



Town of
BOURNE
Digital Equity Plan

Project Background

ACKNOWLEDGEMENTS

The Bourne Digital Equity Plan was made possible through funding from the Massachusetts Broadband Institute (MBI) and the Massachusetts Technology Collaborative (MassTech) as a grantee under the Municipal Digital Equity Planning Program. Funding for this statewide program was provided through Massachusetts American Rescue Plan Act (ARPA) State Fiscal Recovery Funds.

Many individuals across the Town of Bourne played a critical role in developing this plan. This includes leadership, staff, and volunteers from the following entities: Town Administration, the Cable, Internet, and Telecommunications Advisory Committee (CITAC), the Jonathan Bourne Public Library, the Bourne Council on Aging, Bourne Public Schools, the Herring Pond Wampanoag Tribe, and Upper Cape Cod Regional Technical High School.

The Cape Cod Commission was pleased to partner with the Town of Bourne in the development of this municipal digital equity plan and looks forward to supporting implementation strategies and opportunities for regional collaboration.



Figure 1: Bourne Town Hall



Project Background

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Project Background



INTRODUCTION & TOWN VISION

Project Background

INTRODUCTION

During the COVID-19 pandemic, when many activities related to work, school, public service, and healthcare moved to a virtual setting, inequities were exposed related to how communities experience the internet and technology. These inequities constitute the digital divide – the gap between those who have access to, and ability to use, the internet and computing devices, and those who do not. Today, the ability to engage in the digital world varies broadly across our communities, with digital inequities inhibiting many from meeting their civic, social, educational, health, and employment needs.

As the digital world continues to advance, all community members must have the opportunity to meaningfully engage with the internet and technology to thrive professionally, academically, civically, socially, and personally. Advancing digital equity will require universal internet connectivity, device adoption, and digital skills.

Digital equity is essential for healthy, engaged, and thriving communities. Municipalities, community organizations, and other actors across our communities have a critical role to play in making digital inclusion a reality for all.

What is Digital Equity?

“The condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.”

National Digital Inclusion Alliance

Key components of digital equity include:



Internet Connection: Do all populations experience internet connection that is affordable, fast, and reliable? Can all populations access the internet?



Devices: Do all populations have devices that are adequate, needs-appropriate? Are devices affordable or otherwise accessible?



Literacy and Skills: Do all populations have the ability to use technology and the internet to achieve their needs? Do concerns around trust, privacy, and safety exist?

Project Background

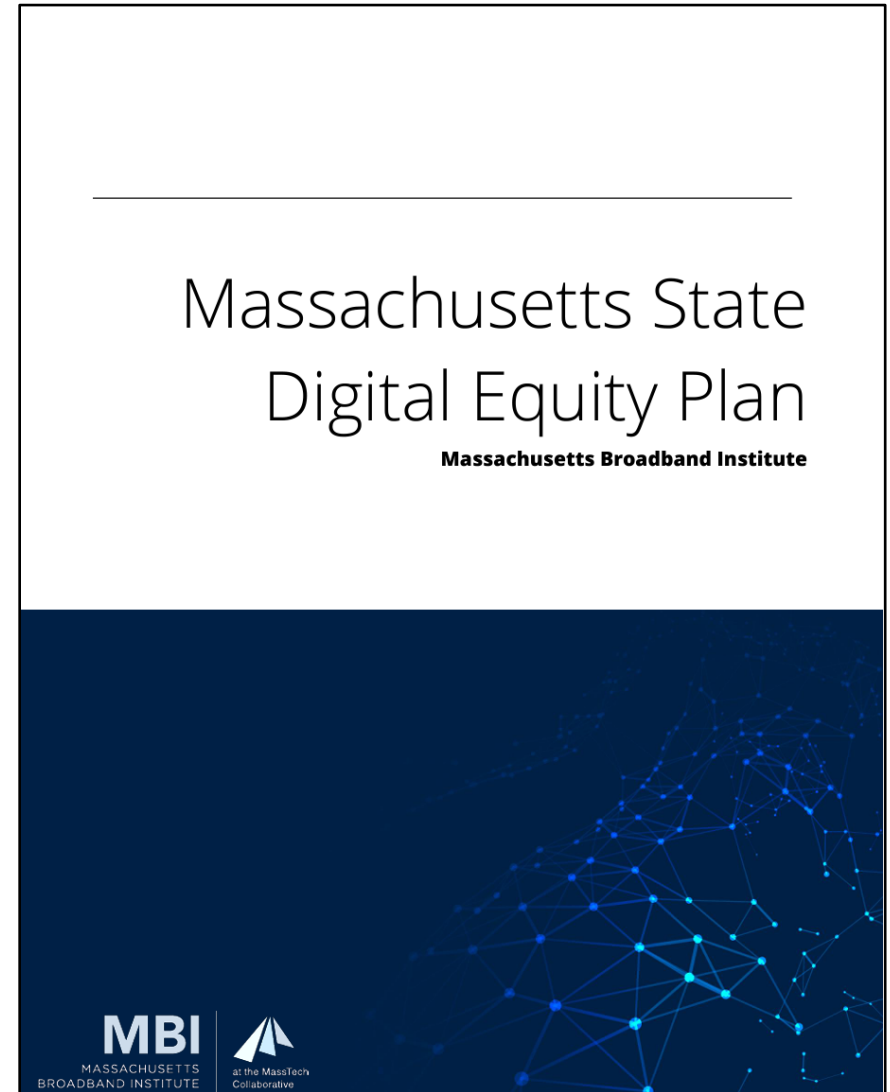
Project Background

Following the passage of An Act Relative to Immediate COVID-19 Recovery Needs, also known as the Massachusetts “ARPA 1.0” legislation (codified as Chapter 102 of the Acts of 2021), a Broadband Innovation Fund was established to bridge the digital divide as a component of the Commonwealth’s COVID-19 recovery and response efforts.

The [Massachusetts Broadband Institute](#)¹ (MBI), a division of the Massachusetts Technology Collaborative, has led the planning process and development of a statewide digital equity plan known as the “[Massachusetts Internet for All Plan](#)”² and the deployment of \$145 million in federal Bipartisan Infrastructure Law funding to expand high-speed internet access and digital equity programming across the state.

To fully understand local digital equity needs, MBI established a Municipal Digital Equity Grant Planning Program (“Municipal Planning Program”). This program enables municipalities across the state to engage in digital equity planning activities that ultimately yield a town-adopted digital equity plan. Municipalities select a pre-qualified planning service provider, such as the Cape Cod Commission, to support the development of their digital equity plan.

¹ <https://broadband.masstech.org/>



² <https://broadband.masstech.org/mainternetforallplan>

Project Purpose

Project Purpose

The Cape Cod Commission (Commission) assisted the Town of Bourne in this planning effort to assess the digital divide in its community and to develop a Municipal Digital Equity Plan. The purpose of the plan is to understand the current landscape of digital equity in Bourne, to prepare the town for future funding opportunities, and to help guide equitable implementation to ensure that all benefit from infrastructural and programmatic investments.

The Municipal Digital Equity Plan is designed to accomplish two goals:

- Guide municipal decision-making and investments to increase access, adoption, and usage of the internet for the populations most affected by the COVID-19 pandemic; and,
- Prepare municipalities to submit grant proposals to existing or forthcoming state or federal programs to support digital equity activities.

The Town of Bourne Digital Equity Plan includes a community-driven vision for digital equity and inclusion, an overview of existing conditions of the current state of digital equity in Bourne, a description of the community engagement process, and recommendations and solutions based on the sum of these findings.

Considerations throughout the development of this plan were contextualized through the three primary components of digital equity: connectivity, devices, and literacy and skills. This plan also considers community-wide challenges and solutions within this framework.

Recommendations and strategies derived from this plan will lay a foundation for access to future implementation funding, which, in addition to MBI's implementation programs, may be derived from public, philanthropic, or private sources.



Vision and Goals

Vision and Goals

The vision and goals for the Town of Bourne Digital Equity Plan were synthesized from a robust community engagement process. Recommendations provided within this plan seek to realize this vision through actions that will further each of the below goals.

The Town of Bourne's vision statement and goals complement those as outlined in the Massachusetts Digital Equity Plan. The statewide plan, and Commission participation in the statewide planning process, has informed the development of the Town of Bourne Digital Equity Plan and will guide future implementation actions.

Vision Statement

All members of the Bourne community will have the opportunity and ability to access reliable, affordable, high-speed internet service, and will have the knowledge and skills to access and utilize devices that are appropriate to fulfilling their individual needs safely and adequately. This is essential to full personal, civic, and economic participation in the community.

Goals

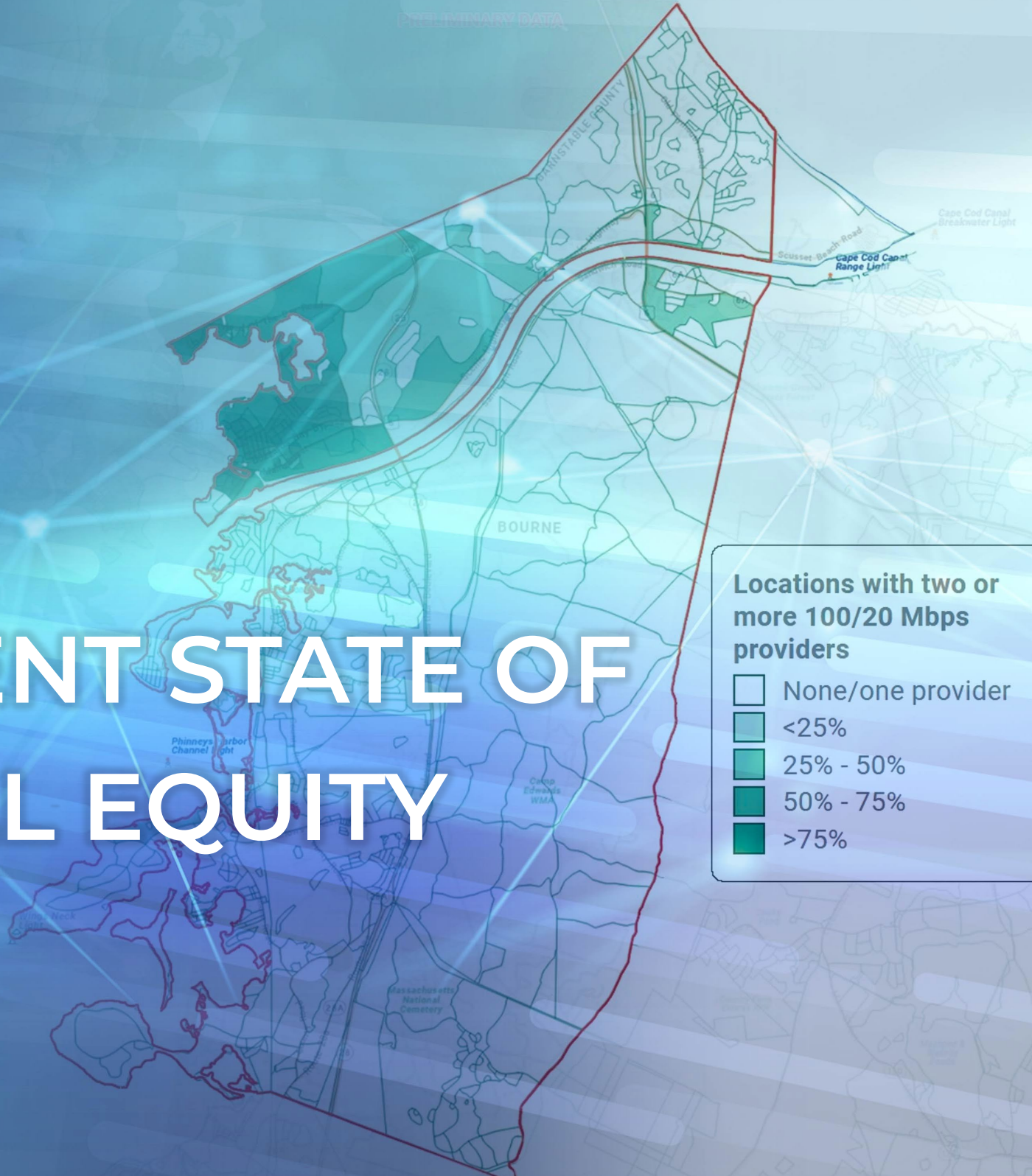
To achieve the community's vision, the Town of Bourne should strive to meet the following goals:

- *High-quality connectivity:* Reliable, fast, and affordable internet service is available throughout

the entire Town of Bourne. Community members are aware of how to access the internet and can choose a service provider that suits their needs.

- *Increased device awareness:* Community members are supported in understanding how they can access needs-appropriate devices.
- *Universal skills, safety, and language:* Educational programs, workshops, and services ensure that community members have the skills to use devices and the internet safely and effectively. Through educational opportunities, community members are able to develop the technical understanding and shared language necessary to easily use technology and the internet and to perform daily activities.
- *Community leadership and collaboration:* Entities across the Town of Bourne have capacity, resources, and a shared strategy required to further digital equity for those they serve. Entities supporting digital equity within the Town of Bourne and from across neighboring communities function as a network, providing complementary and community-responsive services.

CURRENT STATE OF DIGITAL EQUITY



Locations with two or more 100/20 Mbps providers

- None/one provider
- <25%
- 25% - 50%
- 50% - 75%
- >75%

KEY DEMOGRAPHIC INFORMATION

POPULATION	HOUSEHOLDS	HOUSEHOLD SIZE	HOUSING UNITS	MEDIAN SALES PRICE	HOUSEHOLD INCOME	MEDIAN AGE
20,455	8,715	2.3	11,428	\$580,000 (2022)	\$90,640	52.7

Figure 2: Key Demographic Information for Bourne. (Various Sources)

EXISTING DIGITAL EQUITY CONDITIONS

INTRODUCTION

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. As such, a core element of this planning process was to understand the Town of Bourne on a community level – who lives in town and what conditions may impact the ability of Bourne community members to experience digital equity. This planning process also required an understanding of connectivity conditions that may impact community access to the digital word.

Setting

The Town of Bourne is comprised of seven villages as well as areas within Joint Base Cape Cod. It has the distinction of being the literal and figurative bridge to and from Cape Cod. Its unique geography, with both a canal and a military installation physically separating its land and populations, creates equally unique challenges for infrastructure and resource planning. This is true for municipal services such as water supply and wastewater, as well as privately provided services, including broadband internet.

Bourne's geography also presents challenges for residential access to essential resources, services, and activities. Access challenges differ across various areas of town. For example, while some residents experience relatively easy access to grocery stores, others may experience far lengthier travel times due to bridge traffic or construction.

People

Covered Populations

Defined by Digital Equity Act of 2021

- ★ Low-income households
- ★ Aging individuals (60 and older)
- ★ Incarcerated individuals
- ★ Veterans
- ★ People with disabilities
- ★ People with language barriers
- ★ Racial and ethnic minorities
- ★ Rural inhabitants

Underrepresented Communities

Defined by Broadband, Equity, Access and Deployment (BEAD) Program

- ★ Indigenous and Native American individuals
- ★ Members of ethnic and religious minorities
- ★ Women
- ★ LGBTQI+ individuals
- ★ Persons of color
- ★ People adversely affected by persistent poverty or inequality

People

To ensure resources are directed at bridging the digital divide for those who are most in need, the federal Digital Equity Act of 2021 identified certain populations that are more likely to experience difficulty accessing and using broadband internet. These include:

- Low-income households (at or below 150% of the federal poverty level)
- Aging individuals (60 and older)
- Incarcerated individuals
- Veterans
- People with disabilities
- People with language barriers (limited English proficiency or low literacy levels)
- Members of racial or ethnic minority groups
- Rural residents

In [Visions of Digital Equity](#), the Benton Institute provides a useful outline of how Covered Populations experience the digital divide. While some of these dynamics are described in the section to follow, referencing this report will provide

a more complete understanding of the disproportionate challenges faced by these populations.³

The Broadband, Equity, and Access Deployment Program also identified key populations to consider throughout digital equity planning efforts. These populations are reflected in the “Underrepresented Communities” portion of the table to the left.

For the purposes of this planning effort, Commission staff explored data and experiences from populations that are particularly present in the Town of Bourne, with a focus on Covered Populations. Generally, the Town of Bourne’s demographics reflect the entirety of the Barnstable County region, with a few variances discussed further in the sections that follow. Detailed demographic data can be found in the appendix.

AGING INDIVIDUALS

Cape Cod is a popular retirement destination, which provides a consistent influx of aging residents and boosts median ages higher than the state and nation. The Cape-wide median age 55.7 years. Bourne is lower at a median age of 52.7 years, which is still far higher than Massachusetts (39.8 years) and the nation (38.5 years).

Bourne’s lower median age in comparison to Barnstable County is influenced by a number of factors, including the presence of Massachusetts Maritime Academy in Buzzards Bay, Joint Base Cape Cod, and the Barnstable County Correctional Facility. Relative ease of access to year-round employment opportunities off-Cape may also be a factor.

