and Inclusion Grants	**1**
	VI (b). Encourage and enable municipal departments, staff, boards and commissions to become digital equity leaders and designate and train a staff member or volunteer in the Library, Senior Center or Council on Aging, and School Department as a Digital "Navigator" and Digital Equity "Champion" utilizing the National Digital Inclusion Alliance (NDIA) model to pursue and provide digital equity, literacy, and inclusion grants, programs, services, and opportunities for residents of the community and to coordinate with the Select Board on the ongoing implementation of the goals and actions and of this plan and its future updates.	Select Boards, Libraries, Councils on Aging, Regional School Departments	Municipal Digital Equity Implementation Grant; Digital Equity Partnerships; Mass DOES Digital Literacy Now Grant; MassHire North Central Mass Career Center; NDIA	**1, 7**
VII. Promote and support community well-being and economic development for residents and businesses through improved digital inclusion and access.	**VII (a).** Consider public locations, outside of the traditional village centers and in addition to the libraries, for public internet access, access to digital devices, and digital literacy and inclusion services and programs to promote and implement Digital Equity and Inclusion efforts townwide to all residents increasing access and encouraging civic engagement.	Select Boards, Libraries, Residents and Community Partners	NDIA Digital Navigator and Inclusion models; CommCorp YouthWorks	**3, 5, 7**
	VII (b). Purchase WiFi hotspots and/or Satellite Internet access points (e.g. StarLink receivers or other suitable technology) for effective communication for Hazard Mitigation and Emergency Response preparedness and emergency communications during natural disasters or declared emergencies.	Select Boards and Emergency Management Directors	Community Compact Cabinet IT Grant Program; Municipal Digital Equity Implementation Grant	**2, 3**
	VII (c). Utilize available funding and coordinate with the local primary ISP provider to investigate and support best available options for providing internet service to the few remaining, rural locations where both internets service and cellular services are lacking. Consider publicly funded, or public-private partnership to provide satellite internet service to affected rural residents with priority given to covered population status in addition to "rural" residency.	Select Boards, ISP Provider(s)	Municipal Digital Equity Implementation Grant; Community Compact IT or Municipal Fiber Grant	**2, 6**
	VII (d). Pursue improved public and private internet connectivity and reliability options for South Royalston to facilitate and support civic and economic development at that location to achieve its potential and build upon and lend support to the riverfront park project and vision of a revitalized South Royalston Common and riverfront Village District with a thriving General Store, Common, Riverfront Park, and Community Center fully supported by an outdoor public wi-fi mesh network.	Royalston Select Board, Planning Board,	Municipal Digital Equity Implementation Grant; Community Compact Cabinet IT Grant or Municipal Fiber Grant	**2, 3**

***Key to Project Focus Area Categories:** 1.) Staff Capacity for Digital Equity; 2.) Wi-Fi Access and Innovative Connectivity Technology; .3.) Public Space Modernization; 4.) Connectivity for Economic Hardship; 5.) Digital Literacy (skills, safety, security); 6.) Device Distribution and Refurbishment; 7Education, Outreach, and Adoption

6.4 Digital Equity Plan: Implementation

Phillipston and Royalston are eligible for and should seek to leverage numerous state and federal funding opportunities to support digital equity initiatives to bridge the Towns' digital divide, increase digital inclusion, and enhance digital equity. These funding programs target critical implementation areas of digital equity planning, including workforce development, digital literacy education, device distribution, broadband adoption, infrastructure, and community outreach & engagement.

6.4.1 Municipal Digital Equity Implementation Program (Reserved Funds)

Municipalities participating in the Municipal Digital Equity Planning program (the program associated with the development of this Plan), upon completion 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.

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. At present, MBI has set aside a total **$56,603.77** in implementation funds for the **Town of Phillipston**, and **$56,603.77** for the **Town of Royalston**. Both municipalities are eligible to submit an application to receive those funds for the implementation of actions identified within this Plan. However, it should be noted that, **under the Municipal Digital Equity Implementation Grant Program, each Town is eligible to apply for project costs of up to $100,000**, and, pending review and approval, could receive up to that amount.

