

# CONNECTING MILLBURY

# MUNICIPAL DIGITAL EQUITY PLANNING CHARETTE

January 2025









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# TABLE OF CONTENTS

- 1 Introduction
- 3 Prior Planning
- 5 Existing Conditions & Community Profile
- 21 Community Outreach Process
- 24 Community Findings & Needs Assessment
- 31 Strengths, Weaknesses, Vulnerabilities
- 32 Limitations
- 33 Strategic Recommendations
- 39 Opportunities and Resources
- 45 Conclusion
- 46 Sources







### INTRODUCTION

The Town of Millbury is a small town in Worcester County with a population of just over 14,000 people. To ensure the continued growth and equity of the town in an increasingly digital society, Millbury applied to partake in the Municipal Digital Equity Planning Program in February 2024.

The National Digital Inclusion Alliance (NDIA) defines "Digital Equity" as "a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy." Many elements contribute to digital equity; however, the most important elements are affordable high-speed internet access, internet-enabled device access, and digital literacy.<sup>1</sup> These elements fundamentally contribute to a person's right to health, safety, economic opportunity, and opportunity for community participation. The COVID-19 pandemic significantly accelerated the trajectory toward a more digitized world. Specifically, the pandemic cemented the use of the Internet in everyday life and made even more apparent the importance of digital literacy in an ever-digitizing world. In a post-COVID world, access to online learning programs, virtual meeting software, remote work options, telehealth, e-commerce, and many other online services is critical for full participation in society.

It is crucial that all residents have adequate internet and device access, and sufficient digital literacy skills for a thriving, equitable community. Equitable growth requires the connection of this digital divide specifically, "the gap between those who have affordable access, skills, and support to effectively engage online and those who do not" must be closed.

In recognition of the importance of bridging the digital divide, the Massachusetts Broadband Institute (MBI) launched the Municipal Digital Equity Planning Program. According to MBI,

"The goal of the Municipal Digital Equity Planning Program is to enable municipalities, or other local bodies of government, to engage in planning activities related to digital equity and bridging the digital divide. These planning activities will result in strategic documents designed to identify the community's needs, interests, and key assets and provide a framework that will guide future municipal decision-making and potential investments and activities that will increase access and usage of the





#### Internet for the populations most impacted by the COVID-19 pandemic."

The program offers two options for communities to pursue digital equity planning activities: a short-term "planning charette", or a series of public workshops, or a longer-term "digital equity plan." Under each option, municipalities are assigned a consultant to help execute the project. Municipalities that successfully complete a digital equity plan or charette are eligible to access a one-time grant of up to \$100,000 to implement a digital equity-related project in their community. The Town of Millbury chose to undertake a series of charettes to engage municipal officials, community groups, residents, and other stakeholders about the status and future of digital equity in the community. The Town selected the Central Massachusetts Regional Planning Commission (CMRPC) as its consultant.

In July of 2024, CMRPC facilitated 2 public workshops with the guidance of the Town of Millbury. This report analyzes the results of the charette process and recommends future steps that the town can take to promote digital equity.







### **PRIOR PLANNING**

A review of the Town of Millbury's prior planning efforts provides insight into current digital equity initiatives. The town has existing plans that support initiatives and strategies pertaining to digital equity. *Connecting Millbury* aims to expand and build upon past digital equity efforts and identify strategies to improve digital equity in the community. The following points summarize goals and themes from existing plans.

#### Rapid Recovery Plan (2021)<sup>2</sup>

• According to a survey cited in the plan, 16% of Millbury businesses expressed an interest in social media training, and 21% expressed an interest in shared marketing/advertising.

#### Millbury Open Space and Recreation Plan (2020)<sup>3</sup>

• Improvement of access to information while promoting the Town's natural resources and recreation facilities through the town's website, social media, and other means of communication.

#### Town of Millbury Master Plan (2019)<sup>4</sup>

- As society progresses towards being digitally based, the Millbury Public Library should assess and evaluate how to maintain its current users and attract new ones.
- Increase the visibility of Asa Waters Mansion as a cultural and historic resource in town through social media.

#### Millbury Master Plan Survey Responses (2018)⁵

• 7% (130) of survey respondents agreed that the town's greatest economic challenge is inadequate technological infrastructure.

#### Master Plan Visioning (2016)<sup>6</sup>

• "Imagine a Millbury that supports residents of all ages and throughout the life cycle. A Millbury that recognizes the special needs of its younger residents and is concerned about providing services, programs, and opportunities for the increasing senior citizens."







• Improve communication with residents and businesses such as updating informational materials online, and making resources and services clear to town residents.





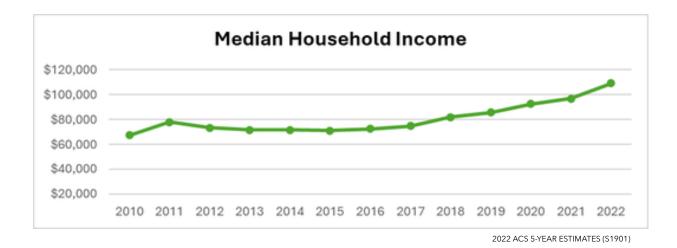


# EXISTING CONDITIONS & COMMUNITY PROFILE

### **DEMOGRAPHICS**

### INCOME

The median income in Millbury is \$109,119, relatively higher than the Massachusetts median income of \$94,488, and the Worcester County median household income of \$86,258. The median income in Millbury has risen steadily between 2018 and 2022).

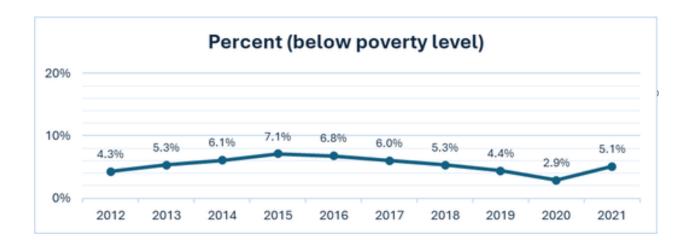


4.9% of Millbury's population is living below the poverty level, significantly lower than Massachusetts(9.9%) I and Worcester County (10.6%). According to ACS estimates, 7.4% of Millbury's adults 60 years and older are living below the poverty threshold. Low-income households may have greater difficulty affording internet service and/or digital devices.







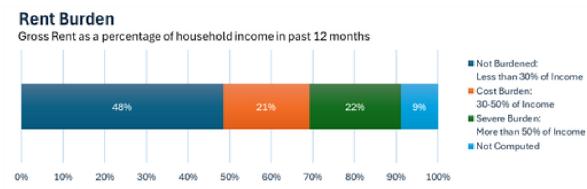


While nearly three-quarters of Millbury's homes are owner-occupied (74%), approximately one quarter of housing units are occupied by renters (26%).

HOUSEHOLD CHARACTERISTICS	PERCENT
Households with one or more people under 18 years	32%
Households with one or more people 60 years and over	42%
Households with one or more people 65 years and over	34%
Householder living alone	21%
65 years and over	12%
HOUSING TENURE	
Owner-occupied housing units	74%
Renter-occupied housing units	26%

2022 ACS 5-YEAR ESTIMATES (S1101)

A household is considered cost-burdened when housing costs exceed 30% of household income. Among *renters*, according to ACS estimates, the median rent is \$1,426, and indicates that 43% of Millbury's renting population is cost-burdened.



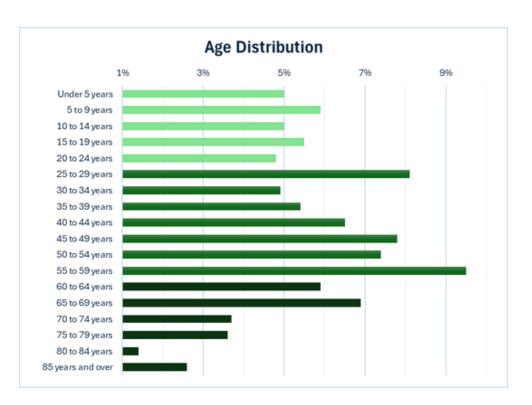
2022 ACS 5-YEAR ESTIMATES (B25070)







Nearly a quarter (24.2%) of Millbury residents are 60 years and older. 10% of the population is 55 to 59 years. Notably, Millbury's median age of 44 years old is slightly higher than surrounding municipalities as well as the median age in Massachusetts and Worcester County of 40.3 and 40.6 respectively.