AGE DIVERSITY

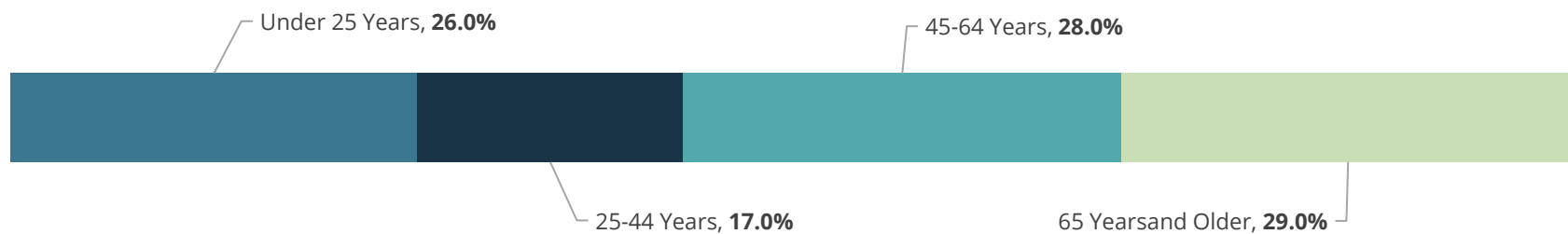


Figure 3: Age Diversity in Bourne

³ [Visions of Digital Equity](#), the Benton Institute for Broadband and Society, August 2023.

People

The U.S. Census Bureau measures the Age Dependency Ratio, which considers the number of individuals in a community who are outside of working years in comparison with those who are a working age. According to this calculation, working age is considered to be within the range of ages 18 to 64; those who are younger than 18 and older than 65 are dependent on the economically active segment of the population to some extent. A high Age Dependency Ratio can have implications for social support systems, healthcare needs, and workforce sustainability. For example, social services such as Councils on Aging may feel particularly exacerbated in a community with a high Age Dependency Ratio.

In Bourne, as with the rest of the Cape, a higher-than-average number of aging residents drives a high Age Dependency Ratio of 88.5. This means that for every 100 residents presumed to be in the workforce (those aged 18 to 64), there are nearly 90 outside of it. The State ratio is 58.

Bourne's aging population is reflected in other data points as well. Close to 50% of all households have at least one person over 65. A third of households reported retirement income and 44% with Social Security income, not including supplemental security income. The percentage of the population with a disability (14.4%) is higher than the state (11.9%). The proportion of those with a disability over 65 years old accounts for nearly two-thirds of all persons with disabilities in town.

From a digital equity perspective, a significant aging population may represent a skills and knowledge gap in how to use internet-based systems and an understanding of what represents quality internet service. This may be especially true for aging residents living alone without family nearby or strong social networks. In Bourne, close to 18% of all year-round households are run by someone aged 65 or older and living alone.

MEMBERS OF RACIAL OR ETHNIC MINORITY GROUPS

Practices of historical underinvestment and systemic discrimination that create social disparities in areas such as housing, education, and wealth also contribute to digital inequities that may be experienced by members of racial or ethnic minority groups.

Bourne's racial and ethnic diversity is fairly consistent with County-wide statistics, with 91% of its population identifying as White alone. The second highest percentage of one race is Asian (2.1%), followed by Black or African American (1%), and Native American (0.3%), including but not limited to members of the Herring Pond Wampanoag Tribe and the Mashpee Wampanoag Tribe.

Bourne's enrolled student population demonstrates greater racial and ethnic diversity than the town as a whole. This appears to be a trend across towns in Barnstable County and may be indicative of greater diversity in the

POPULATION BY RACE

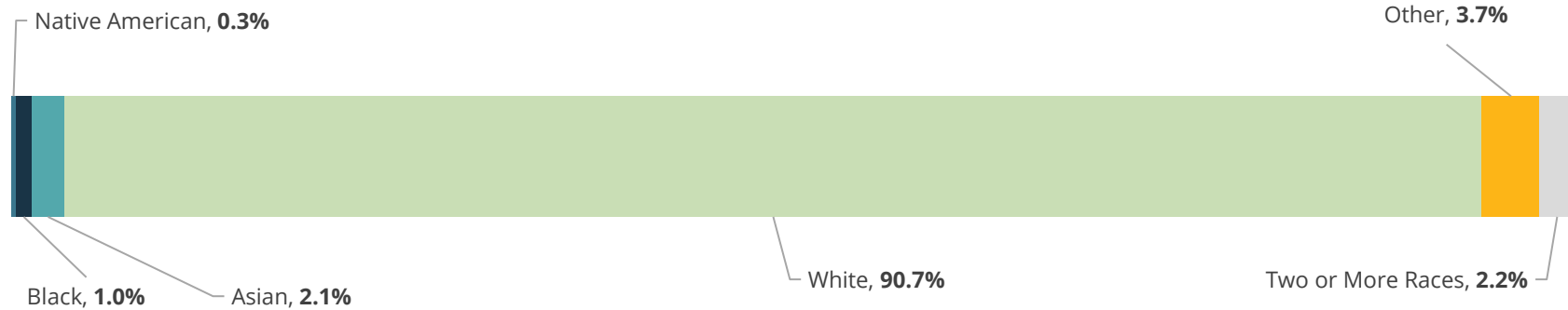


Figure 4: Population by Race in Bourne

population of families with school-aged children.

Enrollment data indicates that 2.9% of students identify as Black, 2.2% as Asian, 8.3% as Hispanic, 7.5% as Multiracial, 0.7% as Native American, 0.2% as Native Hawaiian or Pacific Islander, and 82.4% as White. Additionally, 6.4% of students speak a first language that is not English.

INCOME

Income significantly impacts an individual or family's experience within the digital world, with a greater household income offering the ability to afford high-quality internet plans, own effective devices, and experience opportunities to advance digital skills. Low-income households may have greater difficulty affording and

accessing the internet and technology needed to achieve basic stability or to thrive.

Bourne's \$90,640 median household income is in line with the County's median household income of \$90,477, but includes a higher percentage of households reporting wage and salary earnings (73.5%). Correspondingly, the number of households in Bourne reporting retirement income is lower relative to the rest of Cape Cod, which reflects the town's higher percentage of working individuals.

7.6% of Bourne households receive food stamps or SNAP benefits, which is slightly less than the county (7.8%) and significantly less than the state (12.9%). Approximately 3% of all Bourne households fall below the poverty level for Massachusetts. This increases to about 6% for those households with children under 18 years old. For female

People

householders with children under 18 and no partner, this grows to 18.3%. Approximately 39% of students enrolled in Bourne Public Schools qualify as low-income. It is likely that these households experience challenges accessing the digital world, such as affording broadband.

HOUSEHOLDS PER INCOME BRACKET

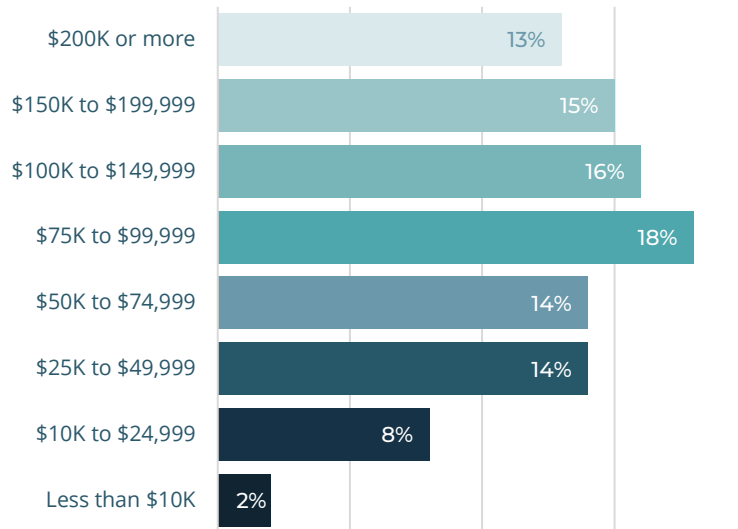


Figure 5: Households per income bracket in Bourne

PEOPLE WITH DISABILITIES

In June of 2022, the U.S. Department of Labor released a [report](#) describing the intersection between having a disability and internet subscription affordability and access, internet use, and employment outcomes, demonstrating inequities experienced by people with disabilities.⁴

A higher percentage of Bourne residents have a disability (14.4%) than either the County (13.8%) or the state (11.9%). Close to two thirds of Bourne’s population with a disability is aged 65 or older, which likely compounds digital equity challenges and barriers faced by these individuals.

INCARCERATED INDIVIDUALS (NON-FEDERAL)

Bourne is home to the Barnstable County Correctional Facility, which has a maximum capacity of 588 inmates. The facility typically runs much lower than its rated capacity, housing approximately 170 individuals at any given time. In the Massachusetts Digital Equity Plan, the Massachusetts Broadband Institute indicates that incarcerated individuals constitute 0.1% of the population on the Cape and Islands as compared with 0.3% in the state.

⁴ Disability and the Digital Divide: Internet Subscriptions, Internet Use and Employment Outcomes, Office of Disability Employment Policy, U.S. Department of Labor, June 2022.

While operated by the county's elected Sheriff, the Barnstable County Sheriff's Office was established as a state agency in 2010 and much of the operational responsibilities related to the Barnstable County Correctional Facility are under state jurisdiction. Consequently, meaningful opportunity to further digital equity for incarcerated individuals within Barnstable County will likely be driven by state-led efforts.

VETERANS

Barnstable County has a greater number of veterans per capita (over age 18) than the county, state, and nation. At

10%, the number of veterans per capita is 2% higher than the county and twice that of the state. Additionally, 3.5% of Bourne veterans report having a disability and 80.5% are 55 years old or above. These combined characteristics are likely to lead to heightened digital equity challenges for Bourne's veterans.

Housing

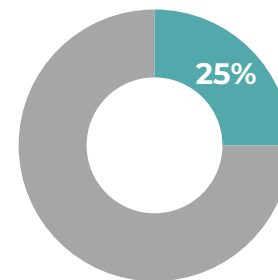
Of the 11,400-plus housing units in Bourne, more than three quarters are occupied year-round, with a higher percentage of rentals than most other towns across Barnstable County.

HOUSING STOCK

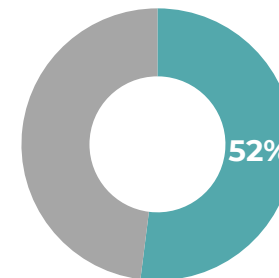
In Bourne, about 78% of residential properties are single family homes; about 19% are multifamily properties. Just over 3% are other types of properties. Other properties may be multifamily homes such as compounds or mix of use properties. Compounds may include multiple houses on one parcel occupied by different households or a single-family home with a guest house. Mix of uses properties have at least one residence on them but also have some sort of other use such as agricultural or commercial.

HOUSING COST BURDENED

A household is considered cost burdened when housing costs exceed more than 30% of monthly income. *(ACS 2022 5-year Estimates)*



OWNERS spending at least 30% monthly income



RENTERS spending at least 30% monthly income

Housing

More than half of these rental households are considered cost burdened, spending more than 30% of their monthly income on housing.

The percentage of seasonal housing stock in Barnstable County is among the highest in the United States, ranking fifth among 1,000 counties with populations of at least 50,000. In counties with more than 200,000 year-round residents, Barnstable County ranks first.

Bourne stands somewhat apart from the county. While it is five times more seasonal than the rest of Massachusetts and the nation, Bourne is among the Cape's least seasonal communities, with 18% of housing stock being seasonal homes. The town shares this characteristic with its Upper Cape neighbor of Sandwich, which has the lowest percentage of seasonal homes (13.5%).

Bourne's areas with the greatest seasonality are the villages of Cataumet and Pocasset. These areas also experience some of the worst internet speeds in the region, which will be further explored below.

Understanding Bourne's housing landscape supports the identification of barriers to achieving digital equity for residents. For example, internet service providers may develop and maintain broadband infrastructure to align with year-round housing needs, which may not account for seasonal population growth. This may contribute to poor

connectivity, particularly in highly seasonal neighborhoods during peak summer months.

Additionally, housing challenges can serve as an indicator for other digital equity barriers, particularly when considering how the cost burden and the affordability gap may impact a resident's financial stability. Housing authorities across the state are eligible for funding and infrastructure programs to support digital equity for residents, which should be considered in towns such as Bourne with a high housing cost burden.

Connectivity

Massachusetts has among the highest percentages of broadband served. Accurate connectivity data is essential to the deployment of Broadband Equity, Access, and Deployment (BEAD) funding. The datasets serving as the basis of these determinations have gone through periodic updates during the compilation of this existing conditions assessment. In each instance the number of both unserved and underserved locations within Bourne has been reduced, meaning more locations have been determined to be served.

Locations in the country, meaning its overall number of unserved and underserved locations is relatively low compared to other states, with some exceptions. Bourne's connectivity profile based on [Federal Communication Commission](#)⁵ (FCC) and [Massachusetts Broadband Institute](#)⁶ (MBI) broadband maps more or less aligns with the statewide landscape, with wide availability of service.

There will be opportunities for communities to challenge the broadband availability maps as part of the state's broadband funding opportunities.

The starting point for understanding how a location is considered with respect to service availability is the National Broadband Map. Broadband availability data is

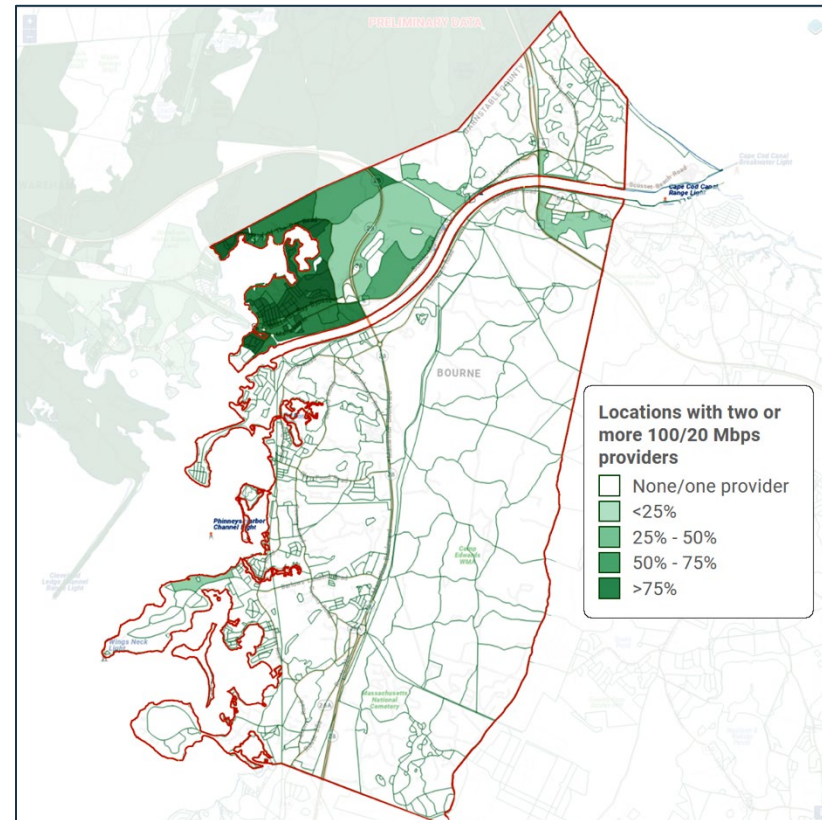


Figure 6: Map of Bourne Census Blocks with at least two providers of 100/20 Mbps broadband services. (Source: Massachusetts Broadband Institute)

based on Internet service provider (ISP) advertised speeds, as marketed and self-reported to the FCC for every location in a specific geography. A broadband serviceable location (BSL), is a residential or business location at which mass-

⁵ Link to Federal Communications National Broadband Map: <https://broadbandmap.fcc.gov/area-summary/fixed>

⁶ Link to Massachusetts Broadband Institute Broadband Map: <https://mapping.massbroadband.org/map/>

Connectivity

market fixed broadband Internet access service is, or can be, installed. A location is considered connected if a provider has existing service or can install a connection within 10 business days.

Per the new FCC definition of “broadband” as of March 2024, a BSL is considered served if the reported speeds are at least 100 Mbps download and 20 Mbps upload. Anything below this level is considered underserved and locations that are not and cannot be connected withing 10 business days are considered unserved.

This data serves as the starting point for the Massachusetts effort to define eligible locations for federal funding to improve service up to broadband standards. At the time of this report (June 2024), there were 9,590 serviceable

locations in Bourne, eight of which were underserved and 42 unserved.

There is an ongoing federal challenge process for consumers and various units of government to dispute the locations and service availability reflected on the national map. The results of these challenges, as well as any new information from ISPs, are updated to the national map every six months.