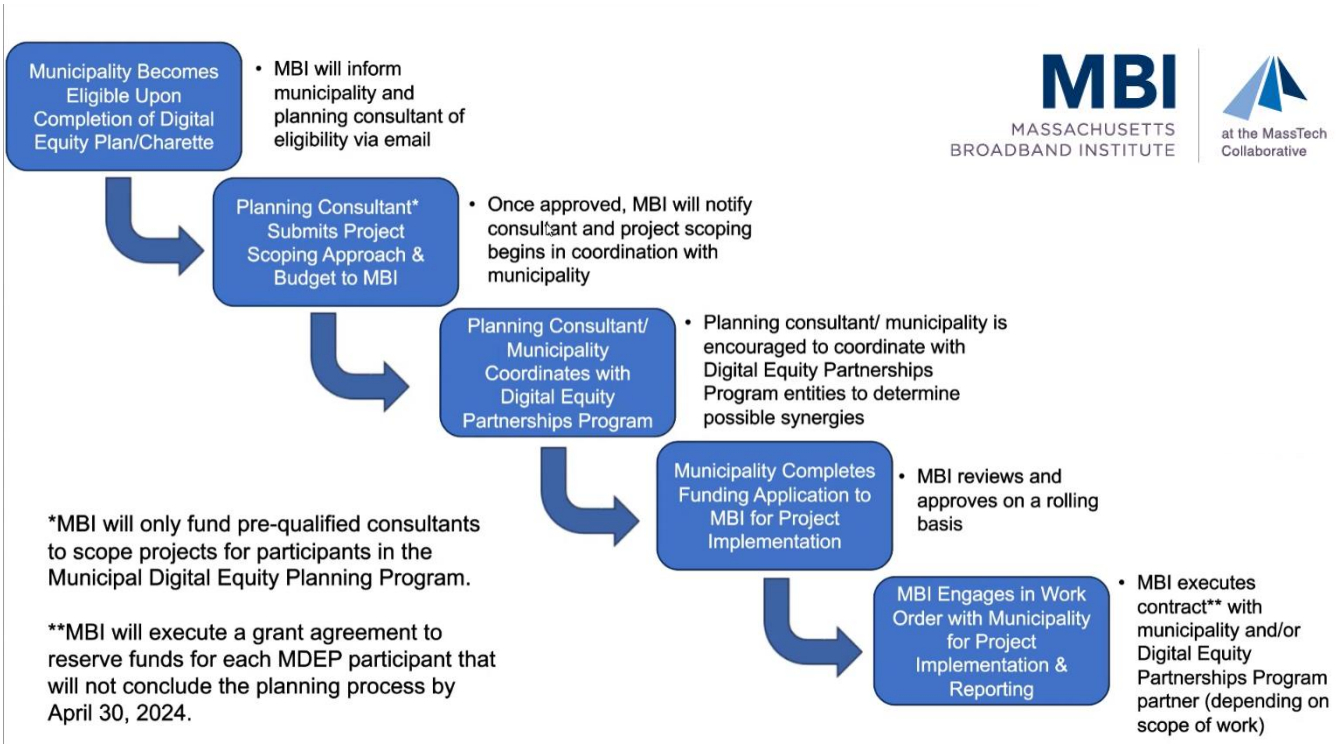
The intent of the Municipal Digital Equity Implementation Program is to enable municipalities who need funding to mobilize, start-up, and implement digital equity activities locally to access a one-time grant up to $100,000 per municipality to execute a project (or projects) defined in their Digital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

Municipalities are strongly encouraged to utilize their planning consultants from the Municipal Digital Equity Planning Program to define a project (or set of projects) scope and budget for implementation. Upon approval from MBI, municipalities may start project implementation and will be accountable to MBI's reporting requirements, which vary by proposed focus area(s).

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

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



6.4.2 Digital Equity Funding Sources

State Digital Equity & Inclusion Grant Programs:

Municipal Digital Equity Implementation Program
https://broadband.masstech.org/digital-equity-implementation

In January 2024, Massachusetts Broadband Institute (MBI) announced the new Municipal Digital Equity Implementation Program, through which municipalities who have created Digital Equity Plans through Municipal Digital Equity Planning Program are automatically eligible to receive up to $100,000 in state funding to implement projects or programs that support the community's digital equity goals.

Municipalities, alone or partnered with other CAI's, are eligible to apply for implementation funding to pursue one or more programs or projects outlined above within the Implementation Action Plan Matrix of this Plan.

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. 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.

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 are aimed 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 service offering download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.

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 Program, that provide low-income consumers with subsidies on internet services.

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 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.

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:

- 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.