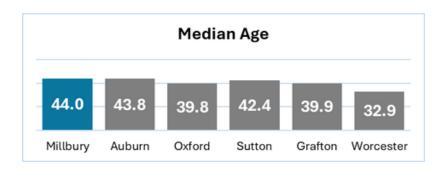
### OLDER ADULTS

Older adults typically have lower levels of technology use and may have concerns about trusting information online. Despite challenges to access and/or digital literacy skills, older adults rely on the internet for telehealth appointments, accessing information, social connection, civic engagement opportunities, entertainment, and more.







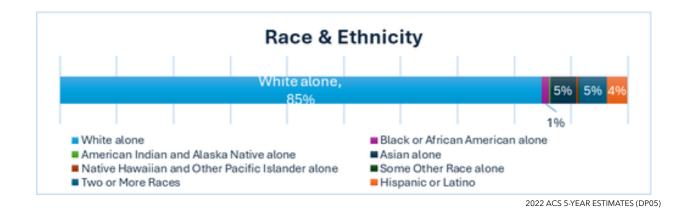


2022 ACS 5-YEAR ESTIMATES (S0101)

### LANGUAGE SPOKEN AT HOME

According to the 2022 ACS 5-year estimates, languages spoken at home include English, Indo-European languages, and Spanish. 89% of Millbury's population speaks English, and about 12% of residents speak a language other than English. Among those who speak a language other than English, about half speak English "very well" and about half speak English less than "very well." The Millbury Public Schools also identified student populations speaking Portuguese, Arabic, and Vietnamese.<sup>7</sup>

### RACE AND ETHNICITY



In the town of Millbury, nearly 86% of residents identify as White alone (not Hispanic or Latino). This is followed by nearly 5% identifying as Asian, 4% identifying as Hispanic or Latino (of any race), and 2% identifying as Black. National-level studies have found significant gaps in broadband access for Black and Hispanic or Latino households in comparison to white households.

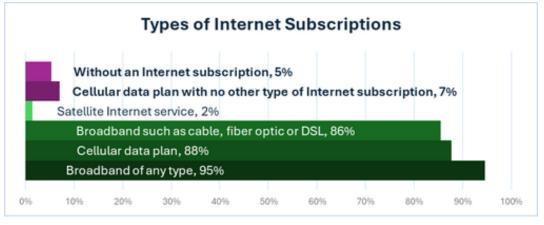






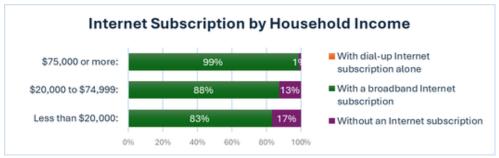
### **CONNECTION**

As reported in the 2022 ACS 5-year estimates, 95% of households in Millbury have an internet subscription, and 88% of households have a cellular data plan. 5% of households have no internet subscription, and 7% of households have a cellular data plan with no other type of internet subscription. Broadband such as cable, fiber optic, or DSL are the most common sources of internet, though some households have dial-up service with no other internet subscription.



<sup>2022</sup> ACS 5-YEAR ESTIMATES (S2801)

Low-income households have higher rates of no internet subscription than higher income households. Of households with \$20,000 or less income, 17% have no internet subscription. Of households with income between \$20,000 and \$74,999, 13% do not have an internet subscription. Households with \$75,000 or more in income are significantly more connected in comparison.



2022 ACS 5-YEAR ESTIMATES (S2801)



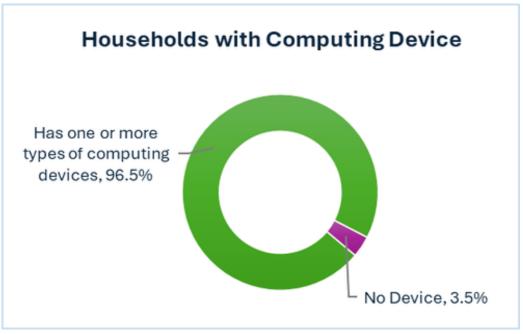




Additionally, the reliability and quality of service vary throughout the town. In more sparsely populated areas of town, residents have reported poor cellular service and connectivity issues.

### **DEVICE ACCESS**

Access to a computing device is necessary for utilizing the internet. An estimated 3.5% of Millbury households have no computing device at home. 96.5% of households have at least one computing device (including a desktop or laptop, smartphone, tablet, or another computer).



2022 ACS 5-YEAR ESTIMATES (S2801)

ACS Census data estimates on digital access by age suggest that those with no computer are primarily 65 years and over. 9% of adults 65 years and over in Millbury have no computing device.



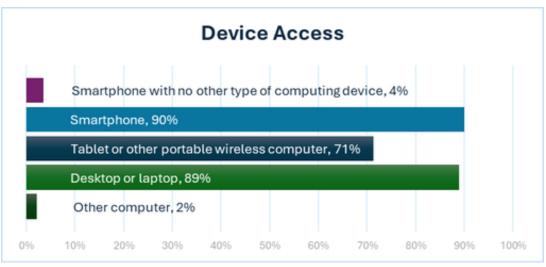




Age	×	Estimate	×
Under 18 years:			2845
Has a computer			2845
No computer			C
18 to 64 years:			8425
Has a computer			8388
No computer			37
65 years and over:			2416
Has a computer			2208
No computer			208

2022 ACS 5-YEAR ESTIMATES (B2805)

While most households in Millbury are equipped with at least one digital device, nearly 200 households have only a smartphone and no other digital device. While a smartphone provides some online access, there are limitations to the capacity of a smartphone in comparison to a device with a larger screen with broadband connectivity, including constraints with data caps and compatibility issues for applications for learning and work.



2022 ACS 5-YEAR ESTIMATES (S2801)

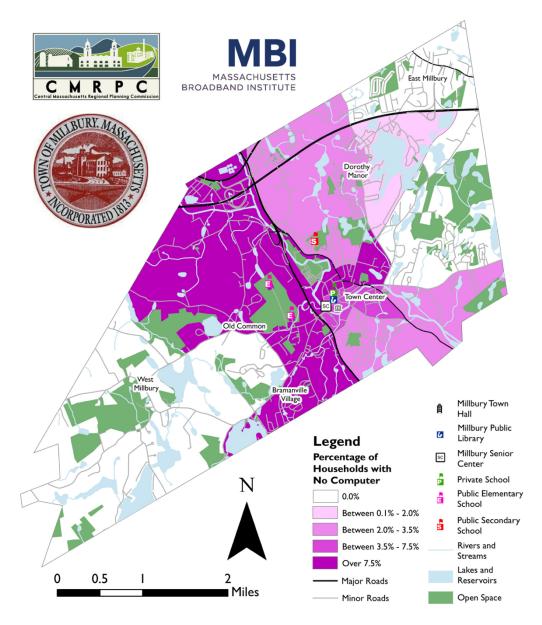






### <u>MAPS</u>

### Millbury Percentage of Households with No Computer by Census Block Group

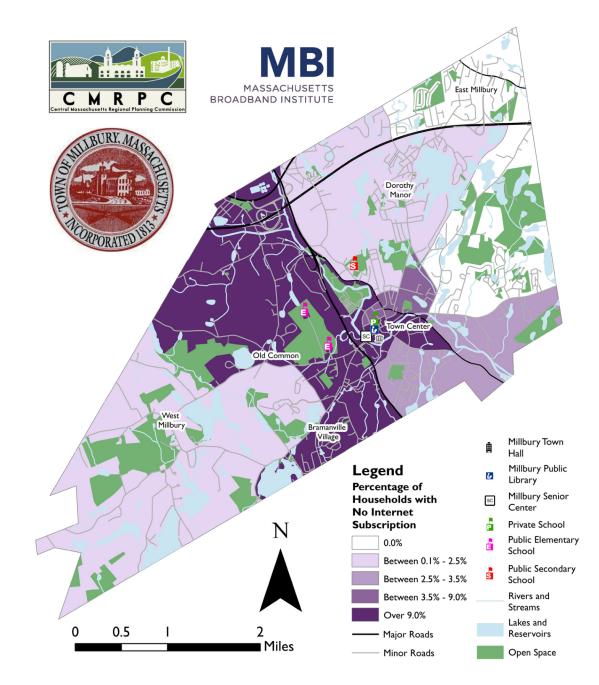








### Millbury Percentage of Households with No Internet Subscription by Census Block Group









### **DIGITAL SKILLS & LITERACY**

Digital technology has implications for a person's access to opportunities and overall prosperity in the current digital age. Not only is access to a digital device and the internet important, but a quality connection to the internet is vital for civic participation and education. Also, the skills and ability to navigate the device are essential to attain full access to the digital world.