There is also a one-time state challenge process to assist identification of locations eligible to receive federally provided but state awarded deployment grants. This process was to begin in June 2024, and presents an opportunity for towns and the region to add to location and service availability data. A regional effort to coordinate this

Table 1: Providers Serving Bourne by Availability

Provider	Technology	Advertised Download	Advertised Upload	BSLs	with Service	% with Service
Comcast	Cable	1200	35	10,597	10,558	99.63%
T-Mobile	Fixed Wireless	25	3	10,597	1,502	14.17%
T-Mobile	Fixed Wireless	100	20	10,597	529	4.99%
Verizon	Fiber	940	880	10,597	1,309	12.35%

SOURCE: Massachusetts Broadband Institute Broadband Map. <https://mapping.massbroadband.org/map/Competition>

process was underway to ensure those with service below

Connectivity

the 100/20 standard are identified and made eligible for funding.

There is no one source to measure or verify available internet speeds, but taken together, current data on the experience of Bourne internet users indicate pockets of poor performance with broad variability that is at odds with the near 100% coverage reflected in the official maps.

Data reviewed from multiple sources and in-person expressions of dissatisfaction during outreach sessions indicate a mismatch between stated availability of broadband and how many Bourne users experience the Internet.

MBI provided a year's worth of download speed data from Ookla, a company that provides internet speed data and analysis. This data set covers users' tests taken from December 2021 to November 2022, with about 4,100 tests by 850 users within the Town of Bourne (*summary table in Appendix*).

An analysis of these tests shows about 26% of all Bourne tests would qualify as underserved at the 100/20 Mbps definition, which is slightly lower than all tests for Barnstable County (28%).

Bourne is the only Cape Cod town with recognized competition, defined by MBI as locations with two or more 100/20 Mbps providers (Table 1, as of June 2023.). A closer look at the Census Block Level shows that two Census Blocks on the Cape side of the canal meet this definition, although with limited availability. One block is on Wings

Neck in the village of Pocasset with 108 serviceable locations, and the other in Sagamore, with 113 serviceable locations. Both areas achieve this with fixed wireless technology, which presents other limitations.

In fall 2023, Verizon initiated Cape-side construction of its Fios fiber network in Bourne's northern villages. The extent of this construction or future offering is unknown.

All other providers are located on the mainland side, primarily in Buzzards Bay, which has service from Comcast, (99.9% availability), T-Mobile (40% availability), and Verizon (8.5% availability), for the roughly 4,300 serviceable locations. These figures are dated to June 2023.

In Bourne and Cape-wide there is a correlation between areas with higher percentages of seasonal housing and lower speeds of internet connections. This may indicate that related infrastructure does not account for higher peak season usage, which may degrade overall performance.

Connectivity

While poor connectivity and a lack of competition can in itself be a barrier to digital inclusion, it can also exacerbate other factors, particularly for residents with limited digital skills and inadequate access to needs-appropriate technology and devices.

DEVICES AND CONNECTIONS

The vast majority of Bourne households have one or more computing devices (96.7%) and some form of broadband internet connections (94.8%).

Desktop and Laptop computers are found in 88% of homes, with 6% relying on them as their only computing device.

Table 2: Types of Household Internet Subscriptions

Service Type	Bourne		County		State	
	Total	Percent	Total	Percent	Total	Percent
With an Internet subscription	8,263	94.8%	101,544	94.7%	2,601,334	93.0%
Without an Internet subscription	452	5.2%	5,643	5.3%	196,442	7.0%
Dial-up with no other type of Internet subscription	11	0.1%	57	0.1%	2,843	0.1%
Broadband of any type	8,252	94.7%	101,487	94.7%	2,598,491	92.9%
Cellular data plan	7,315	83.9%	94,332	88.0%	2,431,572	86.9%
Cellular data plan with no other type of Internet subscription	688	7.9%	9,084	8.5%	261,234	9.3%
Broadband such as cable, fiber optic or DSL	7,407	85.0%	90,886	84.8%	2,295,043	82.0%
Satellite Internet service	288	3.3%	3,828	3.6%	89,830	3.2%

Smartphone (89%) and tablet (64%) adoption is consistent with the county, state and federal percentages.

The number of households with no computers (3.3%) is consistent with the county and lower than the state and national figures. It also represents a significant decrease (i.e. more homes with computers) since the start of the pandemic.

Post-pandemic data demonstrates that the town is trending positively for increased connectivity. A comparison between 2019 and 2022 American Community Survey data shows that more residents have adopted in-home devices and internet subscriptions. This is especially true for the lowest of the income brackets reported.

The ACS 5-year average prior to the pandemic showed fewer than 60% of households earning less than \$20,000 annually had a broadband internet connection. In 2022, that rose to nearly 90% of such households.

Approximately 80% of Bourne households have the possibility of redundant internet access through cellular data plans in addition to their primary internet subscription. Approximately 8% of households only have a cellular plan for internet access.

ACP AND AFFORDABILITY

The Affordable Connectivity Program (ACP) is an FCC benefit program that helps households afford the broadband they need for work, school, and more.

ACP provides:

- Service discount up to \$30/month
- Service discount up to \$75/month on qualifying Tribal lands
- Device discount up to \$100 for a qualifying device

The percentage of Bourne households without internet access is comparable with the county at 5.3%. Households with less than \$20,000 in annual income include the greatest percentage of households without internet (10.2%). This is less than half of the county, state, and national percentages for such households. Middle-income households, those earning between \$20,000 and \$74,999, show the greatest variance for those without internet between Bourne (9.4%) and the county (5.7%).

Commission staff estimated that nearly a quarter of all Bourne households would qualify for ACP based on income. While there are many ways for households to qualify, including but not limited to participation in other government aid programs, Medicare enrollment, or Veteran status, income serves as a good proxy for eligibility. While Bourne consistently has the highest ACP participation of any Cape town, under 30% of eligible households have taken advantage of the ACP.

The future of the Affordable Connectivity Program is contingent upon federal action, as current funding is expected to run out in Spring 2024. This could create a financial burden for the families in Bourne who are currently relying on the ACP subsidy to support their

Information Gaps

internet connection. ACP eligibility and uptake data remains useful because it can inform an understanding of populations struggling to afford internet access.

these populations would benefit future implementation strategies.

Information Gaps

While many sources were reviewed in the compilation of the above data, information gaps still exist and data will continue to change. Ongoing data collection is a recommended action for the Town of Bourne in the continued pursuit of advancing digital equity for the community. In particular, Commission staff recommend continued data collection in the following areas:

- The Massachusetts Broadband Institute’s Statewide Digital Equity Survey was well taken by residents in Bourne. However, young families were underrepresented in survey respondents. To better understand the digital equity landscape specific to young families in Bourne, further distribution of the survey or a similar survey is recommended.
- This project explored covered populations identified by the Digital Equity Act. However, the federal Broadband, Equity, Access, and Deployment (BEAD) program identified “underrepresented communities” who may also face heightened barriers to achieving digital equity. Continued exploration of data related to the experiences of

COMMUNITY ENGAGEMENT

Municipal Digital Equity Asset Map

Groups & Organizations

Consider organizations or groups - formal or informal - that advance digital equity in some way. They may not have the mission of the organization or a by-product of another important service. For example, a group for people with hearing clients advance healthcare access or professional development.

Digital Divide

What groups or organizations bridge the digital divide?

Internet

Literacy

More

Process Overview

COMMUNITY ENGAGEMENT

Process Overview

Community engagement was central to the development of the Town of Bourne Digital Equity Plan. Feedback and experiences shared by community members and key stakeholders directly inform the *Key Findings* and *Implementation Recommendations* sections that follow.

To develop an effective community engagement strategy, a municipal project team was formed to provide initial guidance during the project launch. This team offered direction on key stakeholders to engage and outreach

strategies that work for residents of the Town of Bourne. Commission staff then implemented a variety of community engagement activities to meet the diverse needs of residents and stakeholders across the Town of Bourne.

A particular goal of this planning process was to engage individuals and organizations representing covered populations— communities who are particularly impacted by the digital divide.

Key community engagement activities included:

- Survey distribution
- Stakeholder interviews
- Community pop-up events
- Community workshop



94

SURVEY RESPONSES



4

COMMUNITY EVENTS



140+

RESIDENTS ENGAGED

Project Kickoff

On August 30, 2023, Commission staff facilitated a project kickoff meeting with leaders identified through project coordination with town administration. The purpose of the kickoff meeting was to build a shared understanding about the Municipal Digital Equity Plan, present and discuss data related to existing conditions in the Town of Bourne, identify local digital equity assets, and elicit feedback related to effective community engagement strategies. This meeting was foundational to subsequent digital equity planning activities. Meeting attendees included representatives of the following entities:

- Town Administration
- Bourne Public Schools
- Canal Chamber of Commerce
- Cable, Internet, Telecommunications Advisory Committee (CITAC)
- Jonathan Bourne Public Library
- Bourne Council on Aging
- Cape Cod Commission

Survey Distribution

Commission staff utilized the Massachusetts Broadband Institute Statewide Digital Equity Survey to gain feedback from residents about their experiences with the internet and technology. The survey link was shared with members

of the municipal project kickoff team and was available at community engagement activities. Survey responses have been incorporated into existing conditions data and have informed recommendations within this plan.

Stakeholder Interviews

At the project kickoff, participants identified individuals and organizations that would be critical to engage throughout the digital equity planning process. Commission staff hosted one-on-one meetings with stakeholders.

The purpose of these conversations was to provide further education about the digital equity planning process, learn about barriers and opportunities to achieving digital equity, hear about the stakeholder's vision for digital equity within their own organization and the Town of Bourne, and learn how to best promote the digital equity plan and survey within stakeholder's individual community.

Participating stakeholder entities included:

- Jonathan Bourne Public Library
- Bourne Council on Aging
- Bourne Public Schools
- Upper Cape Cod Regional Technical High School
- Herring Pond Wampanoag Tribe
- Massachusetts Maritime Academy
- Joint Base Cape Cod

Community Pop-Ups

Community Pop-Ups

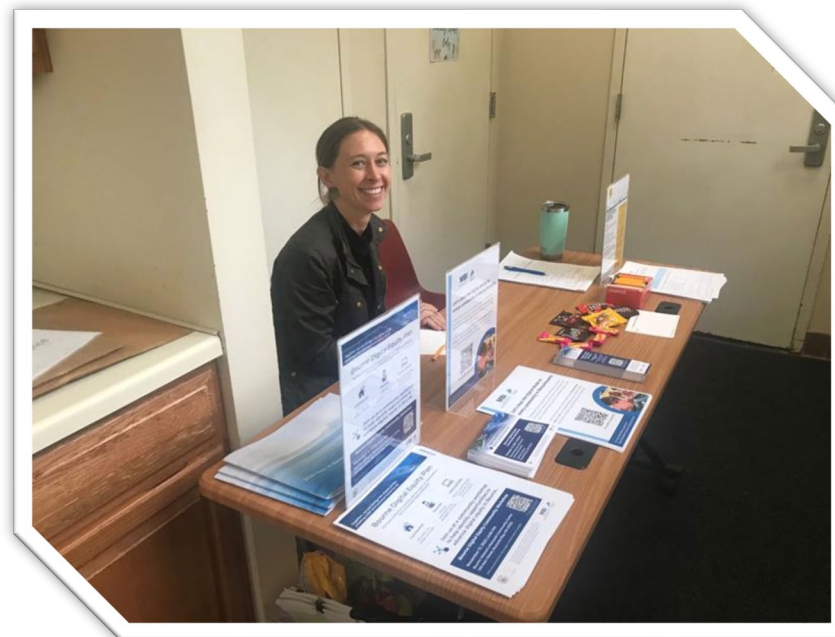
Commission staff endeavored to reach community members “where they are at” by offering information and feedback tables at community events and key locations.

The purpose of community pop-ups was to inform the community about the digital equity planning process, share an invitation to the community workshop, and gain feedback from residents about barriers and opportunities they experience within the digital world.

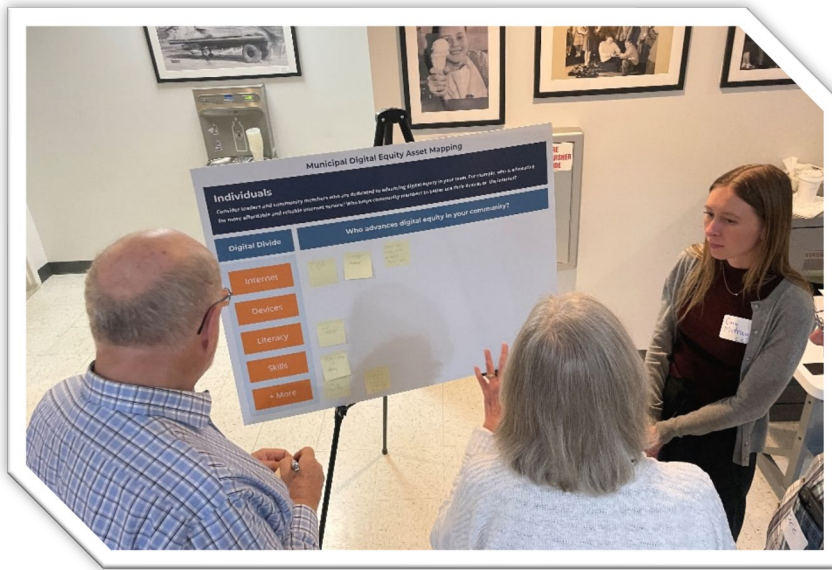
Community pop-ups included:

- Bourne Public Schools Resource Fair, September 27, 2023.
- Jonathan Bourne Public Library, October 16, 2023.
- Bourne Council on Aging at the Bourne Veterans’ Community Center, November 1, 2023.

Each pop-up activity purposefully offered an opportunity to interact with a different segment of the community in order to gain diverse perspectives. For example, the Bourne Public Schools Resource Fair and Jonathan Bourne Public Library pop-ups targeted families with school-aged or young children. The Bourne Veterans’ Community Center pop-up coincided with the Bourne Council on Aging’s weekly café hours, providing staff with an opportunity to have one-on-one conversations with aging adults.



Community Workshop



A public community workshop was held at the Bourne Veteran's Memorial Community Center on November 13, 2023 at 6:00pm for residents, community members, and stakeholders. As the hallmark activity within the digital equity planning process, the workshop provided a platform for participants to share essential feedback that directly informed the digital equity plan.

Cape Cod Commission and Town of Bourne staff welcomed participants by providing an overview of the project and background about broadband and digital equity work

within a national, statewide, and local context. Commission staff presented on data related to the town of Bourne's digital equity landscape, explored in *State of Digital Equity*, including population demographics, an overview of covered populations, connectivity, and Massachusetts Broadband Institute (MBI) statewide digital equity survey data.

Commission staff then facilitated three exercises to gain feedback from participants:

ASSET MAPPING ACTIVITY

The first exercise was an asset mapping activity, the purpose of which was for participants to identify individuals, groups/organizations, programs, and municipal efforts that advance digital equity and inclusion within the community. These assets have been outlined within the *Key Findings* section of this plan and are considered within the plan's recommendations.

VISION & GOAL SETTING EXERCISE

The next exercise focused on developing a shared vision and goal statement for the plan, feedback from which is incorporated within the *Introduction* of this plan. Examples of feedback gathered through this activity include:

- Bourne residents should have affordable, reliable, and adequate broadband service, with provider options and price points that meet individual needs.

Additional Outreach Strategies

- Bourne community members should have the technology, devices, and skills needed to be educated citizens.
- Digital equity planning should be integrated and considered with other municipal activities and strategies.
- All community members should be incorporated within digital equity planning, not just residents.
- The importance of education: how can the Town of Bourne help community members develop a shared language and technological understanding related to the internet and technology.
- Plain and intuitive language should be used across digital equity efforts.
- Municipal digital equity strategies should be simple, transparent, foster shared learning, and prevent duplication of efforts.

BARRIERS & OPPORTUNITIES EXERCISE

In the final exercise, participants dove further into digital equity barriers and opportunities specific to the Town of Bourne. Commission staff shared prompting questions and captured participant feedback on flipcharts. Data from this exercise provides the foundation for the *Key Findings* and *Implementation Recommendations* sections.

Additional Outreach Strategies

Public comment form: A feedback form was available on the online project page from the project launch through the public comment period. Public feedback was incorporated into plan development.

Public meetings: Commission staff presented on the Digital Equity Planning effort before the Town of Bourne's Cable, Telecommunications, and Internet Advisory Committee.

Outreach Toolkit: A publicity toolkit, including newsletter copy, graphics, social media language, and posters, was available on the online project page and was shared with key stakeholders. Bookmarks, posters, and postcards promoting the community workshop were left at key locations across town. Examples of outreach materials are available in the Appendix.

Media: A press release was jointly issued by the Cape Cod Commission and the Town of Bourne. The project featured in local media, with articles appearing in the Bourne Enterprise and the Cape Cod Times. The goal of media publicity was to increase community awareness about the planning process and opportunities for participation.