Hybrid Programming for Councils on Aging Grant
https://www.mass.gov/info-details/hybrid-programming-for-councils-on-aging-grant

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

Each COA may be awarded up to $100,000. Two COAs applying together can request up to $200,000. Three or more COAs applying together can request up to $300,000.

Applicants should use funds to achieve one or more of the following objectives:

- Deliver high-quality virtual and in-person programming in which Older Adults attending in-person and virtually both have their needs met.
- Enhance programming to reach previously unserved or underserved Older Adults in their service area.
- Ensure the sustainability of the program after the grant period ends (March 2025).

The grant round for 2024 is closed but more funds are expected to be available in 2025.

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. This grant will continue the DLCS implementation work from FY21 Digital Literacy Now Grant Part 1 (FC152 and FC152A) and FY22 Digital Literacy Now Grant Part 2 (FC147).

School districts are the unit of change toward creating rigorous, inclusive, and sustainable K–12 digital literacy and computer science education.

Federal Digital Equity & Inclusion Funding Sources:

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.

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.

To unlock BEAD funding MBI has completed the following administrative process:

- Massachusetts Initial Proposal Volume I - Approved by NTIA April 2024
- Massachusetts Initial Proposal Volume II – Approved by NTIA July 2024
- Massachusetts BEAD Challenge Process (Summer of 2024)

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 states and local governments. 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) benefitting 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 the 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.

Local, municipal CDBG funds are administered at the statewide level by the Massachusetts Office of Housing and Livable Communities, CDBG Program and, in most municipalities, by CDBG Coordinator, City or Town Planner, or another member of a municipal planning department.

Additional Digital Equity & Inclusion Funding & Resources by Covered Population or Organization:

Affordable Housing & Covered Households:

Affordable Housing & Digital Literacy: Partnerships and Strategies
https://www.proliteracy.org/wp-content/uploads/2023/07/4.3.3-Field-Report-Harris-Judge-and-Burger.pdf

Pew Research Center - Income-Based Digital Divides Tech Adoption
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/pew_research_center_-_income-based_digital_divides_tech_adoption.pdf

Aging Adults/Councils on Aging:

Massachusetts Executive Office of Elder Affairs, Enhancing Digital Literacy for Older Adults Grant
https://www.mass.gov/info-details/enhancing-digital-literacy-for-older-adults-grant

AARP Digital Skills Training
https://www.aarp.org/aarp-foundation/our-work/income/info-2022/aarp-foundation-to-provide-free-digital-skills-training.html

AARP **Digital Skills Ready@50+**
https://my.aarpfoundation.org/digitalskillsready/

AARP Community Challenge Grant Program
https://www.aarp.org/livable-communities/community-challenge/info-2024/2024-challenge.html

Pew Research Center - Age 65 & Over Tech Adoption
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/pew_research_center_-_age_65_over_techadoption.pdf

PLA 5 Tips for Teaching Tech to Seniors
https://publiclibrariesonline.org/2019/04/5-tips-for-teaching-tech-to-seniors/

Tech Boomers
https://techboomers.com/

Broadband Internet & Digital Equity:

Broadband Equity, Access, and Deployment (BEAD) Program - Internet for All
https://www.internetforall.gov/program/broadband-equity-access-and-deployment-bead-program

Broadband – Institute for Local Self-Reliance
https://ilsr.org/broadband-2/

Broadband USA - Home
http://broadbandusa.ntia.doc.gov/

Digital Equity Act Info Sheet
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/digital_equity_act_info_sheet.pdf

Digital Equity Act Programs - Internet for All
https://www.internetforall.gov/program/digital-equity-act-programs

Digital Equity Act Programs Overview
https://www.internetforall.gov/sites/default/files/2022-05/digital-equity-act-info-sheet.pdf

Community Broadband Networks
https://ilsr.org/broadband-2/

Internet for All - Home
http://www.internetforall.gov/

Massachusetts Broadband Institute - MBI
https://broadband.masstech.org/

National Digital Inclusion Alliance - Home
http://www.digitalinclusion.org/

NTIA's Role in Implementing the Broadband Provisions of the 2021 Infrastructure Investment and Jobs Act - BroadbandUSA
https://broadbandusa.ntia.doc.gov/news/latest-news/ntias-role-implementing-broadband-provisions-2021-infrastructure-investment-and

Pew Research Center - COVID-19 LMI Broadband Impacts
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/pew_research_center_-_covid-19_lmi_broadband_impacts.pdf