Numerous reports identify the importance of digital connection and skills to job readiness, social inclusion, and overall well-being. <u>Recent findings</u><sup>8</sup> from the National Skills Coalition and the Center for Workforce and Economic Opportunity at the Federal Reserve Bank of Atlanta highlight the demand for digital skills in 92% of jobs across industries. A <u>2020 report</u><sup>9</sup> examined the role of digital equity in the context of the COVID-19 Pandemic, finding that individuals who are not connected to the Internet are experiencing exclusion at higher rates. It also concluded that proper digital education, access to devices, and consistent Internet connection have all become vital for full participation in society, and without it, social inequities can be reinforced.

There is no digital literacy data available specific to the Town of Millbury, however, broader patterns and demographic data can lead to the identification of strategic solutions to meet the digital needs of the Millbury community. A <u>2021 Pew Research Center study</u><sup>10</sup> found that 26% of adults require assistance from someone else to set up a new digital device or show them how to use it. 1 in 10 American adults (10%) say they are not at all or only a little confident using digital devices to complete the tasks they need to do online. Additionally, Pew Research Center found in 2015 (see below) that there are levels of readiness to learning and adoption of digital technologies that corelate with age, gender, and education level. While adoption rates have increased since this study, it highlights some of the underlying mindsets which still pose barriers to adoption today: lack of trust in online services, lack of familiarity with terminology, and lack of confidence to find trustworthy or accurate resources. Acknowledging these obstacles is an important step in developing solutions and increasing levels of digital literacy.

Although lack of device skills and lack of digital literacy is not limited to the aging population, older adults tend to have a harder time setting up and using new devices. Connecting vulnerable populations, such as older adults, with trusted







individuals to assist with technical support is one way to address the current gaps in digital equity.

#### Digital readiness: The five groups along a spectrum from least ready to most ready % of U.S. adults in each group MORE LIKELY TO HAVE THESE CHARACTERISTICS 14% The Unprepared Women They have relatively lower levels of tech adoption and do not use the internet for learning, need help setting up new tech Ages 50 and older Lower income households devices, and are not familiar with "ed tech" terms. The Lower levels of formal education Unprepared do not have confidence in their computer skills and are not sure they can find trustworthy information online. 5% **Traditional Learners** Relatively They are active learners and have technology, but are not Women hesitant as likely to use the internet for pursuing learning and have Minorities 52% concerns about whether to trust online information. Age: 50 and older Lower income households The Reluctant 33% Men They have higher levels of digital skills than The Age: 50 and older Unprepared, but they have low levels of awareness of Lower income households new education technology concepts. This translates into Lower levels of formal education relatively low use of the internet for learning. 31% **Cautious Clickers** Higher income households They have high levels of tech ownership as well as Some college experience confidence in their online skills and abilities to find Age: In their 30s and 40s trustworthy information. But they are less familiar with Relatively online learning terms and less apt than the Digitally Ready more to use online tools for learning. prepared 48% 17% **Digitally Ready** Higher income households They are ardent learners for personal enrichment. They have technology and are confident about their digital skills Higher education level and abilities to find trustworthy online information. They Age: In their 30s and 40s also know the most about online learning resources.

Source: Survey conducted Oct. 13-Nov. 15, 2015. "Digital Readiness Gaps"

**PEW RESEARCH CENTER** 

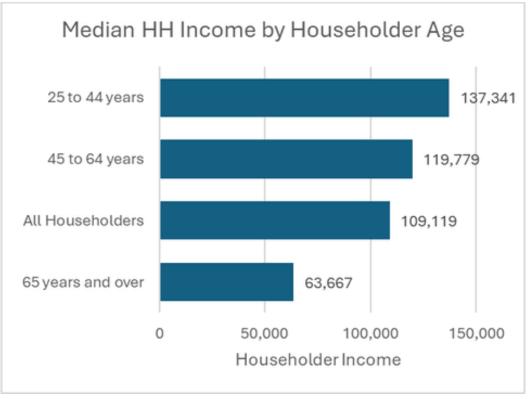






### AFFORDABILITY

While internet and device access are widespread in Millbury, affordability likely still poses a challenge for many residents, especially those households that earn low incomes relative to the town median. Many households with members 65 years and older fall into this category. Census median income data for ethnic and racial groups is inconclusive due to high margins of error.



<sup>2022</sup> ACS 5-YEAR ESTIMATES (S1903)

The Internet is an indispensable resource for nearly all households. But the lower the income a household earns, the higher the relative share of income it must spend on internet costs. The following case study illustrates this point.

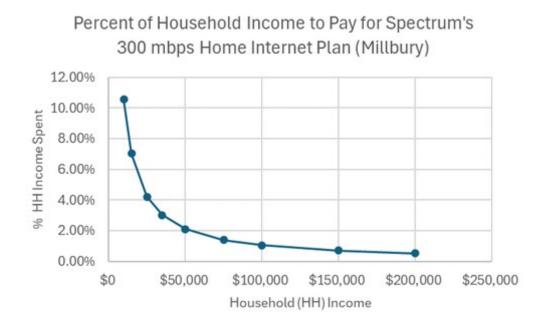
Charter Communications' Spectrum service offers internet subscription packages to Millbury residents that start at a download speed of 300 Mbps. The monthly cost of a Spectrum Internet package is \$87.99 per month or \$1,056 a year. As the chart below demonstrates, households that earn \$10,000 annually must spend more than 10 percent of their household income on home internet costs. In contrast, households



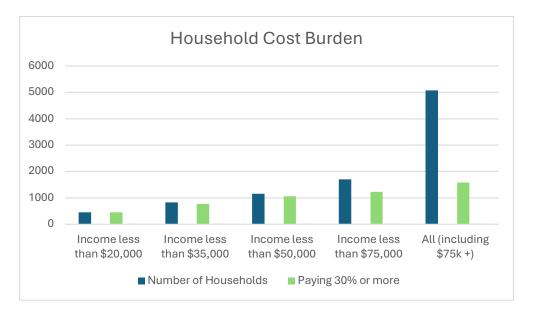




that earn \$200,000 per year must pay only slightly more than 0.5 percent of their income for the same plan. 11% of households in Millbury earn less than \$35,000 annually<sup>11</sup> meaning they must pay 3 percent or more of their household income to afford Spectrum's most basic fixed internet plan.



Internet affordability challenges are also exacerbated by the high proportion of income that many Millbury households already spend on housing costs. Around 72% of households in Millbury that earn less than \$75,000 per year spend 30 percent or more of their income on housing costs<sup>12</sup>, making them "cost-burdened" according to the U.S. Department of Housing and Urban Development.<sup>13</sup>









Competition is another factor that influences the affordability of internet subscription prices. Studies suggest that competition between internet service providers (ISPs) results in lower internet prices for consumers.<sup>14</sup>The chart below provides a look into the internet subscription options available to Millbury residents. Because provider options may vary by location throughout the town, the chart displays internet subscription options available at a sample address on Jackie Drive in Millbury. Prices and download speed data were collected from ISP websites, specifically the new consumer labels that ISPs were recently mandated to display by the Federal Communications Commission (FCC).<sup>15</sup>

Plan Name	Typical Download				
- tair Hame	Provider	Technology	Speed (Mbps)	Price / Month	Price / Mbps
Spectrum Internet	Spectrum	Cable	366	\$87.99	\$0.24
Spectrum Internet Ultra	Spectrum	Cable	569	\$107.99	\$0.19
Spectrum Internet Gig	Spectrum	Cable	1068	\$117.99	\$0.11
Fios Home Internet	Verizon	Fiber	307	\$59.99	\$0.20
Fios Home Internet	Verizon	Fiber	500	\$84.99	\$0.17
Fios Home Internet	Verizon	Fiber	940	\$99.99	\$0.11
HughesNet Select	HughesNet	Satellite	50	\$79.99	\$1.60
HughesNet Elite	HughesNet	Satellite	100	\$94.99	\$0.95
HughesNet Fusion	HughesNet	Satellite	100	\$124.99	\$1.25
Viasat Unleashed	Viasat	Satellite	74	\$119.99	\$1.62
Viasat Unleashed	Viasat	Satellite	74	\$119.99	\$1.62
Starlink Residential Standard	Starlink	Satellite	150	\$120.00	\$0.80

An indicator of the need for more affordable internet pricing in Millbury is the number of households that signed up for the Affordable Connectivity Program (ACP). Between May 2021 and April 2024, the ACP and its predecessor the Emergency Broadband Benefit Program (EBB) provided eligible low-income households that signed up for the program with a monthly discount: \$30 off the cost of broadband internet subscriptions.<sup>16</sup> According to the Benton Institute for Broadband and Society, 1,240 Millbury households were eligible for enrollment in the ACP, and 696 households had enrolled in the program as of February 2024.<sup>17</sup> This enrollment level was higher than what the Benton Institute predicted based on various socio-economic and community characteristics. Based on the Benton Institute's Enrollment Performance Tool which "indicates the degree to which households in a given zip code are at risk of losing or reducing internet connectivity should the ACP benefit lapse".<sup>18</sup> Millbury has a risk score of 39 measured on a scale of 0-100. The ACP







program was terminated on June 1, 2024, which leaves those who subscribed to ACP with a greater financial burden and a higher risk of being without broadband service.