The background is a vibrant blue gradient. It features a network of thin white lines connecting small white dots, creating a web-like structure. Overlaid on this are several thick, horizontal, glowing blue bars of varying lengths and opacities, some appearing as if they are moving or blurred. The overall aesthetic is modern and technological.

KEY FINDINGS

Overview

KEY FINDINGS

Overview

Throughout the digital equity planning process, residents, community members, and stakeholders shared their unique experiences and perspectives within the digital equity landscape. Individuals reported barriers and challenges to achieving digital equity, as well as assets and strengths that will support the advancement of digital equity into the future. The following section synthesizes feedback shared with Cape Cod Commission staff.

Barriers and Challenges

The barriers and challenges outlined below are categorized within four areas that are essential to achieving digital equity: connectivity, devices, skills, and community. Many challenges have a ripple effect and, in reality, impact multiple areas. For example, connectivity challenges in the home will also impact an individual's ability to build the skills needed to achieve personal or professional goals.

CONNECTIVITY

Unreliable and Spotty Internet and Cellular Service Across Bourne

Community members frequently reported poor internet and cellular service in their homes and across key locations in town. Community members named geography, weather, and a lack of competition as contributing factors towards unsatisfactory internet service. Residents reported “dead-zones,” exacerbated by the above factors and coupled with ongoing high costs, a lack of choice, a lack of reliability, and poor customer service. In particular, residents from Monument Beach and Pocasset self-reported unacceptable internet service.

Connectivity troubles were equally true for both low- and high- internet and technology skilled individuals. Several individuals reported that they regularly drive to locations with better access to make calls or perform other mobile-based tasks, some routinely, others during power outages.

Lack of Competition Impacts Service, Affordability, Reliability, And Overall Quality

Community members frequently reported issues with their incumbent internet service provider. Issues of note included:

Affordability of current internet plan or bundle. Residents frequently report that they are spending more than they would like on their current internet plan. This is coupled

with a perception that residents are paying for higher quality service than they actually receive. Residents self-report that when conducting internet speed tests, service speed is often slower than what they have purchased. Due to a lack of local competition, particularly in southernly areas of town (on the Cape-side of the Canal), residents report that they do not have more affordable options.

Accountability and customer service issues with current provider. Residents self-reported customer service issues with their current internet service provider. Residents reported that having a lack of options makes it challenging to hold their internet service provider accountable when poor service occurs.

A lack of reliability and quality with current internet plan or bundle. Residents self-reported outages, dead-zones, and wavering internet quality and strength, which may be impacted by increases in local population during the summer season.

Needs-appropriate internet plans or bundles. Residents report that they struggle to understand which plans they really need to achieve their individual goals without overspending. Residents report that they do not always understand the language used around the internet and technology and that customer service agents may assume a level of knowledge that is not there.

DEVICES

Barriers to accessing public devices and lack of available needs-appropriate device lending programs

Multiple barriers to accessing needs-appropriate devices were identified throughout the planning process. Access to owning a cell phone was not identified as a significant barrier for community members in Bourne. However, representatives of community organizations reported unequal access to devices such as computers and laptops for the populations they serve.

For example, some families may rely on school-issued ChromeBooks as the primary at-home device if the family does not have access to a computer otherwise. Individuals may also rely on public computers at the library, which may pose challenges when needs arise related to sensitive or private matters, such as legal or telehealth appointments. There is currently no public lending program related to devices such as tablets or laptops in Bourne.

Staff at Upper Cape Cod Regional Technical High School report that the price of device insurance for school issued ChromeBooks can create a disproportionate cost burden for families. This challenge may also exist within other Barnstable County school districts.

Barriers and Challenges

DIGITAL SKILLS AND LITERACY

Access challenges posed by Bourne's geography

The Town of Bourne is physically divided by the Cape Cod Canal and by the 22,000 acres of land that comprise Joint Base Cape Cod. Residents of Bourne are familiar with infrastructural challenges posed by this unique geography, but this division also impacts the ability of residents to access essential services, programs, and resources – particularly those hosted on the opposite side of the bridge during peak travel times or construction. For example, courses, including those related to digital equity, available at the Council on Aging, which is located on the mainland side of the bridge, may not be readily accessible to residents living Cape-side. Similarly, resources available through the library may not be readily accessible to residents living on the mainland side of the bridge.

Lack of programs that provide individualized tech support

While workshops and courses collectively address shared skills challenges and build community, community members noted that increased 1-to-1 programming is a critical need and could complement already-existing skills courses. In particular, community members are hoping to better understand how to use devices that they already own. These needs may include anything from completing Department of Motor Vehicles (DMV) paperwork or

accessing MyChart to taking a photo, downloading an application, or sending a message to a family member.

Barriers in current outreach strategies related to digital services

Many residents were unaware of current digital support services and cited outreach methods as a barrier to learning more. For example, outreach materials that rely heavily on QR codes are a barrier for many. Outreach strategies that are grounded in information only available digitally (such as through an online newsletter or website) may not reach all residents.

Community members and stakeholders acknowledged that many community programs require online sign-ups, which can create a barrier for those without internet access at home or who feel less comfortable navigating online forms. Both library and Council on Aging staff noted that they are available to support individuals in navigating digital materials but would benefit from greater capacity to do so consistently or formally. The need to consider diverse outreach methods was reported across municipal services.

Safety, security, and trust-based concerns

There are safety, security, and trust-based concerns related to internet use for specific populations. In addition, many community members reported “fear of the unknown” when engaging with technology and a lack of interest in learning new digital skills due to these concerns. Safety, security, and trust-based concerns can increase existing knowledge

Barriers and Challenges

gaps, particularly as the digital world continues to advance and as sign-ups and provision of essential services are increasingly offered solely through digital means.

COMMUNITY

Heightened digital equity challenges experienced by specific communities in the Town of Bourne

While covered populations throughout Bourne were considered within the digital equity planning process, there are a few populations that are particularly present within the Town of Bourne. These populations may experience heightened barriers and challenges within the digital world and should be integrated within future implementation strategies. These populations include:

Families and individuals living on or stationed at Joint Base Cape Cod, including both active-duty military and families stationed for emergency response. Notably, Bourne Public Schools reports more than 80 military family students as well as students who have recently arrived through the state's housing program. These populations may struggle to have access to the same resources as their peers.

Bourne's aging population. As described previously, Bourne is home to a significant aging population. These residents often self-report heightened barriers when navigating an increasingly digital world.

Members of the Herring Pond Wampanoag Tribe and the Mashpee Wampanoag Tribe. Stakeholders throughout the

planning process demonstrated commitment to prioritization of tribal members throughout future implementation strategies. Developing programs that benefit tribal members and their families should be both a local and regional priority.

Implementation and capacity challenges

Community advocates with knowledge of funding opportunities and solutions that address digital equity challenges note barriers in accessing funding for future solutions. For example, many grant applications are dense and lengthy, requiring time and technical knowledge. This is often coupled with fast deadlines which prevent volunteers with limited time from submission or that may impact the quality of the application. This is a quickly evolving landscape, and municipal staff, advocates, and community members may lack the capacity and technical knowledge to move initiatives forward.

Entities across the town reported staff and organizational capacity and available funding as the two key barriers to providing increased offerings to address the digital divide. Capacity and funding challenges impact an entity's ability to develop and maintain new programs, enhance currently existing programs to better meet community needs, and develop the time-intensive partnerships or resources required to further streamline efforts and build a resource network.

Assets and Strengths

Assets and Strengths

By pursuing this planning process, and by beginning to bolster and connect key digital equity assets within the community, the Town of Bourne has already shown great dedication to furthering digital equity. Building on already-existing assets and strengths will be key to advancing digital inclusion efforts into the future. Assets were identified by community members and stakeholders through an asset mapping exercise at both the kickoff meeting and community workshop. Strengths, which often involve the efforts of one or multiple assets, were also identified throughout the community engagement process.

MAPPING BOURNE'S DIGITAL EQUITY ASSETS

Stakeholders and community members conducted an asset mapping exercise at the project kickoff and at the community workshop, which were consolidated by Cape Cod Commission staff. Many identified assets will play a critical role in advancing recommendations described in the *Implementation Recommendations* chapter.

Aligning with best practice established by the Massachusetts Broadband Institute through their Statewide Digital Equity Plan, assets are divided into four categories: Individuals, Groups/Organizations, Programs, and Plans.

As identified by community members, entities that will be key to helping address the Town of Bourne's digital divide include the following:

Individuals

- Council on Aging staff and leadership
- Herring Pond Wampanoag Tribal Leadership
- Jonathan Bourne Public Library staff and leadership
- Massachusetts Maritime Academy Cadets
- Members of the Cable, Internet, and Telecommunications Advisory Committee
- Members of the Selectboard
- Police officers, particularly when considering emergency communications and support for vulnerable communities
- School staff and leadership, including guidance counselors and STEM teachers
- Students
- Town Administration

Groups and Organizations

- Bourne Council on Aging
- Bourne Food Pantry, particularly considering their support for residents in need
- Bourne Public Schools
- Cable, Internet, and Telecommunications Advisory Committee
- Cape Cod Canal Region Chamber of Commerce

- Computer Consulting Network/GeekSquad
- Daycares and pre-schools, who support directly support youth and families
- Jonathan Bourne Public Library
- Massachusetts Maritime Academy
- Upper Cape Cod Regional Technical High School
- Village associations

Programs

- Affordable Connectivity Program
BEAD and GAP funding
- American Association of Retired Persons tax support program
- Bourne Public Schools: ACP signups (during COVID-19 pandemic), technology and STEM programs
- Boy and Girls Scout programming
- Council on Aging: computer classes, Senior Planet program, ACP signups, gadget assistance, Eastern Bank laptop grant (during COVID-19 pandemic)
- Jonathan Bourne Public Library: technology support, hotspot lending

Plans and Municipal Efforts

- Jonathan Bourne Library Strategic Plan
- Local Comprehensive Plan
- Massachusetts Bay Transportation Authority Plan

DIGITAL EQUITY STRENGTHS

Community Knowledge and Leadership

The Town of Bourne is well-positioned to further future digital inclusion efforts. Local digital equity advocates, many of whom serve on the Town's Cable, Internet, and Telecommunications Advisory Committee (CITAC), have technical knowledge and passion to further important projects. Key entities, such as the Council on Aging, schools, and Jonathan Bourne Public Library, have staff or volunteers who are knowledgeable and dedicated to providing digital support for those they serve. All entities engaged throughout the process expressed interest in furthering digital equity for the Town of Bourne.

Public WiFi and Device Availability

Municipal, community-based, and recreational entities throughout the Town of Bourne offer public WiFi. Residents report using public WiFi available at the Jonathan Bourne Public Library and the schools. It is notable that residents and stakeholders reported that quality of the WiFi at both locations could be improved (for example, strength of WiFi available at the library or increased outdoor availability of WiFi at the schools). Residents also report the importance of being able to access WiFi in other social and recreational spaces, such as cafés.

In terms of public device availability, the library offers 4 public computers, 12 hotspots for lending, and 1 public

Assets and Strengths

printer. While a desire for increased and improved technology offerings was reported, it is important to note the current benefits of this existing public technology infrastructure.

Mobile Service Model and Programmatic Innovations

Bourne's geography, with a physical division of the town resulting from the Cape Cod Canal, can create a barrier to accessing essential resources and services. To address this, the Jonathan Bourne Public Library is piloting a mobile library model. With lessons learned and best practices developed from the implementation of this new service, available resources could be expanded to include digital programs, tech support, or devices.

Generally, community members reported an interest in creating digital service models that offer more "hands-on" outreach and stakeholders expressed interest in exploring opportunities that build off existing services to better reach the community in this way.

Established Digital Equity Programs and Services

Key entities across the Town of Bourne offer technology support programs that could be maintained or enhanced into the future. The Council on Aging offers a beginner Senior Planet course in partnership with Elder Services of Cape Cod & the Islands that is available to aging residents. The Council on Aging also offers 1-to-1 tech support through a skilled volunteer.

The library offers ad-hoc support tech support, addressing issues that residents encounter while using the library's public devices and WiFi. Staff will also triage general questions related to personal devices or the internet.

Technology is well-integrated into student academic experience at both Bourne Public Schools and Upper Cape Cod Regional Technical High School. Both school systems have IT support staff that are available to help students and families with school-related technology needs. During the height of the COVID-19 pandemic, Bourne's schools provided increased resources for families, such as hotspots and information about internet affordability programs. Schools are benefiting from E-Rate: Universal Service Program for Schools and Libraries and the Emergency Connectivity Fund.

There are private businesses in and near the Town of Bourne that also offer tech support. However, it is noteworthy that community members must pay to use these services, which could be a barrier for those who need ongoing support.

Organizations and Advocates Supporting Covered Populations

There are many strong entities across the Town of Bourne and throughout the region that support covered populations through programs, services, and resource provision. Entities supporting covered populations that were contacted during the digital equity planning process

Assets and Strengths

generally expressed an understanding of digital inequities experienced by those they served. Staff at these trusted entities often triage internet and technology challenges, and many are considering opportunities to better serve their community within this space. For example, leaders of the Herring Pond Wampanoag Tribe currently serve as a community resource and have desire to further digital inclusion for Tribal Members.

Existing Partnerships and Regional Networks

Throughout the planning process, community members and stakeholders identified already-existing partnerships that could be advanced to further digital inclusion. While this includes examples specific to the Town of Bourne – such as the strong programmatic partnership developed between the library and Joint Base Cape Cod, this may also include regional partnerships and peer-learning opportunities.

For example, the library is a member of the CLAMS Library Network, a non-profit cooperative association of libraries from across Cape Cod and the Islands. The mission and activities of this network are intrinsically linked with digital equity values and goals. The CLAMS Library Network and associated libraries were identified as a regional digital equity asset within the Massachusetts Statewide Digital Equity Plan. Participation in this network could result in peer-learning and resources that will benefit the Town of Bourne and beyond.

Similarly, the Council on Aging is a member of the COAST network, which is comprised of COA leaders from across the region. As another entity committed to advancing digital inclusion for aging adults, participation in COAST will benefit the Town of Bourne.

The background is a vibrant blue gradient. It features a network of thin white lines connecting several glowing white nodes, creating a web-like structure. Overlaid on this are numerous horizontal bars of varying lengths and shades of blue, some appearing as bright, glowing streaks and others as more muted, semi-transparent bands. The overall effect is one of dynamic digital connectivity and data flow.

IMPLEMENTATION RECOMMENDATIONS

IMPLEMENTATION

Overview

This section provides recommendations and related actions tied to specific challenges and opportunities outlined previously and categorized by four pillars of digital equity: connectivity, devices, skills, and community. The recommendations seek to advance the vision and goals for this digital equity plan as developed by community members, further described in the *Introduction*. This section also provides considerations on how the Town of Bourne can measure its progress in advancing digital equity for community members through the execution of this plan.

The majority of these recommendations require expanded capacity for key entities and community organizations. In many cases, digital equity cannot be furthered without increased funding. The Town of Bourne is not alone in this work – municipalities across the Commonwealth are all currently considering available funding for critical digital equity programs. The *Funding Opportunities* section below describes funding mechanisms and strategies identified by Cape Cod Commission staff.

Generally, recommendations provided to the Town of Bourne will ring true for municipalities across Barnstable County. Municipal leadership across the region should

consider opportunities for peer-learning, cost-sharing, and streamlined strategies. Many of the digital equity solutions offered below would benefit from a collaborative approach, which may include regional, multi-town, or interdisciplinary partnerships.

The below recommendations offer a snapshot of potential solutions and strategies, which will be more fully fleshed out in future engagements and initiatives, such as the Municipal Digital Equity Implementation Grant. As the Town of Bourne considers the below recommendations while planning implementation strategies, Cape Cod Commission staff can provide technical assistance, aid in prioritization, and support collaboration.

Recommendations

CONNECTIVITY

Continue to advocate for improved internet service provision

Internet service reliability and affordability were dominant concerns reported by residents throughout the community engagement process, backed by both quantitative and qualitative data. The Town of Bourne has already taken significant steps in advocating for improved connectivity for all community members through the re-establishment of the Cable, Internet, and Telecommunications Advisory Committee (CITAC). The Town of Bourne should continue to

Recommendations

provide a platform for residents to share internet service challenges. Incumbent internet service provider performance quality, infrastructure, and accountability should continue to be a priority for the CITAC.

Encourage internet service provider competition

Geography, weather, seasonal population fluctuations, and a lack of competition are contributing factors to unsatisfactory service in the Town of Bourne. While little can be done about geographic or weather-related impacts, The Town of Bourne should continue to advocate for increased internet service provider competition. The town should explore opportunities to attract new providers to the area with an aim to increase affordability, speeds, and service quality. Building off the success along Main Street in Buzzards Bay, the town should continue to investigate opportunities to extend broadband to all residents and businesses in town, with particular emphasis on supporting new fiber-to-home and fiber-to-business opportunities.