Pew Research Center - Demographics of Internet and Home Broadband Usage in the United States
https://www.pewresearch.org/internet/fact-sheet/internet-broadband/

Pew Research Center - Internet & Technology - Research and Data
https://www.pewresearch.org/topic/internet-technology/

Pew Research Center - The Internet & The Pandemic
https://www.pewresearch.org/internet/2021/09/01/the-internet-and-the-pandemic/

Pew Research Center - You searched for broadband
https://www.pewresearch.org/search/broadband

Webinars - Internet for All
https://www.internetforall.gov/webinars

City & Town Leaders:

Digital Equity Playbook for City & Town Leaders
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/digital_equity_playbook.pdf

Equity - Office of Educational Technology
https://tech.ed.gov/equity/

National League of Cities – Digital Equity
https://www.nlc.org/resource/digital-equity/

Next Century Cities - Home
http://nextcenturycities.org/

Device Distribution Programs:

Everyone On – Digital Literacy and Devices for All
https://www.everyoneon.org/find-offers

PCs for People
https://pcsrefurbished.com/sales/salesHome

Tech Goes Home
https://www.techgoeshome.org/

Digital Literacy Programs & Resources:

Digital Skills Library
https://digitalskillslibrary.org/

DigitalLearn.org
https://www.digitallearn.org/

Everyone On – Digital Literacy and Devices for All
https://www.everyoneon.org/

LINCS Learner Center
https://lincs.ed.gov/learner

Digital Outreach for Obtaining Resources & Skills (DOORS)
https://skills.digitalpsych.org/

Goodwill Community Foundation (GCF) – Tech Training
https://edu.gcfglobal.org/en/subjects/tech/

Goodwill Community Foundation (GCF) – Computer Training modules
https://edu.gcfglobal.org/en/topics/computers/

Goodwill Community Foundation (CGF) – Learning Resources
https://edu.gcfglobal.org/en/

Grow with Google
https://grow.google/

Linkedin Learning
https://www.linkedin.com/learning/?trk=lynda_redirect_learning

Microsoft Digital Literacy Curriculum
https://www.microsoft.com/en-us/digital-literacy?oneroute=true

Microsoft Learn
https://learn.microsoft.com/en-us/training/

Northstar Digital Literacy Assessment
https://www.digitalliteracyassessment.org/

Partners Bridging the Digital Divide
https://www.pbdd.org/training/

Skill Share
https://www.skillshare.com/en/

Spectrum Grants for Digital Education
https://corporate.charter.com/digital-education/grants

Tech Soup (for libraries and non-profits)
https://www.techsoup.org/

Economic Development:

Mass Internet Connect Program for Unemployed Job Seekers- MBI
https://broadband.masstech.org/mass-internet-connect

Individuals with Disabilities:

Digital Outreach for Obtaining Resources & Skills (DOORS): A Digital Literacy Program for Adults with Mental Health Conditions
https://www.proliteracy.org/wp-content/uploads/2023/07/05-Forum-2.pdf

Welcome to DOORS: A series of pragmatic and interactive lessons designed to develop functional skills for accessing and utilizing the promise of digital health
https://skills.digitalpsych.org/

Become a DOORS Instructor
https://skills.digitalpsych.org/2021/01/11/online-curriculum-available/

Education:

Adult Education Digital Literacy Initiatives and Resources - LINCS
https://lincs.ed.gov/state-resources/federal-initiatives/digital-literacy

Broadband - Office of Educational Technology
https://tech.ed.gov/broadband/

Digital Literacy and Technology Integration in Adult Basic Skills Education
https://www.proliteracy.org/resources/digital-literacy-and-technology-integration-in-adult-basic-skills-education/

Digital Equity Education Roundtables (DEER) - Office of Educational Technology
https://tech.ed.gov/deer/

Digital Equity Education Roundtables (DEER) - Resource Guide
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/digital_equity_education_roundtables_deer_-_resource_guide.pdf

E-Rate Program (FCC) - Affordable internet, telecommunications, and information services for eligible schools and libraries
https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate

E-Rate Program - Info Webinar (YouTube)
https://www.youtube.com/watch?v=hRuIa14kO08

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

National Education Foundation, 100% Digital Literacy Grant
https://www.stemnef.org/grant/digitalliteracygrant/

Office of Educational Technology - Home
http://tech.ed.gov/

Libraries:

Institute of Museum and Library Services (IMLS) grant programs
https://www.imls.gov/grants

American Library Association (ALA) grant program
https://www.ala.org/grants/view-all-grants

E-Rate Program (FCC) - Affordable internet, telecommunications, and information services for eligible schools and libraries
https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate

E-Rate Program - Info Webinar (YouTube)
https://www.youtube.com/watch?v=hRuIa14kO08

Ezra Jack Keats Foundation Mini-Grants
https://www.ejkf.org/about-mini-grants/

American Libraries Association, Libraries Transforming Communities: Accessible Small and Rural Communities Grant
https://www.ala.org/tools/librariestransform/libraries-transforming-communities/access

Association of Rural and Small Libraries: New England Libraries Grants
https://www.arsl.org/arsl-new-england-libraries-grants

Public Library Association Digital Literacy Workshop Incentives Program
https://www.ala.org/pla/initiatives/digitalliteracy/incentive

DigitalLearn.org
https://www.digitallearn.org/

Tech Soup
https://www.techsoup.org/

Digital Literacy in Public Libraries
https://www.webjunction.org/documents/webjunction/digital-literacy-guidebook.html

Tech Skills Checklist for Public Library Supervisors and Staff
https://www.ala.org/sites/default/files/pla/content/initiatives/digitalliteracy/200226-pla-tech-skill-checklist-survey-only.pdf

PLA Hotspot Lending Playbook
https://www.ala.org/pla/initiatives/digitallead/hotspot-playbook

PLA Digital Literacy Instruction Playbook
https://www.ala.org/pla/initiatives/digitallead/digital-lit-instruction-playbook

PLA Public Access Computer Playbook
https://www.ala.org/pla/initiatives/digitallead/public-access-computers-playbook

PLA 5 Tips for Teaching Tech to Seniors
https://publiclibrariesonline.org/2019/04/5-tips-for-teaching-tech-to-seniors/

ALA Digital Literacy Interest Group for Librarians - Join
https://connect.ala.org/pla/communities/community-home?CommunityKey=c3bfc9b2-32db-4a71-82f9-7499e8ea77de

Racial & Ethnic Minority Groups and English-learners:

Digital Literacy Courses for English-learners and Speakers of Other Languages (Microsoft)
https://www.microsoft.com/en-us/digital-literacy?oneroute=true

Pew Research Center - Race Ethnicity Digital Access
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/pew_research_center__race_ethnicity_digital_access.pdf

Rural Areas:

Broadband in Rural America - Center on Rural Innovation
https://ruralinnovation.us/our-work/broadband/

Pew Research Center - Digital Divides in Rural Communities
https://www.mrpc.org/sites/g/files/vyhlif3491/f/uploads/pew_research_center__digital_divides.pdf

6.5 Next Steps: Recommendations for Ongoing Plan Outreach, Engagement, Evaluation, Maintenance and Updates

The Towns of Phillipston and Royalston are responsible for implementing the specific goals and actions identified within the Digital Equity Plan, Implementation Action Plan detailed in Section 6.3, above, and while the overall responsibility for implementation of the Plan is not regulatory, we believe that it is in the best interest of the community and its people and therefore should be a priority of the Town Select Boards, Planning Boards, and Moderators. Each proposed action has been assigned to a specific Digital Equity Champion, and in large part, given the structure of Town Government and limited capacity and full-time status of many positions, the Town Select Board and/or Planning Board are listed as the de facto “primary leader” for most of the designated Goals and Actions.

Plan implementation will be accomplished by adhering to the principals of this plan and by utilizing its strategies and recommended actions as a guidance to achieving its overall vision. In some cases, the completion of an action may be contingent on the Towns obtaining outside funding or other resources, separate from the Municipal Digital Equity Implementation grant funding program, and when applicable, potential funding sources and a list of additional resources have been provided above.

Monitoring, evaluating, and enhancing the Towns' 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 5 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.

It is the final recommendation of this plan that a Digital Equity Coalition be established 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. If such a coalition is established, we recommend that the Towns of Phillipston and Royalston participate by designating one or more interested Town officials from each Town as members.

Through this coalition, we believe that the local and regional digital equity needs, visions, and goals of the Montachusett Region may continue to be enhanced and achieved for the benefit of covered populations and all residents of the region; And through this Plan, and participation in the regional coalition, we are confident that the Digital Equity Visions, Goals, and Actions of Phillipston and Royalston will be successfully achieved.