### PERFORMANCE & INFRASTRUCTURE

Routine use of the internet - from web browsing to telehealth appointments, to entertainment and video streaming - relies on a stable and speedy connection. Internet speed, defined as "how long it takes data to transfer back and forth to your device from the web server"<sup>19</sup> is measured in megabits per second (Mbps). It will affect web page load times, video or audio buffering, and virtually all other online activities. 'Broadband' internet is the benchmark for reliable internet access, and, in March of 2024, the Federal Communications Commission (FCC) set a minimum standard for internet service to be considered broadband. This standard requires a minimum download speed of 100 Mbps and an upload speed of 20 Mbps.<sup>20</sup>

#### Internet 100 (100 Mbps)

Users per household: 1-2

Light streaming, browse the web, social networking, uploading and downloading small files.

#### Internet (300 Mbps)

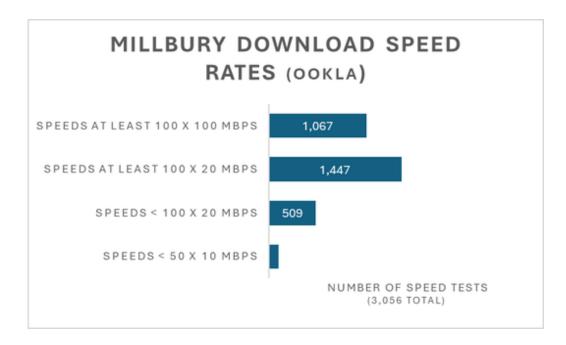
Users per household: 2-3

Streaming on multiple devices, gaming on a single device, uploading and downloading medium files.

According to 2021-2022 speed test data from Ookla, supplied by MBI, approximately 82% of Millbury internet users have a service that meets the current minimum criteria for broadband, while 18% of users are below the acceptable speeds. M-Lab's open-source internet speed test datasets<sup>21</sup> show that Millbury's median download speed of 189.57 Mbps is much higher than the State median of 106.75 Mbps.







There are other factors in the evaluation of internet performance, such as upload speed and latency. While these do not have standards set by the FCC, Internet Service Providers (ISPs) are required to inform customers of these factors by labeling their internet products with this information. According to M-Lab data, Millbury's median upload rate is 61.57 Mbps, significantly higher than the State median of 23.46 Mbps.







Millbury has up to six available service providers, though these options depend on a resident's specific address. The two providers offering the fastest residential services are Spectrum (cable) and Verizon (fiber), with advertised maximum download speeds of 1000 Mbps and 940 Mbps, respectively.

Internet Service Provider	Technology				
Internet Service Provider	Cable	Fiber	<b>Fixed Wireless</b>	Satellite	
Charter Communications (Spectrum)	х				
Verizon Communications		х	х		
T-Mobile, USA			Х		
Hughes Network Systems (Hughesnet)				x	
Viasat				х	
Space Exploration Technologies Corp. (Starlink)				х	

**Cable:** Millbury uses existing cable TV infrastructure (coaxial cables) to connect users to the internet. Cable internet is generally reliable and offers high speeds. Though cable is potentially able to equal the speed of fiber, providers commonly limit speeds to accommodate bandwidth distribution.<sup>22</sup>

**Fiber:** Fiber optic lines can connect users to the internet. Fiber internet offers the fastest speeds, symmetrical upload and download speeds, and "fiber's design is simply better for data transmission over long distances than cable's electrical signals."<sup>23</sup>

**Fixed Wireless:** This relies on stationary transmitters to provide wireless internet access via mobile networks such as 5G.<sup>24</sup> Towers need line-of-sight connection to perform well, and speeds are usually slower than cable internet speeds.<sup>25</sup>

**Satellite:** Satellite typically "Doesn't rely on ground-laid infrastructure" but instead uses a dish to connect to orbiting satellites to transfer internet signals to your home. Compared to cable and fiber, satellite internet often has low speeds and strict data caps.<sup>26</sup>







## **COMMUNITY OUTREACH**

Community outreach was a key part of the charette process. Between May and August 2024, CMRPC staff met with community groups and stakeholders and held 2 public workshops to gain perspective into the digital divide in Millbury. These conversations offered valuable insights into the needs and challenges of the community and helped to identify actions, recommendations, and strategies that the Town of Millbury can initiate to positively support its residents and bridge the digital divide.

**One-on-one Stakeholder Interviews:** CMRPC staff met with several stakeholders and community groups throughout the charette process. The purpose of the meetings was to facilitate conversations regarding the status of digital equity in Millbury, as well as gauge potential assets and areas of improvement.

**Survey Distribution:** Survey distribution was essential in capturing information from the community. CMRPC and the Town of Millbury distributed MBI's statewide digital equity survey in several ways, including through Facebook posts and ads, Millbury's Housing Production Plan Workshop, the Town of Millbury's social media networks as well as CMRPC's, Millbury's Town Hall meeting, CMRPC's newsletter and a local music event. Nearly 60 responses were recorded.

**Social Media:** CMRPC promoted the charettes through its various social media channels on Facebook, LinkedIn, and Twitter, as well as in the agency's monthly newsletter. CMRPC also created a page on its public website dedicated to updates and resources regarding Millbury's Digital Equity charette.

**Millbury Public Library & Millbury Senior Center:** CMRPC and the town hosted two public workshops—one at the Public Library and another at the Senior Center. The first workshop, held at the library, provided a central and accessible setting for community members to participate. The Senior Center allowed CMRPC staff to engage directly with the town's aging population in a familiar and comfortable space. Both locations serve as key community hubs, offering valuable insight into the town's digital climate. At these charrettes, CMRPC presented and explained conditions existing in Millbury, and attendees participated in a conversation and discussion of their experiences and views of the digital landscape in Millbury.

**Meeting with Town Administration:** CMRPC staff met bi-weekly with Director of Town Planning and Development, Conor McCormack. Meetings included updates on the outreach process, brainstorming potential modes of relaying information to the







public, identifying stakeholders, reviewing the timeline, and providing edits and suggestions for promotional materials. Conor was also a point of contact for scoping out potential charette venues.







# COMMUNITY FINDINGS, NEEDS ASSESSMENT, CHARETTE TAKEAWAYS

CMRPC engaged Millbury residents, community organizations, and stakeholders to assess the Town's digital divide and understand the current needs of the community.

#### **One-on-one Stakeholder Interviews**

To support the public charette process, CMRPC interviewed several community stakeholders and organizations within the spheres of social services, advocacy, and community development.

#### Questions that CMRPC staff used to guide stakeholder conversations:

- What are your clients'/community members preferred digital devices?
- Are there digital services that people in your network struggle to access?
- Who in your network and organization lacks access to and/or struggles to afford Internet service?
- What does your organization have in place/ what is your organization doing to bridge the digital divide?
- What is the greatest barrier to digital access that you have noticed?
- What is the easiest barrier to digital access for your community to overcome?

Throughout the community engagement process and charette conversations, participants agreed that the COVID-19 Pandemic and its aftermath placed a spotlight on digital inequities present. Millbury's community has a present demand for technological support, whether it is accessing adequate and affordable internet, troubleshooting devices and new applications, or finding appropriate spaces to learn and use devices.

#### **Internet Access and Affordability**

Community participants agreed that Millbury has opportunities to improve internet access. Multiple participants noted during the charette that there are areas in town that have spotty mobile coverage and broadband availability, posing issues for safety







and general usage of devices when needed. Some folks also expressed that mobile internet access can be tricky in their own homes, causing them to move around to catch a reliable signal. Participants concluded that many of them use Spectrum/Charter services but have issues with troubleshooting spottiness as Charter representatives are not very responsive. This has caused many to switch over to Verizon services in hopes of receiving better internet service as well as support & troubleshooting help.

Regarding Millbury's resources, many use the Public Library as an access point for the internet. Millbury's Library supports 24/7 internet access, making it an invaluable resource for the community. Currently, the library offers 5 mobile hotspots that have a long waiting list and are constantly in use on rotation from library goers. The Library Director noted that patrons sometimes must access the internet in the parking lot due to the lack of adequate internet capacity in the library building.