Promote public WiFi availability

Entities and residents across the Town of Bourne report community dependency on public WiFi locations, but also report poor WiFi signal in some key locations. For example, Bourne Public Schools reports strong public WiFi availability within and immediately adjacent to main school buildings, but desire to improve access at key locations outside school walls, such as playgrounds, sporting fields, and gymnasiums.

In another example, library staff report that they will often see community members parked outside of the library to access public WiFi, but share that the signal is only strong in certain areas of the parking lot and is also spotty across the inside of the building. Entities across town report that public WiFi access in key community locations is particularly important given poor cellular connectivity – a total lack of connectivity can pose safety issues. The Town of Bourne should work with key community entities to ensure that public WiFi availability and strength accommodates needs and is of a high and consistent quality.

Across the Town of Bourne, it would be beneficial to better map public WiFi availability for residents and to develop a simple, user-friendly resource for individuals to view this map.

DEVICES

Improve on current and develop new public computing device offerings

Introducing new public device lending programs would support the 3.3% of Bourne residents without a device or those who lack a needs-appropriate device. Libraries across Barnstable County vary in device lending programs and policies. Currently, the Jonathan Bourne Public Library does not offer ChromeBooks for lending. Library staff should continue to consider whether such a program would be beneficial to residents and may conduct peer-learning to

Recommendations

understand how other libraries across the region have operationalized this service. Library staff may consider weighing potential losses or risks against the benefits of a device lending program. A pilot program may be considered and could be informed by similar efforts by other communities in the region and state. If the library ultimately introduces a device-lending program, this program would be augmented by offering it on both sides of the bridge and providing accompanying technological support for new users.

Implementing and operating this type of program may require additional library staff or volunteer time. Building additional library staff or volunteer capacity should accompany the introduction of a device lending program. In particular, the library should ensure that available staff have the technical ability to support residents with devices available for loan.

The Town of Bourne may also consider how to initiate a regional device lending program, either through the library system or another entity, as this approach could reduce risks or losses experienced by individual towns.

Improvements could also be made to existing public device lending programs to support greater accessibility. For example, Upper Cape Cod Regional Technical High School reports that device insurance has proven a major barrier for low-income families within the school system. This is likely a widespread issue for schools across the County and state. As this is a shared barrier amongst a variety of

institutions, groups should consider communal advocacy, purchases, or financial assistance programs.

Educators across the Town of Bourne and the region should advocate for state and federal government opportunities to mitigate the financial burden of devices for both schools and families. Districts will continue to adopt 1-to-1 device models as this level of technical literacy proves increasingly necessary by the demands of our society. By expanding access to and augmenting current in-school programs and resources, and by introducing new cost-savings offerings for schools (such as device insurance financial assistance programs), we can ensure that youth across Bourne are not left behind within the digital world.

Expand hot spot lending programs

While data demonstrates that residents across the Town of Bourne are relatively well-connected from a device access perspective, it is critical to continue making devices available to residents in need. An increase in publicly available hotspots will also help to support connectivity issues, understanding that these should not serve as the primary form of internet access.

Currently, hotspots are available for lending through the Jonathan Bourne Public Library. Library staff across Barnstable County report that hotspots are a popular lending item, but not the easiest to manage from a user-accountability perspective. Libraries across Cape Cod would benefit from a collective hotspot lending program with shared costs, though it is uncertain how this would be

Recommendations

operationalized. In the meantime, staff at the Jonathan Bourne Public Library should continue to monitor hotspot loans and collect data to support an increase in hotspots for lending.

DIGITAL SKILLS AND LITERACY

Develop a digital equity network to strengthen public service and awareness

As described in *Digital Equity Strengths*, there are many disparate programs already offered within and nearby the Town of Bourne that address digital skills and literacy. However, throughout the community engagement process, residents frequently reported wanting support that already exists in some capacity in town. There is both a regional and local need for greater collaboration and coordination among entities that are bridging the digital divide.

Increasing public awareness and interagency communication is necessary to ensure that community members are aware of opportunities designed to support their digital needs. Trusted service providers across Bourne should familiarize themselves with digital equity offerings so they can properly direct their constituents to already-existing programs. The development of a digital equity network within the Town of Bourne would provide a consistent platform to achieve greater peer-learning, public awareness, and interagency communication.

A digital equity network could be operationalized by facilitating regular meetings between key entities that focus specifically on components of digital equity. A network would be an effective way to ensure that services across town are complementary, needs-responsive, and not duplicative. By gaining a greater understanding of existing resources and services, participating entities can further train staff and volunteers to make cross-organizational referrals to constituents. A robust digital equity network could also serve as a platform to build a digital skills service continuum and to further identify and address existing gaps in resources and services.

An effective digital equity network for the Town of Bourne may include key digital equity assets such as the Council on Aging, Jonathan Bourne Public Library, Bourne Public Schools, and Upper Cape Cod Regional Technical High School. A strong digital equity network may also involve representation from or streamlined communication with organizations that support covered populations – such as the Herring Pond Wampanoag Tribe and the Mashpee Wampanoag Tribe, Joint Base Cape Cod, municipal departments working closely with veterans and other covered populations, the housing authority, and other human service providers. Regular facilitation by a lead entity would be required to ensure sustainability and success of this network.

Organizational capacity may be one barrier to achieving a digital equity network, particularly where burden may lie heaviest on the facilitating entity. A solution to alleviate this would be developing a streamlined system for resource and information sharing among participating entities.

Network building may also involve inter-municipal partnerships and partnerships with entities outside of the boundaries of the Town of Bourne. As this work continues across Cape Cod, there may be opportunities for greater regional networking.

Introduce increased one-to-one programming

Community members frequently reported a need for increased 1-to-1 technology support with their personal devices. The Council on Aging recently engaged a volunteer to provide this level of support for Bourne's aging community. This initiative should be continued and entities across town should be made aware of this service so they can direct aging residents to the service as appropriate. The Council on Aging should continue to ensure that this service, along with other digital equity courses and programs, is well-publicized in both online and paper formats.

This particular 1-to-1 offering was developed to support the aging population, and the Town of Bourne should consider increased 1-to-1 tech offerings to support other covered populations, such as veterans and military families, ESL populations, and individuals with disabilities. The library or

schools may serve as a trusted entry-point for program development in this area.

Further embed digital equity into social service provision

Entities across Bourne have noted that many essential services require online engagement and that they often lack the capacity to support community members who need assistance with these activities. For example, staff at the library note that residents may visit the library to access computers for basic needs, such as immigration or RMV paperwork, and may require support at some level with navigating these services.

The Town of Bourne should consider opportunities to incorporate support with essential services into workshops or programs that also advance digital equity. For example, the library or Council on Aging could host sessions on completing online immigration forms in partnership with immigration attorneys or legal service providers. These entities could also host workshops on using MyChart in partnership with a healthcare agency such as Cape Cod Healthcare or local community health centers.

Entities across the Town of Bourne with access to digital resources, such as the library and schools, may intentionally build partnerships with entities supporting covered populations to create needs-responsive programming. For example, Upper Cape Cod Regional Technical High School shared an interest in supporting the community by offering or hosting a night-time or after-

Recommendations

school computer skills program, which could be a component of a job-skills or educational offering for a local human services agency. This example is particularly advantageous because the school offers a comfortable space for learning with strong technical infrastructure. Considerations when developing partnerships may also include developing outreach and feedback mechanisms that are responsive to the unique needs of the target audience.

Provide offerings to address internet safety/privacy and security concerns

Community concerns around safety, privacy, and security arose as a dominant theme throughout the community engagement process. 1-to-1 tech offerings and other digital programs throughout town should always touch on security and safety as a core value of service provision. For example, if teaching a resident how to use a financial banking app, instruction should also include components of safe online banking and scam identification.

Regular workshops about online safety may be expanded or developed through the library, Council on Aging, or social services providers. Other communities within Barnstable County have had success in involving public safety officers and other technical experts in the provision of this type of course. Workshops may target specific digital threats – such as how to identify a fraudulent email – and should also provide broad opportunity for residents to receive support with individual concerns. As these internet

safety concerns may be of a personal or sensitive nature, workshops should foster a comfortable, safe space and should be accompanied by opportunities for 1-on-1 conversations.

Generally, residents would benefit from increased communal education around digital safety and security that is practical, grounded in access to essential services, and unthreatening for new learners. Often, residents identified safety concerns as a primary reason for not using the internet or technology. Pursuing the above recommendations will be key to ensuring that community members trust themselves to use the internet and technology to achieve their everyday needs.

Explore digital navigation models and offerings

To further skills-based recommendations, the Town of Bourne may need to build greater capacity to support digital equity initiatives. This could include the identification of a volunteer, contractor, or staff member to specifically further digital equity efforts. Identification of an individual (or individuals) to support the operationalization of these recommendations, to provide direct technical support to individuals within the community, and to build a stronger digital equity network (see Community below) will increase the likelihood of success and sustainability for these efforts.

Positions such as this are frequently referred to as *digital navigators*. The Town of Bourne should explore opportunities to introduce digital navigators into service

provision, which could include augmenting current staff with appropriate training. Digital navigation is a regional need and would yield increased benefits and efficiencies from a shared approach across towns or entities. The Town of Bourne can play a leadership role in initiating a regional digital navigation program.

COMMUNITY

Overcome geographic challenges for effective service delivery

As described in *The Current State of Digital Equity*, Bourne's unique geography can often pose a barrier for community access to key services. To address this, the Jonathan Bourne Public Library has piloted a mobile pop-up model to offer resources and programs to residents on both sides of the canal, particularly in anticipation of future construction. Introducing digital resources into this mobile model and ensuring that these offerings are well advertised would be advantageous to furthering digital equity for residents in Bourne.

For example, the library may consider purchasing easily transportable devices that could be stationed at community pop-ups, such as laptops with the same level of functionality as library-based desktops. Library staff may consider using these resources to offer mobile digital skills tutorials, appointments, or workshops.

This recommendation requires reciprocity and coordination between municipal entities, such as the Council on Aging, library, town administration, and schools. Collaboration between these entities will ensure that digital equity offerings are available on both sides of the canal in a coordinated fashion to avoid duplication of efforts. In cases where it is not reasonable for services to be offered on both sides of the bridge, partnering organizations may consider accessible and well-advertised public transportation options to ensure that residents can avail of resources.

Foster communal language on the internet and technology

Increasing digital literacy will require building a shared digital language that will help residents to better understand existing services and resources, identify where they must build their own skills and literacy, and will support their communication with internet service and technology providers. Helping residents better understand the language around the internet and technology will generally empower communities who currently feel isolated and frustrated by what appears to be complex or specialized terminology.

This can be achieved by offering welcoming language-specific workshops, courses, or tutorials; by ensuring that town staff and volunteers use simple language and provide explanations when discussing technology and the internet; and through a community education campaign.

Recommendations

Center digital equity in municipal and community-based communications

Community outreach and information sharing for digital equity programs should be diversely offered and should meet the target audience “where they are at” in the technical sense.

For example, aging residents noted that QR codes and embedded links may be a barrier to accessing essential information. It is understandable that municipal entities will want to take advantage of these tools in public communications. A potential solution may be offering literature, workshops, or other tutorials on using QR codes or navigating the town website. This could also take the form of a video, which could be distributed through Council on Aging newsletters or broadcast on Bourne Community TV.

Other barriers may exist when attempting to communicate with covered populations across town. Municipal entities should be aware of potential barriers to accessing information that residents may have and ensure these are addressed when developing outreach strategies. Town of Bourne staff widely expressed enthusiasm for communication strategies utilized during the library strategic planning process, as there were multiple opportunities for residents to engage. Similar outreach strategies that incorporate diverse platforms for communication and feedback will help to bridge barriers

that may exist for certain populations and will ensure broad engagement.

Center digital equity in municipal and community-based services

Broadly, in order to advance digital equity across Bourne, digital equity must be baked into all levels of municipal planning, programming, and policy as a core value. Municipal services will better meet diverse community member needs if staff have opportunities to increase their understanding of challenges that community members may face with the internet and technology and adopt best practices to address these challenges. This digital equity plan can serve as a catalyst and educational platform for the Town of Bourne and partnering agencies to strengthen existing services, to train staff and volunteers, and to develop best practices and universal policies for the future.

For example, entities offering digital equity (or non-digital equity) programs should also ensure that sign-ups for these programs can happen either online or with support from staff over the phone or in-person. This acknowledges barriers faced by members of the community in completing online sign-ups due to connectivity or skill-based barriers.

When digital equity issues arise, community members often lean on municipal and community-based staff and volunteers for informal tech support. However, it is important to remember that not all staff and volunteers are equally equipped to provide this level of service.

Recommendations

Challenges to effective services can also be exacerbated by an organization's own tech issues. The Town of Bourne should supplement current IT services to support staff with technical assistance needs, which may include increased training and easily accessible IT support to troubleshoot issues. Municipal and community-based entities should prioritize technical education for staff and volunteers, so they are empowered to best support residents.

Develop methods and structure to measure progress

As further described below in *Measuring Success*, the Town of Bourne should consider what constitutes success within the implementation of specific recommendations above as well as the future execution of this digital equity plan. Entities assigned with implementation actions should identify immediate and long-term goals to guide the development of any given offering. Progress and results within individual activities could be monitored through the development of a digital equity network, as described above. The Town of Bourne may look to successful community or municipal efforts as a foundation for building out appropriate methods and structures to measure progress in advancing digital equity.

Support regional collaboration

There is tremendous opportunity for increased regional collaboration to further digital equity services and resources for communities across Cape Cod. However,

making space for new, effective partnerships is often "easier said than done."

While this recommendation is not specific to the Town of Bourne alone, the Bourne community can play a role in initiating greater regionalization of programs seeking to further digital equity, such as those described below:

- Regional or statewide opportunities to develop a more formal digital equity coalition to support education on best practices within the field, peer-to-peer information sharing, and the creation of more streamlined programming.
- A strategic digital navigator program to address challenges shared by community members within the Town of Bourne and across the region. While digital navigation was not a significant focus of this digital equity planning process, this need has also arisen in other municipal digital equity plans in development by Commission staff. Opportunities to introduce digital navigation into communities should be considered by municipal, regional, state, and nongovernmental entities.
- Increasing public understanding and resource sharing on existing regional or subregional services that advance digital equity, such as those available through community health centers, will be key to building new models into the future.
- Leveraging existing partnerships such as those through the COAST and CLAMS networks (described

Recommendations

in *Key Findings*) and the public schools. Intentionally baking digital equity conversations into these existing platforms may provide a starting place for increased peer-learning and service building discussions.

The Cape Cod Commission intends to continue supporting interested entities across the region in advancing the above recommendations. This will include convening regional conversations to initiate strategies and partnerships, advancing recommendations within the Regional Broadband Needs Assessment, providing technical assistance in the development of digital equity solutions, and support in connecting with funders such as the Massachusetts Broadband Institute. The Town of Bourne should continue to participate in regional conversations in order to participate in shared solutions. As the first town to develop a Municipal Digital Equity Plan, the Town of Bourne can offer leadership and insight to towns, community organizations, and leaders as solutions are further developed.

Recommendations

Table 3: Table of Recommendations

Category	Recommendation	Action	Champion	Funding	Page
CONNECTIVITY	Advocate for Improved Internet Service	Advocate for better internet service based on community concerns.	Town administration, Selectboard, CITAC	N/A	43
CONNECTIVITY	Advocate for Improved Internet Service	Continue the work and expanded scope of the re-established Cable, Internet, and Telecommunications Advisory Committee (CITAC).	Town administration, Selectboard, CITAC	Explore funding opportunities as needed.	43
CONNECTIVITY	Advocate for Improved Internet Service	Collect data and advocate to improve incumbent internet service provider performance quality, infrastructure, and accountability.	Town administration, Selectboard, CITAC	Explore funding opportunities as needed.	43
CONNECTIVITY	Encourage ISP Competition	Advocate for increased competition to enhance affordability, speeds, and service quality.	Town administration, Selectboard, CITAC	N/A	43
CONNECTIVITY	Encourage ISP Competition	Explore opportunities for broadband expansion, emphasizing fiber-to-home and fiber-to-business.	ISPs, town administration, Selectboard	State and federal grant opportunities and private investment	44
CONNECTIVITY	Promote Public WiFi Availability	Improve public WiFi in key locations to address community	Community anchor institutions (library,	Municipal Digital Equity Implementation	44

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
		dependency and connectivity issues.	COA, housing authority, schools)	Program. MAPC Apartment WiFi Program and Residential Retrofit Program for housing projects. Will become an ongoing expense.	
CONNECTIVITY	Promote Public WiFi Availability	Map public WiFi availability and create a user-friendly resource for residents.	CITAC, Town Administration	Municipal Digital Equity Implementation Program	
DEVICES	Improve Public Device Offerings	Introduce new public device lending programs to support residents without devices.	Jonathan Bourne Public Library with support from municipal leadership and regional partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	44
DEVICES	Improve Public Device Offerings	Advocate for state and federal opportunities to mitigate device and device insurance costs for schools and families.	Upper Cape Tech, with support from schools throughout region and town leadership.	N/A	44
DEVICES	Expand Hot Spot Lending Programs	Increase publicly available hotspots to support residents' connectivity needs.	Jonathan Bourne Public Library with support from municipal leadership and local/regional partners.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	45

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
DIGITAL SKILLS AND LITERACY	Develop Digital Equity Network	Establish a digital equity network for collaboration and communication among key entities.	Town administration, building off of municipal project kickoff team.	Explore funding opportunities as needed.	46
DIGITAL SKILLS AND LITERACY	Increase One-to-One Programming	Continue and expand one-to-one technology support, starting with the aging community and extending to other populations.	Council on Aging, Jonathan Bourne Public Library, with partnership from other local digital equity service providers.	Municipal Digital Equity Implementation Program, philanthropic and private company sources, and future state and federal grant opportunities. Will be an ongoing expense.	47
DIGITAL SKILLS AND LITERACY	Embed Digital Equity in Social Services	Incorporate digital equity concepts into provision of essential services.	Council on Aging, Jonathan Bourne Public Library, with partnership from community based organizations serving covered populations.	Explore funding opportunities as needed.	47
DIGITAL SKILLS AND LITERACY	Embed Digital Equity in Social Services	Build partnerships between entities with digital resources and those supporting covered populations.	Council on Aging, Jonathan Bourne Public Library, with partnership from community based organizations serving covered populations.	Explore future state and federal grant opportunities, philanthropic and private sources.	47

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
DIGITAL SKILLS AND LITERACY	Offerings for Internet Safety, Privacy, and Security	Conduct regular workshops on internet safety and integrate internet safety components into tech programs.	Council on Aging, Jonathan Bourne Public Library, public safety, and interested community based organizations.	Municipal Digital Equity Implementation Program, philanthropic and private company sources. Will become an ongoing expense.	48
DIGITAL SKILLS AND LITERACY	Explore Digital Navigation Models	Identify digital navigators to support digital equity efforts and provide technical support.	Town administration, Jonathan Bourne Public Library, COA, and schools.	Explore future state and federal funding opportunities.	48
DIGITAL SKILLS AND LITERACY	Explore Digital Navigation Models	Explore opportunities for a regional digital navigation program.	Town administration, Jonathan Bourne Public Library, COA, and schools, and other regional entities.	Explore future state and federal funding opportunities.	48
COMMUNITY	Overcome Geographic Challenges	Incorporate digital resources into mobile pop-up models on both sides of the canal.	Jonathan Bourne Public Library with support from municipal leadership and local/regional partners.	N/A	49

Recommendations

Category	Recommendation	Action	Champion	Funding	Page
COMMUNITY	Foster Communal Language	Build a shared digital language through workshops, courses, and community education.	Town administration, CITAC, Jonathan Bourne Public Library, Council on Aging, in partnership with community-based organizations.	Explore funding opportunities as needed.	49
COMMUNITY	Center Digital Equity in Communications	Incorporate digital equity into municipal planning, programming, and policies.	Town administration and municipal entities, community groups	N/A	49
COMMUNITY	Center Digital Equity in Services	Ensure all municipal services consider digital equity as a core value.	Town administration and municipal entities, community groups	N/A	50
COMMUNITY	Measure Progress	Develop methods and structures to measure progress in existing digital equity programs and implementing digital equity plan recommendations.	Municipal and community entities	Explore funding opportunities as needed.	51
COMMUNITY	Support Regional Collaboration	Initiate regional collaboration and explore opportunities for digital equity services, resources, and coalitions.	Town of Bourne leadership in partnership with entities across Barnstable County	N/A	51

Funding Opportunities

Funding Opportunities

Digital equity initiatives across the country are supported by a combination of government (federal, state, and municipal), philanthropic, and private sector funding streams. The Town of Bourne can leverage a number of currently existing funding opportunities to advance the above recommendations and should continue to learn about funding streams as they are developed.

MASSACHUSETTS DIGITAL EQUITY FUNDING CONTEXT

Through the federal Digital Equity Act (a component of the Infrastructure Investment and Jobs Act), \$2.75 billion in funding has been allocated towards the development and support of digital equity programs across the country. Massachusetts received a \$1 million planning grant to develop the statewide digital equity plan, a process that was implemented through the Massachusetts Broadband Institute (MBI). The statewide digital equity plan lays the foundation for the advancement of future digital equity funding streams, which will be operationalized through a combination of forthcoming federal and state funding and coordinated through the Massachusetts Broadband Institute.

For example, state-allocated American Rescue Plan Act (ARPA) funding has supported the advancement of a **Municipal Digital Equity Implementation Grant Program**. As a participant within MBI's Municipal Digital Equity Planning Program, the Town of Bourne is eligible to apply for up to \$100,000 to operationalize and pilot strategies identified in this digital equity plan through the Municipal Digital Equity Implementation Grant Program. The Cape Cod Commission is available to continue supporting the Town of Bourne within this funding process, which could include supporting the Town in prioritizing the below recommendations, developing an application for the Massachusetts Broadband Institute, connecting with strategic partners, and planning next steps for action in greater detail.

Additionally, the federal administration and the Department of Commerce's National Telecommunications and Information Administration (NTIA) has allocated \$14.1 million to Massachusetts from the State Digital Equity Capacity Grant Program, an "Internet for All" initiative designed to give individuals and communities the tools, skills and opportunities they need for meaningful access to high-speed Internet service. This funding will support the implementation of the statewide digital equity plan, which will likely include grants to municipalities and community-based organizations looking to further work identified in municipal digital equity plans.

DIGITAL EQUITY PARTNERSHIPS PROGRAM

Following the passage of An Act Relative to Immediate COVID-19 Recovery Needs, also known as Massachusetts “ARPA 1.0” legislation, a \$50 million Broadband Innovation Fund was established to bridge the digital divide as a component of the Commonwealth’s COVID recovery and response efforts.⁷

The following programs have already been established by MBI within this funding stream and are relevant to potential projects within the Town of Bourne:

- Metropolitan Area Planning Council Apartment Wi-Fi Program: this program provides funding, project management, and procurement support to fund the construction of Wi-Fi networks which provide residents with equal or superior service than what is available from commercial ISPs, at no cost to residents. Funding covers all capital costs associated with network design, construction, and equipment, and the first year of ongoing operating expenses.⁸
- Massachusetts League of Community Health Centers: Federally Qualified Health Centers (FQHCs) Telehealth Consortium to help 35 health centers

across the state support telehealth services. The FQHCs Telehealth Consortium will provide the required staff capacity, training and coaching resources, oversight, and evaluation to screen patients at FQHCs for digital access needs.⁹ The Town of Bourne should learn about how local qualifying health centers are operationalizing this funding to support residents of Bourne and consider opportunities for partnership.

As additional Partnerships Programs are announced, the Town of Bourne should consider opportunities to leverage developed programs to further local strategies.

BROADBAND EQUITY ACCESS DEPLOYMENT (BEAD) PROGRAM

Massachusetts was awarded \$147 million in BEAD funding to close remaining gaps in unservered and underserved locations. The draft proposal for awarding grants from these funds is heavily weighted toward existing services providers, whether private or public. The opportunity for municipalities not presently providing Internet services will be in the challenge process, which provides an opportunity

⁷ Massachusetts Broadband Institute, Digital Equity Partnerships Program: <https://broadband.masstech.org/partnerships>

⁸ Metropolitan Area Planning Council, Apartment Wi-Fi: <https://www.mapc.org/our-work/expertise/digital-equity/apartment-wi-fi/>

⁹ Healey-Driscoll Administration Awards \$20 Million to Boost Digital Equity: <https://broadband.masstech.org/news/healey-driscoll-administration-awards-20-million-boost-digital-equity>

Funding Opportunities

to dispute coverage availability, as characterized for funding eligibility.

Bourne should consider participating in the challenge program as a conduit for citizen-based challenges. While individual test results meeting published requirements will be allowed during the challenge process, only units of local government or non-profit organizations are allowed to collect and submit them to MBI. Performing this role may help facilitate provider-funded upgrades to improperly categorized underserved locations throughout town.

CAPITAL PROJECTS FUND (CPF)

The below programs are offered through the Massachusetts Broadband Institute, utilizing the U.S. Department of Treasury Capital Project Fund (CPF).

GAP Network Grant Program: is intended to connect remaining unserved and underserved locations in advance of grants from the Broadband Equity, Access, and Deployment program. The Town of Bourne provided letters of support to two incumbent ISPs in their efforts to secure funding from MBI's GAP Network Grant Program. This program, using federal Capital Program Funding, is intended to connect remaining unserved and underserved locations in advance of grants from the Broadband Equity, Access, and Deployment program. Should either ISP be awarded GAP Networks Grant Program funding, the

remaining unserved and underserved locations in Bourne would be connected by the end of 2026.

Residential Retrofit Program: this program deploys state of the art broadband infrastructure to Affordable Housing properties across Massachusetts. MBI will make available grants covering 100% of the eligible capital costs associated with the retrofit of eligible properties. This program and the previously described MAPC Apartment WiFi Program share the same expression of interest form for entities looking to pursue either opportunity.

MUNICIPAL FIBER GRANT PROGRAM

The Municipal Fiber Grant program is a competitive grant program that supports the closing of critical gaps that exist in municipal networks. Focused on connecting municipality-owned facilities, it assists municipalities in achieving many critical goals associated with municipal fiber networks. Grants to a single town can be up to \$250,000, and up to \$500,000 for joint applications.

While not directly related to digital equity work, improvements to the town's network infrastructure will ensure that connectivity for town staff does not become a barrier on its own.

Bourne and other Cape towns have been competitive for this funding, with three grants over the 2022 and 2023 funding cycles. Bourne should continue to look at the

opportunities presented through this program, including development of public wireless networks in walkable downtowns and recreational areas.

LEAD FOR AMERICA'S AMERICAN CONNECTION CORPS

MBI has partnered with the Lead for America American Connection Corps program to establish a digital equity fellowship opportunity in Massachusetts, with funding available to place fellows at organizations across the Commonwealth. Digital equity fellows will support the development of digital inclusion programs by providing strategy, organization, and administration to hosting entities.

Commission staff recommend a regional, interagency, or intermunicipal approach for pursuit of this program. The program requires a lead agency to host the digital equity fellow, and entities within the Town of Bourne may be well-positioned to support this effort given the completion of this digital equity plan.

¹⁰Massachusetts Executive Office of Housing and Livable Communities, Community Development, Planning, and Funding:

RESIDENTIAL AFFORDABILITY PROGRAMS

As described in *Current State of Digital Equity*, the future of the Affordability Connectivity Program is uncertain, pending federal legislation. Should the program sunset, the Town of Bourne should identify entities to support eligible residents in accessing both the Lifeline and Comcast Internet Essentials programs. Social workers, case managers, guidance counselors, and other professionals who work 1-on-1 with individuals and families to access subsidy programs are particularly well positioned to support enrollment in this type of program.

LEVERAGING OTHER FUNDING STREAMS TO FURTHER DIGITAL EQUITY EFFORTS

There are a number of public and philanthropic funding streams that are not specific to digital equity, but that could be accessed to further digital equity goals. For example, community-based organizations have accessed Community Development Block Grants (CDBG), a federal Housing and Urban Development funding stream that is administered locally, to provide digital literacy classes.¹⁰

<https://www.mass.gov/info-details/community-development-block-grant-cdbg#how-to-apply->

Measuring Success

Workforce development funding streams are another good avenue to pursue, given the connection between digital adoption and participation in the workforce. Similarly, educational funding streams and programs, particularly including those that benefit covered populations, may be aligned with digital equity goals.

Entities across the Town of Bourne or that benefit Bourne’s community may be eligible for diverse funding streams that ultimately further digital equity. By developing a stronger digital equity network across town assets, the Town can learn of and strategically approach funding and programmatic opportunities that are beneficial to the Bourne community.

Measuring Success

Measuring the successful implementation of this digital equity plan will require tracking existing individual programs, services, or strategies as well as those that may be initiated as a result of this plan. Coordination and information-sharing between involved entities will be critical to ensure that these activities are successful on a community-wide level. The Town of Bourne may identify a lead staff member or entity to identify and coordinate methods for the Town to employ in measuring the progress of this plan’s implementation.

Understanding the success of individual digital equity activities will vary dependent upon the nature of that

initiative or offering. Generally, identification of goals and measurement tools should guide the development of each activity. Targets should be set related to immediate outcomes that are tied to community need (for example, intended number of community members to benefit from any given program). Long-term goals for each activity should also tie in with an overarching, town-wide vision as identified through this digital equity plan.

Successful implementation of this plan will be continuous and evolving work, as residents move into and out of the community, as community members move along the continuum of digital equity, and as the digital world continues to progress.

Continued Learning

Ongoing learning is key to addressing the digital divide, particularly as the digital world will continue to advance. Commission staff have identified particular areas that were not addressed through this planning process, listed below:

- Emergency communications: the Town of Bourne should continue to consider how emergency communications must evolve to better reach residents who are impacted by the digital divide. Digital equity should not be assumed when planning emergency communications.
- Opportunities to increase digital equity in public housing: the Bourne Housing Authority and the

Town of Bourne should consider opportunities to further digital equity needs of their residents, building on available statewide funding streams as outlined above.

- Data collection: as detailed in *Current State of Digital Equity* section, the Town of Bourne should continue to track connectivity and demographic data as it relates to digital equity. The Town of Bourne should also consider opportunities for targeted data collection that advances that which is already known or to fill information gaps.
- Incarcerated individuals: as outlined in the *Current State of Digital Equity*, while the Barnstable County Correctional Facility is located in Bourne, much of its jurisdiction falls under the state. New programs and services are available to support digital equity for incarcerated individuals, such as those developed by Ameelio. Introducing new programs and policies will be critical to advancing digital equity for incarcerated individuals. As formerly incarcerated individuals transition out of the facility, local communities should consider targeted opportunities to support their ability to access internet and technology and build needed skills.
- Bringing all key entities and populations into the fold of digital equity planning and implementation: the Town of Bourne has a number of assets that could be further leveraged in digital equity planning

and implementation. There are a number of assets and populations who were likely underrepresented within this planning process, but who have a critical part to play in digital inclusion.

Advancing Digital Equity in Bourne

Community members across the Town of Bourne have demonstrated a commitment to ensuring that all have equitable access and opportunities to the connectivity and information technology needed for full participation in society, democracy, and the economy. Through this planning process, the Town has identified challenges and barriers that both comprise and exacerbate the digital divide at a local level, as well as strengths and assets that can be leveraged to support digital inclusion for all Bourne community members into the future.

Advancing digital equity in Bourne will require continued commitment and collaboration from actors at all levels, including municipal, regional, and state entities, community-based, nonprofit, and private sector organizations, and individual advocates. As a result of this planning process and through continued participation in regional conversations, the Town of Bourne is well positioned to lead or otherwise tap into shared solutions with support from the Cape Cod Commission and other partners.

Advancing Digital Equity in Bourne

Equipped with qualitative and quantitative data and an analysis of subsequent findings and recommendations, the Town of Bourne can convene stakeholders and engage the public to prioritize implementation strategies and near- and long-term solutions.



Town of
BOURNE
Digital Equity Plan

Bourne Digital Equity Plan

Appendices

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Digital Equity Plan

Town of Bourne: Community Workshop

November 13, 2023 at 6:00pm
Bourne Veteran's Memorial Community Center



MEETING SUMMARY

Welcome, Introductions & Project Overview

Cape Cod Commission (Commission) staff and Town of Bourne staff welcomed participants to the meeting and provided an outline of the evening's agenda. Commission staff shared an overview of the project, providing background for broadband and digital equity work within a national, statewide, and local context. Commission staff highlighted the role of the Cape Cod Commission and municipal digital equity planning within this space.

Commission staff described that the project's purpose and intention is to provide a greater understanding of a municipality's digital equity landscape, to prepare the municipality for potential future funding opportunities, and to encourage equitable implementation of future investment. Commission staff shared the typical elements of a digital equity plan. Commission staff shared the project timeline and steps completed to date within the community engagement process.

Defining Key Terms: What is Digital Equity?

Commission staff shared key definitions related to digital equity planning, including: the digital divide, digital equity, components of digital equity, and covered populations to ensure a common baseline understanding for the remainder of the workshop.

Existing Conditions Data

As part of the planning activity, Commission staff explored datasets related to town's population composition and demographics as well as the town's internet connectivity. Commission staff shared a list of data sources utilized through this process and shared a high-level overview of key findings. Findings shared included those related to general population information, covered population findings, connectivity, and Massachusetts Broadband Institute (MBI) digital equity survey data.

Asset Mapping Exercise

Commission staff facilitated a group asset mapping activity, the purpose of which was for the group to identify individuals, groups/organizations, programs, and municipal efforts that are already working to advance digital equity and inclusion within the community. Participants were able to walk around the room with sticky notes and share their thoughts on relevant boards.