Residents of Millbury's Senior Housing highlighted that there is no support adequate internet connectivity. An attendee shared that "Spectrum blames the electric company; the electric company blames Spectrum." There is very little momentum to resolve the issue. Seniors discussed how this lack of adequate internet connection takes a toll on the quality of their telehealth meetings with healthcare providers.

#### **Device Access and Affordability**

The Millbury Public Library has been supporting the community with internet connectivity, whether it be onsite or the hotspots on rotation.

At the library, there are 5 PCs, 2 laptops, and 20 Chromebooks. The Chromebooks were donated by the public high school and are currently 5 years old. Due to their age, the Chromebooks have become less functional. The library is hoping that the school will recycle the devices as they did previously to remedy the situation. The community has also expressed repeated interest in seeing computers in the library dedicated to adults; these devices are currently supported in the teens and children's section only.

In addition to one day supporting dedicated adult computers, the library would benefit from a computer lab, but the lack of physical space in the building makes this a challenge. Space is a commodity that pairs with device usage- many seek out rooms for privacy whether it be for studying, test taking, or a private space for telehealth appointments. Many residents, including seniors, come in for assistance with their personal devices and need advice about what tool is most appropriate for a particular







task; for instance, phones tend to be less than ideal for telehealth calls. Some seniors also seek assistance with device or software usage for emails, Google Docs, etc.

In addition to the computing devices available at the public library, two 3D modeling machines are currently on location. Every other month, the library hosts programming for those interested in learning how to use 3D printers. It is in high demand for library goers, often with a lot of interest in these classes.

While the Library is an invaluable resource for all residents, the Senior Center specifically supports the aging population. The Senior Center currently has received a Smartboard, an Owl, and 10 iPads for programming and supporting the seniors for general usage. Several community organizations noted that seniors often rely on government-issued phones due to their easy use, accessibility, and low cost. Although meant to be simplified, seniors have noted that they can be difficult to navigate and tend to be faulty and unreliable. During the charette hosted at Millbury's Senior Center, some senior residents noted that they feel owning a device is unnecessary. However, some have begun to lean into using computers for certain functions such as email or participating in money-saving incentives on bills.

The Millbury Public Schools (MPS) also play a role in bridging the digital divide for students. Although participants at the Millbury charettes did not specifically discuss the cost of internet and broadband as it relates to students, it is a known issue which students and their families face. As internet service is necessary for students to succeed, families will often shoulder the high cost of the internet, even if it increases financial burden or means going without another service or amenity. Despite these issues, MPS has made progress with the digital agenda and accessibility. The school district supports students and parents by allowing parent-teacher conferences to be held via Zoom, and Elwood Elementary and the Junior Senior High School will be getting a Wi-Fi makeover to address the current infrastructure. The school committee has meetings accessible online as well.

Millbury Public Schools (MPS) did not support each student with a device before the COVID-19 Pandemic. However, the onset of COVID-19 caused the student-to-device ratio to change to 1:1. The current technology at MPS is bridging a divide and allowing students to be tech-savvy and supported in school and outside of school. However, incoming students and families that may not speak English as a first language would strongly benefit from platforms and modes of sharing information in different languages. Language access is expanded upon below.







#### **Digital Literacy**

Digital Literacy is a key component in supporting a community's goals in digital equity. Without confidence in literacy, device access and internet connection can be irrelevant.

The Public Library once again is a strong pillar of support for achieving digital literacy in the community. Library staff highlighted that a tension they face with patrons is the smartphones' limited capacity to perform certain tasks. Certain online activities, such as professional work, schoolwork, or telehealth appointments are much better suited – or sometimes simply required - to be completed via desktop or laptop browser, and some patrons feel they need technological support for navigating devices beyond the smartphone, like a computer. This led to library staff participating in training designed to better support those in need of digital literacy and device support. All four members of the library's staff are now trained to support patrons with tech literacy. Staff training was designed to better support the senior population, but this support extends to patrons of all ages. The library now offers adult computer courses that many in the community participated in. Held over 8 weeks, course topics include Gmail assistance, changing passwords, and navigating various applications.

#### Seniors & Digital Literacy

During Millbury's charettes as well as during stakeholder interviews, discussions highlighted positive developments for the aging population. The Senior Center previously partnered with Assumption College to hold classes for older adults, with classes available in person at Assumption as well as virtually. The online class was hosted at the Senior Center, while some preferred to attend from the comfort of their own home. Seniors were also able to participate via iPad with the Senior Center's lending service.

The Senior Center also participates in scam prevention courses once a quarter as a way to keep the seniors updated and build confidence through repeated exposure to example scams. Before the pandemic, local high school students also participated in helping seniors navigate and troubleshoot devices; re-booting this program would be beneficial for the aging population. Seniors also noted that they appreciated learning guides via YouTube.

Online security and safety are significant issues for the aging population. Many expressed fears of being hacked or scammed, as well as being victims of data collection. Seniors mentioned that they fear clicking the wrong button may cost them





their privacy. As demonstrated by the senior center's quarterly meetings on cybersecurity, the aging population expressed difficulty in being able to tell what is legitimate and what is not, as hackers are becoming savvier and more difficult to recognize.

Telehealth and technology in the healthcare sphere was another point of concern among charette attendees. Residents expressed that medical appointments online can be tricky and anxiety-inducing. One attendee discussed an interaction at a local in-person Ready Med Clinic; this individual was having trouble using the onsite technology, and while expressing difficulty in navigating iPad functions for signing in, staff became irritable when required to supply additional assistance.

In addition, residents expressed concerns about connecting with internet service providers for online bill payment, troubleshooting, or upgrading provider equipment and described a lack of consideration for the aging population. One attendee recalled an experience with Verizon while trying to upgrade equipment. Verizon representatives were insistent on walking the attendee through the process via phone call but did not factor in that the individual was still using a landline. The individual could not follow through with the necessary instructions. When inquiring about a Verizon representative coming to their home, they were quoted \$100.00 on top of their usual service.

Healthcare and digital equity are interrelated. As resources become available primarily via online platforms, keeping track of logins and passwords for access is frustrating, as is accessing documents via online portals. Seniors are used to receiving information via phone calls or physical documents. It is difficult to navigate these new systems, such as MyChart, which was given as an example in charette conversations.

Along with the Senior Center, the library is another place for seniors to access help. As previously mentioned, library staff members participated in training to better support the aging population. In the charette held at the library, it was noted that Medicare and unemployment insurance are important services for all populations, especially aging adults. Not having a live representative to talk to creates difficulties in accessibility when people are seeking information, and in-person assistance is crucial.

Overall, seniors would benefit from additional guided help for the essential services they use, and patience from the community.







#### **Digital Literacy and English Language Learners**

On the topic of English Language Learners and accessibility, the dissemination of information in varying languages will primarily be technology-based.

In one-on-one conversations with MPS employees, it was noted that the schools do not have a great tool for mass messaging, particularly translating messages into languages other than English. MPS would like to pay more attention to resolving this problem, as it is a barrier when it comes to disseminating information to the increasing population of English Language Learners. The platform currently used is *OneCall*, which utilizes aging technology. MPS is currently moving to *ParentSquare* to address said issues.

MPS employees have expressed interest in *Remind*, a platform used by its neighboring Worcester Public Schools. *Remind* is a communication platform that allows schools and educators to reach students and parents where they are. *Remind* looks to be a positive resource, especially with the readiness of language translation. MPS is also seeking ways to improve how parents can access their student's personal information. Follett Software's platform, *Aspen*, is the current mode of accessing a student's information. While discussing *Aspen* with stakeholders at the school, they mentioned that parents run into issues while attempting to update basic information. Information that is typically straightforward and should be simple to update, such as a phone number or an email address, is difficult to manage.

Currently, 3 full-time teachers work with 100 ESL students in the public school system; there is no standalone ESL department. Noted by current ESL teachers, there not only needs to be increased capacity of ESL services, but the services need an ESL-technology addition to make sure parents and students are receiving the full scope of services available. ESL students and parents tend to miss out on educational opportunities, whether it be field trip forms or signing up students to participate in school activities and sports.

During discussions with WPS, it was noted that the language barrier might be one of the most straightforward hurdles to overcome, and one that would result in a positive impact. *Pocket Talk* is a device that works as a user-friendly mobile translator allowing students and teachers to connect. Using devices such as *Pocketalk* would go a long way in bridging the divide for ESL students. MPS currently supports 2 devices, as funding was supported by parents. If every teacher had one in the classroom, this







would support not only ESL students but staff as well in further connecting with their students and positively impacting their education.