Examples of assets identified through this exercise include:

Appendix 1: **Town of Bourne: Community Workshop** Meeting Summary

- Town of Bourne Council on Aging programs, such as gadget assistance and providing public wifi.
- Jonathan Bourne Public Library offerings, such as library staff who provide technical assistance and hotspot lending programs.
- Bourne Public Schools, including ChromeBook technology provided for students, education provided by STEM teachers, and guidance provided by schools for families.
- Town of Bourne Cable, Internet, and Telecommunications Advisory Committee.

Visioning and Goals Exercise

Commission staff shared an example vision and goal statement for the digital equity plan developed by Commission staff that was previously created with feedback from town administration. Commission staff led a group exercise building on this draft statement to inspire participant feedback that will ultimately inform the digital equity plan itself.

Examples of feedback gathered through this activity include:

- Emphasis on Bourne residents having affordable, reliable, and adequate broadband service, with provider options and price points that meet individual needs.
- Emphasis on Bourne community members having the technology, devices, and skills needed to be educated citizens.
- Integration of this vision and goal with other relevant municipal visions and goals.
- Desire to reflect “all members of the community,” not just residents.
- Many comments on the importance of education: how can the Town of Bourne help to develop a shared language and technological understanding so that all residents have the opportunity to operate on an even playing field and where using the internet/technology is as easy as other daily activities.
- Desire for the vision/goals and the plan holistically to reflect plain language so that it is more intuitive.
- Digital equity efforts should incorporate simplicity, transparency, shared learning, and refrain from duplication of efforts.

Barriers & Opportunities Exercise

Participants broke up into two groups for a facilitated conversation on digital equity barriers and opportunities. During this exercise, Commission staff shared prompting questions related to the main components of digital equity (connectivity, devices, and skills) and captured participant feedback on flipcharts to inform recommendations and implementation opportunities.

Example barriers to experiencing or achieving digital equity identified by participants include:

Appendix 1: **Town of Bourne: Community Workshop** Meeting Summary

- Broadband reliability, with limited incumbent choices based on geography. Overall lack of providers.
 - Lack of compliance or accountability from incumbent provider.
 - Affordability of service plans offering higher internet speeds
- Families relying on school-issued devices as primary devices at home and not being able to afford or access more appropriate technology for family needs.
 - Cloud-based challenges with ChromeBook technology.
- Aged-based barriers leading to confusion, isolation, and a lack of trust/interest.
- Essential services shifting to digital provision without appropriate community training, such as banking. Not keeping up with technology can put you behind in accessing these essential services.
 - Reality v. perception of internet safety, including a lack of trust in the unknown, security concerns, and scams. Belief that many populations operate on an assumption that nothing on the internet is safe.
- Hard to reach the community if they are not keeping up with technology.
 - Keeping up with the language around technology and the internet and developing a common understanding.
 - Barriers reaching home bound individuals.
- Digital equity courses/programs:
 - Challenges in scheduling technology support programming for active families.
 - Challenges with all students keeping up at the same pace – a need for 1-on-1 support to complement coursework.
 - CORI requirements.
- Lack of funding needed for data collection and programming.
 - Barriers in accessing funding needed to increase digital equity (timelines, requirements, and capacity).
- Barriers for small businesses, such as communicating with customers and performing transactions.
- Limited “mobile” digital equity options – most assistance is at a singular location. Participants would like to see more flexibility in scheduling and location to meet their needs.

Example opportunities to advance digital equity in the Town of Bourne identified by participants include:

- Community education offerings on safety and security.
- Hotspots offered by town departments to complement services and respond to community need.
- Hands-on outreach, modeled like the “book mobile.”
- New partnerships between existing entities and building off already-existing programs.

Appendix 1: **Town of Bourne: Community Workshop** Meeting Summary

- Partnerships between the Council on Aging, library, and other entities in this space.
- Using library-Joint Base Cape Cod partnership model for digital equity programming.
- Partnerships with the schools to provide peer-to-peer support programs.
- Community socialization through programming to build trust with technology and also develop relationships.
 - Educational resources that could be publicly available, potentially through the library as an equitable entry point.
- Opportunities for new fiber in coordination with other infrastructure projects.
- Cooperation between towns to achieve shared goals.
- Availing of existing technologies and providing education on:
 - iPhone: banking and personal needs.
 - WiFi: understanding reliability and connectivity.
 - iPad: portable internet use, transportable, useful for a number of different needs.

Wrap Up

Commission staff shared next steps with attendees, which include data synthesis and the development of the digital equity plan, which will be available for public comment after it is drafted by Commission staff.

Bourne Municipal Digital Equity Media Toolkit

How to use this toolkit:

The following resources are intended to support the Bourne Municipal Digital Equity Plan. Share the text and graphics in your newsletters, on your website, or social media accounts.

NEWSLETTER

Long:

How can the Town of Bourne bridge the digital divide and advance digital equity for all in our community?

The Town of Bourne is working with the Cape Cod Commission to form a municipal digital equity plan. The plan will assess the digital divide across the town's communities and identify opportunities to advance digital equity.

Working with the community, the plan will consider affordability of internet service, access to technology necessary for participation in civic, social, and economic life, and skills required for meaningful digital engagement.

Community input is an important part of the process. Members of the community can participate by:

- Completing the [Massachusetts Statewide Digital Equity Survey](#). Throughout the fall, paper surveys in multiple languages are available at the library, community building, and other locations across town.
- Attending a [community workshop](#) on November 13th.

Bourne Digital Equity Community Workshop
November 13, 2023, 6:00 PM
Bourne Veterans Community Center, Room One
239 Main Street, Buzzards Bay

These efforts will culminate in a plan that will be used as a resource to prepare the Town for funding opportunities and to guide decision-making, investment, and implementation. Together, we can bridge the digital divide, creating a fair and inclusive future for all.

Planning services are provided by the Cape Cod Commission through the Massachusetts Broadband Institute.

Appendix 2: **Town of Bourne: Municipal Digital Equity Media Toolkit**

Short:

The Town of Bourne is working with the Cape Cod Commission to form a municipal digital equity plan. The plan will assess the digital divide across the town's communities and identify opportunities to advance digital equity.

Community input is an important part of the process. Members of the community can participate by:

- Completing the [Massachusetts Statewide Digital Equity Survey](#). Throughout the fall, paper surveys in multiple languages are available at the library, community building, and other locations across town.
- Attending a [community workshop](#) on November 13th. The workshop will take place at 6:00 PM at the Bourne Veterans Community Center, 239 Main Street, Buzzards Bay.

Planning services are provided by the Cape Cod Commission through the Massachusetts Broadband Institute.

FLYER

[Download PNG](#)

[Download PDF](#)



Bourne Digital Equity Plan

The Town of Bourne is working with the Cape Cod Commission to form a municipal digital equity plan.

 <p>Connection</p> <p>Affordable, fast, reliable, accessible.</p>	 <p>Devices</p> <p>Adequate, needs-appropriate, affordable, accessible.</p>	 <p>Literacy/Skills</p> <p>Ability to use technology, functionality, trust, privacy concerns.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



Join us at a community workshop to help identify opportunities to advance digital equity in Bourne.

Bourne Digital Equity Community Workshop

November 13, 2023 | 6:00 PM

Bourne Veterans Community Center
239 Main Street
Buzzards Bay, MA 02532



For details, scan this code or visit www.cccom.link/bourneDE



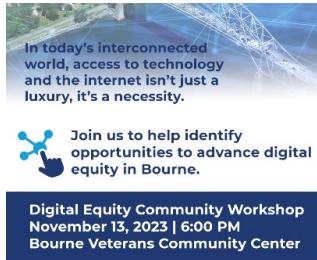
This project was funded by the Massachusetts Broadband Institute at the MassTech Collaborative under the Municipal Digital Equity Planning Program. Funding was provided by Massachusetts ARPA State Fiscal Recovery Funds.



Appendix 2: Town of Bourne: Municipal Digital Equity Media Toolkit

SOCIAL MEDIA

A



In today's interconnected world, access to technology and the internet isn't just a luxury, it's a necessity. The Town of Bourne is working with the Cape Cod Commission to form a municipal digital equity plan. Help identify opportunities to advance digital equity in Bourne: join us at a Community Workshop on November 13, 2023 at 6:00 PM in Room One of the Bourne Veterans Community Center, 239 Main Street, Buzzards Bay.

Learn more: cccom.link/bourneDE

[Download Graphic - Instagram](#)

[Download Graphic - Facebook/LinkedIn](#)

B



Help advance digital equity in Bourne. Join the Town of Bourne and the Cape Cod Commission at a community workshop on November 13 at 6:00 PM to help identify opportunities to bridge the digital divide.

Digital Equity Community Workshop

November 13, 2023

6:00 PM

Bourne Veterans Community Center

239 Main Street, Buzzards Bay

[Download Graphic - Instagram](#)

[Download Graphic - Facebook/LinkedIn](#)

PRESS RELEASE

FOR IMMEDIATE RELEASE (Bourne) (Date) -- The Town of Bourne invites the community to a workshop to identify opportunities to advance digital equity.

The workshop, scheduled for 6:00 PM on November 13, 2023, at the Bourne Veterans Community Center, is part of the public process as the Town of Bourne works with the Cape Cod Commission to form a municipal digital equity plan.

The Town of Bourne's Municipal Digital Equity Plan will assess the digital divide in Bourne and identify opportunities to advance digital equity. The plan will consider the affordability of internet service, access to technology necessary for participation in civic, social, and economic life, and the skills required for meaningful digital engagement.

Community participation is a critical component of this planning effort. Please share your thoughts at an upcoming Community Workshop:

Bourne Digital Equity Community Workshop

November 13, 2023 | 6:00 PM

Bourne Veteran's Memorial Community Center
235 Main Street, Buzzards Bay

Once finalized, the Municipal Digital Equity Plan will prepare the Town of Bourne for funding opportunities and guide decision-making, investment, and implementation.

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

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



The Massachusetts Broadband Institute (MBI) created a statewide survey as part of its Statewide Digital Equity Planning efforts. This survey was required to be used as part of individual municipal digital equity planning activities funded through MBI.

The summary below tallies the 91 total responses from the Town of Bourne through November 2023. Respondents were not required to answer each question, and not all who started the survey completed it. Total responses for each question are indicated after “N” in the top line.

Question*	Response
3 Are you a resident of Massachusetts?	N 91
8 In what Massachusetts municipality do you live: Bourne	N 91
9 Do you have internet service in your home?	N 91
Yes	91
No	0
10 Who is your internet service provider?	N 90
Comcast/Xfinity	74
T Mobile USA	9
Verizon	7
11 What kind of internet service do you have at home? (all that apply)	N 114
A data plan for a smartphone hotspot or tablet?	30
Home wireline connection, cable, fiber, DSL, etc?	76
I don t know?	6
Satellite internet?	2
12 How well does your home internet service work?	N 89
Good enough to meet my household’s needs	40
Not good enough to meet my household’s needs	49
13 Is your home internet service bundled with other services such as telephone or tv?	N 91
No	42
Yes	49

* Some questions were removed to protect personally identifiable information.

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



- 14 How much do you pay for the internet every month (bundle)?** *Average \$149*
- 15 How much do you pay for the internet every month?** *Average \$87*
- 16 How hard is it for you to pay your internet bill?** **N 89**

 - Not at all hard21
 - Not too hard35
 - Somewhat hard28
 - Very hard5
- 19 Have you heard about the Affordable Connectivity Program (ACP) that provides discounted internet service for low income households?** **N 88**

 - I don't know4
 - No35
 - Yes49
- 20 Does everyone in your household have access to the computer devices they need to meet their everyday needs for internet use, computers, smartphones, tablets, or other internet enabled devices?** **N 87**

 - No6
 - Yes81
- 21 Which of the following devices do you use most of the time to connect to the internet? (all that apply)** **N 240**

 - Cellphone.....76
 - Desktop computer.....40
 - Laptop computer70
 - Tablet or similar device.....49
 - Security camera(s), security devices1
 - Smart tv.....1
 - T-Mobile gateway.....1
 - Television1
 - Xbox1
- 22 How much would you be able to pay for a laptop or desktop computer?** **N 82**

 - \$100-1501
 - \$150-2506
 - \$250-50021
 - \$50-1003
 - \$500-100028
 - More than \$1,00023

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



23	Are you able to regularly use the internet for online activities?	N 85
	No	12
	Yes	73
24	Please rank the level of difficulty for what you use the internet for:	
	General internet searching	N 66
	Easy.....	55
	Hard.....	1
	Not easy	10
	Health care or telehealth services?	N 60
	Easy.....	46
	Not easy	14
	Participating in your local community?	N 63
	Easy.....	41
	Not easy	22
	Searching and applying for a job?	N 46
	Easy.....	34
	Hard.....	3
	Not easy	9
	Applying for benefits or resources for you or your family	N 54
	Easy.....	40
	Not easy	14
	Transportation information	N 62
	Easy.....	45
	Hard.....	1
	Not easy	16
25	If you do not have regular access to the internet, what would you most like to use it for if you could?	N 4
	Health care or telehealth services	4
26	What kind of digital skills support would you be most interested in?	N 73
	A do-it-yourself training module	45
	In person classes	9
	In person support from a friend or instructor	7
	Online classes	12

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



27	How concerned are you about internet safety?	N 82
	Not at all concerned	5
	Not very concerned	4
	Somewhat concerned	22
	Very concerned	51
28	What are you most concerned about? (all that apply)	N 204
	Malware, bad actors, systemic fraudsters	1
	That I could be tracked or surveilled?.....	51
	That I or a loved one could be harassed or abused online?.....	26
	That I or a loved one could get scammed or tricked?	56
	That my data could get stolen or used without my consent?	70
29	Are you aware of tools or resources you can use to stay safe online?	N 7
	No, I don't know of any tools or resources to stay safe online	0
	Yes, I have tools and resources I use to stay safe online	7
30	How accessible are online government services like benefits portals, RMV services, or paying for permits or tickets to you?	N 82
	Not very accessible	12
	Somewhat accessible	33
	Very accessible	37
31	When you have used online government services like benefits portals , RMV services, or paying for permits or tickets how well did they work for you?	N 82
	Not too well	13
	Not well at all.....	1
	Somewhat well.....	45
	Very well.....	23
32	What is your age?	N 81
	25 to 34	4
	35 to 44	6
	45 to 59	16
	60 to 74	43
	75 or older	12
33	What is your gender identity?	N 82
	Man.....	38
	Prefer not to answer	4
	Woman.....	40

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



34 How many people including yourself currently live in your household? N 82

NOTES: A household is defined as all the people who currently occupy the housing unit where you live

1	11
2	45
3	13
4	8
5	4
6	1

35 How many children under age 18 currently live in your household? N 71

NOTE: A household is defined as all the people who currently occupy the housing unit where you live

0	60
1	5
2	4
Prefer not to answer	2

36 What is the highest level of school you have completed or the highest degree you have received? N 81

Four-year college or university degree/Bachelor's degree (e.g., BS, BA, AB)	38
High school graduate (Grade 12 with diploma or GED certificate)	8
Postgraduate or professional degree, including master's, doctorate, medical or law degree (e.g., MA, MS, PhD, MD, JD)	29
Two-year associate degree from a college or university	6

37 Are you of Hispanic, Latino or Spanish origin such as Mexican, Puerto Rican or Cuban? N 82

No	76
Prefer not to answer	6

38 What are you most ? Which of the following best describes your race? (all that apply) N 80

Prefer not to answer?.....	7
White or Caucasian?.....	73

39 Do you belong to a North American Indigenous, Native, or Tribal group? N 81

No	79
Prefer not to answer	2

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



40 What is your total annual household income from all sources and before taxes? N 79

\$30,000 to \$36,999	4
\$45,000 to \$52,999	1
\$53,000 to \$59,999	3
\$60,000 or more	54
Prefer not to answer	17

41 Do you identify as a person with a disability? N 81

NOTE: Disability is defined as physical emotional or mental health conditions that result in limitations of activities or restrictions to full participation at school at work at home or in the community

No	58
Prefer not to answer	5
Yes	18

42 Do you have difficulty in any of the following areas? Select all that apply N 31

Communicating, for example understanding or being understood?.....	1
Hearing even if using a hearing aid?.....	4
Remembering or concentrating?.....	9
Seeing even if wearing glasses?.....	5
Walking or climbing steps?.....	12

43 Do you identify as a member of the LGBTQIA community? N 81

No	71
Prefer not to answer	10

44 Did you serve on active duty in the US Armed Forces? N 81

No	73
Prefer not to answer	2
Yes	6

45 Do you live in affordable housing? N 81

NOTE: Affordable housing is defined as housing subsidized by a housing authority paid for through a voucher or in a building run by a private developer

No	80
Prefer not to answer	1

Town of Bourne Results

Massachusetts Statewide Digital Equity Survey



**46 What are Where did you hear about this survey?
(all that apply)**

N 68

- E-mail notification..... 1
- Facebook.....3
- Locals Facebook page post by a member of our Internet research committee 1
- received an email..... 1
- Town page on Facebook 1
- from a community meeting community anchor such as a library or school or other local institution? 16
- from a friend colleague or acquaintance? 14
- from a government website email list flyer or other outreach? 3
- from an organization's website email list flyer or other outreach?.....28

47 Which local institution or organization did you hear about this survey from?

N 20

- Cape Cod Chamber of Commerce 1
- Cape Cod Technology Council, Inc. 1
- CLAMS Library Network..... 1
- Facebook residence page..... 1
- MBI..... 1
- OpenCape..... 13
- VA..... 1
- We have a committee in town looking into different internet services that may be available to bring to the Cape..... 1

48 Are you using a public Wi-Fi connection to complete this survey?

N 79

- I don't know..... 2
- No 70
- Yes 7

Speed test results

N 64

	# Tests	DOWNLOAD (Mbps)	UPLOAD (Mbps)
TOWNWIDE	64	199.2 <i>Average</i>	16.8 <i>Average</i>

ZIP	# Tests	Average	Max	Min	Average	Max	Min
02532	32	184.4	492.1	4.6	22.4	47.2	0.5
02534	3	160.6	299.0	27.6	7.6	12.0	0.0
02536	1	140.0	140.0	140.0	11.0	11.0	11.0
02559	23	198.0	618.5	0.9	9.8	23.2	0.4
02562	4	417.8	500.4	329.0	21.7	36.1	11.0

Town of Bourne:

Data Sources Reviewed for Existing Conditions

American Community Survey, 2022 5-Year Estimates Tables

- S0101, Age And Sex
- S0501, Selected Characteristics Of The Native And Foreign-born Populations
- S1602, Limited English Speaking Households
- S1701, Poverty Status In The Past 12 Months
- S1810, Disability Characteristics
- S1901, Income In The Past 12 Months (In 2021 Inflation-adjusted Dollars)
- S2101, Veteran Status
- S2801, Types Of Computers And Internet Subscriptions
- B16003, Age By Language Spoken At Home For The Population 5 Years And Over In Limited English Speaking Households
- DP02, Selected Social Characteristics
- DP03, Selected Economic Characteristics
- DP04, Selected Housing Characteristics
- DP05, ACS Demographic and Housing Estimates
- B06009, Place Of Birth By Educational Attainment In The United States
- B11013, Subfamily Type By Presence Of Own Children Under 18 Years
- B16005, Nativity By Language Spoken At Home By Ability To Speak English For The Population 5 Years And Over

Other Sources

- 2020 Decennial Census Tables
- Centers For Disease Control 2020 Social Vulnerability Index (SVI), Massachusetts And National Data
- Affordable Connectivity Program Enrollments And Claims, Through December 2023
- Microsoft Broadband Usage, October 2020, Zip Code Level
- MassGIS Data: 2020 Environmental Justice Populations
- Massachusetts Broadband Institute Digital Equity Survey, Bourne Results
- Massachusetts Broadband Institute Broadband Map
- FCC National Broadband Map Data

Appendix 5: Town of Bourne: Maps and Data



People

20,460	
Population	
7,627	37.3%
Aging Population (60-plus)	
2,885	14.1%
With a Disability	
287	1.4%
With a Language Barrier	
1,649	8.1%
Veteran	

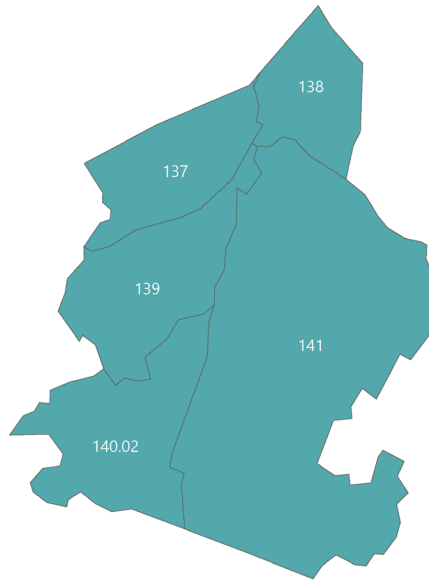
Race by Percent

89.7 %
White
1.5 %
Black or African American
0.3 %
American Indian and Alaska Native
1.7 %
Asian
0.0 %
Hawaiian and Other Pacific Islander
2.2 %
Some Other Race
4.6 %
Two or More Races

Age Diversity

52.7	Median Age
796	Under 5
1,036	5 to 9
780	10 to 14
1,447	15 to 19
1,142	20 to 24
2,080	25 to 34
1,343	35 to 44
2,500	45 to 54
1,709	55 to 59
1,605	60 to 64
3,643	65 to 74
1,768	75 to 84
611	85 and over

BOURNE



Households

11,438	
Total Housing Units	
8,715	76.2%
Year-Round Households (HH)	

6,667	76.5%
Owner Occupied	
2,048	23.5%
Renter Occupied	

2.44	
Average Household Size	
8,252	94.7%
HH with an Internet Subscription	
\$90,640	
Median Household Income	



People

4,285	
Population	
1,679	39.2%
Aging Population (60-plus)	
820	19.1%
With a Disability	
106	2.5%
With a Language Barrier	
378	8.8%
Veteran	

Race by Percent

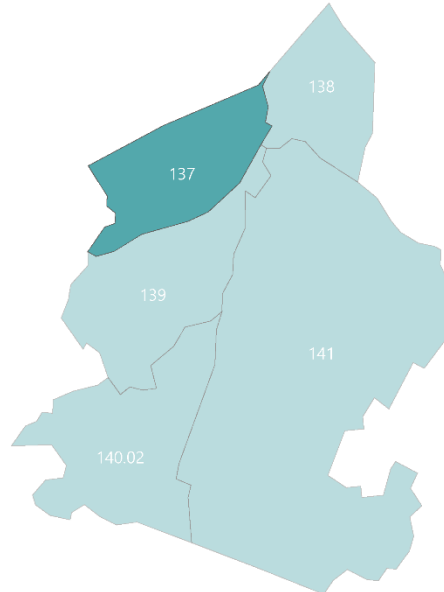
92.4 %
White
0.3 %
Black or African American
1.1 %
American Indian and Alaska Native
1.5 %
Asian
0.0 %
Hawaiian and Other Pacific Islander
0.3 %
Some Other Race
4.5 %
Two or More Races

Age Diversity

53.8	Median Age
67	Under 5
113	5 to 9
148	10 to 14
270	15 to 19
487	20 to 24
274	25 to 34
260	35 to 44
610	45 to 54
377	55 to 59
356	60 to 64
754	65 to 74
292	75 to 84
277	85 and over

BOURNE

Census Tract 137



Households

2,258	
Total Housing Units	
1,916	84.9%
Year-Round Households (HH)	

1,414	73.8%
Owner Occupied	
502	26.2%
Renter Occupied	

2.09	
Average Household Size	
1,720	89.8%
HH with an Internet Subscription	
\$88,370	
Median Household Income	

SOURCE: American Community Survey, 2022 5-Year Estimates

Appendix 5: Town of Bourne: Maps and Data



People

5,504	
Population	
1,732	31.5%
Aging Population (60-plus)	
396	7.2%
With a Disability	
49	0.9%
With a Language Barrier	
404	7.3%
Veteran	

Race by Percent

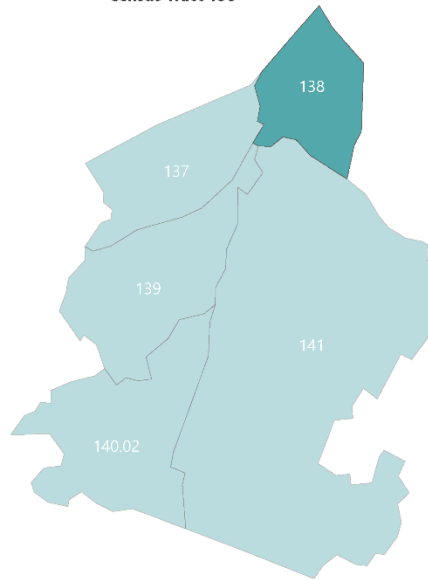
94.1 %
White
0.9 %
Black or African American
0.0 %
American Indian and Alaska Native
3.8 %
Asian
0.0 %
Hawaiian and Other Pacific Islander
0.0 %
Some Other Race
1.2 %
Two or More Races

Age Diversity

49.3	Median Age
173	Under 5
310	5 to 9
236	10 to 14
450	15 to 19
260	20 to 24
733	25 to 34
346	35 to 44
743	45 to 54
521	55 to 59
576	60 to 64
839	65 to 74
264	75 to 84
53	85 and over

BOURNE

Census Tract 138



Households

2,547	
Total Housing Units	
2,217	87.0%
Year-Round Households (HH)	

1,769	79.8%
Owner Occupied	
448	20.2%
Renter Occupied	

2.47	
Average Household Size	
2,166	97.7%
HH with an Internet Subscription	
\$100,152	
Median Household Income	



People

5,046	
Population	
2,081	41.2%
Aging Population (60-plus)	
688	13.6%
With a Disability	
0	0.0%
With a Language Barrier	
470	9.3%
Veteran	

Race by Percent

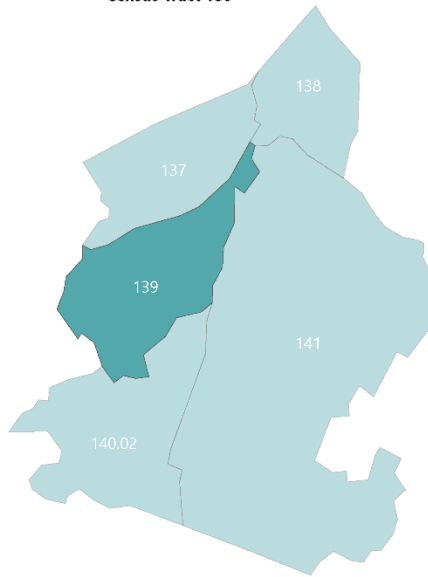
90.0 %
White
0.0 %
Black or African American
0.0 %
American Indian and Alaska Native
1.0 %
Asian
0.0 %
Hawaiian and Other Pacific Islander
8.0 %
Some Other Race
1.0 %
Two or More Races

Age Diversity

54.7	Median Age
291	Under 5
396	5 to 9
157	10 to 14
308	15 to 19
178	20 to 24
447	25 to 34
201	35 to 44
633	45 to 54
354	55 to 59
140	60 to 64
1,235	65 to 74
648	75 to 84
58	85 and over

BOURNE

Census Tract 139



Households

3,050	
Total Housing Units	
2,314	75.9%
Year-Round Households (HH)	

1,887	81.5%
Owner Occupied	
427	18.5%
Renter Occupied	

2.18	
Average Household Size	
2,283	98.7%
HH with an Internet Subscription	
\$85,429	
Median Household Income	

SOURCE: American Community Survey, 2022 5-Year Estimates

Appendix 5: Town of Bourne: Maps and Data



People

4,859	
Population	
2,117	43.6%
Aging Population (60-plus)	
956	19.7%
With a Disability	
114	2.3%
With a Language Barrier	
376	7.7%
Veteran	

Race by Percent

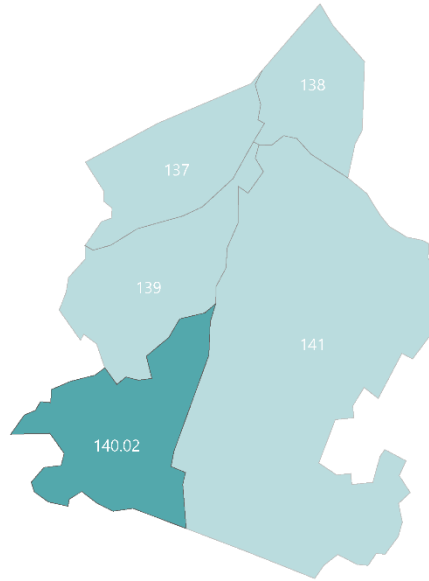
87.0 %	White
2.3 %	Black or African American
0.5 %	American Indian and Alaska Native
2.3 %	Asian
0.0 %	Hawaiian and Other Pacific Islander
0.0 %	Some Other Race
8.0 %	Two or More Races

Age Diversity

56.2	Median Age
144	Under 5
171	5 to 9
186	10 to 14
395	15 to 19
139	20 to 24
372	25 to 34
382	35 to 44
511	45 to 54
442	55 to 59
515	60 to 64
815	65 to 74
564	75 to 84
223	85 and over

BOURNE

Census Tract 140.02



Households

3,274	
Total Housing Units	
2,047	62.5%
Year-Round Households (HH)	

1,597	78.0%
Owner Occupied	
450	22.0%
Renter Occupied	

2.34	Average Household Size
1,870	91.4%
HH with an Internet Subscription	
\$93,098	Median Household Income



People

766	
Population	
18	2.3%
Aging Population (60-plus)	
25	3.3%
With a Disability	
18	2.3%
With a Language Barrier	
21	2.7%
Veteran	

Race by Percent

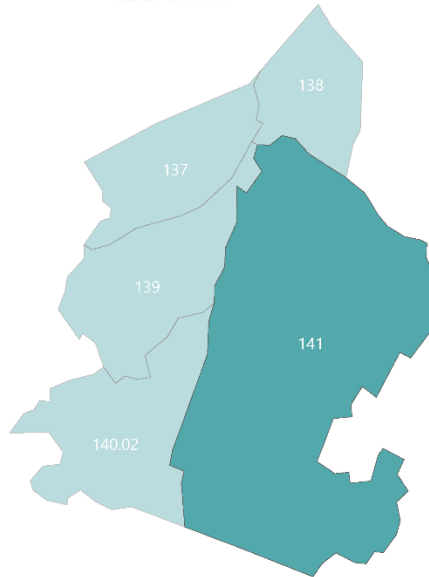
84.9 %	White
3.9 %	Black or African American
0.0 %	American Indian and Alaska Native
0.0 %	Asian
0.0 %	Hawaiian and Other Pacific Islander
2.9 %	Some Other Race
8.4 %	Two or More Races

Age Diversity

27.4	Median Age
121	Under 5
46	5 to 9
53	10 to 14
24	15 to 19
78	20 to 24
254	25 to 34
154	35 to 44
3	45 to 54
15	55 to 59
18	60 to 64
0	65 to 74
0	75 to 84
0	85 and over

BOURNE

Census Tract 141



Households

309	
Total Housing Units	
221	71.5%
Year-Round Households (HH)	

0	0.0%
Owner Occupied	
221	100.0%
Renter Occupied	

3.13	Average Household Size
213	96.4%
HH with an Internet Subscription	
\$49,250	Median Household Income

SOURCE: American Community Survey, 2022 5-Year Estimates

Appendix 6: **Compiled Ookla Speed Test Data for Barnstable County**, December 2021-November 2022
 Provided by the Massachusetts Broadband Institute.

Municipality	Total Tests	Unique ID Tests	Jitter > 50 ms	Latency > 100 ms	Latency > 500 ms	Speeds < 25/3 Mbps	Speeds < 50/10 Mbps	Speeds < 100/20 Mbps	Speeds at least 25/3 Mbps	Speeds at least 50/10 Mbps	Speeds at least 100/20 Mbps	Speeds at least 100/100 Mbps
Barnstable	13,834	2,876	816	60	8	436	1,431	4,070	12,008	9,715	5,171	51
Bourne	4,095	846	195	13	1	144	404	1,053	3,638	2,961	1,439	45
Brewster	6,440	1,389	420	18	2	133	533	1,728	5,630	4,562	2,433	40
Chatham	3,568	871	197	25	0	100	355	1,103	3,108	2,490	1,265	0
Dennis	6,607	1,378	338	30	4	148	534	1,604	5,874	4,885	2,555	5
Eastham	3,257	934	196	18	4	148	430	1,145	2,738	2,148	983	5
Falmouth	11,817	2,311	802	132	83	636	1,382	3,342	9,952	8,031	4,147	195
Harwich	5,724	1,185	230	13	0	109	405	1,271	5,209	4,379	1,997	1
Mashpee	5,749	1,221	365	22	2	176	513	1,628	5,114	4,091	1,849	6
Orleans	3,663	756	209	13	1	82	329	923	3,250	2,722	1,627	21
Provincetown	2,404	782	170	17	2	128	416	904	1,948	1,484	617	3
Sandwich	6,164	1,124	310	21	5	115	551	1,471	5,591	4,559	2,364	8
Truro	1,560	394	102	16	10	74	200	519	1,324	1,018	397	2
Wellfleet	1,848	504	160	44	28	125	268	628	1,585	1,180	492	0
Yarmouth	7,668	1,823	474	48	5	277	754	1,988	6,740	5,408	2,647	5
County	84,398	18,394	4,984	490	155	2,831	8,505	23,377	73,709	59,633	29,983	387