#### **Digital Literacy & Provider Options**

A key element highlighted and repeatedly mentioned by charette attendees was a lack of understanding and general confusion about the myriad of internet service and digital device types. Additionally, misunderstanding of service provider options leads to mistrust or ambivalence. When it comes to purchasing/obtaining the proper device or proper services, people feel most empowered when they understand what they are purchasing. Attendees discussed how seeking a professional for reliable answers and help is key to confidence. Often, this looks like going straight to the source such as the Geek Squad at Best Buy or visiting the Apple store to talk to a representative.

People want to fully understand provider options before committing, and this may also help alleviate the initial frustration associated with increasing costs and incentives that typically persuade people to select certain options. People are interested in spending money on what they perceive as needed or beneficial versus paying for services that do not align with their needs.

Overall, folks want to understand how to spend their money to get the most value. Folks expressed they are willing to pay for services, as long as they understand and are educated on the options. Simple questions such as:

- "What is broadband?"
- "What is cellular?"
- "What are the choices best for me?"

Knowing the answers to these questions could make a difference in the confidence level and trust between providers and users.

Attendees suggested that Millbury could support its residents through a resource hub or guide that explains options for users. This resource could be promoted via local social media channels, cable access TV, school communications, municipal websites, or a bulletin board.







# STRENGTHS, WEAKNESSES, VULNERABILITIES

During the outreach process and public charettes, participants, the town, and CMRPC identified Millbury's digital equity strengths and weaknesses, which allowed the planning team a chance to evaluate opportunities to further digital equity and identify potential challenges/threats to achieving said goal. The following graphic summarizes the findings.

#### Strengths:

- Local educational institutions
- Community-based organizations
- Millbury Public Library
- Millbury Public Schools
- Millbury Senior Center

#### Weaknesses:

- Lack of competition among ISPs
- Organizational capacity and physical space limitations
- Language and age barriers in digital literacy
- Internet and broadband reliability in the home and across Millbury
- Transparency among ISP services available

#### **Opportunities:**

- Forthcoming state and federal funding for digital equity
- Expansion of Verizon services for residents
- Expanding services and devices in local organizations such as the Public Library and Senior Center
- Upscaling tech-based resources and opportunities to further support ESL in the Millbury Public School system

#### Threats & Challenges:

- Discontinuation of the Affordable Connectivity Program
- Increasing cost of internet plans and computing devices
- Managing the community growth and ensuring adequate resources are in place for residents







### LIMITATIONS

CMRPC and the Town of Millbury devoted significant time and effort to community outreach for this project. Despite these efforts, certain limitations became evident. Identifying and addressing these shortcomings is crucial for uncovering gaps and weaknesses in the current study.

With only a 90-day timeline to complete the charette process, time was a significant constraint on outreach efforts. Additionally, CMRPC and stakeholders encountered challenges in fully introducing the concept of digital equity to Millbury's community. The reliance on existing outreach channels and methods of resident engagement may have hindered the ability to fully capture the diverse needs of the community.







## **STRATEGIC RECOMMENDATIONS**

1. INCREASE PARTNERSHIP LEVELS BETWEEN TOWN DEPARTMENTS AND LOCAL EDUCATIONAL INSTITUTIONS TO PROVIDE ADDITIONAL ASSISTANCE AND OPPORTUNITIES FOR DIGITAL LITERACY SUPPORT

#### Implementation Time Frame: Short Term (12-18 Months)

Cost: \$

#### Effort Level: Low-Medium

**Description:** The Town should explore collaborations with local educational institutions in Millbury and surrounding communities. On several occasions through the charette process, residents noted the potential positive impacts of reviving partnerships with the local high school, as well as Assumption College, to support residents with digital literacy support. Millbury would also benefit from exploring partnerships with educational organizations located in the neighboring City of Worcester. The City of Worcester also supports a <u>Digital Equity Plan</u>, listing key organizations that may support efforts in Millbury.

#### Some Key Organizations Identified during the Charette Process:

- Millbury Public Library
- Assumption College
- Millbury Memorial Junior/Senior High School

#### 2. PARTNER WITH ORGANIZATIONS OR VENDORS SUCH AS GETSETUP TO INCREASE DIGITAL LITERACY EDUCATION FOR MILLBURY'S OLDER ADULTS

#### Implementation Time Frame: Short Term (12-18 Months)

Cost: \$\$

#### Effort Level: Medium

**Description:** Throughout the charette process, Millbury's older adults have expressed the need for guidance on digital devices and platforms. As resources and participation have moved onto digital platforms and mediums, the aging population







may need additional support. Partnering with organizations or vendors working in the digital literacy space to provide classes, one-on-one support, or on-demand tutorials is a way of improving tech literacy as well as individual confidence in device usage. Seniors have expressed interest and concerns in the following topics:

- Device onboarding and navigation
- Identifying scams
- Navigating telehealth services
- Using technology-based services offered in public settings

**Case study:** *GetSetUp* is a live classroom platform for aging adults. The virtual classroom setting offers opportunities for physical, mental, and social growth creating participation to empower older adults. Classes offered range from fitness, mental health, financial literacy, technology literacy, and many more opportunities. In Connecticut, Mary Delia, age 54, lives in a senior living community using *GetSetUp* to learn about technology and healthcare to achieve her goal of becoming a home healthcare aide. Delia has been able to scale up her experience and skills in using computers, and learning applications such as One Drive, Excel, Word, and Gmail. Alongside learning new applications, GetSetUp has provided Delia with courses on dementia, Medicare, and long-term care. The live learning platform is an opportunity for Millbury's aging population to gain the confidence and skills needed to continue participating in civic engagement, and healthy aging.

3. EXPLORE OPPORTUNITIES TO EVALUATE THE QUALITY OF INTERNET AND BROADBAND CONNECTIONS AT LOCAL SENIOR HOUSING, AND WORK TO PROVIDE SOLUTIONS

## Implementation Time Frame: Medium (2-5 Years)

**Cost:** \$\$\$

## Effort Level: Medium-High

**Description:** Older adults in local senior housing noted the lack of reliable internet and broadband connection at the local senior housing. Leveraging programs such as the <u>Residential Retrofit Program</u>, Millbury's senior housing may potentially be eligible for opportunities to address the insufficient quality of the Wi-Fi through upgrading its fiber optic cabling to units through qualified ISPs. Additionally, the Town may choose to invest in infrastructure upgrades to best support those living in Millbury's senior housing units.







### 4. INVESTIGATE DEVICE RECYCLING AND REUSE AS A COST-EFFECTIVE APPROACH TO SUPPORT ACCESS TO AFFORDABLE DEVICES

#### Implementation Time Frame: Medium (2-5 Years)

Cost: \$\$

#### Effort Level: Medium

**Description:** Developing a device recycling program that allows for the reuse and/or refurbishing of electronics is a cost-effective mode of increasing access to affordable digital devices. Millbury's Public Library and Senior Center, among other institutions, have participated in reusing devices that were once used in the local public schools. Millbury's Public Schools are seeking to phase out 1,200 devices over the next few years. A refurbishment program with partnerships at educational institutions and local electronic businesses is key to ensuring the devices are rehomed, in an effort to bring device accessibility to all residents in need.

**Case Study:** Organizations in the U.S. have recognized that supporting the recycling and refurbishing of devices can aid in bridging the digital divide. Located in Dawsonville, GA, New Life is a technology group founded in 2015. Since starting as a non-profit, the New Life organization recycles, refurbishes, and redistributes old computers, IT equipment, and electronic waste as well. New Life offers its community free pickups, as well as accepting drop-offs at a central location. New Life is focused on putting refurbished technology back into the hands of its community members, as well as being dedicated to curbing the environmental impact of e-waste.







## 5. EXPLORE A REGIONAL SHARING HUB/PARTNERSHIP WITH NEIGHBORING TOWNS AND CITIES TO SHARE RESOURCES

#### Implementation Time Frame: Medium-Long Term (2-5+ Years)

**Cost:** \$\$\$

### Effort Level: High

**Description:** Millbury is interested in collaborating with neighboring towns and cities to establish partnerships focused on closing the digital divide and sharing resources. The town should explore the potential to create a hub - preferably in-person - that serves as a central resource for community members to access and familiarize themselves with technology-based tools and services. This hub could provide educational opportunities for residents to discover available resources, alongside offering internet and device access, one-on-one support, and private spaces for telehealth appointments, job interviews, and other similar needs. Additionally, the hub could support residents in navigating provider options for internet service, purchasing or upgrading devices, bundling entertainment options, and maximizing value for their investments in technology.

**Case Study:** Found in Holyoke, MA in 2023, the Tech Foundry's Tech Hub has become an important resource to its Western Massachusetts community. Tech Foundry is a nonprofit workforce development organization seeking to empower residents through access to skills and technology needed to succeed in an increasingly digital world. The nonprofit offers a range of services including technical support and handson workshops whether an individual is looking to apply for jobs, access key resources such as government benefits and nutritional support, stay connected with loved ones, and enjoy tech-based entertainment. The Tech Hub realizes the potential of providing resources to community members, and the positive impacts it has on economic stability, equity, and accessibility it creates in people's lives.







# 6. ASSESS GAPS THAT EXIST FOR ESL STUDENTS AND PARENTS IN THE MILLBURY PUBLIC SCHOOLS AND EXPLORE METHODS TO ADDRESS ANY LIMITATIONS

### Implementation Time Frame: Short-Medium Term (1-3 Years)

**Cost:** \$\$\$

Effort Level: Medium-High

**Description:** As discussed in the Digital Literacy portion of this report, Millbury Public Schools supports many ESL students and parents. Employees in the school district expressed their concerns regarding how well information is reaching those who need translation services, as this information is vital to school participation for both students and parents. Millbury Public Schools should work on connecting with those in the ESL program and begin thinking of tangible ways to address the connection gap; with technology serving as the mode to address limitations.

8. EXPLORE CREATING A DIGITAL NAVIGATOR POSITION OR PROGRAM TO CONNECT MILLBURY'S COMMUNITY WITH RESOURCES, PARTNERSHIPS, AND TRAINING FOCUSED ON BRIDGING THE DIGITAL DIVIDE AND ELIMINATING BARRIERS TO DIGITAL EQUITY.

Implementation Time Frame: Short-Medium (1-3 years)

**Funding avenues & Resources:** Municipal Digital Equity Implementation, Lead for America, and NDIA Digital Navigators Model

Cost: \$\$\$\$

Effort Level: Medium

**Description:** The public charette process and discussions with local organizations reveal a clear need for individuals who can assist community members with various technological challenges. The National Digital Inclusion Alliance (NDIA) has created a model for digital navigators, who support the digital inclusion process–covering devices, digital skills, and home connectivity–through continuous engagement with community members. The Town of Millbury should consider implementing the NDIA model when establishing a digital navigator role or program. Additionally, due to Millbury's diverse population, incorporating multi-lingual support would be essential.

Community needs that digital navigators could address include:





- Facilitate the expansion of digital skills training for life, work, and learning, complementing existing offerings at the Millbury Public Library.
- Collaborate with the local senior center to enhance confidence in the aging population, helping them combat scams and use technology for telehealth services and continued civic and social engagement.
- Assist incoming ESL residents in connecting to community resources that may be less accessible due to language barriers.

## Case Study: Arizona State University

Arizona State University, in collaboration with the Maricopa County Broadband Initiative and the Digital Equity Institute (DEI), has partnered to address the digital divide in Arizona. The Digital Navigators are supported by a central hub that manages incoming phone calls, resolves technology issues, and enhances digital literacy skills within the community. The Digital Navigators team plays a key role in bridging the digital divide in Maricopa County, acting as a vital resource for those facing challenges in navigating the digital landscape.







## **OPPORTUNITIES & RESOURCES**

#### Lifeline Program

The Lifeline Program supports households with a household income at or below 135% of the federal poverty guidelines (this will vary depending on the size of the household), as well as program-based eligibility through Medicaid, Supplemental Nutrition Assistance Program, Supplemental Security Income, etc. Lifeline provides a monthly service discount of up to \$9.25 for eligible households; Lifeline subscribers have the choice to apply their discount to either a home phone service, home internet service when available, or a wireless phone plan with data.

https://www.lifelinesupport.org/

#### **Broadband Equity, Access, and Deployment Program**

The BEAD Program is providing funding to support the expansion of high-speed Internet accessibility by funding planning, adoption programs, and infrastructure deployment to address the digital divide. Through planning efforts by the Massachusetts Broadband Institute (MBI) and state-wide partnerships, these federal funds may be awarded to service providers working to resolve service issues and reliability at some locations in Millbury.

### <u>GetSetUp</u>

GetSetUp is a virtual platform that offers aging adults the opportunity for physical, mental, and social growth. GetSetUp aims to address the lack of sufficient infrastructure to support the aging population by providing a wide range of programs for individuals to participate in. GetSetUp is also dedicated to addressing the digital divide by providing training courses in line with device onboarding, application use, scam prevention, and more.

https://www.getsetup.io/







#### **Municipal Digital Equity Implementation Program**

The Municipal Digital Equity Implementation Program is a funding source through MBI, offering a one-time award of up to \$100,000 to municipalities with existing (or inprogress) digital equity plans. Funding may be used to begin initiatives across one or more digital equity projects.

https://broadband.masstech.org/digital-equity-implementation

### **Digital Equity Partnerships Program**

The Digital Equity Partnerships Program was established by MBI as part of the \$50 million Broadband Innovation Fund, created following the MA ARPA 1.0 legislation. Although the program solicitation has closed, a number of funding recipients are available to serve as resources, vendors, or collaborators in the following program areas:

- <u>Wi-Fi Access Initiative:</u> Wi-Fi systems in affordable multi-unit buildings or lowincome neighborhoods will provide free, in-unit, broadband use.
- <u>Public Space Internet Modernization Initiative</u>: Improvements to inadequate broadband infrastructure and digital use in public spaces to increase daily use and services.
- <u>Connectivity Initiative for Economic Hardship</u>: The provision of Wi-Fi cellular hotspots to individuals lacking stable housing and unable to have a fixed broadband internet subscription.
- <u>Digital Literacy Initiative</u>: Establish and implement digital literacy training programs to ensure that target populations have the requisite skills to use devices, online resources, and digital tools to needed effect.
- <u>Device Distribution and Refurbishment</u>: Secure new or used internetconnected devices to distribute to target populations.
- <u>Education, Outreach, and Adoption:</u> Support outreach and engagement activities designed to increase the success of digital equity programming, including ACP adoption, digital literacy programs, device access, and Wi-Fi or hotspot connectivity.

https://broadband.masstech.org/partnerships





### Massachusetts Community Health & Healthy Aging Funds

The Community Health & Healthy Aging Funds supports projects that focus on addressing racial and health inequities. The funding seeks to address and combat social determinants of health, structural and institutional inequities, policies, systems, and social/physical environments that are historically based on structural and institutional racism and other forms of oppression. Digital equity plays a large role in community and individual health; it supports access to health services, and transportation to appointments, and endorses education and information necessary for healthy living.

https://mahealthfunds.org/

#### Lead for America - American Connection Corps

The American Connection Corps (ACC) is a program of Lead for America. The ACC is dedicated to advancing economic success in digitally disconnected communities. ACC Members support host communities through active community engagement, attracting resources, and offering critical capacity enhancement. Not only is it beneficial for community growth, but ACC is also a learning and training experience for members while supporting sustained interest and employment opportunities in the digital equity space while contributing to economic development through workforce growth.

https://www.leadforamerica.org/whoweare

#### Tech Goes Home

Tech Goes Home is a program that supports people of all ages with courses geared toward adults of all age ranges, families, entrepreneurs, and more. Tech Goes Home aims to empower communities to access and use digital tools and overcome barriers to advance the knowledge and lives of those it serves. Programs are focused on serving individuals and communities that face institutional barriers to technology adoption.

https://www.techgoeshome.org/





### Education Superhighway: K-12 Bridge to Broadband

Education Superhighway is a non-profit with a focus on closing the digital divide. The non-profit teams with regional and national Internet Service Providers (ISPs) help identify students who may lack broadband at home. Using secure data exchange, states and school districts can identify students who are unconnected and optimize their use of federal funds.

https://www.educationsuperhighway.org/

### **Residential Retrofit Program**

Implemented by the MBI, the Residential Retrofit Program introduces broadband infrastructure at Public & Affordable Housing properties while increasing low-income residents' opportunities to access high-quality, reliable, and affordable broadband service in their homes by addressing insufficient infrastructure and wiring through grants for the installation of fiber optic cabling to units through qualified Internet Service Providers (ISP's); who will own, install, and maintain equipment. Available funding will cover 100% of the eligible capital costs associated with the retrofitting of eligible properties.

https://broadband.masstech.org/retrofit

### MAPC Apartment Wi-Fi

The MAPC Apartment Wi-Fi is partnering with MBI to provide project management, funding, and procurement support to fund the construction of Wi-Fi networks providing residents with equal or superior service than what is offered by commercial ISPs, at no cost to the residents. Funding through the program will cover all capital costs associated with network designing, construction, equipment, and the first year of ongoing expenses.

https://www.mapc.org/our-work/expertise/digital-equity/apartment-wi-fi/

### Mobile Beacon

Mobile Beacon is dedicated to connecting communities digitally through mobile connectivity solutions such as hotspots, tablets, and routers to provide high-speed internet to libraries, nonprofits, schools, and healthcare organizations. With





discounted devices and low-cost monthly service rates, Mobile Beacon brings internet connectivity to municipalities seeking to bridge the digital divide.

Millbury's Public Library would benefit greatly from hotspot lending as residents and library employees have expressed the need for additional devices to support its community.

https://www.mobilebeacon.org/

## **National Digital Inclusion Alliance**

The National Digital Inclusion Alliance (NDIA) implements digital inclusion through its four pillars: support, policy, practitioner, awareness, and data & research. The organization has a plethora of resources including models for implementing digital navigators, digital equity and inclusion webinars, and digital inclusion guidebooks and manuals.

https://www.digitalinclusion.org/

## CommCorps YouthWorks Funding

Through the Commonwealth Corporation, the YouthWorks program is a state-funded youth employment program that supports teens, and young adults develop the experiences and skills needed to find and maintain jobs. Millbury may leverage the program through its digital equity implementation funding, as YouthWork participants can be employed as digital navigators in their communities.

https://commcorp.org/youthworks-programs/







#### Efficiency & Regionalization Grant

The Efficiency & Regionalization Grant (E&R), offered through the Community Compact Cabinet, provides financial support ranging from \$100k to \$200k for governmental entities implementing regionalization and efficiency initiatives aimed at long-term sustainability. The grant covers one-time or transition costs for municipalities, regional school districts, and school districts pursuing the creation of regionalization, service regionalization, or regional planning agencies and councils of governments.

https://www.mass.gov/efficiency-regionalization-grant-program





## CONCLUSION

The digital equity planning process undertaken in Millbury provided insight into the state of internet access, affordability, and availability in Millbury. It has shown that connecting to the internet is only one part of the challenge to bridging the digital divide. As evidenced in the existing conditions, the most vulnerable populations in Millbury are primarily low-income residents and residents 65 years or older, with the most central area of town – Old Commons, Town Center, and Bramanville – experiencing the highest levels of vulnerability (refer to Maps section). For low-income households, attaining digital skills and literacy can bolster career opportunities, but affordability poses a challenge for many residents. Expanding digital device access, digital literacy assistance programs, and providing affordable service are crucial components needed to bridge the digital divide in Millbury. With the implementation of this report's strategic recommendations, considered use of existing opportunities and resources, and the help of community stakeholders and organizations, Millbury has a great opportunity to close the divide and create digital equity and inclusion for its residents.





## SOURCES

<sup>1</sup> Indiana Broadband. (n.d.). Digital Inclusion and

Adoption. https://www.in.gov/indianabroadband/resources-for-individuals/digital-inclusion-and-adoption/#:~:text=The%20digital%20divide%20is%20the,and%20those%20who%20do%20not

<sup>2</sup> Massachusetts Executive Office for Housing and Livable Communities. (2021). Town of Millbury Rapid Recovery Plan. <u>https://www.millbury-</u>

ma.org/sites/g/files/vyhlif4706/f/uploads/rrp\_town\_of\_millbury\_10072021\_final-compressed.pdf

<sup>3</sup> The Millbury Open Space Committee, & Millbury Department of Planning and Development. (2020). 2020 Open Space & Recreation Plan Update. <u>https://www.millbury-</u> ma.org/sites/g/files/vyhlif4706/f/uploads/2020\_millbury\_osrp\_final\_11.10.21.pdf

<sup>4</sup>BSC Group. (2019). Town of Millbury Comprehensive Master Plan. <u>https://www.millbury-</u> ma.org/sites/g/files/vyhlif4706/f/uploads/millbury\_master\_plan.pdf

<sup>5</sup> Tarsi, M.R. et al. (2018). Millbury Master Plan Survey 2018. <u>https://www.millburyma.gov/sites/g/files/vyhlif4706/f/uploads/survey\_report\_05252018\_0.pdf</u>

<sup>6</sup> Community Circle, & Martha Lyon Landscape Architecture, LLC. (2016). MILLBURY MASTER PLAN: PHASE I-VISION AND GOALS. <u>https://www.millbury-</u> ma.org/sites/g/files/vyhlif4706/f/uploads/mp\_millburyvisiongoals\_0.pdf

<sup>7</sup> Millbury Public Schools District Curriculum Accommodation Plan,2018; https://resources.finalsite.net/images/v1681825358/millburyk12maus/mdblifa3v6yuw0mgh6us/DCAP4-18.pdf

<sup>8</sup> Bergson-Shilcock, A., Taylor, R., & Hodge, N. "Nye." (2023, February 6). Closing the Digital Skill Divide. National Skills Coalition. <u>https://nationalskillscoalition.org/resource/publications/closing-the-digital-skill-divide/</u>

<sup>9</sup> De', R., Pandey, N., & Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. International Journal of Information Management, 55. <u>https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2020.102171</u>

<sup>10</sup> McClain, C., Vogels, E. A., Perrin, A., Sechopoulos, S., & Rainie, L. (2021, September 1). Navigating Technological Challenges. Pew Research Center. <u>https://www.pewresearch.org/internet/2021/09/01/navigating-technological-challenges/</u>

<sup>11</sup> U.S. Census Bureau. "American Community Survey, 2022 American Community Survey 5-Year Estimates, Table S1901. Generated August 28, 2024.

<sup>12</sup> U.S. Census Bureau. "American Community Survey, 2022 American Community Survey 5-Year Estimates, Table S1901. Generated August 28, 2024.

<sup>13</sup> U.S. Census Bureau. "American Community Survey, 2022 American Community Survey 5-Year Estimates, Table B25106. Generated August 29, 2024; U.S. Department of Housing and Urban Development. "Defining







Housing Affordability." August 14, 2017. https://www.huduser.gov/portal/pdredge/pdr-edge-featdarticle081417.html#:~:text=Keeping%20housing%20costs%20below%2030% 20percent%20of%20income,on%20housing%20costs%20to%20be%20 housing%20cost%20burdened.

<sup>14</sup> Schwantes, Jonathan. "Broadband Pricing: What Consumer Reports Learned from 22,000 Internet Bills." Consumer Reports, November 17, 2022. https://advocacy.consumerreports.org/research/fight-forfairinternet-consumer-reports-white-paper-on-broadband-pricing/; Wallsten, Scott, and Colleen Mallahan. "Residential Broadband Competition in the United States." Social Science Research Network (2010). https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1684236.

<sup>15</sup> Federal Communications Commission. "37 FCC Rcd 13686 (15)." November 17, 2022. https://www.fcc.gov/document/fcc-requiresbroadband-providers-display-labels-help-consumers.

<sup>16</sup> Federal Communications Commission. "37 FCC Rcd 484 (1)." January 21, 2022. https://www.fcc.gov/document/fcc-releases-rulesimplement-affordable-connectivity-program; Rosenworcel, Jessica. "The Affordable Connectivity Program: A Need-to-Have for Closing the Digital Divide." Federal Communications Commission, February 29, 2024. https://www.fcc.gov/newsevents/notes/2024/02/29/affordable-connectivity-program-needhave-closing-digital-divide.

<sup>17</sup> Benton Institute for Broadband & Society. "The Affordable Connectivity Program Enrollment Performance Tool." Accessed August 29, 2024. https://www.benton.org/acp\_tool.

<sup>18</sup> Horrigan, John B. "Updated ACP Enrollment Performance Tool" https://www.benton.org/blog/updated-acpenrollment-performance-tool-includes-acp-risk-score

<sup>19</sup> Barbara Zito, and Samantha Allen, "Your Guide To Understanding Internet Speed." Retrieved 8/30/2024. https://www.forbes.com/homeimprovement/home/all-about-internet-speed/

<sup>20</sup> FCC Increases Broadband Speed Benchmark, https://docs.fcc.gov/public/attachments/DOC-401205A1.pdf

<sup>21</sup> M-Lab NDT Data Set: >/= 2023-01-01;https://www.measurementlab.net/tests/ndt/

<sup>22</sup> Parrish, Kevin. "Cable vs. Fiber: Which One is Better." HighSpeedInternet.com, September 24, 2024. https://www.highspeedinternet.com/resources/fiber-vs-cable.

<sup>23</sup> Ibid.

<sup>24</sup> Verizon. "Different types of internet connections, speeds and affordability options." Retrieved September
27, 2024. Types of Internet Connections, Speeds and Access Options (verizon.com).

<sup>25</sup> Anders, David. "Internet Connection Types Explained." cnet.com, September 25, 2024. https://www.cnet.com/home/internet/internetconnection-types-explained/

<sup>26</sup> Ibid.





